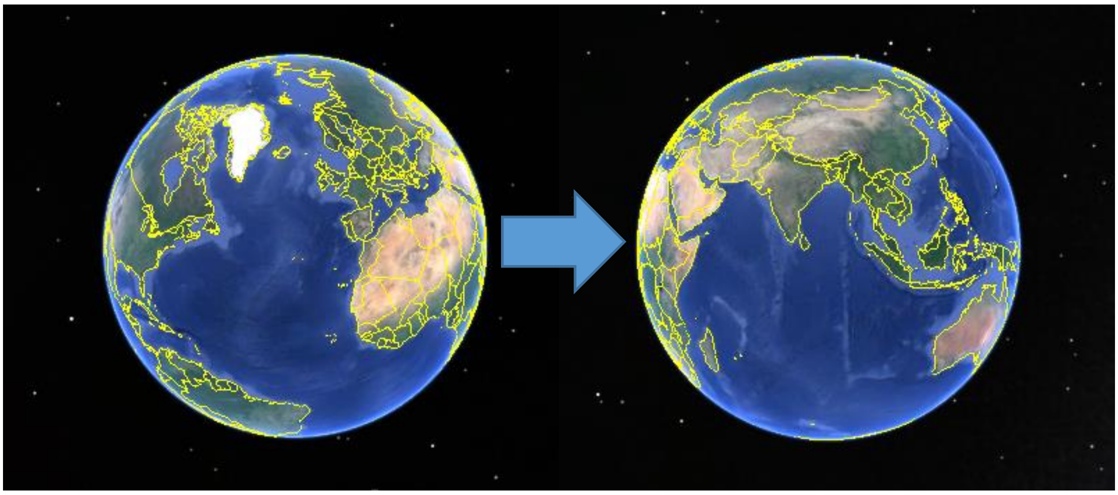
Globalisation – prismatically unfolded

The Significance of Globalisation for Selected Countries



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Foreword

Globalisation is reckoned to be a comprehensive economic and social transition process. Accordingly, globalisation has many facets. The purpose of the project: “Globalisation – prismatically unfolded” is to present the whole spectre of the phenomenon at least as far as its economic dimension is concerned. To this end, sixteen aspects of globalisation are analysed and each covered in a separate chapter. The present text is an excerpt from the comprehensive analysis published under the title: ‘Globalisation – prismatically unfolded.’ The approach in this excerpt is to describe the situation in a selected country where the specific facet of globalisation under consideration has outstanding importance. In the full publication follows then a detailed presentation of the economic theory explaining the driving factors of globalisation relevant for the topic considered. The legal and institutional framework at the international level shaping global exchange in the area under scrutiny is also exposed. Furthermore, in each chapter, a business case and a parallel historic evolution occurring during the first wave of globalisation on the verge of the 20^{th} century are added. Only selected passages out of the economic and institutional parts are integrated in the present document, and so is a short version of the respective business case. The text thus remains turned towards the economic policies by which the challenges emanating out of globalisation are addressed at the country level. The present text can be read as a stand-alone publication.

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Executive Summary

For the author, the following main considerations for economic policy emanate out of the sixteen chapters of this book and the full text:

1 On the agricultural trade regime:

The global agricultural trade regime still has to evolve towards a balance between the interests of exporters in undistorted market access and the interests of the importers to cover basic needs from domestic sources in the advent of a global food crisis. In parallel, the negotiations in the Doha Development Round have inter alia run into the problem of preference erosion for less developed countries. Given the conceptual difficulties in the latter area, the agenda for the future negotiations in the WTO on agricultural market access will have to reflect the shift of priority towards admissible measures adopted in the interest of food security. While confined to LDCs, the results of the WTO Ministerial Conference in Nairobi of December 2015 comprise some measures pointing in this direction.

2 On the volatility of prices for commodities

The pace of the expansion of the global economy will continue to impact heavily on commodity prices, and the resulting expansion and contraction of national incomes will produce important feed-back effects through global financial markets. Monetary and fiscal policies of the major countries in the world – since predominantly pursued in a myopic national interest only – will often exacerbate this cyclical pattern and therefore the volatility on these markets. Different to prior periods of boom and bust in global commodity markets, in the recent episode, commodity exporting nations have generally better reacted to the non-curable volatility in prices of raw materials and staple food. The adoption of budgetary rules and the constitution of Sovereign Wealth Funds was conducive to this improvement.

3 On the protection of ownership rights

Contrary to foreign capital flows in the form of portfolio investments and bank credits, foreign direct investment flows are a reliable source of financing for emerging economies. While costly, they may complement a lack of domestic savings, and they are essential in securing global knowledge spill-overs. Investment Protection Agreements (IPAs) are important in securing these flows and thereby the convergence of incomes across nations. However, the provisions in these agreements and the arbitration procedures as foreseen in IPAs need to be brought in line with the basic principles a court system should abide to.

4 On the monetary regime to be adopted along an economic growth path

The sequencing of economic reforms is important, particularly when a country enters a monetary union. There is a high risk, however, of not achieving a smooth convergence in incomes during a growth path. Against this background, pegging one's currency to those of major export destinations and keeping devaluations as an escape door usually suites small to medium sized countries better than joining a monetary union (or using a foreign currency domestically). This holds true as long as the country has the potential to make rapid improvements in real per capita incomes but may change later. The improvement in real incomes depends on the adoption of important structural reforms, not on monetary policies, however. The feature of the latter is that they comprise a downside risk if not pursued in the interest of longer term price stability.

5 On the global trade regime as a roadmap for internal reform

Over the last two decades, the cautious opening up of China and India to global trade has allowed several hundred million people to be lifted out of extreme poverty. On the contrary, in prior times, reliance on reform conceived solely domestically or on import substitution policies saw the evolution of major economies in the world held back for decades. Based on this evidence, a strong argument can now be made to defend the rules based world trade regime as put in place by the agreements of Marrakesh constituting the WTO in 1995. These agreements confine political rulers in a well-suited way in their recurring ambitions to exercise power over their country's foreign economic relations in a discretionary way.

6 On corporate taxation at the Group level

The globalisation of the economy makes it more difficult to raise the taxes needed to finance the public budget. Essentially, the competition among nations for tax bases remains confined to corporate taxation, however. In this area, the uncertain conceptual basis why companies and not only individuals have to pay taxes combines with the theoretical impossibility of devising a system where taxes do not distort the one or the other major economic decision at the level of large multinational corporations. This absence of a unique theoretical reference framework exposes corporate taxation even more to an economic power game where a lot of chiselling is also going on. Vested interests mean that steadfast adherence to the principle saying that corporate income shall not remain untaxed is not guaranteed. Based on structures in place, veering by large countries such as the US is not unlikely. The work of the OECD on 'Base Erosion and Profit Shifting' (BEPS) as mandated by the G20 will bring further refinements of an already elaborate international corporate taxation regime. Nevertheless, crucial for success is whether all countries stand the test and honour their commitment to respect the commonly adopted OECD corporate taxation principles.

7 On the conditions prevailing on national labour markets

Securing a good functioning of the labour market remains a national responsibility. Deficiencies in this regard have a high potential to annihilate gains from trade, however. Furthermore, such dysfunctionalities at the national level expose the global trade regime to the risk of a roll-back of agreed liberalisations. The surveillance of national policies as occurring globally by way of the Article IV consultations of the IMF and the Trade Policy Reviews done at the WTO are helpful in improving national economic policies. In its turn, the International Labour Organisation (ILO) pursues an overall balanced approach when surveying core labour standards. In its detailed analyses, the organisation is tough concerning the banishing of child labour and forced work and supportive concerning an equal pay for male and female workers. While the disappearance of sweatshops will have to take place due to the overall economic development of a country, the ILO may help secure labour its due share in national income at whatever level the latter has reached by protecting the worker's right to organise in unions.

8 On the free movement of persons and alternatives

A distinctive feature of the current second wave of globalisation, when compared to the first wave of globalisation in the late 19th and early 20th century, remains the absence of mass emigration to the new world. In fact, today's societal circumstances preclude the establishment of the free movement of persons between world regions. In an income and growth perspective, goods trade and capital mobility may replace the movement of people. While also contested, liberalising trade, often combined with FDI (outsourcing), brings forth convergence in incomes in a way that is politically easier to accept than migration. While income disparity remains a motive for migration, it needs emphasising that the absence of personal safety is the predominant motive in the presently observed migratory movements,

9 On public procurement and adequate sector regulations

The second wave of globalisation is marked by a resurgence of market economy principles. Specifically, market opening will now often occur in markets which were formerly considered to be best served by a single company in public ownership. The predominant aspect of economies of scale in these activities suggests that it will often only be possible to organise sufficient competition on or for these markets when also allowing foreign multinational enterprises to enter them. Nevertheless, sector reforms need to be carefully designed. The granting of concessions in the utilities and the supervision of these activities has to be entrusted to regulators vested with comprehensive competencies which they have to exercise impartially under strict provisions regarding their independence from the government and the actors in the sector. Public procurement is also part of good governance. The Government Procurement Agreement within the WTO submits the agencies provisioning goods and services to adequate disciplines and provides legal protection to tenderers. The framework set up for government procurement may also help in the process of granting concessions.

10 On the global trade regime and security policy

Export controls by which the industrialised nations intend to achieve the non-proliferation of arms of mass destruction are in line with the efforts for disarmament based on treaties with global adherence concerning ABC weapons. Boycotts as decided by the UN Security Council also appear as legitimate means to preserve peace in the world. The global trade regime cannot confine nations to limiting the exercise of political pressure by means of trade restrictions to these situations, however. Trade relations, including their interdiction, remain a tool by which countries pursue their political interests. What the global trade regime regularly achieves by dispute settlement provisions is to prevent the escalation of trade litigations into violent conflict. Furthermore, the provisions on the transit of goods have a fair chance of preventing third countries becoming involved in political conflicts and limit the economic pressure that may be exercised on landlocked countries.

11 On the coordination between economic and environmental provisions

In spite of the fact that trade goes along with the transportation of goods and that traffic is a major source of pollution of the environment it would be hasty to conclude that globalisation and the protection of the environment are necessarily in conflict. It may be the case that sourcing abroad occurs in a more environmental friendly way than domestically. Furthermore, environmental goals can usually be pursued by instruments that are not in conflict with the basic provisions of the global trade regime. Finally, an elaborate set of international treaties protects many aspects of the environment and countries are bound to respect all agreements they sign simultaneously. On the other hand, limited problems from a conceptual point of view exist in environmental legislation. The Basel Convention on the Transboundary Movement of Hazardous Wastes and their Diposal requires e.g. each contracting party to take the appropriate measures 'to ensure the availability of adequate disposal facilities …that shall be located, to the extent possible, within it … .' Waste, at least after some initial treatment, is today often a commodity and the treatment of waste may be a service covered by GATS. This does not mean that the regime of export permits for waste is to be abolished, but it should be handled in a way that recognises possible gains from trade.

12 On Corporate Social Responsibility

Companies have not just to operate profitably and to respect the law of the country by refraining from unlawful business practises. Particularly when active in countries with weak regulatory capacities, corporations will often have to go beyond the requirements of local legislation, also in response to expectations from their clients. Both international organisations and the private sector have defined codices supporting Corporate Social Responsibility. Document trafficking occurring within such schemes can e.g. be prevented by forensic means.

13 On the idea that countries go through defined stages of development

The synonymous use of the term 'industrialisation' for economic development translates a preconfigured view that developing countries have to go through the same stages of development as the industrialised world did. The uneven potential of learning by doing among industries and the risk of adverse specialisation under the impact of foreign trade deserve consideration if these concerns really hold true. Developing targeted sectors in accordance with the infant industry argument as a response conveys a high risk of ending in a political deadlock, however, where vested interests block sector reforms, including the opening up of the country and corresponding knowledge transfers. If, alternatively, the response consists in creating Export Processing Zones this will not be a definite answer but may generate a useful demonstration effect inspiring nation-wide reform. Generally, acting at the level of the relevant factors of production (e.g. by developing human capital) and establishing framework conditions conducive to entrepreneurial activity appear as more promising than targeted industrial policies. It also needs to be recognised that the emphasis put for a long time on developing manufacturing activities in emerging nations ignored the aspect that the industrial revolution at the turn to the 19th century had been accompanied by a profound agricultural reform. Furthermore, the potential in developing services which can earn income from abroad usually remains underestimated by activist industrial policies.

14 On finding a balance in protecting intellectual property rights

Adopting the standards the industrialised nations laid down with regard to the protection of intellectual property rights became mandatory for all WTO member states by way of the Trade Related Intellectual Property or TRIPS Agreement. Once in force, developing countries became increasingly concerned that developed countries were insisting on an overly narrow reading of TRIPS, shifting excessive benefits to the developed countries and creating difficulties in addressing the public health problems afflicting many developing and least-developed countries, especially HIV/AIDS, tuberculosis, malaria and other epidemics. The Doha declaration of 2001 then clarified the scope of TRIPS in the sense that the "flexibilities" (or better, indeterminateness) of the TRIPS Agreement concerning the admissibility of compulsory licensing, parallel importation, data protection, research and other exceptions to patentability, etc. may be used by countries - in accordance with their stage of development - to promote access to medicines for all. These developments, when combined in a smart way with so-called TRIPS+ provisions, have the potential to shift incentives in pharmaceutical research back to the development of new active ingredients and away from the 'evergreening' of existing patent claims. This would act to the benefit of all. Another consideration is that the production of knowledge is also subject to the tendency of breaking up value added chains. This may attenuate some of the tensions currently going along with the protection of intellectual property rights. A risk is that large emerging economies are in a better position to become countries operating at the global knowledge frontier than smaller ones due to the way outsourcing of R&D occurs at the corporate level.

15 On the need for a global agreement on competition

The opening up and integration of markets pushes up the critical firm size. A wave of Merger and Acquisitions (M&A) may therefore go along with globalisation. This raises the question whether competition policy, acting at the national level, can adequately address the behaviour of large multinational enterprises, acting at the global level. The fact that the countries where the markets are apply their competition legislation to MNEs attenuates these concerns substantially. A potential of conflicts with the legislation where the companies have their statutory domicile exists but it is very limited. A possible agreement on competition within the WTO – no longer on the negotiating agenda of the Doha Development Round –could therefore indeed be confined to trade related competition aspects. A clarification of core principles to be respected in competition enforcement such as transparency, non-discrimination and procedural fairness would go far in avoiding the emergence of trade conflicts.

16 On coping with global capital flows

Based on the economic history of 200 years, there is no hope that an era will begin where the world economy is no longer shaken periodically by financial turmoil emerging in single countries and spreading over to whole world regions. While there is strong evidence that liberalising trade generates benefits for the countries participating, the evidence regarding benefits accruing out of the liberalisation of trans-border capital flows is mixed. The risk of harmful spill-over effects is considerable and may annihilate the benefits linked to global capital flows such as compensation of national savings deficits, higher returns for pension funds or also a disciplining of irresponsible national macro-economic policies. Considering the unorthodox monetary policies presently pursued in major world economies, it is not inappropriate when other countries claim that they are entitled to protect themselves from inflows of footloose global financial capital that would jeopardise their macro-economic stability. A precondition for controlling capital inflows should be, however, that these countries have adopted, and respect, budgetary rules as well as monetary targets emphasising long term price stability. There is indeed some concern that the present period of unorthodox monetary policies will degenerate into a period where countries have recourse to competing devaluations. This would then raise the question of the need for a resurgence of a kind of a Bretton Woods System, obliging primarily the larger countries to adhere strictly to policies in the interest of medium term price stability. When assessing price stability, they should consider all domestic prices, and not only the consumer price index, to confine the risk of asset price bubbles.

Overview

The notion of globalisation retained in this text

Globalisation became the dominant economic and political phenomenon in the last decade of the 20th century and originates in three distinct, but closely interlinked evolutions, namely the advancement of information and communication technologies, the political change in the formerly centrally planned economies and a resurgence of market economy principles. This appears, in our apprehension, to be the most widespread understanding of a multifaceted phenomenon that is like any notion open to definition. The advance in information and communication technologies (ICT) was the fundamental change in the material sphere if one dares to borrow from Marxist thinking. The flow of information facilitated thanks to ICT underpinned the political change in Eastern Europe, but also helped the establishment of markets. These other two evolutions, the end of central planning of the economy and the resurgence of market economy principles, are more than just one and the other side of the same coin, as one might believe. While the former points to the political change on the global stage occurring in 1989, the latter has a purely economic dimension of its own. It comprises, beyond a departure from central planning, the success of the emerging economies in the Far East, betting on export led growth as opposed to the continuing stagnation in Latin America where import substitution policies were pursued for a long time. It also comprises the introduction of competition in infrastructure services in the industrialised countries. The dismantling of telecommunication monopolies then exercised, in turn, its impact on the advancement of ICT.

While a consensus may exist regarding the deeper roots of globalisation, the question concerning the specific features that make the ongoing globalisation distinctly different from preceding evolutions remains more controversial. Certainly, ICT has facilitated the coordination of production processes around the world and thus supported the international division of labour. Still, transmission of information by cable had already spurred the first wave of globalisation one hundred years earlier. And trade in intermediates is by no means a recent evolution, questioning the commonplace argument that the second wave of globalisation at the end of the 20th century broke up value added chains in an unprecedented manner. The statistic corroborating such an assertion would be an increased share of intermediates if trade at the industry level is used as a reference. Such a statistic would be imperfect, however, since globalisation also involves the acquisition abroad of business related services such as computing. An unprecedented increase in foreign direct investments is also advanced as a measure of globalisation. Still, in prior times, FDI was also important but used to undercut protectionist barriers and therefore responded to incentives distinctly different from the ones supporting the ongoing transition. The least that can be said is that at the level of statistical measures, globalisation hardly appears as a rupture in the relevant series since the shift is gradual. We are rather confronted with a change in perception, and it seems that the latter occurs more in the political sphere than in the business community. Expressed in a pointed way: The idea of national champions sourcing nationally and competing globally in final goods markets is replaced by a rising awareness that politics have to deal with footloose MNE.

Accordingly, globalisation would not constitute a new evolution if assimilated only to a progression of the volume of world trade. In fact, nations have been trading over long distance since pre-historical times. In the millennium before the beginning of the Christian calendar, it was today's highly industrialised North of Europe that provided natural resources such as tin or amber to the economically leading Mediterranean region. The silk-road flourished at the turn of the second millennium. On the verge of modern times, the opening up of a new trade route to India constituted a major advance. Later, mercantilism, i.e. a trade regime, also shaped the functioning of the economy in the interior of the absolutist empires. The industrial revolution then led to what is often called a first wave of globalisation in the second half of the 19th century. This era is commonly designated as imperialism, making the idea prominent that a less developed periphery was provisioning the industrial core with natural resources while adding buoyant markets. In the 20th century, serious setbacks to globalisation occurred in the interwar period due to the unfolding of nationalism, whereas, due to the cleavage between East and West, the term of economic integration (in Europe and among industrialised countries in general) is clearly to be preferred over also placing the period of the Cold War under the heading of globalisation.

While it is often claimed that globalisation is irreversible, and the increase of the world trade volume over centuries supports this view, it is quite possible that, in the end, the notion of "globalisation" will designate an era of a few decades. This idea is based on the fact that nationalism put an end to the first wave of globalisation, not in terms of the world trade volume presumably, but in the sphere of economic policies. Today, a fall back into regional trade blocks is often evoked as a threat to the world trade regime as established by the constitution of the World Trade Organisation (WTO) in 1995. Furthermore, when it is simultaneously claimed that we are on the verge of the knowledge society, another latent evolution is evoked. The notion of a knowledge society has the potential to designate a next era in economic and political history eventually.

The opponents of globalisation may be comforted by the idea of the arrival of a knowledge society since knowledge will make it easier to clean up the mess that globalisation, to their minds, leaves behind. But has "globalisation" necessarily to go along with a negative connotation? The present text does not share this view. The classical counter-proposition dates back to 1817 when David Ricardo claimed that trade is mutually beneficial for the countries involved, and supported his view by the first scientific reasoning on why nations trade. However, Ricardo's view - while still relevant - is too benign considering the challenges globalisation presents for numerous nations and economic agents. The presupposition that trade is beneficial to nations therefore needs to be tested in the light of past and current evolutions in trade theory and in a dynamic setting. Then, the outcome is no longer unconditionally affirmative. For this reason, it is also shown within this project that the world disposes of numerous institutions and an elaborate legal framework that contains at least the ingredients to cope with adverse effects which accompany enhanced economic integration. Finally, the question concerning the significance of the world trade regime for the economic success of countries will be raised. Are foreign influences always the culprit for unattained achievements? In this respect, the author argues that many countries bear a heavy burden due to inherited social cleavages. Globalisation shapes these cleavages and their adverse consequences but it is rare that globalisation can be considered as causal for their presence.

In this vein, it is worth noting that many of the countries in the world are still affected by world trade in a manner that is not distinctly different from what they had already experienced at the turn of the 20th century, since they operate as providers of natural resources. They deploy - usually to their economic advantage - an activity at the input side of global value added chains. It is still a challenge ahead for them to move down the global value added chain and to occupy and successfully manage the position of a manufacturer of intermediates or of final consumer goods. This is what the countries in the Far East have succeeded in doing. We are not speaking here of the position as an organiser of such global value added chains, a role the emerging economies are striving for since it is still held by the industrialised nations. In this sense, globalisation is only at its beginnings and it is all the more important to identify the factors that may or may not make a success story out of globalisation.

The red thread running through the text

As stated above, "globalisation" is seen here as a multi-facetted phenomenon, and the idea is to address the different aspects of this transition in a total of sixteen chapters. In critiques of globalisation, the different aspects are often lumped together in an eclectic way to support a preconfigured view. Here, the challenges posed by globalisation are examined systematically by looking at sixteen countries selected from all world regions and having reached different stages of development. In each of these countries, one of the sixteen facets of globalisation considered is of outstanding importance.

The full reasons for the choice of the countries considered and the topics examined only become intelligible against the background of the underlying publication. This reservation made, in the following lines we try to explain the red thread linking the chapters in the present excerpt. The red thread is provided by the idea that increasing prosperity of nations follows an established scheme. We are aware that such a presentation comprises the risk of being accused of economic determinism.

Chapter 1 has as its point of departure the consideration that globalisation by definition will also integrate into the world economy countries at a very low level of development which are still relying economically essentially on self-sufficiency. Is the worry that this integration will be to their disadvantage justified? The traditional answer, exposed in this chapter, consists in pointing to the static gains from trade. Trade produces a level effect in incomes. To experience this effect, it suffices that Burkina Faso, the country examined in the chapter, has a comparative, not necessarily absolute, advantage in growing cotton over farmers producing in the industrialised world. The country therefore suffers considerably when the latter benefit from government support that depresses world prices. The significance of globalisation for the country's economic success is thus considerable, particular importance accruing to the worldwide agricultural trade regime. It is therefore right when the subsidisation of agriculture is severely scrutinized within the WTO. But cotton production within the country also had to undergo deep reform when compared to how the sector functioned in the first three decades after the independence of the former French colony. The experiences of a Swiss-based company active in commercialising cotton from Western Africa confirm many of the growth inhibiting factors named by the literature reviewed in the main text. The process of catching up in per capita income will therefore be time consuming.

This chapter, emphasising the level effects from trade on incomes, leaves the question open whether integration in the world economy at an early stage of economic evolution is costly for a country in the sense that this will affect future growth in a negative way. This delicate question motivates the two following chapters.

Chapter 2 reiterates a debate that had already gained prominence at the turn to the 20th century. The theory of imperialism claimed that the colonies of the industrialised nations serve as providers of natural resources and as markets where the excess production of the industrialised world can be dumped. Politically, this assertion was linked with severe criticism of large western trading companies and the plantation economies they built up in the colonies. Recent evolutions in the theory of economic growth have indeed proposed models that formally show how an uneven distribution of ownership rights may be blocking the onset of a growth process. This is not always but sometimes so. An example in case may be Guatemala and banana cultivation. Globalisation alters but does not fundamentally change such an initial deadlock. Given the cleavages in Guatemala's society and a shocking propensity to have recourse to violence whenever tensions arise made a Swiss-based company finally decide to give up its stake in a local mining project.

Chapter 3 then builds on the classic view in economic growth literature that the accumulation of means of production is at the heart of economic development. The precondition that makes Chapter 3 relevant is of course that the ownership over land is cleared in a satisfactory way (see Chapter 2) as is the case in Ghana. So called out-grower schemes are a promising business model for small scale farmers, allowing them to diversify their production and to earn a cash income above what subsistence farming yields. The latter may then help them to enhance their productivity by the acquisition of agricultural equipment. Due to the volatility of the world market prices for commodities, depending for cash income on cash crops sold on world markets exposes small-holders to considerable risk, however. Unfortunately, in the case of Ghana, their exposure to shocks was amplified by the misguided macro-economic policies the country pursued, and this up to most recent times. Any country can better react to the volatility of commodity prices than Ghana does. Secondly, the chapter questions whether tariff schemes of the importing nations and trade rules as established in the WTO favour market access of developing countries for their agricultural exports also when these are processed. A major producer of chocolate with a strong foothold in Switzerland indeed located the first processing step for cocoa beans in an export processing zone in Ghana. The preferential tariff schemes offered to developing nations by the developed world did not inhibit vertical integration, and by establishing special processing zones, a nucleus for the industrialisation of the country may indeed have been created.

In accordance with world demand, activity in the extractive industries is more or less profitable. By curtailing guaranteed prices to farmers as well as the taxation of the rental income resource extraction typically generates, countries relying on the extractive industries can usually avoid dropping out of markets. The volatility is in prices and national income, less so in volume. Further down the value added chain, the air becomes bumpier since the progression of manufacturing in new parts of the world may go along with a secular decline of industries in other world regions.

Chapter 4 accordingly takes a step ahead in the process of economic evolution since we leave for a while those countries providing basic inputs to global value added chains and go over to manufacturing. The textile industry is the prominent candidate to be studied with regard to the onset of industrial manufacturing. In the chapter, we will not consider the textile industry as a stepping stone into industrialisation, however. We will, on the contrary, present the evolution in a country that has suffered badly from the increased competition from newly industrialising nations, namely Portugal. Are there ways that the country can escape what trade theory predicts, namely a tendency to factor price equalisation, i.e. paying the same wages as prevail in developing countries? One way (apart from structural change) is to impede such an evolution by protectionist measures, another by engaging in preferential trade agreements. Both protective measures were dismantled for Portugal in the early years of this century. Quantitative restrictions on exports of textiles imposed on countries like China ended together with the Multifibre-Arrangement. Simultaneously, Portugal was affected as a member state of the EU customs union. Its preference margin was eroded by the enlargement of the EU to countries in Central and Eastern Europe. A Swiss-based company effectively decided to shut down the plant in Portugal while keeping the subsidiary in Hungary working. The conditions set by macro-economic policies were not irrelevant for this choice at the company level. The interest rate reductions due to being part of the Monetary Union boosted internal demand and led to some neglect of Portugal's export sector. When the stimulating effect of lower interest rates was consumed and the global financial and sovereign debt crisis hit the country in 2011, it was deprived of the instrument of a currency devaluation. Export competitiveness had and still has to be established by a lengthy process of adopting internal reforms. The foreign exchange regime a country best adopts in a process of income convergence is therefore also discussed in some detail in the chapter.

Traditional trade theory claims that countries will specialise in certain exports while statistics show that countries usually appear simultaneously as exporters and importers of goods within narrow classes of manufactures. Thus, a need to explain intra-industry trade emerges. Furthermore, trade in goods and services needs to be combined with factor movements, i.e. migration of labour and foreign direct investment. This is the economic content of Chapters 5 and 6.

Chapter 5 takes up intra-industry trade. The explanation for this form of trade is found in the exploitation of economies of scale on the production side, limited by the love for variety on the customer side. The model can be extended to explain the phenomenon of product cycles, meaning that new product varieties are first developed in the industrialised nations and production is later shifted to emerging economies. The model is also helpful in explaining economic geography, e.g. the concentration of certain productions in certain towns. Product cycles and the emergence of clusters of special kinds of manufacturing activities around selected towns are indeed important aspects of the rapid growth process of the country on which the chapter concentrates, namely China. By gradually opening up the country to Western markets, the largest country in the world has achieved an unprecedented alleviation of poverty and developed such a momentum in its growth process that it has a fair chance of surmounting the status of a middle income country. A Swiss-based company could not refrain from being present in mainland China after having first served the country from Taiwan. The fact that the country is a mixed economy with significant government interference and where adherence to market economy principles is not strict did not discourage the management. The size of the market was reason enough to proceed to investment.

Chapter 6 deepens the analysis of FDI and extends it to Mergers & Acquisitions. An important aspect of trade is that it may replace factor movements. Instead of shipping labour to the places where demand for labour intensive products pushes wages up, the labour intensive goods may be shipped there, supporting wages in countries with abundant labour. Equipment sent there and pre-financed by foreign direct investment also secures a knowledge transfer. But the explanations for engaging in FDI go far beyond the equilibration of factor endowments. FDI is also driven by a series of other determinants. When foreign markets are sufficiently buoyant, it may become interesting to produce there to save transportation costs, provided the adjustment to local framework conditions is not too costly. Common official language, colonial relationship, pronounced skill differences, regional trade agreements and custom unions were therefore also established as important determinants of FDI. A Swiss-based company is exemplary in having decided early after the opening up of Eastern Europe in 1989 to adopt a strategy of regional expansion. It built on the industrial tradition of the Czech Republic and the well-defined economic framework conditions that go along with EU membership. It proceeded by buying up existing plants. As a general feature, FDI, commonly understood as Greenfield investments (i.e. the building of new production facilities), needs to be distinguished from M&A activity (the acquisition of existing local producers). M&A activity has reached unprecedented highs in the most recent periods of strong economic expansion. While FDI can be explained within the framework of factor endowments, M&A activity also responds to considerations of industrial organisation. With changing market size, caused by the slashing of trade barriers and the consecutive integration of markets, industrial organisation has to be adapted. It is against the backdrop of a levelled playing field across national markets that the phenomenon of footloose MNEs is likely to spread. Evidently, the taxation of footloose MNEs is a challenge for government finances in an economically integrated world. The Czech Republic provides the illustration for the many aspects that make up fiscal framework conditions for MNE. Examples of complicated juridical structures at the level of the industrial Group are provided and the measures directed against the erosion of tax basis and against profit shifting countries may adopt are listed.

With Chapter 6, we will have looked for the first time at globalisation from the perspective of what is going on among industrialised countries. The next chapters are a step back in the sense that evolutions in middle-income countries are moved centre-stage once again. Chapters 7 to 9 will take up the accumulation of factors of production (in addition to physical capital, already looked at in Chapter 3). Labour, human capital and infrastructures will be considered while the build-up of knowledge at the corporate level will only be treated in Chapter 14.

Chapter 7 is devoted to labour as a production factor. Labour markets function in a significantly different way from what is assumed in economic trade theory where production factors are remunerated according to their marginal product, and labour markets always clear. Persistent unemployment at high rates in the developed world testifies to poor functioning of labour markets, possibly engendering high adjustment costs when the opening up to trade requires structural adjustment. In developing countries, the informal economy plays an important role and understanding the interaction of the opening up to trade with both the formal and the informal sector in a developing country remains a challenge. Furthermore, the chapter addresses the question of wage discrimination by gender from an economic point of view. Does opening up a country attenuate gender disparities because an increased competitive pressure in exposed sectors will see that the remuneration of the different categories of male and female labour is more in line with what these factors of production contribute to GDP? Morocco features characteristics that allow an informative study of all these questions. Predominantly in the coastal region, the country is developing manufacturing industries operating downstream in value added chains. At the same time, the country hosts a rural and artisanal sector where labour relations are not formalised in labour contracts or by collective bargaining. In these, but particularly also in private households child labour occurs. This is the major concern of the International Labour Organisation ILO when examining the observance of its core labour standards in the country. The business case in this chapter looks at the part of the economy where labour relations are formalised. Here, insurance coverage against accidents at the workplace became compulsory a few years ago and was left as a business to private companies. A Swiss based insurer could thus further promote an activity which had led the company to become an international player one hundred years earlier, in the first wave of globalisation.

Chapter 8 is devoted to human capital, i.e. the knowledge embodied in the members of the workforce (as opposed to knowhow present at the firm level, see Chapter 14). It has proved difficult to explain convergence in GDP among countries solely based on the accumulation of physical capital, i.e. machines and similar production facilities, as was suggested in Chapter 3. The more developed nations are, the more differentiated the skill levels among the labour force. Investment in education becomes as important as investment in physical capital. Occasionally, it may have been thought that the willingness and qualification of the labour force are in themselves sufficient to start and succeed in a growth process. The example of the fast growing economies in South-East Asia proves, on the contrary, that the accumulation of physical capital preserves its role as a key determinant of GDP increases while the success of the region does not negate the importance of human capital accumulation. With abundant investment in human capital and insufficient investment in physical capital domestically, migration has become an option for many young people, as is the case in the Philippines, the country examined in this chapter. The economic impact of worker remittances on the country of emigration remains, at best, uncertain, however.

Chapter 9 is devoted to the development of infrastructures. While catching up on income, care needs to be taken for the timely improvement of infrastructures. Furthermore, if the productivity enhancing effects of the latter are present but not overwhelming, as we argue, it is all the more important to use the funds at disposal for infrastructure development in a parsimonious way. Adhering to strict rules in public procurement is a way to secure such a parsimonious use of public funds. An important infrastructure project in Colombia, improving the country's access to the dynamic Pacific Region, is used as an illustration. A Swiss-based company participated in the cumbersome tendering procedure for the construction of today's longest road tunnel in South America.

A justified worry is the incapacity of the world to cope with selected global challenges engendered by the integration of the world economy. Chapters 10, 11 and 12 take up three such concerns, namely geo-strategic interests wedging apart the world economy, an unchecked degradation of the environment due to global pollution phenomena and the potential self-destruction of the market economy by irresponsible behaviour of MNE.

In the present excerpt, Chapter 10 remains limited to the question of how geo-strategy shapes trade relations.[1] Georgia has been chosen as the

[1] Chapter 10 in the underlying publication looks first at the importance of transportation costs. Interestingly, they display surprising effects in a situation where two former national monopolists start to interact as the only two players on an integrated market. Then, identical products are possibly sent to and fro, transportation costs curtailing the margin on exported compared to domestically sold goods, or no goods will be exchanged at all, since the former monopolists will lower their price to marginal costs plus transportation costs.

Everything hinges on the attitude of the customers and the kind of game the former monopolists decide to play with one another. Trade costs influence the market outcome and, possibly, also the presence of gains from trade, but an indeterminateness remains. The open outcome in this case country where political and economic interests intermingle in a very prominent way. The former Soviet Republic is located in the corridor from the Caspian Sea to the Mediterranean region. By using this corridor, Western countries can tap into the natural resources of Central Asian Republics, circumventing Russia. No surprise when the latter invaded parts of Georgia since this allows the former superpower to exercise political and military pressure on the corridor. In the legal digressions, the chapter therefore concentrates on the right of transit on which landlocked countries such as the ones in Central Asia and their customers have to rely. As an importer, the EU is politically deeply engaged in developing what they call the Southern Gas Corridor, running from Azerbaijan through Georgia and Turkey to Western Europe. A Swiss-based company was involved in the launching of the leg of this strategic infrastructure investment within the EU, namely the Trans-Adriatic Pipeline TAP.

Chapter 11 deals with globalisation and the environment. Two opposing views can be adopted. One view is that due to the fact that some resources are exhaustible the global economy will end up in a situation worse than in the Malthusian model of growth where the scarcity of land limits the size of the population that can in the long term be fed and survive. When resources are exhaustible, the best mankind can achieve is to postpone doomsday by economising on their use. The opposite view is that due to technical progress, steered by scarcity-induced price changes, the world economy will spontaneously grow out of any such restrictions. Many environmental resources sharing the properties of a 'public good' in economic terms,[2] the latter view appears as too optimistic, however. Deficient price signals motivate a claim for inducing directed technological change by government measures. I.a. the setting of prices for the utilisation of environmental resources should favour a parsimonious use of exhaustible resources and support diversification away from such inputs. The timing of such measures within a growth process is a delicate question. For Bulgaria, the country considered in this chapter, EU policies set the pace. In the chapter, it is shown how difficult it is to assess the state of the environment with a synthetic measure. Then, the admissibility of unilateral measures favouring pro-environmental structural change is the theme. Among the three possible measures, namely export restrictions, import bans and compensatory border measures, export restrictions are examined using a specific example that occurred in Switzerland. Some years ago, a foundation proposed to build a furnace for the disposal of waste from car shredders but argued that to make the project financially viable it needed to be given a monopoly over the disposal of scrap cars. In the meantime, other technical solutions for the disposal of such waste using existing facilities had been developed and the export of old cars also poses less of a problem. Under the impact of EU legislation, a destination country like e.g. Bulgaria has adopted standards that, if enforced, secure adequate protection of the environment. Gains from trade thus also become possible when the treatment of waste is considered.

Chapter 12 responds to the fact that numerous countries examined in this text make substantial earnings from exporting natural resources. The point is not – as in Chapter 11 – that these riches will one day be exhausted, calling for inter-temporal optimisation. The issue at study is the pretention that there is even no immediate benefit from depleting sites of natural resources, or, even worse, that there is a 'natural resource curse'. The latter term is used to designate the paradox found by prominent researchers in cross-country studies of growth achievements. Their finding was that nations and regions with an abundance of natural resources, specifically non-renewable resources like minerals and fuels, tend to have less economic growth and inferior development outcomes when compared to countries with fewer natural resources. Many reasons have been advanced why this paradoxical situation may arise but more recent research shows that it is difficult to sustain empirically the assertion that resource abundance hinders growth. The proof hinges critically on the adequate econometric control of the impact all the other growth determinants exercise

of so-called 'reciprocal dumping' – it is both possible that identical goods are shipped two and fro or that no goods are exchanged at all - is revelatory of the final outcome in the whole debate on 'strategic' trade policy, which is in reality devoted to the study of oligopolistic market structures: Virtually every outcome is possible when this form of competition, characterized by only a handful of relevant competitors in an intgegrated market, prevails. Accordingly, there is little reason to think that governments can spend the tax payer's money with sufficiently promising prospects of positive return by providing support to their former national champions which are - after the opening up of trade - involved in competition on an oligopolistic market. R&D support, limited to the precompetitive stage, is the only form of government support that has solid prospects of generating benefits for all.

[2] I.e. non-rivalry in consumption and, more importantly, a difficulty to exclude customers not paying for the use of the resource (such as breathing air).

on the performance of a country. There is, however, potential that conflict will arise over access to the earnings produced by the extractive industries. Although the conflict will usually be of low intensity, it may impede growth. The margin the extracting industries earn beyond direct extraction costs needs therefore to be distributed in a transparent and responsible way. This is the goal of the Extractive Industries Transparency Initiative (EITI). Its functioning is exemplified by the case of Peru. In this country, the extracting industries are taxed in a meaningful way, creating appropriate incentives, although the question will remain disputed whether just appropriate or excessive profits are left with the companies. Also, the collection and distribution of the tax revenues is made transparent. The mining sector is criticised for other reasons as well, such as labour standards. Since these were already the topic in Chapter 7, we look in a broader sense at the relationship among large multinational companies and the society in the countries where they operate. We will present the Corporate Social Responsibility (CSR) standards MNEs may adhere to, concentrating on trade in gold. Switzerland is the country in the world where most of the gold is smeltered into ingots.

While in Chapters 1 to 3, and again in Chapter 12, the focus was on the extractive industries, the choice of topics for Chapters 4 to 11 was guided by what had been going on over decades in the process of industrialisation in the developed world. Implicitly, the presentation thus follows the idea that in the process of economic development countries have to develop a manufacturing sector, but this may be inappropriate at the verge of a service and knowledge economy. It is therefore time to shift attention towards services in the remaining four chapters. The idea is that countries may import manufactures and pay for them by the earnings from services exports.

Chapter 13 is devoted to tourism. Tourism presents the advantage that neither substantial financial investment nor a skilled labour force are needed to build up this industry. Developing tourism is therefore a way for countries at a low level of development to integrate early into the global economy. Kenya has many valuable assets that qualify the country as a destination for tourism although concerns for personal safety put such a development currently at risk. Kenya's ambition to become Africa's business hub will be a test in case of the view that service sector development may be a substitute for developing manufacturing. The outlook is good provided the income generated in advanced service sectors trickles down and allows the development of a diversified economic structure throughout the country, generating considerable incomes for all. The legal part of the corresponding chapter in the underlying publication is devoted to the International Organisations, starting with those involved in security policy and environmental protection. In this excerpt we concentrate on those providing development aid and indicate their activity in Kenya. We also consider a private development organisation headquartered in Geneva and deploying a wide variety of activities in Kenya, a country to which the organisation is linked by religious ties.

Chapter 14 is devoted to the knowledge society. The two largest nations in the world in terms of population, China and India, are outstanding in the sense that they have developed high tech in some industries such as nuclear engineering while the mass of the population has remained at a very low level of development. Clearly, within their ambition to upgrade their economy to the level of industrialised nations, these nations will try to exploit their potential in the knowledge producing industries. But will smaller nations also find access to those parts in global value added chains where the highest revenues per capita are earned: namely the sphere where new goods and services and their marketing are conceptualised. Schumpeterian growth theory leaves some uncertainty. Against the backdrop of these unresolved economic considerations, the international rules applicable to intellectual property will remain under scrutiny. The chapter presents the TRIPS agreement but also how a Swiss-based pharmaceutical company has organised its network of global R&D activities. A litigious court case in India, the country examined in this chapter, makes this business case particularly interesting.

Chapter 15 is devoted to Switzerland and more specifically to retailing. Switzerland has a diversified industry structure. While preserving a considerable manufacturing sector, the country stands out with an internationally oriented service sector. If, in statistics of GDP per capita, Switzerland is sometimes overtaken by other industrialised nations in spite of these strengths, the high price level prevailing in the country is often the reason. We accept this finding, denying possible measurement problems, and therefore address in the chapter the question why import competition does not lead to a further alignment of prices with neighbouring countries. Since aspects of non-perfect competition, in particular in retailing, have to explain the high prices, the chapter delves further into aspects of monopolistic and oligopolistic competition that arise in a trans-border setting such as price discrimination by country and an incomplete exchange rate pass-through. In the legal part, the operating of national competition legislation is presented, leading to the question whether there is need for an international agreement on competition within the framework of the WTO to cope with increasingly oligopolistic global markets. A pressing need for such an agreement is negated, considering the tools and fora already active.

Chapter 16 is devoted to persistent imbalances in the global financial sphere. Starting with the first oil price shock in the 70', a number of the most important oil producing countries realise substantive surpluses in their foreign accounts year after year. These funds have to be invested elsewhere in the world economy. For the global financial industry, the oil-dependency of many industrialised, emerging and developing countries and the ensuing need for a 'recycling of the petro-dollars' accordingly constitute an important business. In this business, countries like Qatar intend to establish themselves as new players. A joint venture of the Sovereign Wealth Fund of Qatar and one of the two large Swiss banks serves this purpose. Abstracting from this particular venture, the chapter shows that foreign indebtedness of nations has not progressed the most in the regions of the world where there is immense scope for capital deepening, also by allowing for portfolio investments in these countries. Indebtedness grows fastest in the already industrialised world. The persistence of insufficient domestic saving, most notably in the Anglo-Saxon countries, and the sporadic loss of confidence in selected developing regions of the world are at the origin of recurrent financial turmoil on global financial markets. The latter always comprises the risk of a fall-back into protectionist trade policies. Thus, beyond the free flow of financial capital, possibly a mixed blessing, the free flow of goods is also at stake. These concerns raise the question of the capacity, or rather incapacity, of the relevant International Organisations to guarantee the smooth evolution of world financial markets.

Taken together, the chapters cover countries at different stages of development. As said, the extractive industries are important in the context of globalisation. The text takes up agricultural producers in an order increasing by GDP, namely Burkina Faso, at an early stage of leaving self-sufficiency, Guatemala, where plantations date back to colonial times, and Ghana where a proud national population withstood colonisation for a long period. In later chapters, Peru generating middle incomes as a producer of minerals, and Qatar living on oil drilling and among the richest countries in the world are added. In the same vein, in manufacturing, we should have started with Bangladesh, industrialising in the classic way by relying on a textile industry, then continued with China, operating a diversification in its industrial portfolio, and finished with the Czech Republic, living up to the success the country's industry achieved in the pre-communist era. However, as explained above, we replaced Bangladesh by Portugal to show the other side of the coin: the pressure exercised on established producers by newly industrialising countries. In the following chapters, a number of facets of globalisation are illustrated by drawing on the experiences of middle income countries: Morocco with labour market and gender issues, the Philippines with the build-up and export of human capital, Colombia with infrastructure development, Georgia with the exposure to geo-strategic tensions, Bulgaria with the upgrading of environmental protection, and Peru with the uncertain blessings of a rich endowment in natural resources. The countries chosen due to features of their service sector appear again in the order of an increasing GDP: Kenya, betting on tourism as a stepping stone to higher incomes, India already disposing of a considerable knowledge base, Switzerland, outstanding due to the large share in GDP of a high value added export oriented service sector and Qatar, striving to establish itself in the same markets, based on the assets accumulated by exporting oil. The situation of the sixteen countries is made comparable by an identical statistical one pager on each country in the chapter and a corresponding comparative table in annex II of the text.

In all the countries, the issues dealt with in the fifteen other chapters are also present. It would evidently fall short of reality to claim that in a country like, e.g., Switzerland, the import competition going along with increased economic openness is the core aspect of globalisation. However, the selected countries stand out in the sense that they are not average concerning the topic treated in the chapter. Rather, the topic treated in the chapter is particularly relevant in the respective country. Embedded in portgraits of fifteen other countries, it appears as admissible not to treat all the aspects linking globalisation to the country examined at the same time. In the end, a synthetic view overarching the sixteen chapters and abstracting from the idiosyncrasies of the countries considered is needed, however. This is attempted in the last part of the present excerpt. Previously, the assertions made in the single chapters on the significance of globalisation for the country examined are reproduced. This part further illustrates the heterogeneity of the challenges emanating at the level of each country within the transition to a globalised economy.

Chapter 1

Burkina Faso: Still on the Move out of Subsistence Farming

CONTENT

Country Fact Sheet

			World	Burkina Faso
GDP per Capita	(at 2011 PPP $)	2013	13,964	1,582
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	6,4
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	79
Agricultural Value Added	(% of GDP)	2014	3,1	34,2
Manufacturing Value Added	(% of GDP)	2014	26,4	23,1
of which Industry	(% of GDP)	2014	15,8	6,4
Services Value Added	(% of GDP)	2014	70,5	42,7
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	17,6
Research and Development Exp.	(% of GDP)	2005–2012	2,0	0,2
Internet users	(% of pop.)	2014	40,5	9,4
International Tourism, Arrivals	(mio people)	2013	1068,0	0,2
Consumer Price Index	(2010 = 100)	2014	..	107,0
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	25,4
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	44
Current Account	(% of GDP)	2013	..	-7,2
External Debt Stock	(% of GDP)	2014	..	20,5
Exports plus Imports	(% of GDP)	2013	60,4	57,1
Private capital flows	(% of GDP)	2013	-0,9	1,8
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	2,9
Official Development Assistance	(% of GNI)	2013	0,4	8,1
Remittances, inflows	(% of GDP)	2013	0,71	1,34
General Gov. Expenditures	(% of GDP)	2013	..	23,4
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-1,9
General Gov. Net Debt	(% of GDP)	2013,0	..	
Ease of Doing Business Index	(rank)	2015	95	149
Corruption perception	0-100	2014	..	38
Population	(millions)	2014	7259,7	17,6
Surface	(1'000km²)	2015	134325	274
Populationb Density	(person/km2)	2014	56	64
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	2,8
Fertility	(births/woman)	2010/2015	**2,5**	5,7
Under-Five Mortality	(% < age 5)	2013,0	45,6	97,6
Life Expectancy at Birth	(years)	2014	71,5	58,7
Child Malnutrition	(% age group)	2008–2013	29,7	32,9
HIV-Prevalence	(% of pop.)	2013	1,1	0,9
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	44,5
GINI Index (income concentr.)	0-100	2005–2013	..	39,8
Homicide Rate	(per 100'000)	2008–2012	6,2	8,0
Primary School (enrolm.)	(% age group)	2008–2014	109	87
Secondary School (enrolm.)	(% sge group)	2008–2014	74	28
Tertiary School (enrolm.)	(% age group)	2008–2014	32	5
Genders in 2nd Schooling	(female/male)	most recent	97,1%	87,2%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	28,7
Employment to Population Ratio	(% aged 15+)	2012	59,7	80,7
Unemployment rate	(% aged ≥ 15)	2004-2013	..	..
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,86
Children in Employment	(% of age 7-14)	2013	..	50,3
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-1,5
Rural Population	(% of popul.)	2014	46,6	71,0
Energy use per capita	(kg of oil eq.)	2013	1894,4	..
CO2-Emission	(t per capita)	2011	4,6	0,1
Improved Water Access	(% of popul.)	2014	90,5	82,3
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	-19,2
National Resource Rents	(% of GDP)	2014	3,9	15,9
Protected Area	(% of surface)	2014	12,8	15,5
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,402

Chapter 1
Burkina Faso: Still on the Move out of Subsistence Farming

Exports of agricultural products are regularly the stepping stone for a country when it comes to integrate into global trade. Among the crops exported, cotton assumes a primary role. Simultaneously, cotton is the principal fibre used by the textile industry, the latter regularly representing the pioneer branch of industrial production in a country. It is not true, however, that the industry develops best in the countries where cotton is grown. On the contrary, cotton was traded on a global scale for centuries, involving also many Swiss based merchants.

It is regularly accepted that export crops increase measured national income. However, the extent by which local producers or, more generally, the rural population in developing countries benefit from switching agricultural production to such export crops is highly controversial. Global trading rules also exert a significant influence on rural incomes in developing countries.

The chapter takes up the case of cotton production in Burkina Faso, one of the least developed countries in today's world. Statistics show a still very high degree of self-sufficiency at the farm level so that growing cotton allows for a welcome diversification of production, generating necessary cash incomes for households. These returns should not be curtailed by policies supporting producers in the industrialised world.[3] A dispute in the WTO established that this has effectively been the case.[4]

1 Main features of the country and its population[5]

Burkina Faso has a population of 17.4 million people and a territory of 274'220km^2. It is therefore a country with a rather low population density. The territory now making up Burkina Faso was principally composed of Mossi kingdoms, before France established a protectorate over the region in 1896. After gaining independence from France in 1960, the country first suffered from many irregular changes in government. Today, it is a semi-presidential republic which was governed for 27 years by President Blaise Compaoré before he was toppled in 2014. Burkina Faso is a member of the Economic Community of West African States (WAEMU). It participates in the African Union and in the "Francophonie" community.

Typical for a low level of development, population growth is pronounced with 2.8% p.a. The total fertility rate of Burkina Faso is 5.7 children born per woman (2010-2015), the twelfth highest among countries in the world. Average life expectancy at birth is estimated at a low 58.7 years. The median age of its inhabitants is therefore very low.

Illiteracy is widespread and remains considerable among the young female population. The UN Development Data Base ranks Burkina Faso as the

[3] The economic theory part in the corresponding chapter in the underlying publication explains the mechanisms leading to the comparative static gains from trade. Even countries showing inferior productivity in all productions will derive gains from trade. These gains accrue at the national level. It is wrong to think that every single agent will benefit from trade liberalisation. Owners of production factors that cannot be engaged on a large scale basis in the sectors expanding after trade liberalisation will lose at least in relative terms. Efforts to liberalise trade have therefore to cope with resistance due to distributional effects. And these effects comprise the risk of a roll-back of negotiated liberalisations, a challenge for trade policies.

[4] In the legal and institutional part of the corresponding chapter in the underlying publication, the WTO regime regarding admissible support for agriculture is presented by way of a specific litigious case involving cotton production in the U.S. Although the total amount of income lost for West-African cotton producers due to farm subsidies in the US is low when measured as a share of agricultural support granted in Western countries, the same amount would allow a significant improvement of income in the Least Developed Countries (LDC). To discipline domestic support for agriculture is very demanding, however, and the outlook for a conclusion of the negotiations in the Doha Development Round remains depressed. Substantive results are not likely to come forth, even 20 years after preparations for a second round of reform in agricultural trade had started.

[5] The quantitative indications in this section are predominantly from the UNDP development databank and other sources according to the indications in the synoptic table in Annex 2. Indications regarding history, ethnic composition, religion a.s.o. are mainly from the indications on Burkina Faso in Wikipedia. This proved to be the easiest way to find comparable indications in these regards across the 16 countries considered in this book.

country with the 2nd lowest adult literacy rate in the world, despite a concerted effort to double its literacy rate from 12.8% in 1990 to 28.7% in 2005-2012. Over the decade 2003-2012, 87% of the young population was enrolled in primary, 28% in secondary but only 5% in tertiary schools. The ratio of female to male schooling at the secondary level was still only at 87% and the number of dropouts is another problem. The indicated share of internet users with 9.4% of the population is extremely low in international comparison, and confirms a tremendous deficit in the human capital stock in place in this country.

While the country is ethnically not homogenous, it has managed to avoid violent conflict between ethnical groups. A popular saying claims that "50% are Muslim, 50% are Christian, and 100% are animist" showing the wide level of acceptance of the various religious beliefs. The fact that movements close to Al Qaida destabilised neighbours Mali and Niger increased nervousness regarding the stability of the country, however. An attack on a hotel in the capital city of Ouagadougou in January 2016 confirmed the threat. Also, the homicide rate with 18 per 100'000 people is remarkably high.

2 Burkina Faso's economy remains one of the least developed[6]

Burkina Faso has one of the lowest GDP per capita in the world: Converted on a purchasing power basis (PPP), gross national income (GNI) per capita remains at a dismal value of US-$ 1'582 a year (2013), equivalent to a national average of a US-$ 4.4 income per day. Large segments of the population have correspondingly to cope with less than US-$ 1.25 a day and fall below the lowest defined level of poverty. The last available statistics (2009) give this at 44.5% of the population.

Agriculture generates 34.2% of the country's gross domestic product and occupies some 80% of the working population.[7] Especially in the south and southwest, the people grow crops of sorghum, pearl millet, maize (corn), peanuts, rice and cotton, with surpluses to be sold. The rearing of livestock is also an important branch of agricultural production. There is limited mining of copper, iron, manganese, tin ore and phosphates. Natural resources also include limestone, marble, pumice and salt. The small deposits of gold allowed Burkina Faso to become one of the larger gold producers in Africa.[8]

Industry is of subordinated importance in the country. The share of the manufacturing sector in GDP was 23.1% in 2013, but originated mainly from the extraction of natural resources (natural resource rents (including forest rents) are estimated at 15.9% of GDP), leaving a meagre 6.4% for the branches of industrial production in the narrow sense of the term. The construction sector did increase its contribution to GDP from 4.9% in 2009 to 9.1% in 2014.[9]

With regard to the development of a service sector participating in exports, prospects are limited. Burkina Faso's fauna and flora are protected in two national parks and several reserves (protected areas make up 15.5% of the country's surface). Furthermore, one of the most important African handicraft fairs is held in Ouagadougou. Still, tourism with only 0.2 million people arriving in 2013 contributes presumably less than 5% to GDP (the overall figure for wholesale and retail trade, hotels and restaurants is 11.8% of GDP in 2012).

Burkina Faso attracts a considerable amount of public and private help to LDC countries. In fact, a substantial part of the economic activity of the country is funded by international aid. According to the UNDP development databank, official development aid amounted to 8.1% of gross national income (GNI) in 2013. It is one of the countries on which the Swiss agency for cooperation and development concentrates its help.

Remittances used to be an important source of income to Burkina Faso until the turn of the century, when unrest in Côte d'Ivoire, the main destination for Burkinabe emigrants, forced many to return home. Inflows of remittances figure today in the statistics with a low value of 1.3% of GDP but may underestimate revenues earned in neighbouring countries by migrant harvest workers.

3 A satisfactory macro-economic situation

It is regularly claimed that the high external value of its currency is impeding development. To appreciate this point, it is important to take account

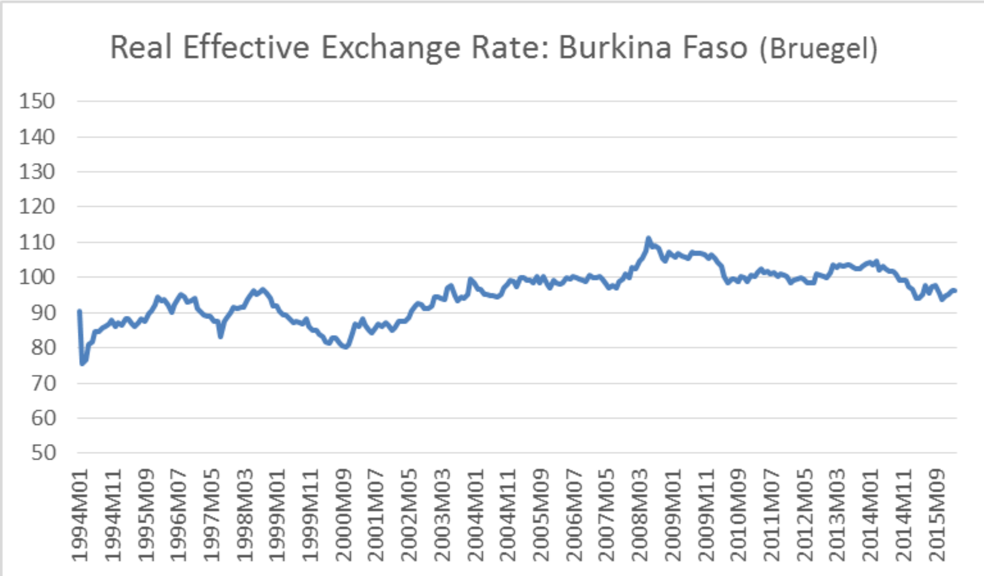
[6] If not indicated differently, the data are the same as in the country fact sheet at the top of the chapter.

[7] The figure for 2005 was at 85% according to the World Bank Development Indicators.

[8] In 2011 it ranked fourth after South Africa, Mali and Ghana, with gold replacing cotton as the primary good exported. In 2012, gold exports significantly dropped in value, however; cotton exports with a share of 43% of total exports surpassed gold exports again, with 36% (https://atlas.media.mit.edu/en/profile/country/bfa/).

[9] See African Development Bank (2015): African Economic Outlook, Country Notes, Burkina Faso 2015 (http://www.africaneconomicoutlook.org/en/country-notes/)

of the fact that Burkina Faso is part of the West African Monetary and Economic Union (WAEMU) and has adopted the CFA Franc. The Central Bank of the West African States (BCEAO), situated in Dakar, is also providing the oversight of the financial sector and banking activity. The effective real exchange rate[10] (see graph below) shows indeed a substantial revaluation of Burkina's currency towards the middle of the last decade (and captures also the massive devaluation of the CFA franc with regard to the Euro and its predecessor currencies in 1994, the only one occurring over the last 20 years). The level reached some 10 years ago has since remained +/- stable. Given the low overall level of development of the country, a price level of 44% of the value of the USA is comparatively high, however.



Inflation creeping up to a relatively low rate of 3.8 percent in 2013 had already led to considerable political tensions. In reaction, the government set up special stores across the country to sell consumer products at prices accessible to low-revenue households. Inflation was expected to remain again under 2% p.a. in 2014-2016 [11]

The disadvantages of a high external value of the currency have to be weighed against the advantages of external and internal price stability, allowing a more reliable business planning and inspiring investors' confidence. Experience suggests that the alternative, a flexible exchange rate, is not necessarily an external value of the currency that meets the needs of the country. The contrast is provided by neighbouring Ghana: While showing a lower comparative price level, the country is characterised by an extremely disruptive management of its own, independent currency (see Chapter 3) and had recently to call in IMF advice and help.

In spite of the foreign exchange situation, Burkina Faso achieved considerable growth over the last decade. GDP nearly doubled from 2004 to 2014 and over the years since 2009 the country has continued to grow with more than 6% annually on

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[10] The real effective exchange rate expresses variations in price competitiveness of a country due to exchange rate variations. Different to nominal exchange rate indices, inflation differences (usually measured by the consumer price index) are netted out. The bilateral exchange rate variations are weighted with factors that reflect the trade pattern of the country examined. In simple indices, the countries entering with their currency in the index for a certain country are weighted with the share they hold in the examined country's exports. "Effective" exchange rate indices adopt more complicated weighting schemes. The BIS applies a weighting scheme that also considers the importance of production for domestic uses in the target market and the presence of third countries on the target market as competition for the examined country's exports. The pressure of the target market's exports to production for domestic uses in the country examined is also taken into account. For details see: Klau/Fung (2006): The new BIS effective exchange rate indices, BIS Quarterly Review March 2006, http://www.bis.org/publ/qtrpdf/r_qt0603e.htm . The series used here and for 6 other out of the 16 countries (which are not covered by the BIS database) is from Bruegel and follows this approach. http://bruegel.org/2012/03/real-effective-exchange-rates-for-178-countries-a-new-database/

[11] http://www.africaneconomicoutlook.org/en/country-notes/

average. Population growth of nearly 3% and the low income level need to be kept in mind, however. On a per capita basis, the 6% growth rate corresponds to some US-$ 50 a year or an increase of 0.1% of per capita income in the richest countries. Growth has therefore to be maintained at these rates for decades in order to achieve convergence in income to further advanced countries. Neither gross fixed capital formation nor the development of bank credit are conducive to an improved growth rate, however, and, additionally, Burkina Faso does not attract important amounts of FDI. Furthermore, its involvement in international trade is not very high given the size of the country. Poor prospects for industrialisation and agricultural protectionism in advanced economies are part of the explanation for this value (see below).

The African Economic Outlook 2014 produced by the African Development Bank (AfDB) in cooperation with the OECD and the UNDP[12] reports furthermore insignificant balance of payments deficits[13] and also viable public finances. A budget deficit below 3% of GDP is sustainable when put in relation to the real growth rate of 6.9% in 2013. So the Bank concludes that the deficient capacity to handle public investment is the main problem with state finances and adds that this constitutes a growth constraint and could harm Burkina Faso's chances of reaching the Millennium Development Goals by 2015.[14] As the AfDB admonishes, to improve results the country must reform the way it prepares and executes projects such as the paving of major roads to the North, the overhaul of the airport or the setting up of industrial zones.

Agriculture and mining remained the main engines of growth in 2013 but cotton and gold suffered in 2014 from a reversal of natural resource prices on world markets. The agricultural sector could benefit from measures to speed up productivity gains, particularly through access to agricultural inputs and equipment. With regard to industry, Burkina Faso struggles to participate in global value chains not only because of poor infrastructure. The Bank points also to a difficult access to energy and a lack of skilled labour. These factors also explain the low trade exposure of 57.1%. Since opportunities for the launching of large scale development projects cannot spontaneously be identified, appropriate financing for the development of a small scale business sector is all the more essential. Micro-finance institutions are present. They have to conform to a separate law.

4 Main challenges for Burkina Faso's economy

Against this background, to overcome the high illiteracy rate is certainly a priority for development. Education in Burkina Faso is divided into primary, secondary and higher education. For decades, boys received preference in schooling so that girls' education and literacy rates are far lower than their male counterparts. Since families have to pay for schooling material, and communities have to finance school buildings, attendance at the primary school level needs still further improvement. An increase in girls' schooling at the secondary and tertiary level – where attendance is very low in international comparison - is favoured by the government's policy of granting girls more scholarships at the high school level. Institutions of higher education include the University of Ouagadougou, the Polytechnical University in Bobo-Dioulasso and the University of Koudougou, which is also a teacher training institution. The number of teachers has been significantly increased. There are private colleges in the capital city of Ouagadougou but these are affordable by only a small portion of the population.

Burkina Faso keeps a certain potential to expand the surface used for agricultural production (some deforestation is occurring). Water is retained in a considerable number of basins so that scarcity of water appears not to be a pressing problem throughout the country. Nevertheless, an increase in the share of the population having access to an improved water source would be welcome. The full country note of the AfDB[15] mentions also a number of crops Burkina Faso has a chance to export successfully. Considering the high number of births suggests however that the potential of the agricultural sector to absorb a growing workforce will sooner or later be exhausted.[16]

Existing but bounded prospects in agriculture lead to the question regarding the potential for employment industry and the service sector offer.

[12] http://www.afdb.org/en/annual-meetings-2014/programme/african-economic-outlook-2014/

[13] The country is ranged by the AfDB in the category of countries with moderate long term debt risk. The reason for the country falling in the intermediate range is a relatively high debt-to-exports ratio of 61.0% in 2013 and an apparently poor administration of foreign liabilities.

[14] For an overview over the Millennium Development goals, see Chapter 13.

[15] African Development Bank (2014): African Economic Outlook, Country Notes, Burkina Faso 2014.

[16] Also in the rural village visited by the author (see box below), six children were indicated as representing the usual number per family.

Regarding industry, the AfDB[17] observes, as stated above, that missing access to trans-national infrastructure, unreliable energy supply and a lack of qualified workers in technical and professional fields are the main obstacles blocking Burkina Faso's access to global value added chains. Indeed, Burkina Faso as a landlocked country is about 1'000 kilometres from the nearest coasts in Côte d'Ivoire, Togo and Ghana and the state of roads and railways is poor. This drives up the cost of bringing in equipment and weighs heavily on export competitiveness. Secondly, Burkina Faso's energy costs are the highest in the WAEMU zone at CFA 118 per kilowatt/hour, compared to CFA 56 for Benin and CFA 53 for Niger. Also, a lack of capacity and frequent and lengthy power cuts seriously affect the economy. A mere 13.9% of Burkinabe households are estimated to be connected to the electrical grid. In accordance with the view of the AfDB, diversification out of cotton into other exportable agricultural products such as peanuts or vegetables appears indeed as more promising than adding next steps in the value added chain of cotton fabrics to the national economy. Talking to people in the sector, scarcity of energy was indeed mentioned as an inhibiting factor also with regard to the further processing of cotton.

Employment prospects in the service sector are not too good either. Preconditions for building up of a service sector that generates directly export revenues appear to be missing. The country offers only a limited number of sights tourists might visit. For such reasons, services are likely to develop primarily as derived demand from the expansion of agriculture and mining. Eventually, mining will generate increased government income (a mine for manganese will enter into function), the latter allowing then the financing of an expansion of sectors such as health and education where development aid has currently a considerable importance.

Emigration may for these reasons remain important for the families as a way to manage living. At the aggregate level, emigration leads to an alleviation of the local labour market and generates worker remittances. However, emigration faces restrictions established by destination countries and is not free of risks. As indicated, the unrest in Côte d'Ivoire led in 2002 to the remigration of tens of thousands of Burkinabe citizens.

What appears at first sight to be a very depressed outlook for further development may be confirmed by the later evolution. However, this does not necessarily hold true. Entrepreneurial initiative may overcome the limitations the natural endowment of a country appears to impose, provided framework conditions conducive to economic development favour such an evolution. Much depends on the question whether opportunities offered are seized or not. Growth rates between 5 and 10% p.a. justify expectations that the country will not be left behind for ever, but may gradually escape the growth trap considered for years as typical for Sub-Saharan countries.[18]

5 The role of cotton in the national economy

Cotton production starts with the sowing of the cotton seeds in ploughed fields. The cotton plant takes about five months from germination to boll maturation. In Burkina Faso, the growing of cotton extends from summer to the end of the year. Proper and timely manure application, irrigation, pest and weed management are essential factors to ensure that the cotton fibre is of a high quality. It appears that during the remaining 4 months, the soil is often left fallow.

Cotton producers are not unilaterally dependent on cotton since cotton is produced on farms that also grow maize, millet, cassava and other crops for market sales and home consumption.[19] Some farms also grow vegetables for home use and for the local market. 200'000 farms produced cotton and farm employment in cotton was 380'000 workers in 2004 when the litigious case of U.S. cotton subsidies started (see below), representing 7 percent of total employment. Cotton producers in Burkina Faso are likely to be slightly better off than other farmers. It may be added that household size in the region often reaches 10 members per farm, so that a considerable share of the population has a stake in cotton production.

[17] African Development Bank (2014): African Economic Outlook, Country Notes, Burkina Faso 2014.

[18] A decade ago, it was common to insert in growth regressions a dummy variable in order to account for the (unexplained) underperformance of Sub-Saharan Africa in terms of economic growth. Alwyn Young: The African Growth Miracle, Journal of Political Economy, Vol. 120, No. 4 (August 2012), pp. 696-739, argues that this has largely been a statistical artefact. Since the figures published by International Organisations improved in the current decade, it has become popular to speak of an African growth miracle.

[19] Most indications in this section are taken from an Oxfam publication. See: Alston, Julian M. and Daniel A. Sumner, and Henrich Brunke (2007): Impacts of Reductions in US Cotton Subsidies on West African Cotton Producers, Oxfam America. *www.oxfamamerica.org/files/paying-the-price.pdf/*

Set in relation to GDP, cotton production is not of overwhelming importance. The high value of agriculture in GDP and employment is still largely made up of production for on-farm and domestic needs. The outstanding position cotton had within the national economy is explained by the fact that it used to be the single relevant export product of the country. Cotton accounted for some 50% of exports in 1998-2000. No other category of goods then had a share higher than 5% in exports.[20] Given that the country had no industry nor the capacity to build one up, it was by exporting cotton that imports allowing for the development of the country could be paid for. Not astonishingly, in the years when Burkina Faso tended towards a leftist regime, politics controlled the production, elementary processing and exporting of cotton by establishing the state-run SOFITEX (a similar company had already operated under the French protectorate).[21]

Only over the last ten years, the role of cotton for the national economy was somewhat reduced. In value terms, but not in employment terms, gold took over the role as the principal product exported. Within agriculture, a certain diversification into other crops that may be exported also occurred with shares in total exports of Other Oily Seeds (2.9%), Other Pure Vegetable Oils (1.8%), Coconuts, Brazil Nuts, and Cashews (1.5%), Tropical Fruits (1.0%), Onions (0.8%).[22] At the same time, cotton production expanded in a remarkable way. This was partly due to the early and widespread introduction of biotech cotton (not to be confused with organic cotton). But a reorganisation of the sector was also conducive to the favourable evolution, as will be explained in the next section.

6 Reforming the cotton sector

In 1995, export of raw cotton reached US-$ 152mio in Burkina Faso (rank 13 among exporters), but expanded then to US-$ 327mio in 2012 (rank 9).[23] Jonathan Kaminski, from the Toulouse School of Economics, analysed in a paper presented 2007 at a conference in Harvard the reasons for the successful expansion of cotton production in Burkina Faso.[24] According to him, the first and foremost reason is the institutional reform in the cotton sector of Burkina Faso that started in 1994. The plan for cotton boost greatly reduced the role of SOFITEX, the former national cotton company, gave more bargaining power to producers and charged new local institutions with handling the out-grower schemes. In what follows we will resume Kaminski's findings regarding this first point which he underpins also with a formal economic model.

The second specific shock he mentions is the crisis in Côte d'Ivoire of 2002 that resulted in a massive inflow of tens of thousands of Burkinabe people, formerly settled there. The effect of the Ivorian Crisis lies in the inflow of potential farmers and work force towards the cotton sector because of the new production incentives created by the reform. Additionally, neighbouring producers may have benefited from the higher prices in Burkina Faso through cotton smuggling towards Burkinabe cotton firms or producers' groups, an inflow hard to estimate.

The institutional change exhibits the following features: From the country's independence to the end of the nineties, cotton markets in Burkina Faso were controlled by SOFITEX, a state controlled company with private capital. The firm controlled input purchases and distribution to farmers (mostly through in-kind credit schemes), cotton seed purchases, ginning, marketing and export to international buyers. While SOFITEX was organizing production and marketing with local institutions of farmers, the government funded agronomic research and other extension services (such as technical assistance). The sector achieved good coordination of activities but producers received a low share of the world price of cotton. Corruption was widespread.

After the reform, a strong cotton union emerged, Union nationale des producteurs de coton du Burkina Faso (UNPCB), acting as an umbrella organization for the local self-managed cotton groups, the GPCs (associations of cotton growers). These organizations proved more efficient than their predecessors, the GVs (Village associations of farmers) in enforcing and monitoring out-grower schemes, raising repayment rates of

[20] https://atlas.media.mit.edu/en/explore/tree_map/hs/export/bfa/all/show/2000/

[21] See http://www.sofitex.bf/pres_sofitex/presentation.htm

[22] See https://atlas.media.mit.edu/en/profile/country/bfa/

[23] See https://atlas.media.mit.edu/en/explore/tree_map/hs/export/show/all/5201/1995/ resp. …./2012/

[24] Kaminski, Jonathan (2007): Interlinked Agreements and Institutional Reform in the Cotton Sector of Burkina Faso, paper presented at the NEUDC Conference at Harvard University, October 27th, 2007.

input credit awarded to producers and giving new incentives for farmers to enter or expand cotton growing. This farmers' movement has been associated with democratization and education in rural areas, paired with a process of agricultural professionalization.

In out-grower schemes, producer groups express their input needs while repayment occurs by subtracting input costs from cotton earnings at the group level. Evidently, the available options when composing groups and the efficiency of the policing done within groups are the decisive factors for the success of such schemes. Compared to individual contracting, the schemes may exhibit considerable economies of scale and also constitute an answer to the buying power of the agents acting on the next stages of the value added chain. Before the reform, credit groups did not result from a free self-selection process and matching by affinities could not emerge among group-members. Monitoring credit and disciplining members not fulfilling their production target was also difficult since peer pressure was not efficient in large groups with possible social ties and ethnic or religious fragmentation. There was great scope for moral hazard problems. Moreover, the threat of suppressing credit for defaulting groups was not effective. Extension services were not very efficient since they were not specialized in cotton growing and public agents did not receive appropriate training.

When the beneficial effects of the CFA devaluation in 1994 ran out by the end of the 90', these problems became so pressing that government and producers' associations agreed on a reform. Cotton producers now match together as they wish in credit cooperatives, according to their affinities, and elect representative farmers coordinating local activities. Since groups are free to accept new members or reject old ones, liability to other producers that e.g. used inputs for cereals or other food crops and experience difficulties in repaying the loan in kind can effectively be limited. Initially, however, new groups accumulated large debts until a new system of peer monitoring was introduced. Repayment has remained above 95% since.

In 1999, provoked by the national agricultural bank and the SOFITEX arrears, the Accord Interprofessionnel was adopted, a structured partnership with SOFITEX, the government and banks. Since then, the price paid to producers has increased steadily due to their enhanced bargaining power and despite the unfavourable world market situation up to the middle of the last decade. In 2003, the ginning market was opened to new investors. They were selected by the Interprofession and three exclusive zones of ginning and marketing were created. This has led to monopsonistic zones of production. In the west, SOFITEX has kept its monopsonistic power whereas in the centre and in the east, SOCOMA and FASOCOTON (the two new cotton ginning firms) have bought the SOFITEX factories and established their own exclusive zones for purchasing and ginning cotton seed. The new companies were included in the Interprofession and a participation of producers in their capital was imposed.

The cotton industry has remained collusive until today. Indeed, cotton seed prices and input prices are the same for each zone. The budget for research and extension services is decided at the beginning of the crop season. Input credit is under the exclusive control of SOFITEX even though the two new companies are claiming to access less expensive inputs and would like to organize input credit by themselves. The pricing has evolved towards a more flexible system, away from the "political" prices of the nineties, which were mainly chosen by the government and guaranteed for three crop seasons. Price is now announced and guaranteed for one crop season, on world price forecast basis. This mechanism is associated with a smoothing fund composed of some of the benefits of cotton companies. Decisions are taken by the Interprofession. They are announced before each crop season.

The conclusion drawn from these experiences is that the evils of central planning and collectivism had clearly appeared in the past. For a liberal regime to produce beneficial effects reforms have to go beyond private property, however. The freedom to contract and, with possible reservations, the freedom of coalition are also needed. With respect to the latter, it may be observed that labour market economics also admit that a monopoly on both sides of a market does not necessarily lead to inferior outcomes when compared to individual bargaining.[25] While the constitution of Interprofessions allows for better coordination within a sector (its monopoly being disciplined by world markets), the disadvantages reside in the possible discrimination of outsiders at the local level (for ethnic or other reasons). A dominant role of Interprofessions leaves therefore a mixed feeling, depending on the alternatives producers in the sector have.

[25] The worst are situations in-between, rivalling unions establishing closed shops and pursuing their interest in disregard of macro-economic consequences.

Visit to a local producer community

In 2004, the development organization 'Helvetas' started an organic and fair trade cotton programme in Burkina Faso, supported i.a. with grants from the Swiss State Secretariat for Economic Affairs.[26] *The main objective of the ongoing programme is to improve producers' living conditions – especially those of women and small farmers – through a viable and sustainable mode of production. An essential element is to improve production and internal control systems. With respect to production, Helvetas supports the training and monitoring of farmers producing cotton in a sustainable way. It also helps the local producer communities to build the organisational capacity required to meet their challenges. With respect to certification and supervision, the implementation of the Internal Control System (ICS) as defined by the 'Union Nationale des Producteurs de Coton du Burkina' (UNPCB) is crucial. Part of Helvetas' programme is also the marketing of organic and fair cotton fibres and of other rotational crops such as sesame and shea almonds.*

Indications for a farmer in Pintuagou, in the east of Burkina Faso, may be considered as representative of the situation of the members in the close-by production community of Tenkodogo visited by the author. The farmer, Anhadi Bwangou,[27] *indicates that the cultivation of his fields brings him a total annual income of some US-$ 900, with which he feeds the 16 members of his extended family. As indicated above, in the village visited, the women indeed indicated that a number of six children per woman may be regarded as typical.*

The shift to a sustainable way of producing cotton was inspired by the positive experiences a single farmer made when he replaced synthetic fertilizer and pesticides by a more sustainable way of production. He suffered in particular fewer health problems. The advantage when a whole local producer community switches to this environmentally friendly mode of production resides in the fact that it becomes easier to conform to the standards regarding chemical residues in cotton.[28]

The local producer community is headed by the son of the village headman – in this sense, the community builds on the pre-existing governance structures. The community is steered by a council, however. Its members assume different responsibilities and there is rotation of membership. A woman participates also in the producer community's council.

Key to success is to build up the production of manure on the farm. Producers of bio-cotton apply three times more organic manure than conventional producers. The producers have also to rotate cotton with, among other crops, e.g. sesame. Since sesame can also be sold for cash, this diversification reduces their dependence on cotton, beyond the improvement in soil fertility. As an evaluation showed, farmers of organic cotton also plant more than twice as many leguminous plants as their colleagues, and have a slightly more diversified rotation plan.

Economically, while organic cotton reaches only two thirds of the yield of conventional cotton, this is made up by a higher price. The gross profit per hectare of cotton is therefore identical but organic farmers spend 90% less on inputs and this results in their gross margin being considerably higher than for conventional production. Moreover, the lower cost of inputs also put some of them in a more relaxed state of mind since they are less indebted. Instead of spraying their fields with chemicals up to six times a year, they invest their time into the collection and production of manure.

In the perception of the interviewees, the changes in human health are of similar importance to improved earnings prospects. Woman in particular are less hesitant to work the fields when pregnant. Changes in the available food and rising incomes naturally have an effect on the amount, quality and variety of the meals people eat. They increase the consumption of meat, rice and vegetables. Part of the premium price the community earns is not disbursed but used for projects at the village level. The community visited constructed a building that is used i.a. as the canteen of the school where pupils now receive a third meal a day.

The manner of production remains very traditional. Predominantly, the hoe and the threshing flail are used. The introduction of the "culture attelé", i.e. the use of bovines as draught animals for ploughing, does not progress as quickly as

[26] Beyond information gathered by the author on the spot an evaluation of the programme published under impact.zewo.ch/Wikungsmessung/cotton.pdf provides additional facts.

[27] See http://www.seco-cooperation.admin.ch/projekte/01009/05066/index.html?lang=de

[28] While the genetically modified Bt cotton produces all the positive effects on the environment and human health due to the reduced input of synthetic fertilizers and pesticides made possible by the insecticide the plant produces itself, this cotton does not qualify as organic cotton. When producing organic cotton, other plants have to be sown together with cotton to attract the insects.

in Côte d'Ivoire although this would allow families to work additional land and contribute to the production of manure. Cooperation with the Fulla (Peulh), a nomadic community of cattle breeders could also help in the production of manure. Finally, while part of the price risk is taken away from the producer community, this causes the organisation commercializing the cotton financial stress although they sell at least part of the crop by way of future contracts.

With regard to a local processing of cotton, HELVETAS is aware of the limited prospects. The NGO is implementing a complementary project in the area of artisanal textile production in the capital Ouagadougou. The project strengthens the technical and managerial capacities of a local association which aims to increase incomes for the artisans through i.a. sales of organic cotton products in local and international handicraft markets.

7 Is there a role for Burkina Faso in Cotton Processing?

The next step after harvesting on the way to a textile fibre is ginning. Ginning is the process of separating the cotton lint from the cotton seeds. Cotton seeds can be used for oil production for human nutrition or as fodder for livestock. Usually, ginning is carried out in the countries where the cotton is produced.

Spinning involves transforming the cotton fibres into yarns, including the cleaning, blending, twisting together of the fibres and the final coiling of the yarn. Most spinning mills are located in Asia and specifically in China and India. The quality of the spun yarns depends on the staple length of the cotton and the spinning technique. Weaving and tailoring definitively fall in the realm of the textile industry which will be studied in more detail in Chapter 4.

East and Southeast Asian countries are not only the largest cotton producers, they also account for the bulk of the worldwide textile industry. In Sub-Saharan Africa, the cotton industry has been facing structural difficulties for many years, and many spinning and weaving mills had to close over the last two decades. This sector has therefore never reached any significant size. Of non-knit men's shirts, e.g., 1.5% of world exports came in 2012 from Sub-Saharan Africa, and the bulk stemmed from the islands Mauritius and Madagascar.[29] In the case of Burkina Faso, the reasons why processing of cotton is insignificant were already given above (transportation costs, energy costs, lack of skilled labour). NGOs support as indicated in the box centres where weaving is performed by local communities of women in the sense of a traditional craft. Such valorisation will never be able to absorb the bulk of production. To export cotton after ginning will continue to be the dominant form of commercialisation of this crop, enhancing the importance of undistorted conditions on this market.

8 The Brazil-US Cotton Dispute in the WTO[30]

Relevant provisions of the WTO Agricultural Regime

In accordance with upheld border protection, developed countries for decades designed their agricultural policies based on domestic considerations. The Uruguay Round leading to the establishment of the World Trade Organization was the first negotiating round to make significant progress in setting out rules governing agricultural trade. The rules cover more than just admissible tariffs. They restrict also domestic agricultural policies, and in a significant way. In particular, the Agreement on Agriculture[31] limits also domestic and exports subsidies. The reason are the high values of subsidies when set into relation to the value added of the sector. "Subsidies of all kinds reported to the WTO total more than US-$ 200bio per year, or roughly one-sixth of the US-$ 1.2 trillion total value added in the agricultural sector worldwide."[32]

Domestic subsidies: The Agreement on Agriculture allows countries to use domestic support policies to assist farm and rural incomes and protect the environment. However, this should occur in a way that does to the extent possible not divert trade. The agreement therefore operates a distinction: Subsidy programs that have a direct impact on production are said to be "coupled". While some forms of support (e.g. export premia) fall in the "Red Box" and are prohibited, other forms of support, while having an impact on trade, fall in the "Amber Box" and are confined to a maximum amount. Subsidy programs that are

[29] https://atlas.media.mit.edu/en/explore/tree_map/hs/export/show/all/6205/2012/

[30] This section is an excerpt of a comprehensive text on the ongoing Doha Round of negotiations at the WTO where cotton trade is a prominent topic.

[31] The Agreement on Agriculture can be found on the WTO web site at http://www.wto.org/english/docs_e/legal_e/14-ag.pdf.

[32] US Congressional Budget Office (2006): "Agricultural Trade Liberalization", Economic and Budget Issue Brief, November 20, 2006, p. 3.

minimally production and trade distorting are defined as “decoupled”. The agreement places these support schemes in the “Green Box”.

To reduce Amber Box subsidies that distort production, the WTO agreed to an index – the “Aggregate Measurement of Support (AMS)” – which includes both budgetary outlays and revenue transfers from consumers to producers as a result of policies that distort market prices such as border protection.

The U.S. committed to maintaining AMS subsidies at a level no higher than US-$ 19.1bio after 2000. The actual level of the U.S. AMS programs generally amounts to around US-$ 13bio. However, in years when commodity prices are low (and consequently compensatory payments to farmers are high), U.S. AMS payments have reached amounts as high as US-$ 17bio.

Assessing the trade distorting effects of cotton subsidies

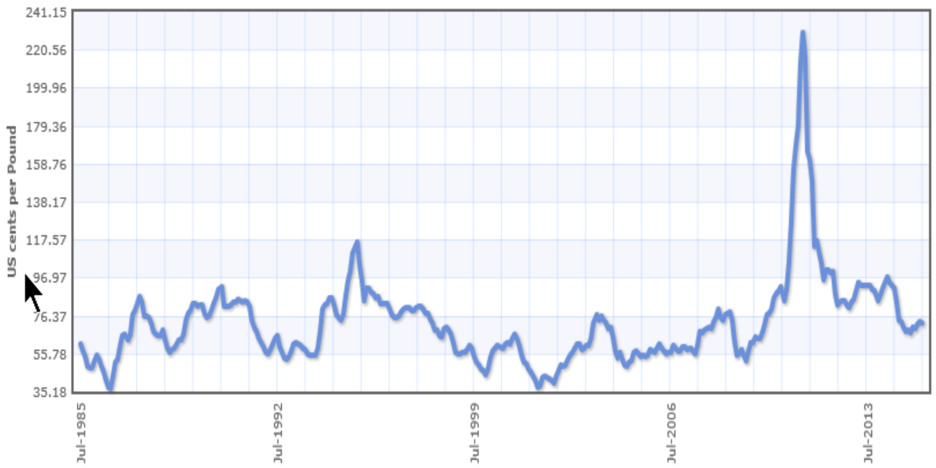
In the rest of this chapter, we will focus on cotton. The reason is that the Brazil-US litigation on US subsidies for growing and exporting cotton best illustrates how enforcement within the WTO works in reality. To start, major features of trade in cotton are presented.

In 2014/15, the USA remained with 30% the main exporter of cotton in the world. India with 13%, Brazil with 11%, CFA-Africa with 11%, Australia with 8% and Uzbekistan with also 8% followed. While in CFA-Africa (i.e. the countries using the CFA franc) 77% of production was exported, this share was 66% in the USA, 65% in Uzbekistan, 54% in Brazil, while only 15% in India.[33] Overall, more than 30% of production is traded.

It is worth mentioning that the last fifteen years have shown that cotton acreage in the U.S. is responsive to market forces. For the 2011, 2012 and 2013 crops, U.S. cotton harvested acreage averaged 8.8mio acres (down 4.4mio acres), 11.6% of the world total (compared to 19.5% in 1999-2002), and U.S. production averaged 15.3 million bales, 14.3% of the world total (down from 32.2%). This can to a considerable degree be ascribed to the interaction of two factors: i) reform regarding cotton subsidies, making US farm prices more responsive to world market prices, and ii) the dismantling of the quota regime for textile in 2005 that had been established under the heading of the Multi-Fibre Arrangement to protect the textile industry in the industrialised world.

International cotton prices remained high up until 2014 so that the trade distorting effects of government policy, such as the one by the US, had not been as important as a decade earlier when Brazil launched its case against the US. It is remarkable, however, that on average over the last years, half of world production remained eligible for assistance. [34]

Long term evolution of the price of cotton



Cotlook 'A Index', Middling 1-3/32 inch staple, CFR Far Eastern ports, US cents per Pound
See http://www.indexmundi.com/commodities/?commodity=cotton&months=360

[33] Australia exported 124%, reflecting either re-exports or a depletion of stocks.

[34] WTO Committee on Agriculture Special Session of the Sub-Committee on Cotton, 14 November 2014, TN/AR/SCC/GEN 13 Rev.1

To bring a dispute to the WTO (see below) requires a proof of the trade distorting effects a subsidy program generates.[35] More or less along the lines of such a reasoning, the NGO Oxfam estimated the effects of US cotton subsidies.[36] Different to the WTO-panel which had to look at the effects on Brazil and the other plaintiffs, they made an assessment of the impact of US farm policies on the C4 ("cotton 4")-countries (Mali, Burkina Faso, Togo and Benin).

In the case of the US, at the time when the Brazil-US dispute started, three schemes at the farm level were in place and contested. In terms of production incentives, loan deficiency payments[37] were considered as equivalent to market revenue support by the researchers. The incentive effects of revenues from direct payments and counter-cyclical payments[38] were considered to be less than one, but still positive. The relevant argument with respect to direct payments was that they were linked to restrictions in planting of fruit and vegetables and that direct payments as well as insurance schemes were based on the area where cotton was planted in prior years, so that these restrictions tended to keep some cotton-base land in cotton production and hampered adjustment to world market conditions.

Expressed in terms of a direct producer subsidy, the outlays of the U.S. cotton programmes of 2004/2005 were then integrated in a simulation model where the driving parameters are market shares as well as supply and demand elasticities combined with price transmission elasticities for the three regions distinguished in their model, namely the US, the C-4 and the rest of the world. The estimated impacts of US subsidies on C-4 countries ranged from US-$ 43mio per year to US-$126mio per year, with more likely parameter values implying effects in the range of US-$ 80mio per year. These amounts show that the world price would rise if US cotton subsidies were cut and that this would result in a considerable extra revenue for the C-4 African countries. The amounts indicated can be assimilated to a tax or a negative producer subsidy falling on C-4 producers.

When compared to the annual producer subsidies granted by Switzerland to its farmers of more than US-$ 5.5bio,[39] the harm done by the U.S. cotton programs amounting for C-4 producers of US-$ 80mio appears as negligible. But the C-4 countries rank at the very end of the world per capita income distribution, so that this amount has to be set into relation to a GNP of the C-4 countries of some US-$ 45bio and total exports of some US-$ 10bio (as of 2012 approx.). As they represent a drop of close to 1% in export earnings and 0.2% in GDP, the US-$ 80mio are a relevant amount.

The authors therefore go on and translate these US-$ 80mio into revenue improvements at the farm level in the C-4-countries. They conclude that farm revenue from cotton would increase by at least 10 percent, and possibly by as much as 40 percent after the abolition of the US support schemes. Using the average expenditure per household (with about 10 members) of about 1mio CFA, the additional income from removing US cotton subsidies would add between 2.3 percent and 8.8 percent to the average expenditures of cotton producing households. This would be sufficient to support food expenditure for an additional 0.4 to 1.6 persons per household. Of course, the extra income could also serve other purposes, e.g. an improvement of the very poor equipment at the farm level. Such investment would then have longer lasting beneficial effects for a very poor population.

[35] The fundamental question why there are overall benefits to the countries participating in trade even when one country loses out in efficiency compared to his trading partner in all productions is addressed in the economic theory part of the underlying publication. This text shows also that while there are gains from trade at the national level, not all single actors within a country will benefit from trade. Furthermore, the difficulties in anticipating the pattern of trade emerging after trade opening is a theme.

[36] Source see footnote 19

[37] Loan deficiency payments are paid when farm prices fall below a world price for upland cotton specified in the legislation and are based on current production.

[38] Counter-cyclical payments rise in relation to falling prices as do loan deficiency payments, but are made on a historical base acreage for a given crop. Accordingly they are considered less trade distorting than loan deficiency payments, but more so than direct payments.

[39] The CHF 5.5bio represent the Producer Subsidy Estimate calculated for Switzerland by the OECD for 2011. In the same vein as Alston, Sumner, Brunke proceed for U.S. cotton subsidies, the OECD adds when calculating this measure to direct support granted to farmers the extra income they derive from tariff protection at the border and similar supportive measures. For this reason, the US-$ 5.5bio are on a similar scale as the US-$ 80mio calculated for the C-4. We leave it to the reader to imagine what US-$ 5.5bio disbursed on C-4 producers would allow to achieve.

Experiences by the Paul Reinhart Company in Winterthur [40]

The Paul Reinhart Company in Winterthur, a company trading cotton since approx.1770, started with a commercial presence in Côte d'Ivoire in 1997. There, the company participates in the operation of four gins. The company in charge, "Ivoire Coton", is majority owned by the Investment Fund of the Aga Khan Foundation (AKFED, see Chapter 13 below), more precisely its IPS company, and has also other international investors. When political reforms allowed, "Ivoire Coton" added a gin in Burkina Faso to its business, "Faso Coton". After ginning, commercialisation of the cotton is to a considerable extent done by the Paul Reinhart Company which is reliant to one third on cotton grown in Western Africa. The destination countries are primarily in East Asia, China, Bangladesh, Vietnam and other ASEAN countries being the main importers. As an individual destination, Turkey is ranking first, however. Faso Coton is operating out-grower schemes, i.e. the company distributes seed and other inputs to the cotton farmers on credit, granted on the basis of later delivery of the cotton grown. Agricultural consultants give farmers advice.

Paul Reinhart, member of the board of directors and heading the unit "Sourcing and Merchandising China", observes that since reform, the cotton business in Burkina Faso has become driven by market forces. SOFITEX no longer privileges sales to the French company COPACO. Other merchants are also served largely on a best price basis and part of the crop is sold by way of tendering. Paul Reinhart considers also that IPS is running the gin in Burkina Faso on a purely commercial basis and in a professional way. Still, the results remain far behind those obtained in Côte d'Ivoire. One reason is the price fixing in favour of cotton producers in which the Interprofession is involved as an also politically influenced organisation. For this reason, adjustment to falling world market prices tends to occur only with delay.

As indicated above, the price of cotton is exposed to large swings, not different from other commodities. To hedge the risk stemming from the pre-committed prices offered to farmers, selling future contracts and doing business in derivatives is indispensable for traders. Due to eventual margin calls, the business in futures requires large liquidities, however. Paul Reinhart observes that contracts with strike date two years ahead exist but that the market in these contracts is thin so that only hedging over a period from 6-12 months is commercially relevant.

The price hike in 2010/2011 casts doubt on the proper functioning of the market for cotton. According to Paul Reinhart, there was a true shortage of cotton at the outset, but government interference then worsened the situation. The state trading company of China which is running a buffer stock acquired a huge amount of cotton. The pro-cyclical effects of these operations were exacerbated by the fact that all major traders were short in cotton contracts. Lack of liquidity forced many of them to acquire the amount due on the spot market. Market distortions of the kind described cannot be excluded for the future. Paul Reinhart deplores that this is bad for the business in cotton. Demand turned even more towards using synthetic fibres. This shift in demand is to the detriment of small-holders who find in cotton a labour intense crop generating welcome cash income. According to him, China now has 10mio t on stock and paid each ton at least US-$ 1'000 above current market prices. In the West African producer regions, Paul Reinhart sees a role of the public sector also in the granting of credit, beyond training and investment in infrastructures. The problem is the enforcement of contracts. If enforcement is in practice not feasible, producer organisations will remain short of capital.

Regarding the Brazil-US cotton dispute in the WTO, Paul Reinhart acknowledges that it drastically reduced interventions by the US in a market distorting way. US producers are now much more exposed to swings in the world market price and part of the reduction in cotton production in the US may be due to this enhanced exposure to market forces. Worrying to him is how China interferes in the market for cotton.

[40] The indications in this section were kindly provided by Thomas Reinhart , member of the board of directors, and completed with a few indications taken from the "Dictionnaire historique de la Suisse".

The Dispute and its consequences

The dispute settlement mechanism of the World Trade Organization represents a major advance of the WTO over the previous General Agreement on Tariffs and Trade (GATT), its predecessor 'organization' from the end of WWII to 1995.

In order to bring a successful WTO case regarding agricultural subsidies, the complainant has to prove that the magnitude of the subsidies is excessive, that the commodity is relevant to world markets, and that there is a causal relationship between the subsidy and injury. Given the difficulty of winning a dispute, some argue that there are several reasons why additional dispute settlement cases might not actually be submitted to the WTO's dispute settlement body.

Such pessimism was not present when in September 2002 Brazil challenged U.S. subsidies to cotton under the WTO dispute settlement procedures, arguing that the 2002 Farm Bill violated the WTO Agreements. Brazil specifically criticised domestic support measures, export credit guarantees and other measures that it alleged were export and domestic content subsidies. It claimed that these subsidies caused the U.S. to produce excess supplies of upland cotton, thereby depressing world prices. In September 2004, the WTO panel circulated its report. It found that Step 2 subsidies,[41] loan deficiency payments and countercyclical payments together resulted in serious prejudice and thus violate U.S. WTO commitments. In February 2006, Congress approved a bill that repealed the Step 2 subsidy program for upland cotton, which took effect in August 2006. Additionally, the Administration proposed to change the export credit guarantee program in the 2007 Farm Bill.

However, Brazil did not believe these measures adequate and in August 2006 requested the establishment of a WTO compliance panel to review whether the United States has fully complied with panel and Appellate Body rulings. The panel issued its report July 27, 2007, and found the U.S. response inadequate. Instead of making the now admitted step where Brazil decided on countermeasures of a defined amount on certain US exports, the United States and Brazil managed to reach a temporary agreement[42] by which the United States agreed on a temporary monetary compensation to Brazil. It also committed to certain interim adjustments to the export subsidy program, until a definitive solution could be achieved in the next Farm Bill. Indeed, Brazil (and the C-4) had an interest in being compensated since the default remedy of import tariff retaliation on U.S. goods would not have helped Brazilian cotton growers or agricultural exporters and would have added to the cost of critical imports from the U.S. As part of the agreement, the U.S. was paying US-$ 147.3mio per year to the Brazilian Cotton Institute for cotton research and development. The U.S. government quit making those payments in Fall 2013, however, saying they no longer had the authority to do so.

A new five-year Farm Bill, initially attended for 2012, was finally signed by the U.S. President in February 2014 after long and controversial discussions in and between the two chambers of the U.S. Parliament. Reaffirming the government's support to farmers, the Agricultural Act 2014[43] ends fixed payments while reinforcing a decade-long shift to subsidized crop insurance.

Financially, anything can happen given the large share of insurance programs within the bill - from substantially lower spending to much higher support costs, depending on how market prices and farm revenue turn out.

In a letter dated January 2012, Brazil's then Ambassador to the WTO, Roberto Azevêdo, made his country's displeasure with STAX[44] and insurance programmes that guard against "shallow losses" clear. He argued that programmes insulating farmers from market forces could not be compliant with WTO rules. His statement reads: "We consider that the various proposals presently under discussion would result in subsidy programs that are more trade-distortive than the programs currently in place. The main reason is that nearly all proposals involve: (i) reducing relatively less trade-distorting and largely "untied" direct payments to farmers, as well as historical

[41] Step 2 subsidies were granted to the textile industry. Payment was conditional on using domestically produced cotton.

[42] The Memorandum of Understanding between Brazil and the United States regarding a Cotton Fund, signed in April 20, 2010, and the Framework for a Mutually Agreed Solution regarding the Cotton dispute, signed in June 25, 2010.

[43] Orden, David (2014): The US Agricultural Act of 2014: Overview and analysis, Discussion Paper released by the International Food Policy Re-search Institute (IFPRI) (co-author Carl Zulauf)

[44] STAX, "Stacked Income Protection Plan" provides coverage for county-wide revenue losses. If the producer purchases additionally an individual insurance policy, STAX covers losses ranging between 10% and 30% of expected county revenue, so 70–90% coverage is available with STAX. STAX is subsidized by the federal government at 80%, so the producer portion of the premium will be 20%.

acreage-based counter-cyclical payments, while replacing them, at least in part, by much more trade-distortive programs that provide revenue protection at significantly increased levels and that are tied to current production and prices, and to specific crops; (ii) maintaining, with relatively little change, the program considered to be the most trade-distorting domestic program in the WTO dispute (i.e. the Marketing Loan Program)."

David Orden, IPRI,[45] also concludes: "From an international perspective while the case can be argued that the cotton program would not have been changed so sharply without the WTO dispute ruling, there is little else to point to in the new law that moves in the policy direction implied by the idea of WTO disciplines on trade or production distorting support. Indeed, the structure of the new support programs regresses sharply toward those distortions." But he also observes: "With the loose disciplines still existing under the U.S. $19.1bio cap on certain distorting support, it is unlikely that its international commitment will be violated."

In the ongoing Doha Round negotiations, the Ministerial Meeting of December 2015 in Nairobi achieved only a minimal result in the area of cotton. According to the Ministerial Decision on Export Competition (WT/MIN(15)/45), developed members have committed to remove export subsidies immediately, except for a handful of agriculture products, and developing countries will do so by 2018. The Ministerial Decision on Cotton (WT/MIN(15)/46) recalls this decision on export competition. On market access, the decision calls for cotton from LDCs to be given duty-free and quota-free access to the markets of developed countries — and to those of developing countries declaring that they are able to do so — from 1 January 2016 (a step in this direction having been made by the US on 29 June 2015 adding five tariff lines to its LDC preference scheme). Disappointingly, the domestic support part of the cotton decision acknowledges simply members' reforms in their domestic cotton policies and stresses that more efforts remain to be made.

The Significance of Globalisation for Burkina Faso

Apparently, the country has only a limited growth potential. While not ideal, the internal conditions in the country do not constitute a serious impediment to overcome the very low level of development that is still prevailing. This process will be time consuming, however. Relevant in the present context, the cotton sector has been adequately reformed. It is the protection of farmers in the industrialised world that deprives the country of essential revenues it might earn on world markets as an agricultural exporter, money the country could put domestically at profit. The significance of globalisation for the country's economic success is therefore considerable, particular importance accruing to the worldwide agricultural trade regime. A dispute procedure in the WTO proved successful in repressing measures directly affecting trade while it remains difficult to come to grips with domestic support schemes decided by Parliament in rich producer nations. As a result, the burden of adjustment to changing world market conditions remains unevenly distributed between North and South.

[45] See footnote 43

Chapter 2

Guatemala: Marked by Deficiencies in the Allocation of Property Rights

CONTENT

Country Fact Sheet

			World	Guatemala
GDP per Capita	(at 2011 PPP $)	2013	13,964	7,063
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	3,6
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	43
Agricultural Value Added	(% of GDP)	2014	3,1	11,5
Manufacturing Value Added	(% of GDP)	2014	26,4	29,0
of which Industry	(% of GDP)	2014	15,8	19,9
Services Value Added	(% of GDP)	2014	70,5	59,5
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	14,3
Research and Development Exp.	(% of GDP)	2005–2012	2,0	0,0
Internet users	(% of pop.)	2014	40,5	23,4
International Tourism, Arrivals	(mio people)	2013	1068,0	1,3
Consumer Price Index	(2010 = 100)	2014	..	119,0
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	40,6
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	49,3
Current Account	(% of GDP)	2013	..	-2,1
External Debt Stock	(% of GDP)	2014	..	33,1
Exports plus Imports	(% of GDP)	2013	60,4	58,6
Private capital flows	(% of GDP)	2013	-0,9	-3,2
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	2,5
Official Development Assistance	(% of GNI)	2013	0,4	0,9
Remittances, inflows	(% of GDP)	2013	0,71	9,98
General Gov. Expenditures	(% of GDP)	2013	..	13,4
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-1,9
General Gov. Net Debt	(% of GDP)	2013,0	..	
Ease of Doing Business Index	(rank)	2015	95	81
Corruption perception	0-100	2014	..	28
Population	(millions)	2014	7259,7	16,0
Surface	(1'000km²)	2015	134325	109
Populationb Density	(person/km2)	2014	56	149
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	2,5
Fertility	(births/woman)	2010/2015	**2,5**	3,8
Under-Five Mortality	(% < age 5)	2013,0	45,6	31,0
Life Expectancy at Birth	(years)	2014	71,5	71,8
Child Malnutrition	(% age group)	2008–2013	29,7	48,0
HIV-Prevalence	(% of pop.)	2013	1,1	0,6
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	14
GINI Index (income concentr.)	0-100	2005–2013	..	52,4
Homicide Rate	(per 100'000)	2008–2012	6,2	39,9
Primary School (enrolm.)	(% age group)	2008–2014	109	108
Secondary School (enrolm.)	(% sge group)	2008–2014	74	65
Tertiary School (enrolm.)	(% age group)	2008–2014	32	19
Genders in 2nd Schooling	(female/male)	most recent	97,1%	93,9%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	78,3
Employment to Population Ratio	(% aged 15+)	2012	59,7	65,9
Unemployment rate	(% aged $\geq$ 15)	2004-2013	..	..
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,56
Children in Employment	(% of age 7-14)	2013	..	10,6
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-1,0
Rural Population	(% of popul.)	2014	46,6	48,9
Energy use per capita	(kg of oil eq.)	2013	1894,4	767,6
CO2-Emission	(t per capita)	2011	4,6	0,8
Improved Water Access	(% of popul.)	2014	90,5	92,7
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	-25,3
National Resource Rents	(% of GDP)	2014	3,9	4,8
Protected Area	(% of surface)	2014	12,8	15,7
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,627

Chapter 2
Guatemala: Marked by Deficiencies in the Allocation of Property Rights

Producing export crops can expose social cohesion within a country to serious tensions. This holds particularly true when these export crops are cultivated on plantations and do not constitute a welcome diversification within small scale farming. In divided societies, long lasting and extremely violent conflicts can arise out of such a situation. Allocating exploitation rights properly is rendered particularly difficult when in the initial situation property rights are not registered and enforced by governmental institutions but are based on customary law. Social equity may make it necessary to officially allocate exploitation rights and to seize the opportunity to correct deficiencies of the traditional rules in place. One may think of the discrimination of women in land ownership or the overexploitation of the commons. Any such process is exposed to the risk of a reversal of the initial situation, however, or may derail in other ways. It will often not occur with the necessary democratic legitimation so that those already in power or those successfully fighting for power in the transition will be unduly favoured. This is all the more tragic as an uneven distribution of property rights can inhibit development for decades.[46] A burden is thus put on future generations also, and not only the generation suffers which makes the often sad experiences of a fundamental economic and social transition.

This chapter deals with the ongoing difficulties experienced by Guatemala in coping with the deficiencies of the country's attribution of land ownership as inherited from colonial times. And oligarchy vested with most of the political power continues to have privileged access also to the exploitation of raw materials thus causing violent conflict with the indigenous population working the fields. A joint venture of a Swiss company was also affected.[47]

1 Main features of the country and its population

The Republic of Guatemala has a population of 16.0 million inhabitants and a surface of 108'890km^2, making it a country with considerable population density. Spanish conquerors at the beginning of the 16th century encountered a Mayan population that extended into Belize, the southern part of Mexico and eastern parts of El Salvador. After independence from Spain in 1821, the country suffered much of the political instability that characterized the region during the rest of the 19th century. Exposed to strong U.S. influence, Guatemala experienced also in the 20th century a mixture of democratic governments and military regimes. Only after the end of the civil war fought between the government and leftist rebels from 1960 to 1996 did Guatemala witness perceptible economic growth and elections satisfying basic democratic principles.

A representative democracy, Guatemala is member of the Organisation of American States and the CELAC, the Community of Latin American and Caribbean States where the USA and Canada are not members. Since 2005, the country is participating in the Dominican Republic-Central America Free Trade Agreement led by the USA; it has also concluded free-trade agreements with the EU and EFTA and founded a customs union with El Salvador; moreover, a free trade agreement with Mexico was adopted in 2013.

A slight majority of the population are Mestizo (i.e. mixed Amerindian-Spanish) and European, different indigenous Mayan groups accounting for approximately 43% of the population. Population growth remains high, with some 2.5%, so that the current population is twice what it was 25 years ago and is expected to double again in the next 25 years. The fertility rate is a high number of 3.8 children per woman in the relevant age group.

[46] The economic theory part of the corresponding chapter in the underlying publication resumes empirical studies on the connection between social equity and growth. The finding is that it is not income inequality as such which is inhibiting growth and development but an uneven distribution of assets at the outset.

[47] Countries are sovereign in defining their regime of property rights. But just because of this, they have a problem in attracting foreign direct investment. Investment (protection) treaties, the topic of the legal and institutional part of the corresponding chapter in the underlying publication, allow governments to credibly commit not to loot the foreign investor once the investment is in place within their jurisdiction. The actual characteristics of investment protection treaties raise however a series of concerns.

Guatemala has some of the lowest human development indicators in the hemisphere and the highest level in the hemisphere of chronic malnutrition (48%) for children under five years of age. Only 78.3% of the population aged 15 and over are literate, the lowest literacy rate in Central America, but the situation is improving. Enrolment at the secondary and tertiary level is encouraging (65% and 19% respectively) while the ratio of girls to boys at the secondary level remains below parity. In the labour market, the female participation rate is considerably lower than that of men. Elementary and secondary-level schools are free, though the cost of uniforms, books, supplies, and transportation makes them less accessible to the poorer segments of society, a fact that adds also to the significant number of school dropouts. Many middle and upper-class children go to private schools. The country has one public and nine private universities.

Catholicism was the official religion during the colonial era. However, the practice of Protestantism has increased markedly in recent decades. In addition, traditional ceremonies continue to be performed, concomitant with Maya medical beliefs and practices.

Drugs add to the lack of personal security (see below). The legalisation of marijuana production is considered, hoping to tax production and use tax revenues to fund drug prevention programs and other social projects.

2 Main features of the economy

Guatemala reaches on average a considerable per capita income of US-$ 7'063 on a PPP basis (figure for 2013). Growth remains depressed however. The level in 2014 is only 43% above the one reached in 2004 and the growth rate over the period 2009-2014 was 3.6% p.a.. Gross fixed capital formation appears as insufficient to support stronger growth, confirmed by negligible R&D expenditures and internet usage well below the world average.

Together with Colombia, Guatemala reaches the highest inequality in income in the sample of 16 countries examined in this book (a GINI-index of not less than 52% is estimated by the World Bank for 2011). A remarkably high share of the population (14% in 2011) lives therefore below the lowest defined threshold of poverty of US-$ 1.25 a day. Concomitantly, child labour is a problem while the employment to population ratio is rather low.

The service sector is the largest component of GDP at 59.5%, followed by the industrial sector at 29.0% and the agricultural sector at 11.5% (2013 estimates). Tourism has become an increasing source of revenue for Guatemala (1.3 million arrivals). Industry exports some garment based on imported yarn but the importance of the 'maquiladoras' sector is not comparable to the one in Mexico. The agricultural sector accounts for about two-fifths of exports, main products for export[48] are coffee, sugar and bananas as well as fruits, vegetables and flowers, and employs half of the labour force. Intriguingly, Guatemala imports nearly half of its corn from the United States while some 40 percent of its crop harvest (especially sugar cane and palm oil) is used for biofuel production.[49] Mines produce gold and other precious metals, accounting for more than 10% of exports. Overall, integration in world trade is not very high with a value of imports plus exports divided by GDP of 58.6%.

The current account was in deficit with -2.1% of GDP in 2013 and an outflow of private capital has been registered. The latter was nearly matched by FDI. The external debt stock is tolerable (33% in 2014). Official development aid reaches 0.9% of GNI. Since the Civil War forced many Guatemalans to start lives outside their country, remittances from Guatemalans who fled to the United States now constitute the largest single source of foreign income (one tenth of GDP).

Guatemala has an independent currency. In spite of a gradually appreciating real effective exchange rate (see graph on next page), exports have progressed over the last years. Macro-economic stability is also considerable when assessed by other indicators. Since 2010, the consumer price index has risen by 19 points or a rate of some 4% p.a. The price level is at 49% of the US level. Domestic credit by banks is poorly developed (40.6% of GDP in 2012).

While the general government deficit was a tolerable with 1.9% of GDP in 2013, general government expenditures were a very low 13.4% of GDP. At the present rate of tax collection, the government is deprived of essential means to meet the pressing needs of the country. Corruption is considerable and the country scores average in the doing business indicator.

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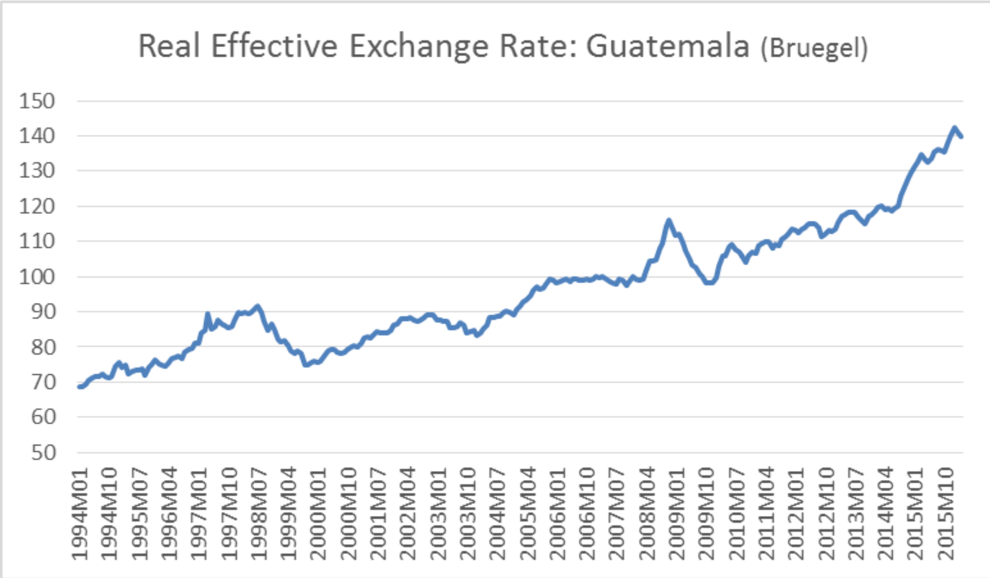
[48] See https://atlas.media.mit.edu/en/

[49] The Renewable Fuel Association contests (in the author's view not very convincingly) an article in the New York Times arguing that this is a problem for the nutrition of poor people in Guatemala. See http://www.ethanolrfa.org/exchange/entry/dont-believe-everything-you-read.-fact-check-on-nyts-guatemala-corn-ethanol/



3 The challenges for development faced by Guatemala[50]

Guatemala is one of the poorest countries in Latin America and, as indicated above, the distribution of income remains highly unequal with more than half of the population below the national poverty line. When Guatemala is considered a lower middle-income country, this is deceptive because the benefits of its economic strength are largely limited to the urban, non-indigenous population. This is tantamount to saying that the most significant cleavages in terms of social, economic and political opportunities are between the indigenous and non-indigenous and between the urban and rural populations.

The indigenous population has suffered a long history of repression and exclusion from participation and opportunity. There is pervasive racism on the part of both the economic elite and the non-elite Latino population. Most of Guatemala's poor are rural indigenous people of Maya descent who live in the highland regions where they combine subsistence farming with seasonal migration to coffee estates and sugar plantations in the south-eastern lowlands and coastal areas. 74.8% of them live in poverty, more than twice the percentage of non-indigenous, and the indigenous' average 3.8 years of formal education are only half that of non-indigenous. Rural and indigenous children, particularly girls, represent the majority of children that are out of the education system. Guatemala is also characterized as a male-dominated or "machista" society, in both the Latino and indigenous populations.

Against this background and through a consultative process with numerous stakeholders, USAID Guatemala identified two significant underlying challenges to successful development in Guatemala, namely

- historic inequality that remains ingrained in Guatemalan society today, and
- weak government, lacking the capacity to redress insecurity and poverty.

Taken separately, the report continues, each of these driving forces contributes to increased crime, high levels of poverty, and some of the region's lowest health and education indicators. Combined however, their impacts are felt even more acutely: "As a result of both factors, Guatemalans lack protection against organized crime, face vulnerability to natural disasters and struggle to feed and educate their children."

Only parallel improvements with regard to income, health and nutrition, and education of Guatemala's rural poor will foster the sustainable rural development necessary for social and economic equity. Fortunately, in light of the alarming indications that follow, some significant improvements in terms of economic growth, health and nutrition, and education can also be reported, demonstrating the potential for development. These include (by 2011):

- Reduction of poverty by 12% since 1989 (5% of this occurred in the preceding six years).
- Reduction of chronic malnutrition by 14.5% since 1989 (6% of this occurred also in the preceding six years).

[50] This section is based on: USAID - Guatemala Country Development Cooperation Strategy 2012-2016, public version, March 2012, http://www.usaid.gov/sites/default/files/documents/1862/GuatemalaCDCS.pdf

- Increased net primary school enrolment (from 72% in 1991 to 98% in 2008).

In a next step, seven priority areas for improvement are identified by the USAID report:

1. Move into citizen security, counter trafficking in persons and enhance civic responsibility
2. Support transparency, policy and institutional strengthening
3. Increase investment in local governance
4. Rethink education program
5. Expand agriculture programs
6. Expand environmental programs
7. Form public-private sector partnerships (PPPs).

With respect to the 7th topic, virtually nothing can be found in the text (presumably, to mention PPP is a political must). We replace this 7th topic with "Strengthen the role of women in communities". To raise the issue of gender is, of course, also a political must, but in this regard, the report has substantive points to make.[51] With this change, the choice of the seven priority areas appears aligned to the findings of other reports on the major challenges Guatemala faces.[52]

In what follows, we put relevant findings - widely dispersed in the document - under these seven headings:

1. Move into citizen security, fight trafficking in persons and enhance civic responsibility

Security is a basic human need which, when lacking, inhibits development in other sectors. Tragically, Guatemala is increasingly threatened by the effects of impunity and corruption. Escalating crime rates and the corrosive effects of gangs, organized crime, and transnational illicit trafficking of narcotics, persons, weapons and contraband make Guatemala one of the most dangerous countries in the world. The homicide rate has doubled in the last ten years and there has been an increase in regionally powerful youth gangs who engage in armed robbery, murder-for-hire and elaborate extortion schemes. In 2010, the homicide rate was 41 per 100'000, making Guatemala one of most dangerous countries in Latin America. This is even more worrying when one considers that the Latin America and Caribbean (LAC) region has the world's highest homicide rate among men between the ages of 15 and 29. Crime and violence are now recognized as serious economic and social problems with very high economic and social costs, especially in poor urban areas. Particularly worrisome is the fact that youth (15-24 year-olds) in the region is disproportionately involved in violence as both victims and perpetrators.

Corruption and mismanagement undermine the effectiveness and public confidence in the police forces and the judicial system. The police forces not only lack of sound management practices, they show also low professional ethics and are not governed by democratic principles. This deficiency, among others, limits the ability of the police to respond to high crime rates and gain public trust. Adequate management is necessary for officers to ensure that security forces operate in a manner consistent with democratic practices, and that agents have the institutional and logistical support to be motivated, trained and well equipped to perform their mandate. The widely recognised problem of impunity and corruption is enhanced by the deficiencies in the judicial system. In a study of the justice system conducted by the World Bank in 2005, more than 70% of Guatemalans considered the justice system to be manipulated by the government and by powerful economic and political interests. Accordingly, only 41.3% of Guatemalans said they trust courts.[53]

In Guatemala, corruption has the greatest relative impact on the members of society with the lowest status, which usually include women. Petty corruption in the form of bribes associated with day-to-day activities – school fees, registrations, health services – tend to affect them more than men since these payments come out of their pocket.

2. Support transparency, policy and institutional strengthening:

Assessed on available statistics, pressures for public spending are enormous. Guatemala has the worst rates of chronic malnutrition in the Western Hemisphere (49.8% of children under the age of five), the health, education, and economic consequences of chronic malnutrition being long-lasting and severe. Another challenge are destructive weather events, volcanic eruptions and earthquakes which pose nearly annual threats to Guatemala's agricultural production, infrastructure and human lives. The ability of the

[51] The report covers gender issues as it should be as a transversal theme under the other headings.

[52] We refer to the documents regularly produced on Guatemala by international organisations such as the World Bank, the Inter-American Development Bank or the IMF. Specifically on property rights over land, the following documents contain also useful information: Annalisa Mauro, Michel Merlet: Access to Land and Recognition of Land Rights in Guatemala, International Land Coalition, June 2003, or Lisa Viscidi: Land Reform and Conflict in Guatemala, La Plataforma Agraria, September 2004.

[53] http://www.vanderbilt.edu/lapop/survey-data.php

government and economy to mobilize resources after events of major scale remains limited, however. Efforts to adapt, prevent and mitigate natural disasters are also limited. Overall, government institutions responsible for security, health, nutrition and essential public services do not have the resources to address the challenges posed by increasing crime and violence, the country's high levels of malnutrition and other health issues, or to foment the economic development needed to reduce the country's high levels of poverty. Historically low levels of tax revenue, an inadequate fiscal system, and fiscal evasion add to the problem of an underfunded government where, furthermore, corruption limits the efficiency of government spending. A key issue for Guatemala remains the low level of tax revenues (around 11 percent of GDP).

Consequently, the budget of the Ministry of Health has sunk to just 1% of the Guatemalan GDP, severely affecting programs that serve the most vulnerable populations: rural health service delivery, vaccine and contraceptive procurement, as well as human resource development. Similarly, the Ministry of Education budget accounted for only 3.4% of GDP. Despite missing funds, Guatemala has made progress in narrowing educational gaps (see below) and in improving health disparities. The infant mortality rate, currently at 34 per 1,000 live births, is on track to achieve the Millennium Development Goals' target. Total fertility fell from 5.0 in 1999 to 3.6 in 2009 with a comparatively greater decrease for indigenous women from 6.2 in 1999 to 4.5 in 2009. Meanwhile, contraceptive prevalence increased to 54% and skilled birth attendance increased to 51%. Prenatal care coverage rates are the same among urban, non-indigenous and rural, indigenous women, and immunization rates are the same for these groups of children. A significant contributor to these improvements is foreign aid.

3. Increase investment in local governance:

While most of the focus in the US report is on improvement and strengthening of Security and Judicial System Institutions (SJSIs) at the national level, USAID recognizes the key role that local governments play. Strengthened local governments will be in a better position to respond to citizen concerns related to personal safety, food security, disaster prevention and other issues of concern to the community. The challenge of working in a culturally diverse geographic area with a multitude of languages, customs and dialects cannot be underestimated. The endogenous population speaks Spanish often only as a second language, besides one of the numerous Mayan dialects.[54]

4. Rethink education program:

Guatemala has almost reached universal coverage of primary school enrolment. During the 90', specific girls education programs were launched and helped bring the primary school net enrolment rates near parity (2009: 99% for boys; 92% for girls, total net enrolment rate 98%). However, there are still few children in pre-primary school (44%), lower secondary school (29%) and upper secondary school (18%). Furthermore, advances in sixth grade completion have been minimal due to lack of access, especially in remote rural areas, and generalized high dropout, repetition and failure rates. Only about three-fourths of those enrolled in primary school complete the full cycle (80% boys and 73% girls). These low levels of completion and high levels of repetition and desertion result in a labour force that is ill prepared to compete in an increasingly global market. Although young male drop-outs are usually seen as a threat, the long-term risks for society related to dropping out of school may be greater for young women. The reason is the clear link between the education of girls and family well-being, including health, nutrition, children's education and family planning. Deficiencies in educational quality and student outcomes are largely related to the poor preparation of teachers.

5. Expand agriculture programs:

Populations in the highlands live in isolated communities and have a single maize harvest per year with few options for generating income. Poverty in urban areas is another reason why Guatemala remains vulnerable to food security crises, opening the delicate question of the conditions under which foreign food aid is provided.

Among agricultural value chains, due to the altitudes and soil types, coffee and horticulture are the best positioned of all to increase rural incomes. But international commodity prices, especially for coffee, continue to be uncertain. This uncertainty carries with it the potential for abrupt changes in rural income. Increasing the productivity of food crops grown for home consumption is one proven way to reduce food risk and enable the transition to commercial production. To diversify into horticulture export products is another. To this end, Guatemala has urgently to improve its sanitary and phytosanitary systems or the

[54] In the author's view, an explicit statement that a sufficient number among the police forces should be of indigenous origin is missing.

country may lose the opportunity to continue selling in existing markets and to open new ones. Inspections of some products exported from Guatemala to U.S. markets have revealed unacceptable levels of pesticides during the last few years.

6. Expand environmental programs:

Guatemala is one of the most vulnerable countries worldwide to natural disasters. Deforestation is likely to add to this exposure. Since 1950, 60% of its trees have been lost. Compounding the effects of weak governance with respect to natural resources is the shortage of legitimate economic opportunities faced by rural Guatemalans. The resulting unsustainable human activities mean:

- Habitat loss, degradation and fragmentation as a result of uncontrolled fires, of land conversion for plantations and cattle, of land conversion for mineral and petroleum development and of the introduction of exotic or opportunistic species;
- Over-exploitation of natural resources, specifically due to poorly managed forest product harvests, unregulated hunting and collection of wildlife for illicit national and international markets, and poorly regulated harvests of marine life;
- Environmental contamination from poorly-managed liquid, solid, and atmospheric wastes, agricultural runoff, and ineffective regulation of mineral and petroleum development.

7. Strengthen the role of women in communities:

Barriers to participation in decision-making affect women at the household and at the community level. Women and indigenous people are underrepresented in governmental institutions. The representation of women in the national legislature falls below the Latin America and Caribbean average of 17%. Biases extend to women‘s participation as members in farmers groups or cooperatives, and particularly against their presence in decision-making positions within the groups. Consequently, they are restricted in their access to inputs, information, and markets. Furthermore, both horticulture and coffee production are labour intensive activities. As production increases, the requirements for unpaid family labour of women and children grow. Simultaneously, while household income will increase with the participation in value chains, the question remains of who will control the extra cash revenue obtained and what this means for food and non-food expenditures. Educational deficiencies combined with doubtful social and commercial influences may lead to an unproductive utilisation of the increase in income. Finally, although there are no legal restrictions on women's access and rights to land ownership, the percentage of female landowners is extremely low due to prevailing patriarchal influences. Within indigenous communities, women are even more marginalized.

4 The role of land ownership in national history[55]

Guatemala has the most inequitable and concentrated distribution of land ownership in Central America. For centuries, indigenous Guatemalans faced systemic exclusion from access to land. During colonization, the Spanish expropriated indigenous lands to create plantations, and forced the population onto ever-smaller plots at higher elevations. The Spanish engaged the indigenous population as workers on the plantations or as tribute payers on communal lands.

This land policy continued for 50 years after independence, when communal land was converted to private property through low-priced sales. As a result, many indigenous people became workers on coffee plantations. Until the mid-twentieth century, government administrations worked to dispossess indigenous groups of their land. Currently, 40% of the economically active population is landless. Indigenous populations are overrepresented within this group.

Up to date, a long-standing landed oligarchy controls vast tracts of productive land and maintains political influence over land and labour issues. Land distribution is highly unequal, the highest levels of land concentration are in departments with the most fertile land. The largest 2.5% of farms occupy nearly two-thirds of agricultural land while 90% of the farms are on only one-sixth of the agricultural land. Six percent of cropland is irrigated and used for cash and export crops, mainly vegetables and sugar cane.

In contrast, subsistence farmers cultivate small parcels on increasingly eroded hillsides, primarily in the Western Highlands. In impoverished regions such as the western and north-western departments, farm parcels range from 0.5 to 2 hectares per family. These departments also have the highest density of indigenous populations, as well as the highest rates of poverty and social

[55] The information for this and the following two sections are taken from USAID (2010): Land Tenure and Property Rights Portal, country profile Guatemala http://usaidlandtenure.net/guatemala . The box on Colonel Árbenz relies essentially on the corresponding entry in Wikipedia.

marginalization in the country. Most food-insecure villages are almost entirely indigenous.

The government's attempts to redistribute land between 1951 and 1954 were short-lived as a military coup in 1954 ended and reversed the redistribution. The new government returned land rights to previous owners at an average holding size of 3000 hectares. Subsequently, the historical and pervasive inequality in land distribution was a fundamental contributor to the country's 36-year civil war. During the conflict, an estimated 130'000 – 200'000 people were killed; 50'000 were reported 'disappeared'; 100'000 became refugees; and 200'000 children were orphaned. Additionally, the Guatemalan Civil War and resulting human rights abuses led to the displacement of between 500'000 and 1.5 million people. These internally displaced persons (IDPs) were dispersed across the country but many ended in the slums surrounding Guatemala City. IDPs are among Guatemala's poorest residents and are vulnerable to food insecurity and malnutrition. As of 2007, 2.6 million people – or 40% of the urban population – lived in slums.

The Peace Accords attempted to address land issues, including access for the poor, legal reform, and land administration. However, political will for reform has been limited, as the next section will show, so that a highly inequitable land ownership persists.

5 The legislation afferent to land ownership

The Constitution makes the state responsible for providing indigenous communities with state lands necessary to their development. Implementation of this provision has been limited (World Bank 2006b). Guatemala still lacks a basic land law that describes basic tenure types and addresses indigenous rights to land. These shortcomings make it difficult to resolve land conflicts, and leave the indigenous population without the means to obtain legal certainty regarding their interests and rights to land. [56]

The 1973 Civil Code provides general principles on possession, use, transfer (through inheritance, mortgage, lease, usufruct or purchase/sale) and ownership rights over real property, including land and its registration. A particularity of the Civil Code is that it states that land held communally by more than one owner will be registered in the name of one of the owners only.

Problematic is also the 1880 Law of Supplementary Titles which allows for the acquisition and ownership of land via a series of administrative steps without requiring proof of continued occupation of the land. This law has been heavily criticized for the lack of checks confirming that the land is vacant and for ignoring the rights of Mayan communities.

A governmental land-purchase program, FONTIERRAS, facilitated access to land by individuals and communities through low-interest loans. However, the land-purchase program portion of FONTIERRAS has been suspended. One study indicated that soon after people received title to their land, they sold it due to outside pressures and threats of violence. More recently, the State's Real Estate Property Adjudication, Sale or Usufruct Law governs the state's transfer of real estate rights to people with low income and wealth levels.

In practice, several tenure types exist, including private ownership, communal, use (*colonato*/*usufrutco*), leasehold, municipal, and state. Communal lands include those in property, possession or tenancy of indigenous or peasant communities as collective entities with or without legal title. In some areas, common ownership has evolved into individual ownership. Tenure in informal settlements is very insecure; forced evictions, sometimes violent, have been common.

Foreigners have the same rights of use, benefit and ownership of property as Guatemalans. However, foreigners may not own land adjacent to rivers, oceans, or international borders.

Rules for registering land rights are set forth in specific legislation dating from 2005 back to 1880, as well as in the Civil Code. The 2005 Cadastral Information Registry (RIC) Law provides a detailed process for establishing and maintaining the cadastre. The 2002 Municipal Code provides for municipalities' cadastral responsibilities, including establishing and maintaining municipal cadastres through the municipal planning office.

As of 1998, 30% of the country's properties were registered, though the majority of registered properties were located in urban areas. In contrast, 95% of rural parcels were not registered. The Government of Guatemala and the World Bank planned to title 50% of the country by 2013. The General Property Registry coordinates with the Registry of Cadastral Information.

The rental market is limited and highly imperfect. There are land rentals to *campesinos*, but these

[56] World Bank (2006b): Project Appraisal Document on a Proposed Loan in the Amount of US$ 62.3 Million to the Republic of Guatemala for a Land Administration II Project. Report No. 37995-GT.

are temporary and insecure. Landowners perceive a risk to their property rights in granting long-term leases to *campesinos*. Courts are also perceived as lacking neutrality on land issues. Although the Peace Accords contemplated the creation of specific land courts, none yet exist.

The World Bank and a number of donor countries financed projects focusing on increasing the security of land tenure, including the provision of cadastral services in additional departments. Beyond USAID those include the German GTZ (US-$ 1.3mio); the Netherlands (US-$ 6.9mio); Norway (US-$ 4.1mio); Spain (US$ 0.6mio); Sweden (US-$ 2.2mio); and Switzerland (US-$ 7.6mio). The Swedish International Development Agency (SIDA) promotes among other activities the indigenous justice system as a complement to the national justice system.

6 Management and access to natural resources

Water

Water use is divided among the agricultural (80%), industrial (13%), and domestic (7%) sectors. Ninety-eight percent of the urban population and 88% of the rural population have access to an improved water source. Water resources are under pressure from growing demand. Deforestation and agricultural pressure on marginal farmlands have accelerated soil erosion, which degrades the water quality of Guatemala's streams.

Forests

Approximately 36.3% of Guatemala's area is forested, reduced from 65% in 1950. Of forested land, 38% is privately owned, 34% is nationally owned, 23% is municipal, and 5% lacks clear ownership rights due to conflicts or encroachment. The remaining 5% is used by the forest industry. In past decades, development and settlement policies contributed heavily to deforestation. Deforestation occurs at an annual rate of 1.3%. Guatemala has protected 23% of its total land area, including 32% of its forests. Over 90% of the national forests are in the Maya Biosphere Reserve in the department of El Petén.

Mining

The development of the extractive industries has been characterized by weak governance, and is tightly controlled by the powerful elite. In Guatemala, mining companies can be 100% foreign-owned. By 2005, the Government of Guatemala had granted over 115 new licenses to foreign mining companies, bringing the total to over 200 potential operations, nine-tenths of which were in the indigenous territories of the Highland. An open-pit gold mine, Marlin, is the subject of significant controversy. As a signatory to the International Labour Organization (ILO)'s Convention 169 on Indigenous Peoples and Tribals in Independent Countries, the Government of Guatemala agreed that it will establish mechanisms for consulting local populations before permitting any exploration or exploitation activities (see the case study below in this text). The Law requires license applicants to submit either environmental mitigation studies that establish a work plan to reduce the potential environmental impact, or environmental impact studies.

7 The case of the cement factory in San Juan Sacatepéquez

Cementos Progreso had been founded back in 1899 by Carlos Fedérico Novella and is still controlled by the Novella family. The latter belongs to the most influential families in Guatemala. Cementos Progreso makes reference to a foundation, a sport stadium in Guatemala City and a museum sponsored by the company on the company's homepage, to show the owners' close ties to the country.

Holcim's stake in Cementos Progreso in Guatemala dates back to the year 2000, when the company acquired a participation of 20% in the only cement producer in the country. At the time, Cementos Progreso operated two plants close to the capital of Guatemala City.

The interest of having Holcim as a shareholder of Guatemala's cement producer was mutual. At the time, Holcim was present in neighbouring Mexico (where Holcim now operates 7 plants) and in El Salvador (where it currently operates 2 plants). The possibility of entering the country's market by an own investment hardly existed. As an article prepared by the University of Denver's Sturm Law School[57] states: "Although laws discussing the country's disfavour for monopolies exist in Guatemala, the lack of enforcement and compliance with these laws has engendered a market riddled with monopolies and oligopolies."

On the side of the Novella family, the interest was in gaining access to Holcim's technology and organisational knowledge. The plan to construct a third plant was already known when Holcim acquired its stake. The prospective of an opening up of Guatemala's cement market through free trade agreements with the USA and Mexico may also have played a role in allying with Holcim.

[57] http://djilp.org/4503/critical-analysis-guatemalan-markets-dominated-by-monopolies/

Holcim's experience with Investment Protection Agreements

Main features of IPAs[58]

For a host country, FDI is an opportunity to bring foreign capital and knowledge into the country. But there is a considerable risk for the investor of being looted once he has made the investment. A credible commitment by the host country guarantees enforcement of well-established property rights outside the country's boundaries in the case of undue appropriation or annihilation of the investment by future government acts. Such enforcement possibilities can not only be laid down in contracts the investor concludes directly with the host state, but also in treaties between the home state of the investor and the host state, enhancing for the former the effectiveness of diplomatic protection. Since the focus of these agreements is not on market access but on investor's protection, investment agreements are commonly also denominated as investment protection agreements. Most investment treaties are bilateral, their number actually exceeds 3400 agreements.[59] *The idea of multi-lateralising this network of bilateral treaties is straightforward, but has never succeeded.* [60]

The "model" BITs used by many countries today are markedly different from those they used 20 years ago, but usually the following eight categories of provisions are present:

- *Fair and equitable treatment (FET);*
- *Compensation in the case of direct or indirect expropriation;*
- *National treatment, or treatment no less favourable than that given to domestic investors;*
- *Most-favoured nation (MFN) treatment, or treatment no less favourable than that given to investors from third countries;*

  Freedom from so-called "performance requirements" as a condition of entry or operation. These are requirements, for example,
- *to transfer technology, to export a certain percentage of production, to purchase inputs domestically, or to undertake research and development locally;*
- *Free transfer of capital;*
- *A blanket obligation, known as an "umbrella clause," which obliges the host state to respect any legal or contractual obligations it may have to the investor;*
- *The right to bring arbitration claims against host governments.*

The presence or absence of a BIT is not a 'sine qua non' for FDI flows to occur and the BIT-constrained host country may still decide to abrogate specific obligations made to foreign investors when the country's interests dictate. Eventually, a financial compensation will be due. The case of Holcim in Venezuela proves this.

Expropriation of HOLCIM in Venezuela[61]

Founded in 1912 to become rapidly a leader on the Swiss market, Holcim added Latin America and Asian divisions during the 70' and 80' to its business, often through mergers and acquisitions. The year 1998 saw the election of former career officer Hugo Chávez and the launch of the Bolivarian Revolution. Chávez implemented participatory democratic councils, the nationalization of several key industries, and increased government funding of health care and education. He made significant reductions in poverty with oil revenues. In 2008, Holcim was officially informed by the Venezuelan government of its plans to nationalize all foreign cement producers operating in the country. By 2007, Holcim Venezuela was operating two cement plants

[58] The text is based on Bernasconi-Osterwalder, Nathalie and Aaron Cosbey and Lise Kohnson and Damon Vis-Dunbar (2012): Investment Treaties & Why they Matter for Sustainable Development, published by the International Institute for Sustainable Development, Winnipeg .

[59] http://unctad.org/en/pages/DIAE/International%20Investment%20Agreements%20(IIA)/IIA-Tools.aspx

[60] Interested governments launched in May 1995 within the OECD negotiations on a proposed Multilateral Investment Agreement (MIA) with the idea that the other countries would later join the agreement, but the negotiations broke down in 1997 under the pressure of NGOs. In 1996, WTO member-countries decided at the Singapore Ministerial Conference to set up three new working groups, including one on investment, but the idea remained contested (protests at the Seattle Ministerial Conference), also by developing countries, so that during the 2003 ministerial conference in Cancún, Mexico, the issue was dropped from the Doha agenda.

[61] Source: Press releases by Holcim Ltd. (http://www.holcim.com/media-relations.html)

and had, at the request of the Venezuelan government been producing exclusively for the domestic market for a considerable time. On 18 August 2008, a basic agreement was signed, In 2009, Holcim then reported that the payment of the compensation of US-$ 550mio was still due, and declared that the company would appeal to the International Center for Settlement of Investment Disputes in Washington for infringement of the bilateral investment protection agreement in place between Switzerland and Venezuela of 1993. In 2010, Holcim signed a settlement with the Bolivarian Republic of Venezuela agreeing on a compensation payment of US-$ 650mio and the suspension of the international arbitration procedure.

While this case shows that IPAs work in the intended sense, one has to accept, based on decisions in other litigations, that the current agreements and relevant institutions lack some of the basic characteristics one would expect from a good regime of governance. This includes predictability of results, certainty about commitments, balance between treatment of investment and other public goods, presence of impartiality, transparency and openness. With the presence of sufficient good will, appropriate provisions can be found when negotiating an FDI agreement, however.

Since there is strong public interest in this issue, the European Commission started in March 2014 consulting the public in the EU on a possible approach to investment protection and ISDS in the planned free trade agreement with the US. It outlined a series of innovative elements in an explanatory notice.[62] The Commission estimates that these provisions will correct the apparent weaknesses in investment agreements. The EU will have difficulties in conceding less than these provisions in treaties with other states. A tendency to abrogate these treaties could therefore be stopped.

Since 2000, as Carlos Castillo, CEO of Cementos Progreso stated in the newspaper Prensa Libre,[63] Holcim had annually shown its interest to take over the company wholly, but the family regularly refused such proposals.

In 2005, Cementos Progreso obtained from the Ministries of Environment, Energy and Natural Resources the authorisations to erect a third plant in San Juan Sacatepéquez.[64] A driver of the project was the planned construction of a ring road providing to a series of townships better access to Guatemala City. Linked with the construction of a third cement factory was the authorisation to exploit a large surface for mining of needed minerals. This surface appears to correspond to a large share of the territory of the 12 communities within the Municipality that later fervently opposed the project. The municipality did not oppose the decision, nor did it inform the population. Other aspects of how the project was launched are also revelatory for the oligarchic structures that characterise the country. The construction of the road was launched as a public private partnership (PPP). Cementos Progreso should assume the construction of several kilometres of the road, a critical aspect, as later events showed, since it gave the company the right to expropriate. No indications are available saying that the PPP was put to tender.

San Juan Sacatepéquez, where the plant should be located, is primarily inhabited by indigenous people from the Maya Kaqchikel community and is relatively densely populated. After the Spanish invasion of 1525, the indigenous people were dispossessed of their land to such a degree that in 1752 they even had to purchase a total area of 480 caballerias (equivalent to 44.8 acres) and 38 blocks of land from the King of Spain. The municipality currently occupies 242km^2 and has many rivers to facilitate agricultural production.[65] Remarkably, the producers in the region are active in the business of exporting flowers. The twelve communities within the Municipality opposing the project count some 9'000 people. According to the Guatemalan Constitution these communities can organise themselves Consejos Comunitarios de Desarrollo (COCODEs).[66]

The extension of the planned mine (19km^2) is considerable.[67] It englobes the 'finca' of a former

[62] http://trade.ec.europa.eu/doclib/docs/2014/march/tradoc_152279.pdf

[63] http://www.estrategiaynegocios.net/empresasy-management/empresas/460514-330/cementos-progreso-recompro-acciones-a-holcim

[64] The following informations are essentially taken from Barbara Müller: Guatemala, Landkonflikt - mit freundlicher Begleitung aus der Schweiz, Correos de las Américas - Nr. 160, 21. Dezember 2009, may be retrieved under http://www.schattenblick.de/infopool/medien/altern/corre089.html

[65] Friends of the earth: Holcim in Latin America: Case studies, Bogota, March 2011.

[66] http://es.wikipedia.org/wiki/Consejos_Comunitarios_de_Desarrollo_(Guatemala)

[67] ¡Fijáte! Nachrichten.Informationen.Berichte zu Guatemala, Nr. 504, Mittwoch, 22. Februar 2012

Army officer who was one of the first to organise opposition against the project. Soon afterwards, the indigenous population also manifested its opposition. Fears were raised regarding the dust the extraction of the minerals would cause. Concerns were also present regarding any influence the mine could have on surface and ground waters. Finally, a cement plant may be used to dispose of contaminated materials. Although incineration in cement plants is one of the best ways to dispose of such waste, fears were expressed regarding an emission of noxious dioxins and furans in the environment.[68]

In principle, the minority stake Holcim had in Cementos Progreso should have calmed such fears since the company has extensive experiences with the treatment of critical waste from other plants in the world. It is clear, however, that throughout the world populations prefer to have such industrial sites elsewhere, preferably at the opposite end of the country. The environmental aspects of the project had been externally reviewed, however, and there are no indications that environmental concerns may be advanced agaunst the realisation of the project.

The crucial point is the ILO Convention No.169 on Indigenous & Tribal People's Rights[69] and whether the Guatemalan authorities had paid due attention to the rights this convention confers on indigenous populations. In reaction to the communities' request for information after Cementos Progreso started land surveying, the municipality of San Juan promised to organise such a consultation but postponed it several times. The consultation was then organised by the communities themselves. The highest Court protected the right of the Consejos Comunitarios de Desarrollo to hold such conventions but stated also that these do not have a final say. The consultations opened the way to several attempts at a formal dialogue, one also supported by the German Ambassador and the German development organisation GIZ. The usefulness of such a dialogue may be questioned, however. It may calm opponents while promoters go on to create a 'fait accompli'. On the opponents' side, there is no guarantee that all interested people are free to express their opinions. Finally, the question remains open who shall qualify as being concerned by a project: What voice to give to the other communities within the Municipality and beyond?[70]

Throughout these years, the opponents tried to get Holcim more involved in the dispute than the company considered appropriate. Cementos Progreso was e.g. declared in statements of opponents as a subsidiary of Holcim whereas the speakers of Holcim always insisted on their position as a minority shareholder. A culminating point was a publication by Friends of the Earth on Holcim in Latin America.[71] This leaflet induced Holcim to put a reply to the allegations in the publication on the company's internet site.[72] The opponents rallied support from several MNE-critical organisations in Europe. Since representatives of the local communities feared repression, these organisations submitted on their behalf a request for a formal dialogue with Holcim. CEO Thomas Knoepfel responded to Guatemalan Peace Nobel Prize winner Rigoberta Menchú who got also involved in the case that Holcim is only a minority stakeholder, that the responsible person for Corporate Social Responsibility had visited the place and that they had elaborated with Cementos Progreso a series of actions to be taken. He promised that the CSR responsible would meet the Fundación Rigoberta Menchú on a next visit.[73] This reply may reflect the reality of the division of powers of the two partners in the joint venture, but the reply was of course considered by the opponents as a cheap excuse.

The high propensity in Latin America to have recourse to violence[74] had quickly led to a series of tragic events. In July 2008, a worker of Cementos Progreso was killed, and only one month later, a

[68] The noxiousness of Dioxin when emitted in the atmosphere became generally known by the incident at the Icmesa plant in Seveso, 20km from Milano, in 1975.

[69] http://www.ilo.org/indigenous/Conventions/no169/lang--en/index.htm

[70] Contrary to what some NGO-texts suggest, the local population appears as divided. The presence of internally displaced persons looking for jobs appears to further complicate the situation.

[71] Friends of the Earth: Holcim in Latin America: Case studies, Bogota, March 2011.

[72] http://www.holcim.com/media-relations/statements-regarding-multiwatch-allegations/guatemala.html

[73] The letter can be retrieved on the following site: http://www.multiwatch.ch/de/p97000696.html

[74] Among 175 countries for which homicide rates are indicated in the Human Development Indicator database 2014, Guatemala ranks 7th among the worst countries, with 38.5 persons killed per 100'000 inhabitants, only topped by its immediate neighbours Honduras, El Salvador and Belize, plus Venezuela, Jamaica and, outside the Americas, Côte d'Ivoire. Counterexamples can hardly be found in the region. Cuba with 5 killed and Costa Rica with 10 killed per 100'000 inhabitants do not perform well. Chile as the best performer in Latin America has a value corresponding to the average in the two world regions 'Europe and Central Asia' and 'South Asia'. Canada, with a rate of 1.5 the

lawyer known as a defendant of the Maya people barely escaped an attempt to kill him. Typical in situations where opponents cannot dialogue, the other side is alleged to have instigated the violence or of being the sole author of infractions of public order. Incidences where the responsibility falls on the own constituency are either not mentioned or it is suggested that they might be due to "agents provocateurs",[75] sent out by the side holding closer contacts to the government and its police and armed forces in order to justify repressive acts against one's own people.[76]

On 21 December 2012, Holcim communicated that the company had sold its 20% stake in Cementos Progreso to the company's majority shareholder. The action was declared part of Holcim's Leadership Journey, aiming at reducing the company's indebtedness. The reduction by 10% of Holcim's stake in a cement group in Thailand attracted more attention in the business press than the retreat of Holcim from Guatemala.[77]

The retreat came not too late, given the reputational risks the minority stake in Cementos Progreso constituted for Holcim. On 22 September 2014, events escalated further. A landowner and his family were shot dead in a crossfire of armed inhabitants of the region. Apparently, he was targeted because he had sold land to Cementos Progreso for the connection road to the cement plant. Allegedly, the night before, an opponent had been shot by masked men close to the company, but both sides are pretending that they have no link to any armed gangs.[78] Notwithstanding these tragic events, the plant will become operative in 2017.

This investment of a company involved in resource extraction is revelatory of the fact that in such ventures, having a sound business case is not sufficient to avoid serious allegations. Noteworthy, in the present case, indications are missing regarding any attempt of the opponents to obtain unwarranted concessions by the promoters by letting the conflict escalate. The deep social cleavages in the Guatemalan population apparently blocked the way to compromise. Political power vested with a few families makes it in fact difficult to argue that the common interest can override the manifest lack of interest of a local community to have a mine erected on its territory.

The problem is that countries lacking investor quality due to the handling of political power see their economic development held back. The possibility of cement importation has now the potential to reduce rental incomes and correspondingly the readiness to use, when necessary, also violence do defend the rents. Furthermore, the chance that a competitor might use a conflict to his advantage can discipline a leading company in its behaviour. Such effects are more likely to occur within transforming industries, however. In

best performer in the whole of the Americas, does perform only slightly better than the whole of East Asia and the Pacific with a rate of 1.8, but there are among the 175 countries 30 countries with rates of 1 person killed or below; this means that the risk of being killed in one of these 30 countries, among them China and Japan, is some 40 times lower than in Guatemala. Given the apparent correlation with prosperity, personal security appears to the author as a major development problem. Pursuing a policy of repression for this reason would be myopic, however. The USA, ranking first in the world with respect to the share of the population imprisoned – at a rate seven times as high as in the EU-15, making fighting criminality a disproportionately important business on the Western side of the Atlantic - has a homicide rate of 4.7 persons over the 2008-2011 period. Sadly enough, time will be needed for the change in the deeper underlying societal factors to occur. An improvement, both in prosperity and personal safety, may only be expected after decades.

[75] More likely appear continuous harassments to provoke a disproportionate, non-justifiable reaction by the other side.

[76] The report on the events of 22 September 2014 by the Centro de Medios Independientes de Guatemala (CMI Guatemala) of January 2015 testifies to the difficulties in making out who committed acts of violence, what the exact sequence of events was and whether there was instigation by exponents of either the promoters or the opponents of the project. See: https://cmiguate.org/los-primeros-los-ultimos-y-los-proximos-muertos-de-san-juan-sacatepequez/

[77] Global Cement: Holcim's Journey Continues, 2 January 2013 http://www.globalcement.com/news/item/1343-holcim%E2%80%99s-journey-continues

[78] Centro de Medios Independientes de Guatemala (CMI Guatemala): Report of January 2015 on the events of 22 September 2014 (see footnote 54 above). The company's point of view can be found on Cementos Progreso's homepage under the title: The truth about the tragic events in the community Los Pajoques, San Juan Sacatepéquez, Guatemala, September 22nd, 2014

mining, rental incomes are inherent to any project[79] and in the presence of such rents dispute is pre-programmed.

In the present case, an absolute guarantee of individual ownership rights might have blocked the project, one single owner not willing to sell at a price that is not blackmail being sufficient. This is socially not optimal, either. The problem of conveying expropriation rights is, however, closely linked to the impossibility of finding decision rules acceptable to everybody when applied.[80] Faced with limits to find solutions that leave no losers, decade long politics have to build up a general trust in society that sufficient voice is given to any legitimate interest. Obviously, this precondition is not met in numerous countries. Then, a high propensity to have recourse to violence, a problem particularly present in Central America, makes it difficult to avoid tragic outcomes.

The Significance of Globalisation for Guatemala

The country suffers from the cleavage in its society. Globalisation in the sense of allowing the trans-border flow of goods and capital may have exacerbated the situation in the case of this specific country. The single features globalisation takes on are in the case of Guatemala at best of medium importance for the future development of the country, however. Primordial is the seriousness of the internal problems.

[79] Strictly speaking, this is not the case for the marginal project (i.e. the project that is just expected to break even) but in the presence of risk such projects with no margin will hardly ever be realised. If the risk margin is not needed, the problem of strife for rental incomes reappears.

[80] It appears as indispensable to project at one stage in the decision making process over an expropriation the valuations expressed by the involved persons on an ordinal scale; ranking them is insufficient (see https://en.wikipedia.org/wiki/Arrow's_impossibility_theorem). An ordinal scale says that the valuation by affected person A of chosen alternative X is a certain amount less worth than the benefit accruing out of the realisation of this alternative to affected person(s) B and that alternatives Y and Z show a smaller excess of benefits over losses. Of course, to take away 1$ from a rich person should by this projection be valued less than to take away 1$ from a poor person. Not only the exact factor will remain controversial within society, however. Wealth is not the only factor to consider. The application of the decision rule should also not leave always the same community on the losing side. This appears as indispensable even when the calculated difference in valuation is paid as an indemnity to affected person A because the valuation applied is not his valuation resp. the one of his community. The latter will change when he dislikes the beneficiary, an aspect cost-benefit analysis does not consider.

Chapter 3

Ghana: Providing Capital for Smallholder Cocoa Producers

CONTENT

Country Fact Sheet			World	Ghana
GDP per Capita	(at 2011 PPP $)	2013	13,964	3,864
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	8,5
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	102
Agricultural Value Added	(% of GDP)	2014	3,1	22,4
Manufacturing Value Added	(% of GDP)	2014	26,4	27,7
of which Industry	(% of GDP)	2014	15,8	5,1
Services Value Added	(% of GDP)	2014	70,5	49,9
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	22,7
Research and Development Exp.	(% of GDP)	2005–2012	2,0	0,4
Internet users	(% of pop.)	2014	40,5	18,9
International Tourism, Arrivals	(mio people)	2013	1068,0	0,9
Consumer Price Index	(2010 = 100)	2014	..	153,0
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	34,8
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	35,3
Current Account	(% of GDP)	2013	..	-9,6
External Debt Stock	(% of GDP)	2014	..	47,7
Exports plus Imports	(% of GDP)	2013	60,4	89,4
Private capital flows	(% of GDP)	2013	-0,9	-8,1
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	6,7
Official Development Assistance	(% of GNI)	2013	0,4	2,8
Remittances, inflows	(% of GDP)	2013	0,71	0,25
General Gov. Expenditures	(% of GDP)	2013	..	30,8
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-12,4
General Gov. Net Debt	(% of GDP)	2013,0	..	66,1
Ease of Doing Business Index	(rank)	2015	95	112
Corruption perception	0-100	2014	..	47
Population	(millions)	2014	7259,7	26,8
Surface	(1'000km^2)	2015	134325	239
Populationb Density	(person/km2)	2014	56	118
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	2,1
Fertility	(births/woman)	2010/2015	**2,5**	3,9
Under-Five Mortality	(% < age 5)	2013,0	45,6	78,4
Life Expectancy at Birth	(years)	2014	71,5	61,4
Child Malnutrition	(% age group)	2008–2013	29,7	22,7
HIV-Prevalence	(% of pop.)	2013	1,1	1,3
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	28,8
GINI Index (income concentr.)	0-100	2005–2013	..	42,8
Homicide Rate	(per 100'000)	2008–2012	6,2	6,1
Primary School (enrolm.)	(% age group)	2008–2014	109	107
Secondary School (enrolm.)	(% sge group)	2008–2014	74	67
Tertiary School (enrolm.)	(% age group)	2008–2014	32	12
Genders in 2nd Schooling	(female/male)	most recent	97,1%	93,8%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	71,5
Employment to Population Ratio	(% aged 15+)	2012	59,7	67,8
Unemployment rate	(% aged ≥ 15)	2004-2013	..	..
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,94
Children in Employment	(% of age 7-14)	2013	..	28,8
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-0,8
Rural Population	(% of popul.)	2014	46,6	46,6
Energy use per capita	(kg of oil eq.)	2013	1894,4	343,6
CO2-Emission	(t per capita)	2011	4,6	0,4
Improved Water Access	(% of popul.)	2014	90,5	87,6
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	-36,8
National Resource Rents	(% of GDP)	2014	3,9	21,1
Protected Area	(% of surface)	2014	12,8	7,8
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,579

Chapter 3
Ghana: Investing along the value added chain

The present chapter looks at financial intermediation as a source of growth when performed in countries at a low to medium level of income. The major theme is how credit can help in the accumulation of physical capital on a small scale basis. This is illustrated by considering cocoa production. The case of cocoa will also allow us to extend the presentation of the trade regime afferent to agricultural products beyond government support already discussed in Chapter 1.[81]

The country under consideration is Ghana, a direct neighbour of Burkina Faso. Since it was under British and not French influence in colonial times, Ghana has a different monetary regime, allowing for interesting comparisons. In its advance into the class of countries with medium human development, Ghana also benefitted from the development of oil and gold exports, two other extractive industries, while remaining one of the world's leading producers of cocoa. Given the volatility of prices for natural resources, Ghana had problems for decades in achieving macro-economic stability. The latter then also negatively affected financial intermediation.[82]

With regard to the global regime relevant for trade in agricultural commodities, the question addressed below is whether in the case of Ghana an entry into manufacturing or, more specifically, into industries transforming primary inputs, will be possible. A candidate is the further processing of cocoa. Tariff escalation and the rules regarding export processing zones (EPZ) shape the potential.

The business case will bring together the two strands of financial intermediation and the trade regime for agricultural commodities. A foreign direct investment by a food processing and trading company in a production region of cocoa is considered. This company proposes also credit and other services to the small scale farmers cultivating cocoa.

1 Main features of the country and its population

The Republic of Ghana has a population of 26.8 million inhabitants and a surface of 238'540km^2, so that Ghana shows a considerable population density. Prior to colonisation by the British Empire at the beginning of the 20th century, Ghana was the site of numerous kingdoms and empires, exporting gold and slaves through the trading posts along the coast established by European powers. The greatest of these kingdoms was the Akan Kingdom of Ashanti. In 1957, Ghana became the first African nation to declare independence from European colonisation. Ghana has a record of macro-economic instability but has featured remarkable and steady growth in real terms since the beginning of this century. Today, Ghana has the highest per capita income in Western Africa.

Ghana is a unitary presidential constitutional republic, a founding member of the Non-Aligned Movement, and a member of both the Economic Community of West African States (ECOWAS) and the Group of 24 (G24).

The Akan are the dominant population group, making up close to 50% of the inhabitants. Other ethnical groups are the Mole-Dagbani (16.6 %), the Ewe (13,9 %), the Ga-Adangme (7,4 %) and the Gurma (5,7 %), but segmentation among ethnicities becomes increasingly blurred. Reportedly, there is a large number of illegal immigrants inhabiting Ghana (predominantly Nigerian peoples, Burkinabe citizens, Togolese citizens, Malian citizens).

The Akan language dominates together with English, the latter being the official language. The overwhelming share of the population adheres to Christian churches.

[81] In the part devoted to law and institutions of the corresponding chapter in the underlying publication, the following additional features of the WTO regime relevant for the agricultural sector are taken up: the notions of sensitive, specific and tropical products, furthermore, the notion of 'like products'. Tariff escalation and the rules regarding export processing zones (EPZ) are also considered. Finally, the evolution of the international commodity agreement relating to cocoa is presented.

[82] In the economic theory part of the corresponding chapter in the underlying publication, we take up the question whether financial sector development contributes more to economic growth than represented by the industry's share in GDP. This is answered positively with regard to the provisioning of credit, possibly up to certain limits, since in advanced economies, apparently, a large financial sector acting as an export industry entails considerable risk of increasing the country's GDP volatility.

Population growth remains important with a rate of 2.1% but the fertility rate in Ghana is declining, to 3.9 in the last five years. Under-five mortality remains high. The figure for child malnutrition can be brought down further. According to GLSS6 (a national income survey),[83] poverty rates declined from 51.7% in 1991/92 to 28.5% in 2005/2006 and stood at 24.2% in 2012/2013, which meets the first MDG target of halving poverty. The proportion of people living in extreme poverty declined but reaches according to the data entering the HDI still 28.8% of the population.

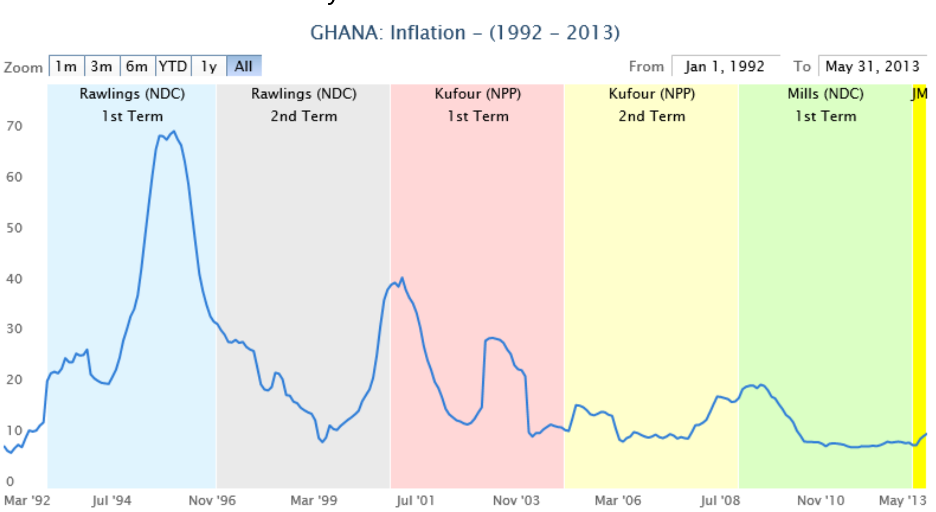
Nine years of schooling became compulsory with independence and, progressively, this goal was reached by building schools at the village level and supplementing teachers by obliging academics to render one year of social service in schools. Accordingly, in the decade 2003-2013, enrolment in primary schools was higher than 100% and reached 67% at the secondary level and 12% at the tertiary level. The adult literacy rate is estimated at 71.5%, explaining why enrolment at the primary level can go over 100%. The ratio of girls to boys at the secondary school level reaches a considerable 94% (the female participation rate in the labour market comes even close to that of men). As in many developing countries, the ratio of school drop-outs is considerable. This may be one reason why other sources[84] state that the national average school attendance rate stood at 80.8% in 2013, with the Northern region recording the lowest rate of 50.4%. The high school students choose four elective subjects from five available programmes: agriculture, general education (arts or science option), business, vocational and technical. There are eight national public universities in Ghana and also international schools.

Freedom of the media was restored in 1992, but only after the election in 2000 of John Agyekum Kufuor did the tensions between the private media and government decrease.

The homicide rate is considerable and tarnishes the situation with regard to personal safety.

2 Ghana shows a rare record in persistent inflation

Contrary to most countries of Western and Central Africa which had been French colonies and where currencies remained pegged to the French Franc and later the Euro, Ghana as a former British colony insisted in creating an own currency, the cedi.



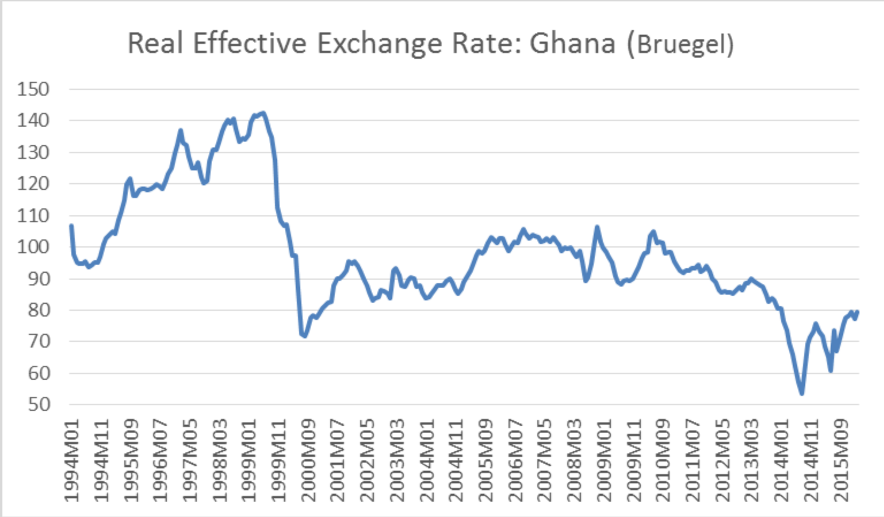
In its almost 50 years of existence, the cedi has suffered from constantly high inflation rates and continuous loss of its external value. The graph above plots only Ghana's history of consumer price inflation over the last 20 years. At best, inflation ran at 10% per year. If there was an improvement then it consisted in the fact that inflation peaks came down from 70% to 40% to 30% to 20%. In prior years, price controls combined with rocketing inflation had even let the country fall back into barter trade. In 2014, the inflation rate edged up again.

The erroneous monetary policies are also reflected in the history of the real effective exchange rate of Ghana. The devaluation by 50% in 2000 after a real appreciation of 40% between 1994 and 2000 clearly stands out in the graph below. But the evolution over the last dozen years cannot be qualified as continous, either. However, allowing for a significant

[83] African Development Bank (2015): African Economic Outlook, Country Notes, Ghana 2015

[84] African Development Bank (2015): African Economic Outlook, Country Notes, Ghana 2015

fluctuation range, the level reached in 2001 was plus/minus preserved up until the end of 2012, creating preconditions for the more favourable real growth observed in these times. The decay of commodity pricescombined with a resurgance of inflation let the currency fall in recent quarters.



Over the long term as well, changing world market prices for the raw materials exported had been the major reason for monetary instability and swings in the real exchange rate. Perhaps even worse was their impact on public finances. The latter were recurrently handled in a way that the only way out of impending bankruptcy was to print money and, as shown, ignite inflation. Under such macro-economic framework conditions, price signals for e.g. cocoa producers were seriously biased over decades,[85] gravely damaging the export capacity of the country (see below).

Poor macroeconomic management remained a problem up until today although strong real growth may have obscured the dismal situation for some time.[86] In the few years preceding the 2012 general elections, aggregate fiscal discipline became loose. Government undertook excessive fiscal expansions, partly financed by foreign borrowing. Government debt has risen past 60 percent of GDP, and Ghana's current account deficit increased to 13.2% of GDP in 2013, thereby increasing Ghana's vulnerability to sudden capital flow reversals in the event of severe terms of trade and exchange rate shocks. Indeed, in 2013, the situation was exacerbated by a decline in commodity prices of major export commodities, particularly on gold and cocoa at 12% and 33% (first ten months of 2013 as compared to the same period in 2012). By the end of February 2014, Ghana's net international reserves had also declined significantly, covering less than one month of imports of goods and services. The consumer price inflation reached 14.0% p.a. in February 2014.

The Central Bank reacted on 4 February 2014. Banks were banned from issuing cheques and cheque books on foreign exchange accounts and foreign currency accounts. The Central Bank also directed that no bank should grant a foreign currency-denominated loan or foreign currency-linked facility to a customer who was not a foreign exchange earner. It prohibited over-the-counter cash withdrawals from foreign exchange and foreign currency accounts. All undrawn foreign currency-denominated facilities had to be converted into local currency-denominated facilities. However, in spite of these measures, the local currency continued to depreciate against all the major foreign currencies. Many policy analysts and the business community found the reaction of the Central Bank somewhat perplexing given that the underlying drivers of the instability were not unfamiliar in Ghana's recent economic history. When it became apparent that the measures were not working optimally and the business community continued to express their frustration about the foreign exchange restrictions, the Central Bank decided to relax some of the restrictions and later had to withdraw them entirely. In 2015, the gov-

[85] Prices set by the parastatal company holding the monopoly for buying cocoa were recurrently kept unchanged in nominal terms over longer periods.

[86] From here on: Ackah, Charles and Johnson P. Asiamah (2014): Financial regulation in Ghana - Balancing inclusive growth with financial stability, Overseas Development Institute, Working Paper 410, London, 2014.

ernment was negotiating with the IMF for an economic reform and bailout package. The negotiations then inspired some confidence in the country since investors expected the agreement to help stabilise the economy.

With regard to the public budget, the year 2013 saw major labour agitations from doctors, pharmacists and teachers demanding payment of salary arrears from government. The wage bill will therefore continue to weigh heavily on the public budget. The major challenge is a widening of the tax base, however. Decentralisation, on the other hand, currently appears as an uncertain undertaking.

3 Economic structure and challenges arising for political reform

As said, since the beginning of the century Ghana has experienced a considerable increase in GDP. The level reached in 2014 was twice the level of 2004, and in the period 2009-2014, real GDP growth reached 8.5% as an annual average. GDP per capita thus went up to US-$ 3'864 in 2013 (at PPPs), surpassing the value of Burkina Faso by 244% and of Kenya by 142% (these are the two other Sub-Saharan countries covered in this book).

The shift in the shares of value added - out of agriculture into manufacturing and in particular into services - is well advanced in Ghana, as service-oriented sectors account for around 50% of GDP overall. Manufacturing comprising industry, construction, water and energy, ranks second at 27.7% of GDP. Although agriculture accounts for not much more than 20% of GDP, it remains the mainstay of the economy in terms of employment (45%).[87] As the second largest employer, the public sector accounts for 6.3% of total employment.

In 2012, oil production earned the country about US-$ 3bio, accounting for about 22% of the total value of exports and around 5% of total government revenue. Besides oil, gold production remains the largest source of income to the country, with Ghana ranking 2nd to South Africa in gold production in Africa.

Efforts to smooth the impact of fluctuating world commodity prices on national development appear to be made at least in the oil sector. In compliance with the Ghana Petroleum Revenue Management Act, about 30% of total oil revenue to government is retained by the Ghana National Petroleum Commission (GNPC) for the development of the oil and gas industry, while the remaining 70% is appropriated through the Annual Budget Funding Amount (ABFA) and Ghana Petroleum Funds (GPF) at around 40% and 60% respectively. The resources under ABFA are reserved for funding priority projects, while the financial means of the petroleum fund (GPF) are partly invested for future generations through the established Ghana Heritage Fund.

The external debt stock, with close to 50% of GDP in 2014, is high, but may be viable once one takes into account that trade exposure has reached some 100% of GDP (a figure affected by price changes of natural resources). The current account deficit reached threatening levels, however. In 2013, the current account widened to -9.6% of GDP (along with a fiscal deficit of 12.4% of GDP), and the rate of inflation averaged 17.0%.[88] The insecure macro-economic situation provoked an outflow of private capital. Overseas Development Assistance (ODA) inflows still amount to a considerable 3% of GDP. More importantly for equilibrating the balance of payments and supported by the country's endowment with natural resources, Ghana has been the centre for Foreign Direct Investment (FDI) in West Africa. FDI inflows to Ghana were indeed substantial (6.7% of GDP in 2013), and the share of FDI to gross fixed capital formation averaged around 40%. Before 2006, private inward remittances accounted for the biggest share of private capital flows to Ghana. The latter have become insignificant and may actually be negative, given illegal immigration from neighbouring countries where incomes are significantly lower.

The establishment of Free Zones for exports, effective in 1996, has led to 260 companies being registered and exporting at least 70% of their produce. What's more, Ghana's adherence to the Economic Community of Western African States (ECOWAS), a free trade zone, may be conducive to the development of non-traditional exports to African countries. To this end, according to the AfDB,[89] authorities need to tackle the constraints relating to the cost of credit and to the unreliable supply of energy, in order for leading industrial sectors in construction materials, textile, agro-processing, plastics and pharmaceuticals to expand. Non-tariff barriers also add a significant burden to the development of these regional value added chains.

[87] African Development Bank (2015): African Economic Outlook, Country Notes, Ghana 2015

[88] African Development Bank (2015): African Economic Outlook, Country Notes, Ghana 2015

[89] African Development Bank (2014): African Economic Outlook, Country Notes, Ghana 2014

Regarding the sector of special interest in this chapter, farming, the 2014 budget announced the establishment of a Small and Medium Enterprise (SME) fund in addition to the extension of the Export Development Investment Fund to include agriculture. However, the impact of these reforms has been mixed as a result of a lack of policy coherence in the different strategies. Furthermore, infrastructure spending ranks relatively low in public expenditures. It remains to be seen whether the Public Investment Programme (PIP) and Public Private Partnership (PPP) Policy can avoid this possible drag on future development.

Considering the uneven achievements regarding the Millennium Development Goals (MDGs), a number of additional challenges for public authorities appear.[90] Targets on extreme poverty and access to safe drinking water have been reached, while targets on hunger, education and gender are on track to fulfilment; but targets on employment, child mortality, maternal health and sanitation are likely to be missed. With 15% of the population having access to sanitation, Ghana is e.g. clearly not on track to reach the MDGs with a target of 54% sanitation coverage by 2015. Furthermore, the country is confronted with a number of environmental challenges including land degradation, coastal erosion, pollution of rivers and lagoons (especially due to recent illegal mining activities), deforestation (-14.6% from 2005 to 2012), desertification and waste management. The cost of Ghana's environmental degradation is estimated at 10% of its GDP. Over 80% of disasters in Ghana are considered to be climate-related. The forestry sector provides a livelihood for approximately 2.5 million people, but forests are being depleted. Slash-and-burn has converted over 50% of Ghana's forests into agricultural land so that 70% of Ghana's land is now prone to soil erosion. Cocoa production is not innocent in this respect. It takes twice as long to clear an old farm as it does to clear new forest land.[91]

4 Cocoa has been driving national policies for decades[92]

One cannot think of Ghana without thinking of its cocoa sector, which offers livelihoods for over 700,000 farmers in the southern tropical belt of the country. Long one of Ghana's main exports, cocoa has been central to the country's debates on development, reforms, and poverty alleviation strategies since independence in 1957. The cocoa sector in Ghana has not been an unmitigated success, however. After emerging as one of the world's leading producers of cocoa, Ghana experienced a major decline in production in the 60' and 70', and the sector nearly collapsed in the early 80'. Production steadily recovered in the mid-80' after the introduction of economy-wide reforms, and the 90' marked the beginning of a revival, with production nearly doubling between 2001 and 2003. These ups and downs offer interesting lessons.

By the mid-30', production had reached some 300'000 tons. An indication for the significance of this tonnage is provided by the fact that it corresponds to 35% of Ghana's production in 2012/13, the latter making up somewhat more than one fifth of world production.[93] Production picked up again during the second half of the 40' but was then concentrated in the Western region. In 1947, the colonial government established the Cocoa Marketing Board (CMB) and gave it a monopoly over the purchase of beans. Until 1951, the bulk of profit made by the CMB went into its reserves, which were then used for public investment. Since then, the various administrations in Ghana, including the colonial one, have used cocoa as a source of public revenue, and in so doing the Ghanaian experience offers a recurrent example of a policy practice followed by many other African countries: taxing the country's major export sector to finance public expenditure. The capture of windfall profits from high cocoa prices under the Nkrumah regime had important fiscal implications. Government expenditure grew dramatically over the 50': in real terms total consolidated public expenditure increased almost six-fold during this period. The share of government expenditure in GDP grew from 7 percent to 18 percent over the decade. By 1964, exports reached an unprecedented level of 430'000 tons but, in the second half of 1964, the world cocoa price collapsed with a bumper crop in West Africa—Ghana alone reaching an unprecedented production record of 538'000 tons. After the purchasing and marketing costs of the CMB and UGFCC[94] were covered, virtually nothing was left

[90] The indications in this paragraph are also from the AfDB's country note on Ghana 2014

[91] Source see following footnote

[92] The following text is an excerpt from Kolavalli, Sashi and Marcella Vigneri (2011): Cocoa in Ghana: Shaping the Success of an Economy, Chapter 12 in the World Bank publication " Yes Africa Can - Success Stories from a Dynamic Continent". Information inserted from other sources is indicated, whereas rearrangements within the text are not. The latter were made in order to deal with selected topics only once within this excerpt.

[93] See table prepared by the ICCO at the end of section 3.4 below.

[94] In 1953, the Nkrumah regime created the United Ghana Farmers' Council (UGFCC) in order to have a platform for organizing the farmers.

for the government. The introduction of highly restrictive measures represented a turning point in the fortunes of the Nkrumah government, which was overthrown in February 1966 and replaced by the National Liberation Council (NLC).

Real producer prices dropped consistently throughout the 60' because of inflation, the latter fuelled by the government's printing of money to compensate for loss of revenue from cocoa. Furthermore, the introduction of an exchange rate policy led to the heavy overvaluation of the *cedi*, the local currency. By 1983, market exchange rates for foreign currencies were nearly 44 times the official rate. For the 70' and early 80', it is estimated that as much as 20 percent of Ghana's cocoa harvest was smuggled into Côte d'Ivoire.

Meanwhile, an aging tree stock and the continued spread of disease made investment in cocoa unattractive. Farmers in old cocoa production areas, who found that sales prices barely covered their costs, increasingly turned from cocoa to food production. Ghana's cocoa production dipped to a low of 159'000 tons in 1982/83, a mere 17 percent of the total world volume, down from the 36 percent in 1964/65. The domestic conditions that led to the downturn in Ghana's cocoa sector[95] took place against an international backdrop of increasing supply of cocoa from new producers such as Indonesia and Malaysia and expanded production in Côte d'Ivoire and Brazil.

Long term evolution of the price of cocoa

Cocoa averaged 1621.91 US-$ per metric ton from 1959 until 2015, reaching an all-time high of 4361.58 in July of 1977 and a record low of 211 in July of 1965.

Redress came with the Cocoa Rehabilitation Project launched in 1983. Policy changes included increasing the farm gate prices paid to Ghanaian farmers relative to those paid in neighbouring countries, thus minimizing the incentive to smuggle, and devaluing the cedi, and so reducing the level of implicit taxation of farmers. As part of the Cocoa Rehabilitation Project, farmers were also compensated for removing trees infected with swollen shoot virus and planting new ones. This effort led to substantial rehabilitation, with a large number of farms planting higher-yielding cocoa tree varieties developed by the Cocoa Research Institute of Ghana. Production rebounded to 400'000 tons by 1995/96 and productivity increased from 210 to 404 kilograms per hectare. Another important reform took place in 1992, when Cocobod (as CMB was renamed in 1984) shifted responsibility for domestic cocoa procurement to six privately licensed companies (commonly known as licensed buying companies or LBCs) and reduced its staff by 90 percent between 1992 and 1995.

Starting in 2001, growth in cocoa production became more pronounced, possibly driven by a combination of record-high world prices, increased share of revenues being passed onto farmers, and a set of interventions rolled out by the Cocobod to improve farming practices. With regard to world cocoa prices, the figure above gives an indication of the large swings this commodity has experienced over the last 65 years.[96]

The UGFCC should rally them behind the government and its administration and was involved in purchasing the cocoa crop.

[95] Prices for buying up cocoa were not regularly adjusted to inflation, revenue of farmers was withheld and taxed up until better world prices allowed an adjustment that once again raised public spending and covered lack of efficiency and corruption in the parastatal organisations within the sector.

[96] Source: http://www.tradingeconomics.com/commodity/cocoa

With regard to the share of the net f.o.b. price received by cocoa farmers in Ghana, the authors of the World Bank publication resumed here observe that it has increased to nearly 80 percent after having fallen below 20 percent before the economic reforms of the 80', and as low as almost 5 percent between 1975 and 1981. The internal marketing of cocoa has also become more competitive in recent years, with nearly 20 licensed buyers, along with PBC, procuring cocoa through nearly 3'000 buying stations manned by purchasing clerks or individuals from cocoa communities who purchase the crop on the buyers' behalf.

With regard to improved farming practices, mass spraying programs and high-tech subsidy packages to promote the adoption of higher and more frequent applications of fertilizer are to be mentioned. Also, older trees have been cut down en masse in recent years to accommodate the open-field hybrid variety, which grows in full sun conditions. However, hybrid cocoa trees underperform older varieties in that they require optimal weather conditions and complementary farming practices such as the application of chemical inputs, adoption of new planting procedures, pruning, and spraying.[97]

Is there an interest at the farm level in cultivating export crops? To appreciate this point, it needs to be noted that almost all cocoa farmers grow alternative crops for subsistence and sale, mostly roots and tubers but also a variety of cereals and vegetables. However, more recent research has questioned the viability of cocoa on small farms. This said, since 2001, a significant share of Ghana's agricultural productivity gains has been generated by export crops, with cocoa accounting for 10 percent of total crop and livestock production values. In the Southern Forest Belt, where cocoa is produced, aggregate figures suggest that throughout the 90', cocoa-farming households, along with those engaged in mining or timber (the other predominantly export-oriented activities) and other commercial activities, experienced improvements in their living conditions compared with food crop farmers. Poverty reduction among cocoa farmers is evident. Household surveys indicate that poverty among cocoa-producing households dropped to 23.9 percent in 2005, down from 60.1 percent at the beginning of the 90'.[98]

5 Defining up to date policies for cocoa production and transformation

Cocoa, an important crop for Ghana, accounts for about 10% of total agricultural-sector production and contributes around 20% to the total of export receipts.[99] The initiative aiming at exporting at least 50% of total production as processed cocoa is among measures to add value to this important crop. In 2012, processed cocoa accounted for about 25% of total cocoa exports and prospects for increased processing are high in view of increased world demand for powder and paste cocoa. Key risks to agricultural production in Ghana are high dependence on weather conditions, world market prices and the depletion of natural resources, especially forestry stock. Furthermore, the regular interruptions in electricity supply have recently seriously hampered the operation of industrial plants.

The role of Cocobod[100]

In virtually every country in Africa with a major export crop, including Ghana, the government had intervened in the past through state-owned marketing boards, or *caisses de stabilization*, to coordinate the production and marketing of the crop. Different authors[101] hold that marketing boards in Africa did little to stabilise farm income

[97] The best possible environmental alternative to the current cocoa-growing practices in Ghana would be a mixed agroforestry system, where the forest is selectively thinned and fruit trees with economic value—such as oil palm, avocado, and citrus—are grown next to cocoa trees, providing both shade for the cocoa trees and food and income for the farming household, a practice used in southern Cameroon.

[98] The authors draw here on two World Bank publications: World Bank (2007a): World Development Report: Agriculture for Development. Washington, DC; and World Bank (2007b): "Ghana: Meeting the Challenge of Accelerated and Shared Growth." Country Economic Memorandum, Washington, DC.

[99] The information in this paragraph is from the country note on Ghana in the African Economic Outlook 2014 produced by the AfDB.

[100] The indications for this text are taken from Kolavalli, Sashi and Marcella Vigneri (2011): Cocoa in Ghana: Shaping the Success of an Economy, Chapter 12 in the World Bank publication " Yes Africa Can - Success Stories from a Dynamic Continent"

[101] Bates, R. H. 2005. *Markets and States in Tropical Africa. The Political Basis of Agricultural Policies.* Berkeley, CA: University of California Press. Akiyama, T., J. Baffes, D. Larson, and P. Varangis. 2001. *Commodity Market Reforms: Lessons of Two Decades.* World Bank Regional and Sectoral Studies. Washington: World Bank.

but have long operated as corrupt institutions taxing farmers through the power to set prices and indirectly by maintaining overvalued exchange rates. As shown above, this also holds true for Cocobod in the past. With respect to how Cocobod runs its affairs today, the "Yes Africa Can"-report remains critical (see page 214), stating that operations are not as transparent as they should be, and that the line between cocoa revenues and government finances remains fuzzy.

That said, the role of governments in the agricultural sector has changed substantially since the first years after independence. Despite granting Cocobod the monopoly over marketing, Ghana has managed to develop a marketing system that passes on an increasingly larger share of export prices to farmers. In Ghana, the price producers are paid for cocoa is currently set at the beginning of the harvest season for the entire crop year by the Producer Price Committee. The price is based on the price Cocobod expects to receive, having already sold nearly 70 percent of the crop. To this price, Cocobod adds the costs of its operations and the export tax to arrive at what it calls "net free on board (f.o.b.) price." Partly because of its reputation for high-quality cocoa[102], Ghana is able to sell most of its annual production through forward contracts, which fix the price farmers are given for their cocoa for the entire crop year.

Cocobod extends funds to producers at rates slightly below the market rate to finance their operations. It also monitors producers' operations, particularly with regard to quality of beans. Though licensed buyers are free to export, none of them has so far done so because none is large enough to acquire the minimum amount needed to be eligible to export. Cocobod's purchasing agency PBC continues to operate as a last resort buyer. Corruption, which characterised the contractual negotiations when the PBC was the only buyer, has diminished. Significantly, Cocobod's continued involvement in the cocoa sector in Ghana has allowed surpluses generated in good years to be used to finance deficits during years when prices were low. Similarly, Cocobod has invested in research, disease control, and credit programs that are of general benefit to the cocoa industry. This quality maintenance is not for free, however, it comprises the cost of ensuring that lower-quality beans are not mixed into those prepared for export, and the costs of administration.

Expanding into the further processing of cocoa

While in 1991, 98% of world imports from Ghana in value terms were in the form of beans, in 2013 this value had fallen to 73%.[103] Ghana therefore realises today more than a quarter of its export value of cocoa in the form of processed products, predominantly cocoa paste and cocoa butter, exports of chocolate being less developed.

In order to promote this vertical integration, Ghana had created – like many developing countries – four Export Processing Zones[104,105] plus two free ports at Tema and Takoradi and the Kotoka International Airport free zone. Investors can also obtain EPZ status at a point located anywhere within Ghana. There are currently 252 such free points, compared to 150 in 2007, most of them located in the Greater Accra area.

Enterprises located in an EPZ have the right to produce any type of goods or services for export and benefit from generous investment incentives:

- Exemption from all direct or indirect duties (including VAT, excise duties) and levies on all imports for production and exports from free zones;
- Exemption from income tax on profits for ten years, and maximum income tax of 8% after the ten years;
- Exemption from the withholding tax arising from investments in free zones;

McMillan, M. 1998. *A Dynamic Theory of Primary Export Taxation.* Discussion Paper 98-12. Department of Economics, Tufts University.

[102] Cadbury is known to use Ghanaian cocoa beans exclusively in all its U.K.-retailed chocolate products.

[103] Own calculations based on the UN-COMTADE databank. Import data possibly better catch the effect of EPZs. Exports in COMTRADE cannot be reconciled with the balance of payments indications figuring in Ghana's WTO Trade Policy Review 2014 on page 18. The latter yield a credible cif/fob relation with our calculations. Table 4.2 on page 71 in Ghana's TPR appears to reproduce the much lower export figures one finds also in COMTRADE.

[104] The present text is taken from the WTO Trade Policy Review for Ghana, section 3.2.8, which was released on April 16th 2014, see: http://www.wto.org/english/tratop_e/tpr_e/tp398_e.htm

[105] Ghana's free zone system has been the subject of a recent Aid-for-Trade Case study. The case study concludes that since the programme's inception in 1995, the results have been mixed. See : Senadza, Bernardin and A.D. Amarquaye Laryea (2012): Managing aid for trade and development results, Ghana case study, OECD Policy Dialogue on Aid for Trade

- Benefits of double taxation agreements that are in place (section 2.4);
- Speedy customs formalities as goods can be cleared on the premises of the company.

Furthermore, an enterprise located in an EPZ may sell up to 30% of its production on the national market, subject to the payment of regular import duties and taxes.

About 200 enterprises currently operate in a range of activities including processing of primary agricultural products (cocoa, spices, cashew, fruit) and production of garments, textiles, and plastic products. Exports from Export Processing Zones reached US-$ 14bio in 2012. One particularity of Ghana's free zone scheme is that non-free zone enterprises are allowed to operate in the free zones, so as to benefit from their superior infrastructure, including a dedicated power grid, a large water reservoir, central sewerage system, telecommunication services and secured enclosures. This can encourage positive FDI spill overs on the local economy, as export processing activities will tend to rely more on locally produced inputs available close by.

The WTO's Trade Policy Review of Ghana mentions subsidies by the Export Development and Agricultural Investment Fund as another instrument promoting the processing of cocoa and other primary agricultural products.

6 Additional features of the global agricultural trade regime

The WTO rules affecting specifically the agricultural sector are much more comprehensive than Chapter 1 suggests where the emphasis was on subsidies for a specific crop and a particular litigation linked to this commodity. Some of the additional features we will immediately take up are of particular importance when countries intend to process agricultural products grown on their soil. They gain particular relevance against the background of tariff escalation which we consider first.

Tariff escalation means that the further processed the imported good is, the higher import duties are. Despite seven negotiating rounds of tariff reduction in the period after WWII up to the constitution of the WTO in 1995, tariff schemes are still marked by tariff escalation. The tariff scheme applicable to a product for which Switzerland is renowned worldwide, namely chocolate, is a telling example. To better understand the case, one has to consider that Swiss chocolates are only typical of the country to the extent that Swiss chocolate traditionally has a comparatively high content of milk. But, evidently, cocoa – giving the product its name – is a tropical bean and cannot be grown in the industrialised world. It is a major export product of tropical countries.

Cocoa can be imported in the form of beans, but cocoa can also be imported in a processed form, in particular as cocoa butter. Heading 18 of the Harmonised System is structured along the process of transforming cocoa into chocolate. Here we observe in the tariff scheme of Switzerland in accordance with the concept that domestic industries should have raw materials as cheap as possible, that beans (18.01) are not subject to any tariffs. Cocoa waste (18.02) which may serve feeding purposes, is subject to a so called nuisance duty of SFR -.60 per 100kg when imported according to MFN rules, a rate that is reduced to 0.- if it effectively serves as foodstuff, thus serves the interest of Swiss farmers as a primary input. Cocoa butter, fat and oil (18.04), a somewhat more elaborate input for the food processing industry, is subject to a MFN tariff rate of 2.-. A first substantial increase in the tariff rate affects cocoa powder, where the rate is SFR 20.-. The housewife baking chocolate cakes is therefore already taxed, but not when the provisioning is done in the EU or another country with which Switzerland has a preferential tariff scheme.

Tariff escalation is evident once we consider the consumer product. In order to shield milk farmers, imports from the EU under heading 18.06 also have to pay a tariff, since the Free Trade Agreement of Switzerland with the EU only partially integrates agricultural markets. We consider here only the tariff applicable to chocolate in bars where imports of some SFR 35mio occurred in 2013, quasi exclusively from the EU/EFTA. To indicate the importance of the tariff of SFR 50.- per 100kg, consider that the tariff when applied to a chocolate bar of 100g amounts to 5 cents (MFN-rate) and that a bar costs less than SFR 2.- in retail stores. The out of factory price of a chocolate bar will consequently be below SFR 1.-. [106] Furthermore, domestic and foreign producers buy cocoa beans at the same price and profits expressed as a percentage of turnover of 10% are appreciated by many industries. One may therefore conclude that imports of standard chocolate bars are made uninteresting by the tariff unless an exporting country has cost advantages in manufacturing over Switzerland of 10% and more.

The protection of milk farmers appears through the elaborate structure of the tariff scheme. Switzerland has 17 subdivisions of the 6-digit HS-number 1806.20. Within 1806.20, the tariffs for chocolate and other preparations containing cocoa go down from SFR 727.20 to SFR 10.- per 100kg in accordance with the content of milk fat,

[106] For trade margins see Chapter 10

a possible presence of other components of milk than milk fat above 20% and the content of other fats (e.g. palm oil). The SFR 727.20 apply to mixtures containing cocoa with a milk fat content >85% while the SRF 10.- apply when neither milk fat, other components of milk nor other fats are present. To sum up, the tariffs become prohibitive with increasing milk fat content. Furthermore, in the area of chocolate (1806), the preference margin granted by Free Trade Agreements and similar schemes over MFN-rates is often negligible, frequently only SFR 1.- per 100kg.[107]

Switching from tariffs to import structures, the traditional idea that Africa exports unprocessed food is clearly confirmed. 85% of Swiss imports from Ghana fall in HS position 18 (cocoa and chocolate) and of this amount 97% or SFR 55mio are in the form of cocoa beans. Note that 30% of imports from EU/EFTA are in the form of cocoa butter, and that no tariffs apply to these imports, neither from the EU/EFTA, nor the countries benefitting from the Generalised System of Preferences (GSP; as Ghana) or other free trade partners of Switzerland. Adding a following step in processing cocoa inside Ghana by transforming it into cocoa butter would therefore not face protectionisms in the case of Switzerland and a market would be there. Côte d'Ivoire, sending cocoa beans for SFR 17mio to Switzerland[108], would as a LDC (Least Developed Country) even in the position 1806 (where consumer and elaborate intermediate cocoa products range) benefit from a tariff of 0.-, but imports of final consumer products are - as in the case of Ghana - quasi nil (SFR 10'000.- in 2013).

A particularly favourable treatment of tropical products as discussed in the Doha Development Round is in fact not really interesting for Ghana and even less so for Côte d'Ivoire. Such favourable tariffs would also be available to countries with further advanced industries. If these countries were granted lower tariffs for their processed tropical products, the preference margin granted through the GSP and LDC schemes to Ghana and Côte d'Ivoire respectively would erode. It therefore remained controversial whether negotiations on tropical products in the Doha Development Round should go on and how.

In the stalled agricultural negotiations within the Doha negotiating round, tropical products are only one controversial element, however.[109] Another aspect is food security. Since Ghana is not dependent on food imports and exports agricultural products that do not cover basic needs of a population in third countries, we cannot exemplify here the issues that are at stake in this area. The position India adopted with regard to admissible measure to secure the provisioning in food (see the underlying publication) signals, however, that what is on the negotiating list is no longer congruent with the concerns of major countries. It is therefore difficult to expect more than the piecemeal advancements achieved in the ongoing negotiations in December 2015 in Nairobi. The question whether the negotiating agenda needs a redefinition merits consideration.

7 Special Processing Zones

Many developing countries operate geographically delineated economic areas in the form of export processing zones, special industrial zones, or free trade zones. A paper produced by the World Bank[110] provides an overview on how the disciplines established by the World Trade Organization regarding the incentive programs typically employed by developing countries in connection with such special economic zones are applied. The analysis finds that the disciplines under the Agreement on Subsidies and Countervailing Measures have the most immediate relevance for middle-income countries that are members of the WTO.[111] One reason is that countries with a per-capita income below a threshold of US-$1'000 are exempt from the provisions of this agreement. For the countries benefitting from certain "grandfathered" programs, the exemption expired in 2015.

The paper distinguishes promotional measures that are likely to conform with WTO rules, incentive schemes presumably inconsistent with WTO provisions and a third category of programmes where only a close scrutiny of their content will allow an assessment.

[107] Offensive interests reflect situations where in a negotiation export interests predominate over the protection of the domestic market.

[108] 88% of beans imported into Switzerland come either from Ghana or Côte d'Ivoire but this may change as chocolate bars with high cocoa content are increasingly branded by country of origin.

[109] For more information, particularly on differential treatment of developing countries and safeguards for the importers, see the underlying publication.

[110] See Creskoff, Stephen and Peter Walkenhorst (2009): Implications of WTO Disciplines for Special Economic Zones in Developing Countries, Policy Research Working Paper 4892, World Bank

[111] For other WTO disciplines that may apply to SEZ programs in developing countries see the document we resume here.

The following SEZ-related measures appear to be WTO legal:

- Exemption of exported products from import duties;
- Exemption of exported products from indirect taxes;
- Exemption of goods consumed in the production process from import duties and indirect taxes when the end products are exported;
- Exemption of production waste from import duties and indirect taxes when the waste is exported or discarded;
- Exemption of goods stored in SEZs from duties and indirect taxes; and
- Non-specific subsidies, including generally applicable tax rates imposed by national, regional and local government authorities.

Two classes of subsidies identified in Article 3 of the Agreement on Subsidies and Countervailing Measures elicit the greatest concern with regard to their consistency with WTO disciplines: export subsidies and import substitution or domestic content subsidies. In particular, WTO prohibited government subsidies in connection with SEZ programs include (but are not limited to) the following:

- A direct subsidy contingent on export performance;
- Currency retention schemes involving a bonus on exports;
- Preferential transport and freight charges for export shipments;
- Provision of domestic products and services for exports at terms more favourable than those for domestic goods;
- Exemption, remission or deferral of direct taxes or social welfare charges if contingent on exports;
- Allowance of special direct tax deductions for exports above those granted on goods for domestic consumption; exemption, remission or deferral of prior stage cumulative taxes on goods or services used in the production of exported products in excess of products sold for domestic consumption (except for the exemption, remission or deferral of such taxes on "inputs consumed" in the production process);
- Provision of export credit guarantees or insurance programs at premium rates inadequate to cover long-term costs;
- Grants of export credits at rates below those which they pay for the funds, or at below market rates, or payment of all or part of the costs of obtaining credit; and
- Subsidies contingent on the use of domestic over imported goods.

State Trading[112]

The heavy reliance on State trading in agriculture reflects governments' belief that State trading is an appropriate means of implementing agriculture-related policy objectives, such as providing price support to producers of important agricultural products or ensuring food security. One of the main problems relating to State trading in the context of a rules-based international trading system is the lack of transparency of the existence and activities of State trading enterprises. Even notification obligations regarding the presence of STEs were disregarded for a long time.[113] The provision of subsidies to STEs which are mainly involved in exporting may run afoul of export subsidy disciplines. The WTO does not seek to prohibit or even discourage the establishment or maintenance of state trading enterprises, but merely to ensure that they are not operated in a manner inconsistent with WTO principles and rules. Article XVII of the GATT 1994 in particular, sets out that such enterprises – in their purchases or sales involving either imports or exports – are to act in accordance with the general principles of *non-discrimination*, and that *commercial considerations* only are to guide their decisions on imports and exports. Work on this subject in the WTO is undertaken mainly by the Working Party on State Trading Enterprises.

Turning to measures where WTO consistency depends on the facts of the particular case, there are several types of government policies that fall into this category, for example:

- Duty and tax free treatment of production equipment used in SEZs;
- Provision of materials and components in exchange for compensation that may not reflect full market value;
- and Government subsidies for infrastructure development in an SEZ.

[112] The text on STEs is taken from http://www.wto.org/english/tratop_e/statra_e/statra_e.htm and the attached WTO websites.

[113] TPRM Ghana 2014 admonishes that COCOBOD had not been notified.

It is important to note that WTO disciplines apply only to governmental measures. Today, a majority of SEZs are privately owned, developed and operated. Measures imposed by private SEZ operators are not subject to WTO disciplines, unless they implement a governmental measure. The paper concludes with a set of recommendations on how to achieve WTO compliance regarding government measures employed in connection with SEZ programs. Possibly the single most important step toward eliminating questionable incentives is removing all requirements to export and permitting importation of goods manufactured in SEZs into the national customs territory without any restrictions other than the application of import duties and taxes.[114]

An important point is to see tariff escalation and special economic zones in their interaction, also adding the reflections on e.g. tropical products and an eventual erosion of GSP and LDC preferences going along with such modifications in tariff schemes to the assessment. Finally, in the case of Ghana and Cocobod, the provisions on state trading in WTO law are also relevant. They are exposed in the box above. When one considers all these provisions, there is no surprise when sooner or later trade negotiators tend to become experts in agriculture and know the interests of the food industry in detail.

Barry Callebaut: Investing along the Supply Chain[115] [116]

About Barry Callebaut[117]

The Barry Callebaut Group is one of the world's leading manufacturer of high-quality chocolate and cocoa. Barry Callebaut operates as a business-to-business company with headquarters in Zurich, Switzerland, and a strong position in cocoa-origin countries. Barry Callebaut accordingly employs more than 9'000 people in more than 30 countries, counts more than 50 production facilities, generates annual sales of about US-$ 6.6bio and has comprehensive competencies from sourcing and processing cocoa beans to producing the finest chocolates, including chocolate fillings, decorations and compounds.

Barry Callebaut came into existence in 1996 as a merger of the Belgian chocolate manufacturer Callebaut, known for chocolate coatings, and the French company Cacao Berry. Callebaut had been founded in 1850 as a brewery in Wieze, Belgium, and diversified 1911 in the production of chocolate. Cacao Berry existed since 1842 before being acquired the year of the merger with Callebaut by Klaus Jacobs, up to 1990 the owner of Interfood SA, i.e. the company producing the Chocolat Tobler and Suchard brands. Klaus Jacobs had kept the B2B part of the chocolate affairs when selling Interfood. In 1998, the Swiss manufacturer of sugar and chocolate coatings Carma (founded 1931) was added to the group. Finally, in December 2012, Barry Callebaut acquired Petra Foods (founded in the 50') for US-$ 950mio, a Singapore based chocolate manufacturer, to strengthen its position in the expanding markets in East Asia.

Barry Callebaut's presence in Ghana[118]

Among the major cocoa producing regions, Barry Callebaut has a strong foothold in Côte d'Ivoire and also in Tanzania. It currently develops the business in Indonesia, the major producing region for cocoa beans in Asia. By its predecessor firms, Barry Callebaut had been involved in the business in Ghana for decades, but the company enhanced its presence in 2001 by an investment in a processing facility in the Export Processing Zone of Tema. There the company transforms cocoa beans into unrefined cocoa liquor, initially mainly for export to France. The US-$10mio factory with a capacity to process 30'000 metric tonnes of beans a year (the whole company processing in these years some 400'000 tonnes of cocoa beans) employed initially 60 workers. In February 2007, Barry Callebaut inaugurated the second cocoa bean processing line for the factory in the EPZ in Tema, [119] *doubling the annual bean processing capacity from 30'000 tonnes to 60'000 tonnes. The year before, the*

[114] Consistent with the latter remark, under the ECOWAS Protocol, exports by EPZ enterprises to other ECOWAS countries are not eligible for preferential treatment, and are thus subject to customs duties.

[115] This business case figures in Chapter 3 of the underlying publication. The theme there is to show the benefits for growth accruing out of financial sector development in countries at a low to medium stage of economic development. Furthermore, features of the WTO trade regime afferent to agricultural goods are presented (additional to producer subsidies already covered in Chapter 1).

[116] The texts in the next three paragraphs are taken from the companies web-sites.

[117] https://www.barry-callebaut.com/about-us/company-overview

[118] https://www.barry-callebaut.com/search?s=Ghana

[119] https://www.barry-callebaut.com/news/2007/02/barry-callebaut-inaugurates-second-cocoa-bean-processing-line-tema-factory-ghana

company had opened a village with dwellings for its employees. When opening the 2nd production line, the very difficult energy situation in the country was criticised, a recurrent theme since then.

The year 2015 was then marked by the acquisition of Nyonkopa,[120] one of the ten leading licensed buying companies in Ghana, authorized to buy cocoa directly from farmers and to sell it to Cocobod, Ghana's monopolistic quality control, sales and marketing organisation. Nyonkopa Cocoa was founded in 2012 and became operational in the 2013/14 crop season. The company has about 100 employees and 600 purchasing clerks and is buying cocoa from over 10'000 cocoa farmers spread across 34 districts in Ghana's main cocoa regions. Nyonkopa will be integrated into Barry Callebaut's direct sourcing organisation, Biolands.[121]

Biolands, by securing i.a. the tracing of responsibly produced cocoa beans, is the subsidiary helping Barry Callebaut satisfy increasing customer demand for sustainable cocoa. Biolands supports farmers in increasing cocoa productivity by providing training on certification requirements and yield enhancement, by providing planting material, tools, fertilizers and crop protection products, and by professional pruning and spraying services. To date mainly active in the Ivory Coast, Biolands also supports local cocoa communities, building and equipping classrooms with funds donated by clients, and helping provide medical insurance for thousands of farmers and their families. Promoting sustainably produced cocoa[122]

To strengthen its commitment to sustainably produced cocoa, in 2015, Barry Callebaut partnered with Mondelēz to scale up their Cocoa Life program. [123] Barry Callebaut also joined the leading industry initiatives to develop sustainable supply chains. [124] In 2012, the company had launched the Cocoa Horizon Foundation[125], an independent non-profit organization to improve the livelihoods of cocoa farmers and their communities.

The Cocoa Life Program addresses the problem of deforestation in several producing regions. In Ghana, some areas within the cocoa belt that were once occupied with high moisture forest have been extensively deforested, resulting in the gradual intrusion of grassland and more frequent droughts. Mondelēz International's Cocoa Life program partnered with the United National Development Programme (UNDP) to encourage farmers to adopt environmentally sustainable production practices. These consist in replanting destroyed trees or in introducing new shade trees, which promotes biodiversity, improves conditions on cocoa fields, and makes them more resilient to the risk of pests and disease. Since 2014, the project distributed over 787'000 shade tree seedlings to nearly 10'000 cocoa farmers. The initiative builds on the community resource management area mechanism CREMA, a community-based approach to biodiversity conservation and forest protection. To help eradicate child labour and to strengthen the role of women in the producing regions is also part of the project. One of the communities has created its own Village Savings and Loan Association, with members pooling their resources.

8 Financial sector development and supervision in Ghana[126]

The banking industry in Ghana is fairly saturated, comprising 27 commercial banks (up from 16 in the year 2000). Of these 15 are foreign owned and six are African banks. 137 rural and community banks, and 58 non-banking financial institutions (including finance houses, savings and loans, leasing and mortgage firms) complete the system. Prior to the banking sector reforms in the 90', the banking sector in Ghana was dominated by state-owned banks with official allocation and pricing of credit. Since then, foreign banks have played an important role in banking development in Ghana. Foreign majority equity

[120] https://www.barry-callebaut.com/news/2015/11/barry-callebaut-has-acquired-nyonkopa-cover-growing-customer-need-sustainable-and
[121] https://www.barry-callebaut.com/sustainability/cocoa-sustainability/biolands-group
[122] https://www.barry-callebaut.com/sustainability
[123] https://www.barry-callebaut.com/news/2015/05/strengthening-engagement-sustainability-supply-chains
[124] https://www.barry-callebaut.com/sustainability/cocoa-sustainability/horizons-cocoa
[125] http://www.cocoalife.org/follow-our-progress/at-the-paris-climate-summit-mondelez-international-announces-plans-to-combat-deforestation , http://www.cocoalife.org/follow-our-progress/cocoa-life-external-advisors-just-back-from-ghana , http://www.cocoalife.org/follow-our-progress/cocoa-life-days-sparks-new-conversations-across-the-supply-chain
[126] If not stated differently, the information in this section is taken from: Ackah, Charles and Johnson P. Asiamah (2014): Financial regulation in Ghana - Balancing inclusive growth with financial stability, Overseas Development Institute, Working Paper 410, London, 2014.

originates from Nigeria to a considerable extent. A consequence of the recent expansion of pan-African banks in West Africa may be that banking crises will spill over more easily to neighbouring countries.

Ghana's Central Bank is technically independent of government control, but in practice it works closely with the Ministry of Finance and helps formulate and implement macroeconomic policies of the government.

On average, banks in Ghana had returns over equity (ROE) of over 20 percent and returns over assets (ROAs) of over 5 percent. This is apparently consistent with the high interest spreads in the industry in Ghana. In fact, the interest rate spread remains excessively and persistently high. As a consequence, credit availability to the private sector remains limited, but there is also a relatively high ratio of non-performing loans in Ghana compared to peer countries. In the most recent crisis,[127] the banking sector remained robust with a 42.2% increase in total assets over the year to December 2014; reducing the non-performing loans ratio from 12.0% to 11.3%; and substantial operating capital (17.9% capital adequacy ratio) above the prudential limit of 10%. Nevertheless, the cost of credit continued to increase, as the spread between lending and deposit saving rates remained over 20%.

Ghana's interest rate spread far exceeds that of the three African countries covered in this book. Three reasons may be named:[128] 1) The persistent domestic financing needs of the government have fostered inefficiency in the banking system as holdings of government securities have become the driving force in the revenue function for banks. 2) The very small savings base prevents smaller banks from emerging quickly, and this constraint on market entry may further collusive behaviour regarding interest paid by banks. 3) The high lending risks require additional provisioning; insecure monetary policy may also require an increase in the spread between deposit and lending rates.

In terms of use of financial services, a survey revealed that about 44 percent of Ghanaian adults do not use any form of financial product or mechanism (be it formal or informal) to manage their financial lives. The proportion of adults who receive all their income as cash was 60.6 percent in urban areas and 82.0 percent in rural areas. Only 12 percent of Ghanaian adults earn most of their income in the form of wages and salaries. The formal financial institutions tend to target these groups due to the regularity and less volatile nature of their sources of income. The Rural and Community Banks, which accounted for 3.2% of total financial sector assets, have become the main channel for financial inclusion as such banks serve over 600 micro-finance companies covering around 500'000 customers nationwide.[129]

Regulation may take the form of structural, conduct and prudential provisions. Structural regulation is e.g. a functional separation within the finance industry; conduct regulation intervenes at the level of interest rates (ceilings e.g.), the volume of loans granted, or the expansion of branch networks. Prudential regulation in its most recent form consists in routine stress test exercises (mandatory for banks in Ghana) to identify vulnerabilities and in the adoption of the revised Basel III framework (preparatory work for Basel III including its liquidity coverage standards is in progress). With regard to structural regulation, the Bank of Ghana set up a microfinance office within the Banking Supervision Department in January 2011 to regulate and supervise microfinance institutions in the country. Microfinance institutions were categorised into tiers, permissible activities defined, minimum paid-up capital stipulated and other licensing requirements imposed.

To sum up: In Ghana's financial sector, a number of cross-cutting challenges remain, including access to credit by the private sector and the high cost of credit, which tends to militate against small-scale businesses. The ongoing macroeconomic turbulences continue to hamper efforts to address these problems, however.

The Significance of Globalisation for Ghana

The country is exposed to the dynamics and the volatility of markets for natural resources. The significance of globalisation for Ghana is therefore high. Buoyant markets for natural resources have allowed Ghana to advance in the category of countries with middle human development since the turn of the century. Aberrant national policies continue to act as multipliers of swings in global commodity prices, however. Internal policies should be improved to better achieve macro-economic stability in the face of non-curable price swings in world raw material markets. Suggestions are fiscal rules and central bank independence.

[127] African Development Bank (2015): African Economic Outlook, Country Notes, Ghana 2015

[128] Buchs, Thierry and Johan Mathisen (2005): Competition and Efficiency in Banking: Behavioral Evidence from Ghana, IMF Working Paper 05/17, January 2005

[129] AfDB African Development Bank (2015): African Economic Outlook, Country Notes, Ghana 2015

Chapter 4

Portugal: The Rise and Decline of the Textile Industry

CONTENT

Country Fact Sheet			World	Portugal
GDP per Capita	(at 2011 PPP $)	2013	13,964	25,596
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	-0,9
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	-2
Agricultural Value Added	(% of GDP)	2014	3,1	2,3
Manufacturing Value Added	(% of GDP)	2014	26,4	21,5
of which Industry	(% of GDP)	2014	15,8	13,3
Services Value Added	(% of GDP)	2014	70,5	76,1
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	15,1
Research and Development Exp.	(% of GDP)	2005–2012	2,0	1,5
Internet users	(% of pop.)	2014	40,5	64,6
International Tourism, Arrivals	(mio people)	2013	1068,0	8,1
Consumer Price Index	(2010 = 100)	2014	..	106,5
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	183,3
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	76,9
Current Account	(% of GDP)	2013	..	0,5
External Debt Stock	(% of GDP)	2014	..	..
Exports plus Imports	(% of GDP)	2013	60,4	77,5
Private capital flows	(% of GDP)	2013	-0,9	-0,2
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	3,5
Official Development Assistance	(% of GNI)	2013	0,4	..
Remittances, inflows	(% of GDP)	2013	0,71	1,92
General Gov. Expenditures	(% of GDP)	2013	..	51,7
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-7,2
General Gov. Net Debt	(% of GDP)	2013,0	..	120,0
Ease of Doing Business Index	(rank)	2015	95	23
Corruption perception	0-100	2014	..	63
Population	(millions)	2014	7259,7	10,4
Surface	(1'000km^2)	2015	134325	92
Populationb Density	(person/km2)	2014	56	114
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	0,0
Fertility	(births/woman)	2010/2015	**2,5**	1,3
Under-Five Mortality	(% < age 5)	2013,0	45,6	3,8
Life Expectancy at Birth	(years)	2014	71,5	80,9
Child Malnutrition	(% age group)	2008–2013	29,7	..
HIV-Prevalence	(% of pop.)	2013	1,1	..
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	..
GINI Index (income concentr.)	0-100	2005–2013	..	..
Homicide Rate	(per 100'000)	2008–2012	6,2	1,2
Primary School (enrolm.)	(% age group)	2008–2014	109	106
Secondary School (enrolm.)	(% sge group)	2008–2014	74	113
Tertiary School (enrolm.)	(% age group)	2008–2014	32	69
Genders in 2nd Schooling	(female/male)	most recent	97,1%	98,5%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	94,5
Employment to Population Ratio	(% aged 15+)	2012	59,7	51,7
Unemployment rate	(% aged $\geq$ 15)	2004-2013	..	13,894
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,83
Children in Employment	(% of age 7-14)	2013	..	..
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	1,9
Rural Population	(% of popul.)	2014	46,6	37,1
Energy use per capita	(kg of oil eq.)	2013	1894,4	2028,1
CO2-Emission	(t per capita)	2011	4,6	4,7
Improved Water Access	(% of popul.)	2014	90,5	100,0
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	4,0
National Resource Rents	(% of GDP)	2014	3,9	0,6
Protected Area	(% of surface)	2014	12,8	1,9
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,830

Chapter 4
Portugal: The Rise and Decline of the Textile Industry

The textile industry stands out in two respects. First, it is the industry where the industrial revolution started at the end of the 18th and the beginning of the 19th century; thus, the industry is interesting for the lessons history can teach us. Secondly, and interrelated with this pioneer role in economic history, the textile industry remains an industry that countries with a very low level of development can enter relatively easily. Textiles and Clothing (T&C) are thus also interesting from a contemporary development point of view.

Due to the pressure on wages emerging by the international division of labour in the T&C sector,[130] the protection of this industry in developed economies used to be very pronounced. The textile industry is therefore best suited to illustrate features of the tariff schemes applying to non-agricultural goods. Not only was the dismantling of tariffs very sticky in this sector, but the political pressure to protect jobs also gave rise to all kinds of non-tariff protectionist measures by the developed world. Many of them infringed basic GATT principles. Furthermore, due to the high level of MFN-tariffs, the importance of rules of origin is also best illustrated by the textiles sector. To address rules of origin (RoO) is important since preferential trade agreements (PTA) have spread in an unanticipated manner in recent years and with PTAs RoO become important.[131] Finally, the steps involved in transforming fibres such as cotton (see Chapter 1) into clothing are relatively linear and therefore well understood. For this reason, a pet topic of today's community of economists, namely the emergence of global value added chains, can easily be illustrated using the example of clothes manufacturing.

The choice of Portugal is primarily motivated by the fact that the country provides a good illustration for a reverse side of entering into trade: the successful establishment of new countries as partners in world trade can go along with a secular decline of industries in other parts of the world. The business case in this chapter considers a Swiss manufacturer who moved to Portugal in the late 1980ies before withdrawing fifteen years later.

1 Main features of the country and its population

The Portuguese Republic has a population of 10.4 million people and a surface 92'210km², giving rise to a rather densely populated country. Due to its colonies, globalisation of the country was greater in pre-industrial times than ever since. The transition to democracy in 1975 combined with the economic impact of the return of a large community of emigrants from the former colonies in Africa was thus creating serious economic difficulties. Portugal had to pursue IMF-monitored stabilization programs already in 1977–78 and 1983–85, well before it was seriously shaken by the global financial crisis that began in 2007 and made Portugal ask for EU and IMF support by April 2011.

Portugal is a founder member of NATO (1949) and OECD (1961) and joined the United Nations in 1955. It became an EU-member in 1986, after having been a founder member of EFTA in 1960, and joined the Eurozone from the beginning.

Portugal has a homogeneous population, but as a former colonial power only from the linguistic

[130] Given the low entry barriers, it is the textile industry that best provides an illustration for the Heckscher-Ohlin explanation of the pattern of international trade. Assuming similar technology, trade is based on the relative abundance of factors of production. The Heckscher Ohlin model is the major theme in the economic theory part of the corresponding chapter in the underlying publication.

[131] In the law and institutions part of the corresponding chapter in the underlying publication, we will first present figures showing that tariffs in the T&C sector are high when compared with the ones applied to the products of other industries. Among the rich arsenal of protectionist measures used by the industrialised world the Multi-Fibre Arrangement stands out. What did the end which came in 2005 mean? As a next step, we will show that the high preference margins granted through the conclusion of preferential trade agreements are affecting the decision where to locate the production of garments (more precisely: what part of value added creation in the production of garments). Finally, it will be proven that by way of the specific articulation of rules of origin, the industrialised world repatriates part of the gains from trade granted through preferential trade regimes.

and religious point of view. The population growth rate is now a small 0.0% p.a. and fertility is below the reproduction level. Portugal today exhibits also the other features of a developed country, with life expectancy at 80.9 years, a low under-five mortality, and access to an improved water source for the whole population. A considerable part of the population still lives outside the big towns, however.

Education has significantly evolved since the time of the Carnation revolution, the earlier neglect leaving only a small trace in the adult literacy rate of today. While fifty years ago, a workforce without further training started to find employment by emigrating, enrolment at the primary and secondary school level in Portugal is today above 100% and two thirds of the relevant age class also go to tertiary education institutions. However, the latter figure reflects also the absence of a well-developed apprenticeship system and the lack of alternatives, given the current unemployment rate of 14%. As a consequence of the crisis, emigration has resumed, not only to countries in Europe (primarily where a Latin language is spoken), but also to the former colonies. Gender differences do not appear at the level of secondary schooling and participation of women compared to men in the labour force is not lower than in the USA or Switzerland. Finally, and of major importance for a tourist destination, Portugal offers also personal safety.

2 Main features of Portugal's economy

Also with respect to the economic structure, Portugal has left the characteristics of an agricultural society behind. Value added in agriculture accounts for 2.3% of GDP, while services account for 76.5%. Manufacturing at 21.5% comprises an industrial sector in the narrow sense of the term of 13.1%. Under current circumstances, gross fixed capital formation is not very high, while R&D expenditures are non-negligible with 1.5% of GDP, as is the internet penetration. Price increases are low, given depressed domestic demand, while a ratio of domestic credit by the banking sector to GDP of almost twice the GDP indicates that indebtedness is a core problem of businesses and households in the current situation. The current account situation has improved, however, and FDI inflows have become considerable.

3 A difficult transition from a colonial empire to an EU-member-state

In 1960, when Dictator Salazar moved towards a more outward-looking economic policy under the influence of a new generation of technocrats with background in economics and technical-industrial know-how, Portugal's per capita GDP was only 38 percent of the European Community (EC-12) average. By the end of the Salazar period, in 1968, it had risen to 48 percent, and by 1973, under the leadership of Marcelo Caetano, Portugal's per capita GDP had reached 56.4 percent of the EC-12 average. The loss of the Colonial war and the Carnation Revolution at home then had a devastating impact on the Portuguese economy and social structure. The loss of the colonial war prompted a mass exodus of Portuguese citizens from Portugal's African territories, creating over a million Portuguese refugees – the destitute 'retornados'. Additionally, the period after the Carnation Revolution was characterized by chaos and negative economic growth as industries became nationalized and the effects of the decoupling of Portugal from its former overseas territories were felt. All sectors of the economy suffered. This was amplified by the mass emigration of skilled workers and entrepreneurs due to communism-inspired political intimidation and economic stagnation. Only in 1991, 16 years later, did the per capita GDP as a percentage of the EC-12 average climb to 54.9 percent, comparable to the level at the time of the Carnation Revolution in 1974, mainly as a result of participation in the European Community since 1986.[132]

It needs emphasizing that from 1991 on, Portugal's GDP per capita no longer converged to the EU average. At 58% of the per capita GDP in the Eurozone in 1995 (18 countries), it was at 56% in 2008, before falling back under the impact of the global financial crisis which hit Portugal in a particularly severe manner once it muted to a Sovereign Debt crisis. In 2014, per capita GDP was again at 58% of the Eurozone level.[133]

Of course, misguided national policies account for a substantial part of the blame. Unwarranted fiscal expansion was e.g. motivated by the Lisbon Universal Exhibition of 1998 and electoral campaigns in 1999, 2003 and 2007. Furthermore, according to a report by the Diário de Notícias of 2011,[134] Portugal had allowed considerable slippage in state-managed public works, as well as

[132] This paragraph is essentially taken from the entry 'economic history of Portugal' in Wikipedia.

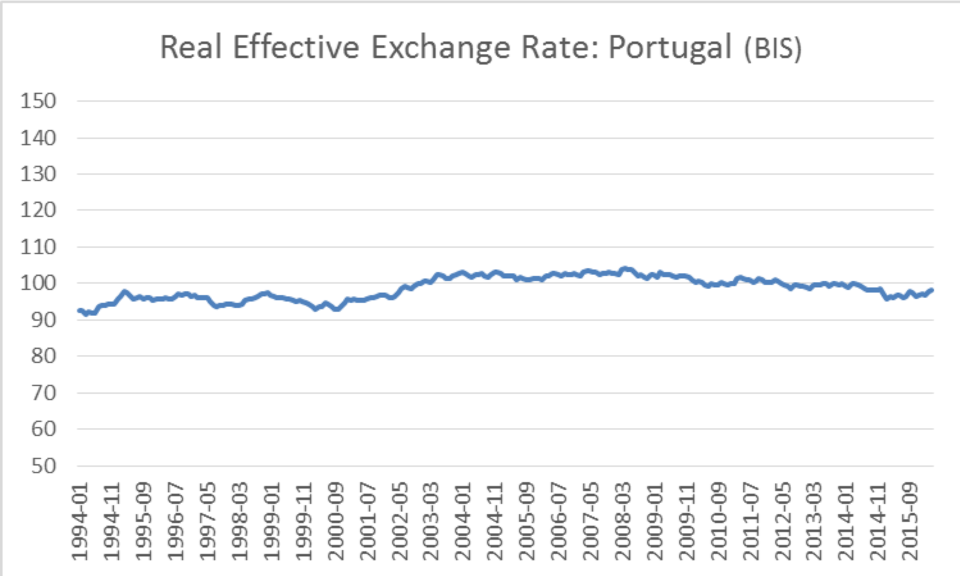
[133] http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdec100&plugin=1

[134] Diario de Noticias, 7 Janerio 2011 http://www.dn.pt/tv_e_media/media/interior/conheca_o_verdadeiro_peso_do_estado_1750097.html

inflated top management and head officer bonuses and wages, starting at the time of the Carnation Revolution and up to 2010. E.g., established recruitment policies boosted the number of redundant public servants, while risky credits were granted, public debt creation was hardly checked, and European structural and cohesion funds were mismanaged over nearly four decades.

It was argued that external factors had also been conducive to the dismal outcome culminating in in April 2011 by Portugal's request for a relief programme co-chaired by the IMF and EU-institutions. A reasoned contribution is Ricardo Paes Mamede (2012).[135] He argues that a number of unfortunate interactions with EU policies occurred prior to the crisis:

Rigidities in the monetary regime: First, according to Mamede (2012), efforts aimed at monetary integration led to an unwarranted real exchange rate appreciation. To appreciate this point we show below the real effective exchange rate index for the country.



With regard to the argument of an unwarranted exchange rate evolution, it needs to be considered that Portugal, accustomed to very high inflation rates,[136] had made huge efforts to regain price stability. For this reason, it entered the ECU-basket in 1989. The fixing of the nominal exchange rate did not at first change the real effective exchange rate significantly. The first years with the € after the turn of the century saw then an appreciation of the € weighted with the Portuguese trade structure of some 10% on an inflation corrected basis. The point therefore is hardly an unwarranted appreciation, the point is that the disappearance of the Escudo precluded any depreciation of the currency as a response to a growing foreign account deficit. In recent years, Portugal would have been better served by a devaluation. An initial advantage, namely to have established price stability, turned into a disadvantage, making an assessment difficult.

While regaining price stability is clearly an advantage, in the Portuguese case, an additional aspect deserves attention, namely the concomitant pronounced reduction in interest rates favoured by the participation in the Eurozone. This reduction was supportive of domestic spending. As a consequence, export led growth was held back by barely consolidated domestic expansion. Indeed, investment within the borders of the country for domestic purposes was stimulated by the double fact that i) the exposed sector suffered from the (contained) real appreciation, while ii) sectoral reforms such as privatisations opened new opportunities for investing financial capital within the country. The latter should have been better used, however. This brings, beyond fiscal policies, the other two reasons advanced by Mamede to the fore.

The education level of the labour force: Secondly, the author is correct in emphasizing that beyond

[135] Mamede, Ricardo (2012): Causes & consequences: a perspective from Portugal, European Green Journal 21 February 2012 http://www.greeneuropeanjournal.eu/causes-consequences-and-ways-out-of-the-crisis-a-perspective-from-portugal-3/

[136] In the early 1980ies, CPI-inflation was at some 20% per year, in the early '90ies still around 10% p.a.!

weaknesses in politics, weaknesses on the labour market are the deeper reasons that well intended reforms resulted in a mixed outcome. This happened also due to the sequencing of reforms and by their interaction. When Portugal joined the EU in 1986, the proportion of working-age adults who had completed secondary education was less than 20% while the European average was already close to 60%. This stunning figure is, to a large extent, an inheritance of nearly half a century of conservative dictatorship, which deliberately underinvested in general education. Overcoming this depressing legacy in education levels has become a main concern for public policy in the last two decades, leading to significant improvements in several areas. Nevertheless, Portugal still has one of the lowest levels of educational attainment in the OECD. While, since a working life lasts about as long, it may be admissible to claim that a political regime dethroned 40 years ago is still the culprit, this explanation ceases progressively to convince. Mamede (2012) therefore adds long-lasting habits of families to underinvestment in education as an explanatory factor, attributing this fact to the high levels of poverty and inequality in the country. He supports his view with a reference to the high rate of early school drop-outs. The quality and relevance of the educational content also play a role, of course, but in this regard, thanks to improvements, Portugal's PISA-scores are now close to the OECD average.

The profile of economic specialization combined with Portugal's limited power in EU decision making: For Mamede (2012), the gaps in education are both a cause and a consequence of the second domain of structural weaknesses – the specialisation profile of the Portuguese economy. At the time of joining the EU, Portugal's economic structure was characterized by a huge weight of primary sector activities and manufacturing industries with low technological intensity and therefore low value added per worker. The industrialisation of the country had been driven, since the early 1960s, by successive waves of foreign direct investment (FDI). Given the comparative advantages on which these outsourcing decisions relied, they helped to deepen an unfavourable specialisation profile. A country with industries that rely on price competitiveness rather than on the sophistication of the products it produces is more exposed to the pressure of factor price equalisation, or, alternatively, has more to gain from protectionist measures. EU policies, however, were geared towards achieving and preserving interior price stability with little attention paid to the external value of the currency. Secondly, offensive trade interests dominated in the EU over protectionist attitudes so that other producers of textiles gained access to the European market relatively easily although details of the tariff scheme comforted to some extent Portuguese interest (see below).

Considerations regarding the choice of the monetary regime

In open economies with no inhibiting control of capital movements, there are essentially only two monetary regimes, ether fixed or flexible exchange rates. All forms of official pegging of the currency to a basket or to a single foreign currency comprise the risk of speculative attacks and the latter are likely to jeopardise pegging in the presence of macro-economic imbalances. Also a fixed exchange rate regime needs in the end to become a monetary union and the Greek crisis in recent years tells us that even such a step does not preclude speculation about the resurgence of an independent national currency. The latter only happens under extra-ordinary circumstances, however, while pegging may succumb to market pressures earlier.[137] *But exactly in such circumstances, when huge macro-economic imbalances have been built up over years and need correction, the choice of the monetary regime starts to matter. It prefigures the adjustment paths that are available for a country.*

In a monetary union or with a fixed parity, to restore a country's competitiveness needs wage restraint and disciplined fiscal spending. It is likely that this adjustment path is more time consuming than devaluating the currency. The experiences that may be made with adjustment through devaluation are not unequivocally positive, however. The adjustment builds on the hope that the price increase of imports after devaluation will not fuel into a domestic wage-price spiral, compromising the initial gain in price competitiveness. The latter – a wage-price spiral, supported by an accommodative monetary policy- had exactly been the Portuguese experience of the 80' and motivated the adoption of the €. And devaluation increases the value of foreign currency denominated debt when expressed in national currency, rendering repayment by domestic earnings more burdensome.

Regarding the choice of the monetary regime (fixed or flexible exchange rates), the point is that the choice of the club to join becomes a delicate question when internal weaknesses are not overcome by simply joining the selected club, but when domestic reforms are required

[137] An illustration is provided by the slashing in January 2015 of the minimal CHF price for a € fixed in Sept.2011.

as well. The expectation that entering the Eurozone would automatically cure the deficiencies in the Portuguese economy did not materialize, a warning for new countries seeking accession to the EU. If the adjustments needed in the advent of a macro-economic imbalance risk being too ambitious compared to what domestic policies allow for, embarking on a demanding policy and tying one's currency can back-fire in the form of a disruptive evolution. But without ambitions, i.e. accommodating policies only, no improvement will ever take place. And with regard to the requirements of the stability and growth pact, the criteria set by the EU e.g. with respect to public indebtedness may already constitute the lower end of what can be considered sound policies in the wake of ageing populations.

Instead of curtailing ambitions, but with known political weaknesses, the solution thus rather consists in preserving an escape mechanism. The case of the Czech Republic (see Chapter 6) is interesting in this respect. The continuous real appreciation of the Corona (was) stopped in 2008 when the industrialised world entered a protracted crisis. This escape door is however not open for all countries simultaneously, and it is questionable whether the Czech Republic really needed to use it. Accordingly, we do not argue here that Portugal, having made a costly investment to join and to stay in the Eurozone, should now leave it. To switch regimes comes, due to the uncertainties such a fundamental change creates, at different costs compared to what may appear as the superior[138] policy when decided from scratch.

In the author's view (and contrary to what Mamede (2012) suggests), there was nothing wrong with these EU policies, since they indicated the appropriate direction for restructuring in the Portuguese economy, and such restructuring was also supported by EU funds. However, suboptimal sequencing of reforms added to the fact that, overall, Portugal missed the opportunity to embark on an export-led growth path; rather, the opposite happened since the need for change was not felt for a long time, due to improving domestic spending opportunities.

4 Portugal's current macro-economic situation

After a prolonged recession, the Portuguese economy started to recover in 2013. Portugal thus was released from the economic adjustment programme in 2014. Despite considerable progress achieved during the programme, both as regards economic adjustment and policy reforms, considerable risks remain linked to the high levels of indebtedness, both internally and externally, and across various sectors, the EU remarks.[139] In 2015, economic growth was driven by accelerating private consumption and investment, but the recovery of the Portuguese economy remained modest. In its forecast of Spring 2016, the European Commission therefore sees Portugal's GDP to expand by 1.5% in 2016 and 1.7% in 2017 but with risks to the macroeconomic outlook tilted to the downside. After posting a small deficit in 2015, the current account adjustment is projected to continue over the forecast

EU-Forecast for Portugal, Spring 2016	2013	2014	2015	2016	2017
GDP growth (%, yoy)	-1.1	0.9	1.5	1.5	1.7
Inflation (%, yoy)	0.4	-0.2	0.5	0.7	1.2
Unemployment (%)	16.4	14.1	12.6	11.6	10.7
Public Budget Balance (%of GDP)	-4.8	-7.2	-4.4	-2.7	-2.3
Gross Public Debt (% of GDP)	129.2	130.2	129.0	126.0	124.5
Current account balance (% of GDP)	0.7	0.0	-0.1	0.3	0.5

[138] While the scientific debate centres on delimiting 'optimal' currency areas, we deliberately use here the term 'superior'. In the author's view, the choice of the monetary regime, be it fixed or flexible exchange rates, is always a second-best decision that goes along with numerous pro's and con's while it is difficult to anticipate the relevance the pro's and con's will assume in the future for a specific country.

[139] European Commission (2015): Europe 2020 in Portugal, Policy Recommendations, see http://ec.europa.eu/europe2020/europe-2020-in-your-country/portugal/country-specific-recommendations/index_en.htm

horizon. The general government headline deficit reached 4.4% of GDP in 2015 under the impact of the Banif bank resolution one-off operation worth about 1.4% of GDP. We therefore see a fragile balance maintained in the overall economic evolution. Portugal is currently subject to post-programme surveillance and European Semester surveillance, with the Commission having opened a Macroeconomic Imbalances Procedure for Portugal in February 2015.

5 Deeper challenges faced by the Portuguese economy

When the global crisis broke out in 2008, Portugal became one of the most affected economies. In April 2011, it had to ask for support that was granted in a coordinated action by the IMF and the EU. Part of such a deal is a vast reform agenda and a close monitoring of the implementation of the measures imposed. We quote from the eleventh review under the extended arrangement from April 2014 produced by the staff of the IMF[140] to show the structural reforms Portugal had to undertake and to indicate the reforms deemed still necessary by the EU and the IMF at the time.

The report first observes that thanks to the reform programme imposed, steps were taken to make the labour and product markets more flexible. E.g., the competition framework and regulatory environment had been revamped to foster competition and reduce rents, and efforts were made to improve the business environment, including cutting red tape and raising the efficiency of the judicial system. Reflecting the wide array of legislative changes, the IMF reports encouraging progress. He does this based on indicators measuring the restrictiveness of employment protection legislation, the business environment and the overall competitiveness. However, he then goes on to argue that, ultimately, these reforms have to show up in both lower input costs than currently prevail and sustained productivity improvements. The IMF underscores this assertion by observing that Portugal's net asset balance vis-à-vis the rest of the world is unusually high and negative—currently above 110 percent of GDP— and that claims are of short duration. This constitutes a considerable risk for Portugal of coming under renewed pressure by creditors in the advent of unfavourable national or international evolutions. Growth will be needed while maintaining external surpluses, and this requires investment to recover from currently low levels. The latter need to be targeted to the tradable sector and should be financed by higher domestic savings, the IMF states. The Fund then observes that evidence based on outcomes suggests that important bottlenecks remain in key areas, hindering Portuguese companies' ability to attract investment in the tradable sector and compete globally. Among others, the following factors are emphasized:

- *Product market rigidities*. Despite past reforms, statistics suggest that excessive rents in the non-tradable sector, particularly network industries, continue to weigh on input prices for the tradable sector. More generally, while some measures of relative prices are moving in the right direction, relative mark-ups still point to a significant premium for the non-tradable sectors. Rents in the non-tradable sectors have also allowed for wages to increase in excess of productivity, hampering tradable sector firms' ability to attract high productivity skilled workers at a faster pace, limiting the ability of new opportunities to take root.
- *Labour market rigidities*. While unit labour costs have decreased in the private sector, evidence indicates this was largely due to the rapid recession-induced labour shedding rather than wage declines.[141] The Fund then recalls the adverse economic consequences the extension of the bargaining results between established producers and the unions can have e.g. on new entrants in a sector. The Fund accordingly suggests reviving collective bargaining and fostering agreements more consistent with economic conditions, The suggestions are: (i) reforming the expiration and survival of collective agreements to encourage more frequent bargaining; (ii) making them more flexible when warranted by economic conditions; and (iii) adjusting the minimum representation threshold (currently 50 percent of employees in the sector) for extending collective agreements, taking into account the representativeness of SMEs in the various sectors.
- *Private sector indebtedness:* Financial indicators continue to deteriorate across most industry segments and sizes, notably SMEs, creating a need for more effective corporate

[140] https://www.**imf**.org/external/pubs/ft/scr/2014/cr14102.pdf

[141] According to Eurostat (see http://appsso.eurostat.ec.europa.eu/nui/show.do), total employment was at some 4.75mio persons in the last decade up until 2008 to fall then by 600'000 persons until 2012, while in the two years up to the 4th quarter 2014 an increase of 100'000 persons could be registered.

debt restructuring. Efficient out-of-court agreements with standardized restructuring terms for large numbers of distressed but viable SMEs would be advisable to provide meaningful relief to firms, while encouraging bank-led and time-bound negotiations, supported by stronger mechanisms to foster creditor coordination.

- *Safeguarding financial stability:* Non-performing loan ratios for the banking system remain high, while high impairment costs, compressed margins and reduced business volumes continue to erode bank profitability, resulting in annual losses for the eight largest banks. Banks therefore should remain focused on further rationalizing their commercial footprint, consolidating their domestic branch network, and gradually disposing of non-core assets. On the positive side, lending continues to rebalance towards the tradable sectors: loans to construction and wholesale/retail-trade firms have diminished considerably, while credit to exporting firms continues to recover.

The National Reform Programme of 2015[142] addresses many of these issues. It is also shaped by the strategy 'Europe 2020' as adopted by the EU.[143] Since this strategy is closely linked to the Stability and Growth Pact, a focus of the measures announced in this programme is on public finances. These rank first among the four policy areas we distinguish here.

The fiscal measures comprise: The deficit shall be reduced to conform to the targets of the Pact, the efficiency of public spending shall be enhanced, the pension system reformed to assure its longer term financial viability, public health spending shall be reviewed, the tax structure shall become more growth friendly and the pay system in the public sector streamlined. The table above shows the public deficit and the public indebtedness as the key indicators.

The second policy area is the labour market, where minimal salaries shall be increased cautiously. To bring the results of collective wage bargaining at the sector and enterprise level better in relation to productivity increases at the company level will require a new approach in wage negotiations. Labour protection legislation shall be further reformed and special measures shall be taken to promote the employment of the young. Social spending shall comprise an activation component. These measures together shall bring the participation rate further up towards the Europe 2020 target of 80%. The country was relatively close to the national target of 75% in 2002 with 73.3%, but under the impact of the economic crisis the participation rate had fallen to 65.4 in 2013 to improve again in 2014.

The third area is education where the relevance of educational efforts for labour market needs shall be enhanced. Vocational training shall e.g. increase the employability of the young. To this end, curricula in vocational training shall be developed and updated in cooperation with enterprises. Coordination with knowledge clusters shall also be sought, the latter being defined at a regional level. According to Europe 2020, persons leaving education having completed at best lower secondary schooling and attendance at the tertiary education level are the indicators. Here Portugal converges towards the targets fixed for the country: While with regard to early leavers, the rate was above 40% at the turn of the century, the ratio is now at 17%, relatively close to the target of 10%. Attendance at the tertiary level inched up from 13% in 2002 to 31.3% in 2014, relatively close to the 40% target.

A fourth broad policy area are the supervised sectors and the activities regulatory bodies deploy therein. Financial system stability and energy provision are major challenges. In infrastructure reform, the report also places a focus on transports. It takes up the functioning of port authorities, the development of regional public transport, addresses the functioning of the agency responsible for the road system and targets the competitiveness of the railway system. A special law shall grant regulatory authorities and the general competition authority sufficient resources and organisational flexibility. Reform of the judicial apparatus and a law on administrative procedures shall complement the reform of these institutions.

While according to the National Reform Program, an essential factor of success is that the public sector is capable of reforming itself, with respect to new orientations in the development of the private sector – beyond private initiatives supported by improved framework conditions- the use of EU structural funds plays a role. General principles are laid down in the 'Acordo de Parceria Portugal

[142] The 'Programa Nacional de Reforma 2015' may be retrieved at http://www.portugal.gov.pt/pt/documentos-oficiais/20150429-programa-reformas.aspx

[143] For the indicators used in the case of Portugal see http://ec.europa.eu/eurostat/statistics-explained/index.php/Europe_2020_indicators_-_Portugal

2020'.[144] More importantly, the use of these funds is broken down according to regional needs and opportunities. Concepts exist for the regions Norte, Centro, Alentejo, the districts Lisbon, Algarve, and the islands Madeira and Azures. In accordance with the availability of financial means through EU structural funds,[145] projects to be implemented in the agricultural sector (including forestry) benefit from a detailed description. A 2nd pillar is constituted by the Europe 2020 goal of improving the R&D system quantitatively and qualitatively and consequent spending projects.

Given the location of the business case in this chapter, the R&D component in the regional program Norte is here of interest. It is indirectly reflected by the steps, the University of Porto, the largest research institution in Portugal, intends to undertake to respond to its third mission, namely drawing knowledge and business closer together[146] The program authors take as the starting point that the Norte Region has traditionally depended on a range of low-tech and export-focused industries, among them textiles, shoes and furniture. With the growing pressures of globalisation, many firms across the region aim to add value to their products by upgrading processes. Others seek to become specialised suppliers in emerging sectors such as scientific equipment, mouldings and information systems. A further challenge for the region is its business sector's great weakness in R&D activities. Under the Norte Region's Innovation Plan, policy was refocused on specific assets in the region's economy and universities. Priorities include health, ICT and production technologies, creative industries, marine technologies and other sea-related activities. Accordingly, the Technology Centre of the University of Porto will focus on generating knowledge in areas such as energy, energy efficiency, polymers and composite materials, IT and communications, and robotics. The University's Centre of Creative Industries will support companies in business areas such as film, video and audiovisual, TV and radio, print, design, performing and visual arts, architecture, music, entertainment, and educational software by the university's creative and cultural expertise. Its location in Porto's urban centre port will help regenerate this area. Pole three, UPTEC Marine, will contribute to the incubation of technology-based firms linked to the sea, by promoting the development of new goods and services. It builds on the university's expertise in many areas, from fisheries to environment protection, and wave energy to maritime transport and tourism. UPTEC Bio is the University's fourth pole, calling mainly on the university's knowledge and skills in biotechnology. It has supported innovation centres in areas such as biotechnology, pharma, health, and chemistry. Overall, the university claims that the activities have already attracted some 110 firms, including 95 start-ups, five large companies and five private innovation centres. Off the 800 jobs created, 13% are at PhD level, 23% at master level, and 59% are for college graduates. Consequently, there is some hope that new and better remunerated activities gradually substitute for the numerous jobs lost in Portugal's textile industry which we will consider next.

6 The changing importance of textiles in the Portuguese economy

The mountainous regions in the northern half of Portugal are well suited for sheep farming. While this promoted the production of wool, linen was also cultivated, giving rise to the construction of weaving mills along the rivers Douro and Ave. Additionally, in Portugal's colonies of Mozambique and Angola high quality cotton was grown. Cotton and linen favoured a specialisation of the emerging textiles industry in terry cloths and household linen. Harbour towns like Porto became centres of trade in textiles. Starting in the mid-80ies, not only the Portuguese government but also the EU promoted the further development of the textile industry. Credits granted at very low interest rates allowed the build-up of plants with the most efficient machinery. By 1998, the textile industry was a primary industry within the Portuguese economy, accounting for 27.6% of employment in the industrial sector and 6.6% in the economy as a whole. From then on, employment was on a continuous decline. From 305'100 jobs in 1998 (Q4), the number fell to 174'400 in 2008 (Q4), just to know another decline to 132'400 jobs in 2012 (Q4). Redress in the industry then led to an increase to 143'100 jobs in 2014 (Q4), textiles and clothing still representing 19.8% of manufacturing employment today, but only 3.4% of total employment.[147]

The reduction in staff was at the time not matched by productivity increases. In nominal

[144] See http://www.portugal.gov.pt/pt/os-temas/portugal-2020/acordo-parceria/acordo-parceria.aspx

[145] On the EU Regional Development Fund see http://ec.europa.eu/regional_policy/en/funding/erdf/

[146] See http://ec.europa.eu/regional_policy/en/projects/portugal/a-catalyst-for-structural-change-in-northern-portugal

[147] The data are from the Labour Statistics of Eurostat.

terms, labour productivity more or less stagnated.[148] It would be erroneous, however, to think that no longer did any productivity improvements in technical terms occur in Portugal's textile industry. Rather, it is the relative decline of prices for textiles that resulted in a disappointing productivity performance in financial terms when deflated. This fact is brought out when exports of textiles in pure quantity terms are considered (see figure below).[149]

The figure makes evident why in Portugal from 2012 on, employment in the manufacturing of textiles and wearing apparel could gradually start to grow again. The output increase in pure quantity terms of 4.6% p.a. per full-time employed person from 2002 to 2008 had proven insufficient to withstand competition from new competitors. While in 2008 158'734 persons produced 562'645kg, in 2012 116'364 persons produced 626'652kg, a quantity increase of 52% per

person, or more than twice the annual rate observed in the six preceding years. A table below will indicate that this improvement occurred inter alia by 780 enterprises in textiles (19%) and 2669 enterprises in clothing (23%) going out of business, the remaining more than compensating this loss in quantity terms.

7 Wage levels in the global textile industry

Reliable data on wages paid in the textile and clothing sector on the global scale are not readily available. We reproduce below two figures. The first figure is from a consulting firm specialised in the T&C sector, Werner International.[150]

The data are based on indications sent to Werner International by their clients. The data refer to the textile industry. Secondly, we reproduce a table from EU statistics. Figures for textiles and garments are given and, this time, also for Hungary.[151]

The first table indicates that Portugal has significantly lower wage costs than e.g. its neighbour Spain, the latter even surpassing those of the USA. It has now lower wages than two NICs, South Korea and Taiwan. But competitor Turkey and most of the new EU-member states in Central and Eastern Europe - where the same costs of distance to major EU-markets accrue- still offer lower wages. At the other extreme is Switzerland where only a few firms could survive in the T&C

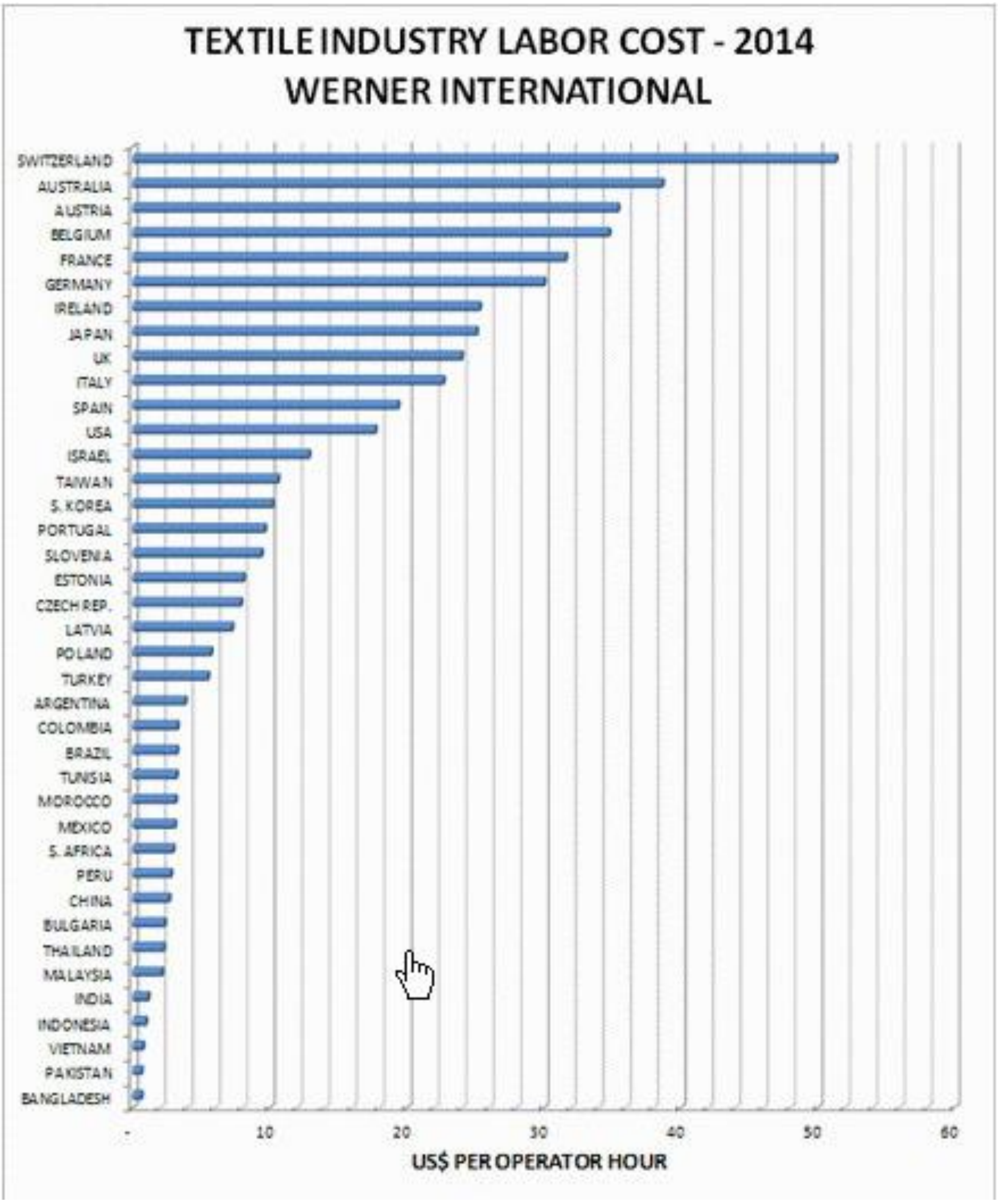
[148] According to the calculations of the author, for the combined sectors of manufacturing textiles and wearing apparel - the aggregation largely eliminates the problem of passing from SNA Rev. 1 to SNA Rev. 2 data - labour productivity hovered from 2000-2009 around a value of some 12'500€ to increase in 2012 to a value of 14'077€ in nominal terms. The GDP deflator increased from 2000=100 points to some 120 points from 2007 onwards, so that in real terms apparent labour productivity fell throughout the first decade after the turn of the century. Source http://open-data.europa.eu/data/dataset/m8PGVphX1wTVaVb3DYMQ; Annual detailed enterprise statistics for industry (NACE Rev. 2, B-E); http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do

[149] The values we calculate here have a deficiency in the sense that an assumption of no compositional change in textiles exports is made, upgrade may have occurred, worsening the pure price effect.

[150] See http://www.werner-newtwist.com/en/newsl-vol-011/index.htm#Title 4

[151] Portugal ranked 20th by employment in UNIDO's Statistical Yearbook 2013while Hungary is not in the top 30 employers in the textile and clothing industry and therefore not considered in the first table.

sector. When they produce textiles within the country – and not only rely on essentially re-exporting fabrics created abroad based on their design and commercialised with their brand[152] – they do it for a small but very demanding segment of customers. Non-inflammable casings for airplane-seats is the best known example.



The Eurostat data refer to wages per employee in full-time equivalents, by month, in €. In ascending order, Albania, Macedonia, Bulgaria, Serbia, Romania, Hungary, Latvia, Lithuania, Poland, Turkey, Croatia, Estonia, Slovakia and the Czech Republic exhibit lower wages in textiles. The same countries, but in slightly inverted order, offer lower wage costs in clothing than Portugal. This list of countries shows clearly that within the customs union, the EU together with free trade partners respresents, it was the EU-enlargement to the East that gave rise to problems for Portugal.

It is evident that at the current level of costs, Portuguese clothing manufacturers only have a chance when they address specific segments of the market. An example in case is provided by Petratex-confecções Sa, located north-east of Porto.[153] The company lost 85% of its market share in the transition period from 2005 to 2010. Redress came thanks to breathable water-repellent fabrics or garments that absorb odours or

[152] Giorgio Armani has e.g. a distribution centre in the Ticino.

[153] http://www.petratex.com/index.php?id=1

emit perfumes; or from gadgets like control panels on the sleeve for the cellular phone in the vest pocket. Ongoing developments in the industry are fabrics that regulate humidity, promote the healing of injuries or transmit information on the customer's health directly to a medical cabinet.

Labour cost, wages and salaries (including apprentices) - NACE Rev. 2

	Manufacture of textiles		Manufacture of wearing apparel	
GEO/TIME	2008	2012	2008	2012
EU-28	2,213	2,479	1,222	1,395
EU-15	2,802	3,106	2,301	2,548
Belgium	3,302	3,759	3,511	3,646
Bulgaria	289	362	197	262
Czech Republic	923	1,071	706	739
Denmark	4,158	4,776	4,308	5,432
Germany	3,218	3,432	3,243	3,745
Estonia	795	903	653	681
Ireland	3,027	3,959	3,182	2,556
Greece	2,162	2,124	1,462	1,700
Spain	2,351	2,421	2,100	2,520
France	3,360	3,754	3,561	3,787
Croatia	817	865	682	695
Italy	2,845	3,119	2,453	2,651
Cyprus	1,418	1,762	1,106	1,023
Latvia	630	699	531	520
Lithuania	679	715	511	530
Luxembourg	5,479	5,894	:	:
Hungary	661	692	544	535
Malta	2,334	:	1,204	:
Netherlands	3,969	4,549	3,724	3,928
Austria	3,413	3,960	2,830	3,538
Poland	757	743	531	573
Portugal	**1,170**	**1,257**	**846**	**976**
Romania	396	452	337	372
Slovenia	1,449	1,748	1,050	1,664
Slovakia	812	926	638	689
Finland	3,490	4,162	2,871	2,993
Sweden	3,764	4,892	3,455	4,254
United Kingdom	2,765	2,946	2,872	2,392
Iceland	1,628	1,998	1,254	1,679
Norway	4,532	5,142	4,320	4,882
Switzerland	:	6,725	:	6,300
	:	:	:	:
Macedonia	:	276	:	289
Albania	:	242	:	265
Serbia	:	425	:	360
Turkey	:	749	:	606

Source: Eurostat. Data per employee in full-time equivalents, by month, in €, last updated 13.05.15

Calida AG: Moving in and out of Portugal

The CALIDA-Group is a leading international manufacturer of luxury lingerie and high quality body-wear and employs about 1'600 employees. Up to the 80', production was concentrated at headquarters but some production was transferred to minor, rather peripheral locations within Switzerland. In 1987, CALIDA launched a joint venture with Rigotextil[154] and proceeded to a Greenfield investment in northern Portugal. 'Intipor', as the company was named, soon occupied more than 300 people and became the major employer in Amares, a small town north of Braga. Soon, a need to concentrate outsourced production while benefitting from low production costs was felt and motivated two joint ventures, one in Hungary and one in India, which were later fully integrated in Calida's production network. Having incurred a first loss in company history in 1999, the knitting and sewing plants in Switzerland were closed and the sewing plant in India sold. In spite of having reached profitability again in 2003, the sewing plant in Portugal was also sold in 2004.

Why Calida moved to Portugal

Several reasons can be advanced why Calida decided to locate part of production in Portugal. One reason was the uncertain outlook of access to EU markets from Switzerland. A production site in the EU was a guarantee to be as free as competitors in sourcing of inputs. In fact, after the Swiss population had rejected membership of the country in the EEA, the EU in its turn rejected Switzerland the access to Pan-European cumulation in the area of rules of origin for a few years.[155] Secondly, the significantly lower production costs in Portugal were important. Interestingly, the fact that Portuguese workers had been employed in Switzerland allowed the transfer of trained staff to the new production site. Furthermore, some sourcing in Portugal was already taking place and could be expanded. Due to EU membership, the economic and political framework conditions in Portugal were also considered as encouraging, and it was possible to benefit from the subsidies the EU offered to investments in regions lagging economically behind.

Within Portugal, the choice fell on the township of Amares due to the partnership with Rigotextil, the possibility of expanding production there thanks to available land reserves, the proximity to the airport of Porto, the fact that the region was well equipped with infrastructures and that the workforce could be recruited on the spot. At the time, wage costs were only one quarter of those in Switzerland. Despite enhanced logistic costs, production in Portugal soon accounted for about one quarter of Calida's total sales.

Why Calida left Portugal

When Calida decided some fifteen years later to sell the subsidiary in Portugal, the reasons as named by the company were the following: Production costs in Portugal had increased. There was a general overcapacity in the industry. Production should be concentrated and when this occurred in Hungary, one reason was the better access of this subsidiary to the developing markets in Central and Eastern Europe. Reducing stocks and streamlining logistics were also relevant considerations when the decision was taken to favour the Hungarian over the Portuguese subsidiary which had both been launched around the turning point in European history of 1989.

The plant in Portugal continued to operate for a few years under the company name 'Intipor'. For a first period of two years, Calida guaranteed Intipor a certain turnover, and this commitment was later extended for another three years. The new management failed to win new clients, however, and the plant was shut in 2009. The fate of Intipor is characteristic of the difficult years the Portuguese textile industry went through after the turn of the century. In recent years, the outlook in the sector has again improved somewhat since the textile industry is relocating production back to production sites closer to the EU markets than China or India are. The challenge is to address new customer segments with a continuously improved offer while keeping production costs under control.

The role of tariffs

For Calida, tariffs and tariff preferences play an outstanding role. In order to avoid the external tariff of the EU which the company estimates at a high 12%, the company refrains from placing confectioning activities (i.e. sewing orders) outside the EU although the different preference schemes the EU has adopted for developing nations would presumably allow such outsourcing to some extent. According to the company, the remaining duties, together with the burden of organizing and documenting production so that the

[154] Rigotextil was an Italian manufacturer of textiles which already had an establishment in Amares. Having sold their stake in the plant in Amares in … to Calida, the owners later founded Nuova Rigo Textil in Crespano del Grappa.

[155] From 1997 on, Switzerland could benefit from the Pan-European cumulation provisions to the Mediterranean countries.

preference schemes apply, engender additional costs and these are not made up by the reduction in wage costs achieved with outsourcing.

With regard to the alleviation due to the abolition of the MFA quota regime, a member of the management of the company emphasises that this effect was in these years compensated for by the consequences 9/11 had on the administrative burden. The administrative costs as such heavily depend on the precise articulation of the rules of origin. The fact that a certain treatment is required to qualify for origin in the EU has as a consequence that already the fibres and fabrics used have to originate within the area where Pan Euro Mediterranean cumulation rules apply. The processing done by the company in Hungary would in itself not be sufficient to qualify for EU-origin. For the company, the heterogeneity across the rules of origin in the different preferential tariff regimes are a nuisance. There is no software on the market that handles them swiftly. In the company's view, priority should be given to a higher degree of standardization across preferential tariff schemes. Criteria of origin based on value added would best fit the needs of the company.

8 Adjustment in the Portuguese clothing industry

To conclude, we have reproduced above key figures on textile and wearing apparel manufacturing in Portugal as may be found in the Eurostat databank. Considering investments in machinery and equipment as a terminal indicator of how an industry fares, the situation at the beginning of 2013 was finally stabilised.

Textiles

	Number of enterprises	Turnover	Value added at factor cost	Person. costs	Number of employee full time equivalent	Apparent labour productivity	Gross operating surplus/turnover (%)	Gross investment in machinery and equip.
2005	4,245	3,273.9	952.0	716.9	:	14.7	7.2	:
2006	4,065	3,306.5	934.5	701.8	:	15.5	7.0	:
2007	4,115	3,364.5	932.8	702.1	:	16.0	6.9	:
2008	4,033	3,039.6	857.3	673.6	52,477	15.7	6.0	124.3
2009	3,811	2,538.3	729.8	608.9	46,285	15.1	4.8	100.8
2010	3,539	2,877.8	788.0	588.9	43,357	17.5	6.9	85.3
2011	3,429	2,971.2	724.1	562.9	41,207	16.8	5.4	74.0
2012	3,253	2,819.3	694.4	521.4	37,935	17.5	6.1	69.1
2013	3,103	3,081.9	:	:	:	:	:	:

Wearing apparel

	Number of enterprises	Turnover	Value added at factor cost	Person. costs	Number of employee full time equivalent	Apparent labour productivity	Gross operating surplus/turnover (%)	Gross investment in machinery and equip.
2005	12,541	3,583.5	1,212.4	1,024.7	:	9.5	5.2	:
2006	11,846	3,520.3	1,196.9	1,003.7	:	10.0	5.5	:
2007	11,879	3,530.9	1,220.5	1,012.7	:	10.4	5.9	:
2008	11,643	3,318.0	1,150.8	1,009.2	106,257	10.1	4.3	76.6
2009	10,688	2,810.5	1,000.3	913.1	93,186	10.0	3.1	58.1
2010	9,729	2,951.4	983.2	876.7	86,962	10.6	3.6	51.7
2011	9,388	3,082.8	1,004.6	874.9	83,901	11.2	4.2	45.7
2012	8,974	2,952.2	943.7	826.7	78,429	11.2	4.0	45.7
2013	8,858	3,125.6	:	:	:	:	:	:

Source: Eurostat Annual detailed enterprise statistics for industry (NACE Rev. 2) as of 11.06.2015

The idea when choosing Portugal as the country to portray the effects of industrialisation was to show the reverse side of the medal. As indicated above, strong internal demand obscured in the last decade for a considerable time how deep structural adjustment to major transitions in the global economy would be. At the level of the industries considered here, namely textiles and clothing, to blame mistakes in macro-economic policies pursued within Portugal in these years would not be adequate, however. The challenges these two industries faced due to evolutions within the industry were enormous: On the global scale, the dismantling of the Multi-Fiber Arrangement MFA led to a fundamental improvement of the position of competing nations. However, as we will show further down, tariff protection may partly have supplemented the protection provided by the quota system of the MFA (which fell essentially only in 2005-2009). Simultaneously, Portugal faced new competitors due to the opening up of the EU towards Eastern Europe. With regard to these countries, tariff protection had been progressively dismantled with the Association Agreements, but obstacles such as customs procedures definitively fell with their entry into the EU in 2008/2010. Furthermore, EU neighbourhood policy improved also the competitive position of the Arab countries on the rim of the Mediterranean Sea. While the advanced countries in the EU, primarily Germany, found compensation in export possibilities to these regions, Portugal's industry structure was not strong enough to benefit sufficiently from this opening. The sad experience of continued inflation in the two-digit range had induced Portugal to seek entry into the Eurozone right from the beginning. This had beneficial effects, not only in terms of price stability, but also with regard to the cost of the public debt. However, it also strengthened domestic demand and foreclose the escape door of a devaluation when in addition to the globalisation of manufacturing – most felt in textiles&clothing – also the world financial and debt crisis hit the region from 2008 on

9 Setting up and managing a global value added chain

Fashions in textiles and clothing have always changed. From season to season, other fabrics and other styles of coats, hats a.s.o. were 'en vogue'. The length of skirts was even discussed as a possible indicator of the business cycle situation - short in boom times when people care little about the quantity of cloth obtained and vice versa in depressed times. Fashion hypes have become as common as media hypes.

Clothes shops would like to respond promptly to consumer demand in line with rapidly changing demand. As another reflection of their market power and the new demand patterns, buyers are also unwilling to maintain high quantities of products in stock in their warehouses or stores. With this trend toward "lean retailing", producers who can provide quick turnaround time enjoy an important competitive advantage. Proximity to large markets is a key factor to ensure quick turnaround, and helps Mexico, Central America and the Caribbean countries on the US market while Turkey, the Central and Eastern European Countries and the Arab countries bordering the Mediterranean Sea are thus supported on the EU market. The importance of "timeliness" and speedy delivery in lean retailing affects supplier location over and above considerations of price.

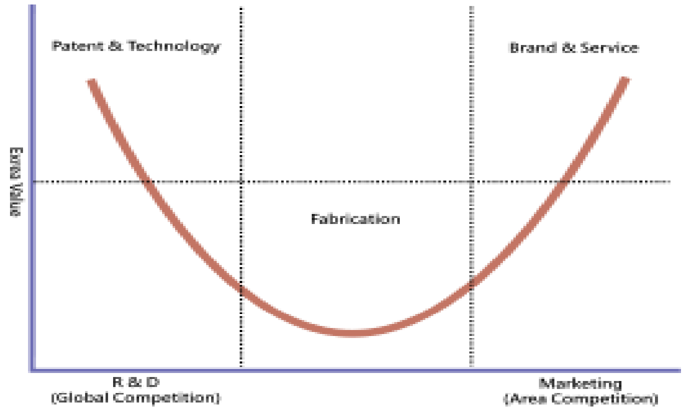
The general situation with an international division of tasks between brand owners in the industrialised countries and manufacturers in the developing world is well described by the concept of the "smiling curve" (see box). By keeping control over design and marketing in house, taking advantage of the latest ICT technology, buyers maintain close control over the whole global T&Cvalue chain through standard-setting, often sourcing raw materials themselves, distributing them globally and then importing the made-up garments. However, it is difficult for large-scale buyers to coordinate all these activities systematically in-house. Thus they rely also on agents performing these tasks in single market segments, perhaps for more than one retailer

The Significance of Globalisation for Portugal

The significance of globalisation for Portugal is peculiar. Formerly a globally oriented colonial power, Portugal adopted an EU focus starting in the 70' and benefitted in these markets first from a wage cost advantage and supportive EU policies. A significant part of the structures built up proved to be short-lived however, when a new wave of countries occupied within the EU the position Portugal formerly held. Portugal's upgrading in the value added chains was insufficient and also retained by the macro-economic evolution. With an industry structure relying still on rather price-sensitive productions, not disposing of the sovereignty to devalue its currency engendered high costs. They accrue in the form of an unwarranted process of de-industrialisation. Therefore, not necessarily globalisation but rather the aspects of regional integration proved crucial for Portugal's development in the recent past.

The Smiling Curve

A smiling curve is an illustration of the potentials different components of the production process in a manufacturing industry may convey to value added. If presented in a graph with a Y-axis for value-added and an X-axis for the stages of production (i.e. the value chain), the resulting curve appears like a "smile



The concept was first proposed by Stan Shih, the founder of ACER, an IT company headquartered in Taiwan, around 1992. According to Shih's observation, in the personal computer industry, both ends of the value chain command higher values added to the product than the middle part of the value chain. Based on this, ACER has adopted a business strategy to recreate itself from a manufacturer into a company that focuses on global marketing of brand-name PC-related products and services. Meanwhile, ACER has also invested aggressively in R&D to develop innovative technology. The concept later became widely cited to describe the distribution of value-adding potentials in various industries to justify business strategies aimed at higher value-adding activities.

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Chapter 5

China: No longer the Extension of the Industrialised Countries' Work Bench?

CONTENT

Country Fact Sheet			World	China
GDP per Capita	(at 2011 PPP $)	2013	13,964	11,525
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	8,5
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	158
Agricultural Value Added	(% of GDP)	2014	3,1	9,2
Manufacturing Value Added	(% of GDP)	2014	26,4	42,7
of which Industry	(% of GDP)	2014	15,8	30,1
Services Value Added	(% of GDP)	2014	70,5	48,1
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	47,3
Research and Development Exp.	(% of GDP)	2005–2012	2,0	2,0
Internet users	(% of pop.)	2014	40,5	49,3
International Tourism, Arrivals	(mio people)	2013	1068,0	55,7
Consumer Price Index	(2010 = 100)	2014	..	113,2
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	163,0
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	57,5
Current Account	(% of GDP)	2013	..	2,7
External Debt Stock	(% of GDP)	2014	..	9,3
Exports plus Imports	(% of GDP)	2013	60,4	50,3
Private capital flows	(% of GDP)	2013	-0,9	-2,7
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	3,8
Official Development Assistance	(% of GNI)	2013	0,4	0,0
Remittances, inflows	(% of GDP)	2013	0,71	0,42
General Gov. Expenditures	(% of GDP)	2013	..	31,9
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-2,7
General Gov. Net Debt	(% of GDP)	2013,0	..	
Ease of Doing Business Index	(rank)	2015	95	84
Corruption perception	0-100	2014	..	37
Population	(millions)	2014	7259,7	1364,3
Surface	(1'000km²)	2015	134325	9563
Populationb Density	(person/km2)	2014	56	145
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	0,6
Fertility	(births/woman)	2010/2015	**2,5**	1,7
Under-Five Mortality	(% < age 5)	2013,0	45,6	12,7
Life Expectancy at Birth	(years)	2014	71,5	75,8
Child Malnutrition	(% age group)	2008–2013	29,7	9,4
HIV-Prevalence	(% of pop.)	2013	1,1	..
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	6,3
GINI Index (income concentr.)	0-100	2005–2013	..	37,0
Homicide Rate	(per 100'000)	2008–2012	6,2	1,0
Primary School (enrolm.)	(% age group)	2008–2014	109	128
Secondary School (enrolm.)	(% sge group)	2008–2014	74	89
Tertiary School (enrolm.)	(% age group)	2008–2014	32	27
Genders in 2nd Schooling	(female/male)	most recent	97,1%	101,8%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	95,1
Employment to Population Ratio	(% aged 15+)	2012	59,7	68
Unemployment rate	(% aged $\geq$ 15)	2004-2013	..	4,05
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,82
Children in Employment	(% of age 7-14)	2013	..	..
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-0,2
Rural Population	(% of popul.)	2014	46,6	45,6
Energy use per capita	(kg of oil eq.)	2013	1894,4	..
CO2-Emission	(t per capita)	2011	4,6	6,7
Improved Water Access	(% of popul.)	2014	90,5	94,8
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	35,2
National Resource Rents	(% of GDP)	2014	3,9	4,0
Protected Area	(% of surface)	2014	12,8	15,6
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,727

Chapter 5
China: No longer the Extension of the Industrialised Countries' Work Bench?

Theoretical explanations for the international division of labour, while not pretending that countries fully specialise in production, usually point to such a specialisation in trade. However, Switzerland sends products of the chemical industry to Germany while at the same time importing chemical products from Germany. Economies of scale in producing single goods and customers' love of product variety provide the explanation why it makes sense to send very similar goods to and fro.[156] *When trade between countries like Switzerland and China is considered, an additional explanation for two way trade in similar products may be advanced, namely that the sophistication of Swiss export products is significantly above the sophistication of China's chemical exports. The latter country then serves as an extension of the workbench of industrial nations for the fabrication of product components for which the high wage costs of industrialised countries can no longer be sustained. However, such outsourcing may cease to be profitable with the progress achieved in emerging nations. This usually requires a change in their business model.*

Regarding China, the country under study, we will try to answer how it was possible, by transiting from a centrally planned to a mixed economy, to lift hundreds of million people out of extreme poverty in a few decades. Furthermore the country does not appear as being caught in a middle income trap, i.e. in a situation where a country can no longer reduce the difference in per capita GDP to the industrialised world but at best preserve its income position in relative terms. While preserving the orientation of its industry to exports, China succeeded in upgrading its offer on world markets and in reorienting its production out of textiles into more elaborate productions.

The business case referred to in this chapter is the Ems Chemie AG, producing i.a. important intermediate products for the automotive industry. It evolved from a supplier of basic chemicals located at the periphery of Switzerland to a fully globalised company which recently added a product development centre to its subsidiaries in China.[157]

1 Main features of the country and its population

The People's Republic of China (PRC) has a population of 1'364.3 million people, making it the world's most populous country, and a surface of 9'562'911km^2, resulting in a considerable population density. After long years of communist repression, the gradual opening up of the economy has progressively improved the living conditions of a large share of the population. While China accessed the WTO and is today the largest exporter in the world, the country remains a mixed economy, where government controls large industries. In the political sphere, the control exercised by the leading party is even stricter. The PRC has been a United Nations member since 1971, when it replaced the ROC (Republic of China, i.e. Taiwan) as a permanent member of the U.N. Security Council. The pragmatic concept of "harmony without uniformity" in foreign policy encourages diplomatic relations between China and a wide range of nations, despite ideological differences and controversies over human rights.

Han Chinese constitute about 91.51% of the total population and outnumber other ethnic groups in every provincial-level division except Tibet and Xinjiang. The languages most commonly spoken

[156] The model of monopolistic competition introduced in the economic theory part in the corresponding chapter of the underlying publication proves useful in explaining some other features of the country under examination. One is the concentration of the production of single categories of goods in one or only a few towns within China, i.e. the model is a tool in economic geography. The models build on the interaction of transportation costs and demand effects plus the question whether production factors are mobile.

[157] Dumping is one of the keywords in the law and institutions part of the corresponding chapter in the underlying publication. But before taking up the tire case, where the US accused China of exposing the US tire industry to such competitive pressure that the US was entitled to take safeguard measures, the conditions for acceding the WTO will be presented since the tire case can only be understood against the background of the accession protocol of China. Briefly, the main content of the TRIM agreement, i.e. the agreement on trade related investment measures, will also be taken up.

belong to the Sinitic branch of the Sino-Tibetan language family, and contain Mandarin (spoken natively by 70% of the population) and other Chinese varieties such as Wu (including Shanghainese) or Yue (including Cantonese). Standard Mandarin, a variety of Mandarin based on the Beijing dialect, is the official national language. Confucianism, Buddhism, and Taoism played a significant role in shaping Chinese culture. Elements of these three belief systems are often incorporated into popular or folk religious traditions, while after the decades of agnostic communism close to half of Chinese identify themselves as atheist.

The population growth rate has fallen below 1% as a consequence of determined policies to curb population growth. Fertility is estimated at 1.7 children per woman. Under-five mortality is on the way down to levels reached in the industrialised world and life expectancy at birth now reaches 75.8 years. The rate of extreme poverty has been driven down below the 10% threshold while a certain percentage of malnutrition shows the persistence of a large gradient in the living standards reached in the towns and regions towards the China Sea and rural regions more in the West.

The percent of the country's population living in urban areas has increased from 20% in 1990 to over 50% in 2014. China has over 160 cities with a population of over one million, including the seven megacities of Chongqing, Shanghai, Beijing, Guangzhou, Tianjin, Shenzhen, and Wuhan with a population of over 10 million. There were more than 262 million migrant workers in China in 2012, mostly rural migrants seeking work in cities. The income distribution has become uneven.

There is full attendance at the primary and lower secondary school level, nine years of schooling being compulsory. Enrolment at the upper secondary and tertiary level is increasing but spending on higher education is uneven among the provinces. Some child labour subsists and figures for a (low) unemployment rate are also indicated in available statistics.

Access to an improved water source is now above 90%, a considerable share of the country is protected area, and forest surface is increasing. At the same time, pollution of rivers and waste disposal are problems which give rise to recurrent incidences, and CO_2-emissions per capita are high, air pollution in towns being recognised as a major problem by the ruling party. One reason is that coal constitutes an important source of energy.

Fighting corruption was recurrently declared a priority by the leading party, but achieving progress is proving difficult according to the low score in the Transparency International index. Personal safety, as judged by the homicide rate, is good.

2 A gradual transition from a centrally planned to a mixed economy

After the catastrophic experience of the Cultural Revolution, China embarked on a cautious process towards becoming a market economy. Individuals who had gained access to the ranks of the party and the powerful ministries steering entire economic sectors had a lot of influence to lose, however. The opening up to foreign investment served as a powerful lever to overcome internal resistance. The evils the country had, and still has to fight, range from the prosecution of vested interests in contradiction to the reform agenda to barely disguised corruption.

A report prepared by the International Labour Organisation[158] on working conditions and other social effects of Special Economic Zones (SEZ)[159] sheds interesting light on how internal resistance was overcome. We reproduce a few assertions and facts found in this report in the next paragraph:

Special Economic Zones (denoted as Export Processing Zones (EPZs)) have played a central role in the growth and liberalization of China's economy. In the 80', Deng Xiaoping's introduction of the EPZ not only allowed China to attract foreign investment but also to experiment with modern techniques of enterprise management,

[158] See McCallum, Jamie K. (2011) : Export processing zones: Comparative data from China, Honduras,
Nicaragua and South Africa, ILO Working Paper No. 21, Geneva: ILO, March 2011

[159] Special Economic Zones (SEZ) is a general notion, showing that at least part of national legislation does not apply in such a region. This is in particular the case with regard to Export Processing Zones (EPZ), where the import regime of the country does not apply but from where it is also not easily possible to deliver to the interior of the country. The EPZ are of course the first where Foreign Funded Enterprises tend to establish themselves if the motive of FDI is not better market access, but (labour) costs advantages or access to particular resources, the processing of fuels, ore and food constituting a prominent example (see also Chapter 3 on Ghana).

including human resource management, in a selected number of enclaves. Therefore, about 70 per cent of FDI in China during this period ended up in the provinces in which the EPZs or EPZ-like zones were located. The first Trade Union Law (1992) and the Labour Law (1994) served mainly to dismantle the old employment relations regime. Since the early 2000s, a series of legal and institutional changes adopted have begun to bring meaningful changes to the legal framework for both the protection of individual workers' rights and the working of modern industrial relation systems in China. In the intermediate decade, from 1990 to 1999, the success of the SEZs led provincial elites to deregulate areas within their jurisdiction as well, without necessarily gaining the approval of the central government. In 1997, for example, the average wage in a Chinese enterprise was only 62 per cent of that of Foreign Funded Enterprises (FFEs). Since then, the comparative advantage of FFEs for wage earners has decreased, providing further evidence of successful reform beyond the EPZs. The report further observes that since 2004 local governments have used an upward adjustment of local minimum wages to attract migrant workers, in the absence of a well-functioning mechanism of wage negotiation at the enterprise level. The relevance of FFEs remained high, however. FFEs contributed 56 per cent to the total employment growth in industrial enterprises, bringing the figure from 89.2 million in 2000 to 105.2 million in 2005. The phasing out of the Multi-Fibre Arrangement (MFA) in 2004 partly accounted for the increase in EPZ production in China. As China's economic evolution tended to become ever more lopsided towards the coastal regions, the government launched after 2000 the Western China Development Strategy. The report concludes that, in spite of the well-known problems of the representational foundations of the industrial relations system, China has made concerted efforts to expand trade unions and collective bargaining coverage in every corner of the economy. Still, enterprise unions' dependence on employers continues to seriously undermine unions' capacity to represent workers through collective bargaining.

The reform efforts of the 90' extended far beyond the creation of Special Economic Zones and changing relations at the work place. When China asked for WTO membership in 1995, the government argued in its request that the reform packages implemented had been covering the banking, finance, taxation, investment, foreign exchange and foreign trade sectors and had brought about major breakthroughs in China's socialist market economy. It was stated that State-owned enterprises underwent reform, consisting in a clear definition of property rights and responsibilities, a separation of government from enterprise, and the introduction of scientific management. China also claimed that the Renminbi became convertible on current account and further liberalization of pricing policy had resulted in the majority of consumer and producer products being subject to market prices. These assertions were then scrutinised in the accession procedure.

In 1999, at an intermediate stage of accession negotiations, total imports and exports of goods reached US-$ 361bio, of which exports stood at US-$ 195bio, and imports at US-$ 166bio. The Gross Domestic Product ("GDP") of China then totalled approximately US-$ 990bio, bringing foreign exposure (i.e. imports plus exports divided by GDP) to a considerable level of 36%. Exports from China in 1998 accounted for a remarkable 3.4% of the world's total, but the stage of development within the country was still low. In 1998, the net per capita income for rural residents was approximately US-$ 260, and the per capita dispensable income for urban dwellers was approximately US-$ 655.[160]

The commitments China had to make in order to be granted access to the WTO consolidated the country's path towards a market economy. Section 3.1 in the corresponding chapter in the underlying publication indicates the long list of areas where China had to make commitments in the sense of a further dismantling of government intervention. However, up to now, democratization is lagging far behind economic liberalisation, casting some doubts on what counts most when economic evolutions run contrary to the leading party's interests. The WTO agreement - since constituting an agreement among States - confers only limited rights to individual economic actors to seek remedy by judicial or arbitration procedures. Enforcement of market economy rules in such a situation thus critically hinges on the weight foreign governments give to the entire political and economic relations linking their country to such an important political and economic power as China.

The results achieved in China remain remarkable. GDP per capita in PPP-terms stood at US-$ 11'525 in 2013 and is quickly approaching the world average of US-$ 13'964. In fact, the country's growth rate over the 2009-2014 period remained at 8.5% p.a., and compared over a decade, China' GDP in 2014 is by 158% higher than

[160] Information in the two preceding paragraphs had been taken from WTO (2001): Report of the Working Party on the Accession of China, WT/ACC/CHN/49 https://www.wto.org/english/thewto_e/countries_e/china_e.htm

what it was in 2004. Agriculture still accounts for close to 10% of value added, but – also considering the country's size – China is outstanding in manufacturing where 42.7% of value added was generated in 2014, leaving slightly less than 50% of GDP for services. Industry in the narrow sense of the term alone accounts for 30.1% of GDP. Gross fixed capital formation is still at a tremendously high level (3x the share it reaches in the US) and R&D spending is also inching up and is now at 2.0% of GDP. Interestingly, the number of internet users has not yet reached the percentage of the population in the most advanced countries. The comparative price level is already at 57.5% of that of the US, and this shapes China's comparative advantage considerably.

Inflation is contained (a cumulated 13.2% from 2010 to 2014). Domestic credit extended by banks is far above 100% of GDP to the point that observers consider credit standards as a source of concern. The high savings rate also has as a consequence some financial capital exports. Overall, the current account surplus is not really high, with 2.7% of GDP in 2014, contrary to the allegations China regularly hears. FDI to China continued to run high with 3.8% of GDP in 2013. No wonder that the chance to participate in such a rapid economic expansion makes enterprises tolerant in accepting the shortcomings a mixed economy displays with regard to an unbiased functioning of market forces. In the Doing Business Index of the World Bank, the score of China is consequently only in the middle of nations.

The handling of public finances appears as solid, with gross government expenditures at 31.9% of GDP, a deficit of 2.7% of GDP. Formerly available figures indicating a public debt of 39.4% of GDP may not have duly reflected the financial viability of the huge public works undertaken and problems in managing state-owned enterprises.

3 A look at China's reform agenda

The introductory paragraph of the report released by China's National Bureau of Statistics on the economic situation in 2013[161] is revelatory of the political situation prevailing in China which is still tainted by communism. It reads: "In the year of 2013, faced with the increasingly complicated and severe external and internal conditions, the Central Party Committee and the State Council have united and led the whole nation to thoroughly implement the spirit of the 18th Party Congress, committed to the general tone of moving forward while maintaining stability, firmly deepened reform and opening-up, and made innovation on the macro-control in a scientific way. As a result, the overall national economic performance showed good momentum of stable and moderate growth." Noteworthy in the quote is (i) that the Central Party Committee has priority over the State Council, (ii) that both lead the nation and do not respond to the voters' will as governments in western democracies would write, (iii) that legitimacy for change is built up at a party congress, (iv) that change needs to occur while maintaining stability, expressing the party's ambition to keep control over the process,(v) that scientific knowledge has to guide the implementation of policies ("scientific communism"). The question remains what is meant by increasingly complicated and severe 'internal' conditions.

The following presentation of economic statistics is then extremely standard, using concepts like the GDP, distinguishing the three sectors of agriculture, industry and services, taking up consumption, investment and foreign trade in a row, then turning to inflation and monetary control, examining household incomes before analysing factor markets where employment is set in relation to population growth. The approach is also pragmatic: foreign investors and investors from Hong Kong, Macau and Taiwan province being lumped together in a single figure. Past concepts of National Accounting show up in the absence of detailed figures regarding the service sector (largely absent in the formerly used Net Material Product) and the fact that investment is discussed before consumption (to bring the country forward, in past times, capital deepening had to take precedence over 'decadent consumerism').

It is not the mandate of a Statistical Office to point to imbalances and to formulate corresponding advice for economic policies. It is also very difficult to resume on a one-pager all the challenges faced by an economy with a population of more than 1.3 billion people. Against this backdrop, it may be best to reproduce here the 'Main Findings' in the 'Economic Survey of China', the OECD released in March 2013. The text regarding reforms reads as follows:

Selected reform areas

Financial sector reform. Gradually, market-based financial instruments and interest rates are playing a greater role, the Renminbi is being used more across borders and the restrictions on capital inflows and outflows are being eased. Continued progress in this direction will support growth.

Competition and innovation. Competition is generally intensifying, boosting productivity, but state ownership needs to be reduced in some sectors, reform needs to be started in others, and the

[161] China, National Bureau of Statistics (2014): China's Economy Showed Good Momentum of Steady Growth in the Year of 2013, Press Release of 20 January 2014

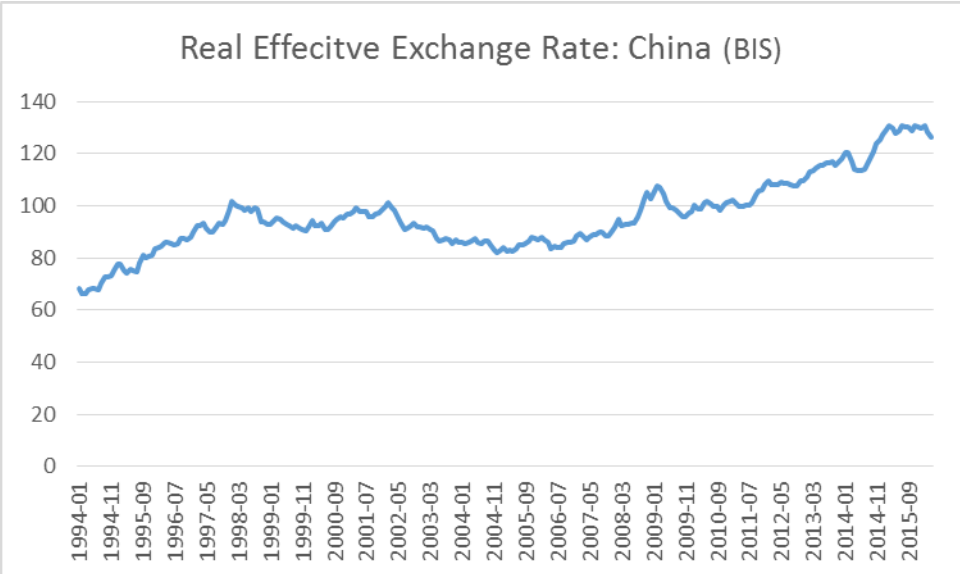
state should pull out of non-core sectors. Publicly-funded R&D should focus more on fundamental research. The intellectual property rights of innovators, domestic and foreign, should be strengthened further.

Inclusive urbanisation. Close to a quarter of the population now lives in cities where income per capita is as high as in some OECD countries. Migration from the countryside to cities, and out of agriculture into higher productivity industry and services, will continue to fuel growth but also brings many challenges. In particular, sufficient land must be made available for the expansion of larger and more productive cities and to meet the demand for more living space. This will help avoid renewed overheating in the real estate sector and improve wellbeing. Farmers need to be given the same property rights as urban dwellers and allowed to develop, or sell for development, the land for which they have user rights. Internal migrants need to be given the same access to public services as registered urban residents. This is notably the case for education, all the way from primary school to university, and for health care.

Relations between levels of government. Providing adequate basic public services across the country is essential to improve wellbeing nation wide. This calls for a greater portion of transfers to provinces, prefectures or counties to go to lower-income areas.

Greening growth. Cities need to become greener, as does the countryside. Some forms of pollution are declining but air and water quality are often poor, imposing sizeable costs. Going forward a broad policy mix is needed to help meet environmental goals in a cost effective manner, including well implemented market-based approaches and better enforcement of existing regulations. To further encourage progress in the efficient use of energy, taxation of diesel and gasoline ought to be raised, while the price of electricity, coal, gas and water needs to better reflect costs. Large ongoing investment in renewable energy should be better harnessed. Continuing to move towards pollution taxes and carbon pricing is also key. So is further lifting standards for motor vehicle emissions and fuel quality. Progress in improving enforcement and information dissemination needs to be built on while targets should be set for a broader range of environmental objectives.

While one could have chosen or added other topics, the five reform areas selected certainly deserve attention. Admittedly, what figures under competition and innovation is primarily a concern for China's western trading partners.



As in other chapters, we also reproduce here the graph concerning the real effective exchange rate. The series displayed makes the often heard allegation of a deliberately and systematically undervalued Renminbi less convincing, in particular when the gradual real appreciation that resumed in 2005 is combined with the information on a foreign exchange surplus shrinking from 10% of GDP in 2007 to 2% currently. Non-addressed macro-economic imbalances of China's main trading partner need to be criticised on an equal footing.

The real appreciation of the currency combined with fast growing real wages makes the emancipation of China from serving as an extension of the workbench in industrialised countries ever more pressing. The title of a report by the Asian Development Bank produced with the support of Chinese authorities and released in 2012 expresses the same idea: 'Growing beyond the Low-Cost Advantage - How the People's Republic of China can avoid the Middle-Income Trap'. The main recommendations figuring in the report are not distinctly different from what the OECD wrote at the same time, the statistical figures reproduced make the report valuable. Given the size of China within the world economy, they deserve attention. In addition, the question of a middle-income trap (see box) is as such of increasing academic interest. While China's economic expansion probably has too much drive, the growing number of middle-income countries which can no longer improve living standards relative to the industrialised world is remarkable. It points to the potential relevance of the concept of a middle-income trap and the study of how to move out of it.

4 Is there a real risk of China falling in a middle-income trap?

The report by the Asian Development Bank[162] we exploit here cautions first that the Chinese economy is not easy to decipher, with its complex mix of market activity and government control, developed coastal cities and backward interior areas, world class technology in some industries and lower level productivity in many others. This mix is no doubt due to the fact that the economy continues to undergo a rapid transformation from traditional to modern, from rural to urban, from plan to market, and from domestic to global. It then acknowledges China's remarkable success, pointing e.g. to the fact that from the early 1980s to late 2000s, the incidence of poverty at US-$ 1.25-a-day declined from 85% to about 13%.

Turning to the challenge of not getting stuck in a middle-income trap, the report then observes that the economy's low-cost advantage, due largely to a vast pool of surplus rural labour, has made the manufacturing sector globally competitive. It continues then that the productivity and technology gaps with advanced countries remain significant, despite clear advances over the past 3 decades. Although the Peoples Republic of China (PRC) is the world's largest high-tech exporter, a very high proportion of these products is processed with low domestic value added. While considered the world's factory, the PRC is largely an assembler with few internationally known brands. This leads to the reports first recommendation:

- *Stepping up innovation and industrial upgrading.*

What are the figures and considerations supporting this recommendation? The reference used to illustrate that manufacturing in the PRC continues to rely largely on labour intensive technology and competes globally on its low-cost advantage is the fact that, in 2009, industrial labour productivity was about 10% of the level of the United States. Expressed differently, China's level of industrial labour productivity was similar to that of the Philippines and Indonesia but below most Latin American countries, including Brazil (18%), Argentina (22%), and Chile (37%). On the other hand, both high levels of investment in manufacturing and high total factor productivity (TFP) growth drive strong labour productivity growth. Estimates of the latter component, TFP growth, vary greatly for PRC manufacturing, however, and have therefore been the subject of great controversy. On this point, the ADB-report observes that a recent study of more than 300'000 PRC manufacturing firms has shown a TFP growth of 8% each year on a value-added basis during 1998–2007.

As indicated, a look at factor markets supports a view of China exhibiting too much drive to risk falling in a growth trap in a near future. In particular, the outlook for TFP growth continuing at a high rate is good as far as the latter depends on human capital development Secondary school gross enrolment rose steadily from below 40% of the age cohort in the early years of reform to 81% by 2010. The expansion of tertiary education has been even more dramatic - from less than 1% of the age cohort when reforms began, to 26% in 2010. A second, more tempting question is whether industrial upgrading is successful. Industry already accounted for over 45% of GDP when reforms began, and - after dropping slightly during the first decade - has remained between 45% and 50% since. As late as 1995, the PRC's largest manufacturing subsector by gross output was textiles - more associated with low-income countries. Other major manufacturing subsectors at the time were chemicals and metals, the legacy of pre-reform heavy industrial development. Food processing, which, like textiles, is generally low value and low technology, was also prominent. By 2010, textiles and food processing had dropped out of the top five, overtaken by two higher-value added subsectors - electronic equipment and electrical machinery and equipment. This testifies to China's remarkable capacity to develop new industrial activities.

[162] Zhuang, Juzhong and Paul Vandenberg and Yiping Huang (2012): Growing beyond the Low-Cost Advantage - How the People's Republic of China can avoid the Middle-Income Trap, Manila: Asian Development Bank, October 2012.

Evidence regarding a Middle-Income Trap

Many countries experience a growth slowdown after achieving middle-income status, according to the Asian Development Bank ADB. Some eighteen countries globally have been "middle income" for the past fifty years, including twelve in Latin America and three in Asia— Malaysia, the Philippines, and Thailand. At their current pace of growth, many will remain trapped for years to come. On the other hand, fourteen economies have escaped the trap since 1965, including five in Asia—Hong Kong, China; Japan; the Republic of Korea; Singapore; and Taipei,China. These Asian economies have completed the transition from low to high income within three to four decades.

The main explanation is that upon reaching middle income, the pool of surplus labor shrinks and—as the country approaches the so-called Lewis turning point where labour markets start to clear - wages rise rapidly. Countries must then upgrade industry and services through innovation to improve labour productivity - moving from a low-cost to a high-value added economy. If they fail to do so, the economy becomes trapped: no longer able to compete with low-income countries but unable to compete with high- income countries the growth rates falter.

The appropriate environment to avoid relative stagnation should have the following key elements according to the ADB: (i) macroeconomic, political, and social stability; (ii) adequate public investment in infrastructure and human capital; (iii) a market system that performs well in providing adequate price signals, encouraging competition, protecting investors, and promoting trade; and (iv) a well-designed industrial policy. The East Asia miracle economies possessed most of these characteristics during their take-off periods. The ADB argues, on the other hand, that macroeconomic instability, debt crisis, high-income inequality, social tension, and political instability caused many Latin American countries to remain caught in the middle- income trap,.

Table 3.1 ***High- and middle-income country groups***

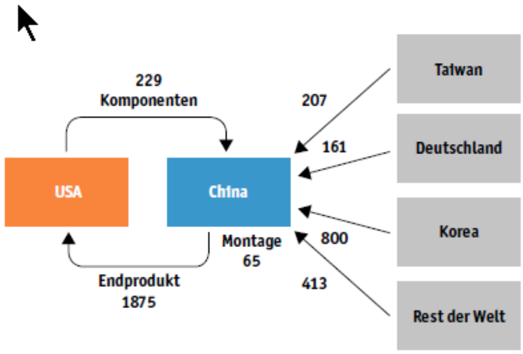
		Middle income	
Group 1	Group 2	Group 3	
High income before/in	High income after 1965	Middle income continuously during 1987–2009	
n=17	n=14	n=28	
Europe	**Europe**	**Europe**	**Latin America**
Austria	Croatia	Belarus	Argentina
Belgium	Czech Republic	Lithuania	Bolivia
Denmark	Hungary	Romania	Brazil
Finland	Poland	Russian Federation	Chile
France	Slovakia		Colombia
Germany		**Asia**	Costa Rica
Italy	Greece	Malaysia	Dominican Republic
Netherlands, The	Ireland	Philippines	El Salvador
Norway	Portugal	Thailand	Guatemala
Sweden	Spain		Mexico
Switzerland		**Africa/Near East**	Panama
United Kingdom	**Asia**	Jordan	Paraguay
	Hong Kong, China	Lebanon	Peru
North America/Oceania	Japan	Morocco	Uruguay
Australia	Republic of Korea	South Africa	
Canada	Singapore	Syria	
New Zealand	Taipei,China	Tunisia	
United States		Turkey	
Near East			
Israel			

Note: Includes only countries with a population of above 3 million; excludes members of the Organization of the Petroleum Exporting Countries. Source: Vandenberg, Poot, and Zhuang (2011).

The critical point is that the PRC's import sophistication is much higher than its export sophistication - although the difference has narrowed in recent years. According to estimates, only about US-$ 5 of iPod's US-$ 150 export value (3%), US-$ 8 of iPad's US-$ 499 worldwide retail price (1.6%), and US-$ 10 of iPhone's US-$ 549 worldwide retail price (1.8%) derive from the PRC (see also graph below). Valuable intermediate goods are primarily imported from Japan, the Republic of Korea and Taiwan.

The global value added chain of the iPhone

in mio. US-$ (source: OECD[163])



Today, China still operates at the bottom of the smile curve (see Chapter 4). PRC patents in per capita terms are low, although they have grown rapidly in recent years. And the PRC holds few global brands in manufacturing - despite being billed as the "workshop of the world."

The question remains whether China needs a focused industrial policy. The debate on the merits and scope of industrial policy continues. Dani Rodrik is the exponent among the defenders of industrial policies and his view has also earned consideration in the text we resume here. He proposes a set of principles for the pursuit of industrial policy.[164] We subscribe only to one recommendation of Rodrik: public support must target activities, not sectors. We do not contest the soundness of the other recommendations[165] but consider that the other recommendations of Rodrik show precisely why focused industrial policy is prone to failure: Pressure groups will see that the opposite of what Rodrik considers as essential will happen.[166]

Imbalances are often associated with rapid structural transformation. In the PRC, additionally, incomplete reform is also a major factor contributing to imbalances. Specifically, in the PRC, State Owned Enterprises (SOEs) own a large part of the productive assets in the non-agricultural sectors, actually some 50% in the industrial sector in 2008. The response to the report's recommendation, namely

- *Deepening structural reforms, in particular reforms of enterprises, factor markets, and the fiscal system*

needs therefore to consist to a large extent in a reform of the scope and the operating of SOEs. The report, while not as explicit respecting the need of SOE reform, underpins this point by observing that China's private enterprises, although growing strongly, remain small in size with limited innovation resources. In contrast, SOEs are far larger with access to more innovative resources - but they are less efficient and have weaker incentives for advance. Additionally, redefining the role of SOEs plays an important role in expanding services, maintaining financial stability and reforming the structure of the public budget, three points we will immediately address. We recall also a fourth point, namely the role of SOEs in wage bargaining. The ILO report resumed above addresses this point.

Services remain underdeveloped at about 43% of GDP—compared with an average of 48% for lower-middle-income countries, 60% for upper-

[163] OECD (2012): Trade in Value-Added: Concepts, Methodologies and Challenges (Joint OECD/WTO Note)
https://www.wto.org/english/res_e/statis_e/miwi_e/miwi_articles_e.htm

[164] See Rodrik, Dani (2007): Normalizing Industrial Policy, paper prepared for the Commission on Growth and Development, Cambridge USA: Harvard University, 2007.

[165] They are: (i) incentives should be provided only to "new" activities; (ii) there should be clear benchmarks/criteria for success and failure; (iii) there must be a built-in sunset clause; (iv) activities that are subsidized must have clear potential of providing spillover and demonstration effects; (v) the authority for carrying out industrial policy must be vested in agencies with demonstrated competence; (vi) implementing agencies must be monitored closely by a principal with a clear stake in the outcome and who holds political authority at the highest level; (vii) the agencies carrying out promotions must maintain channels of communication with the private sector; (viii) the objective should not be to minimize chances that mistakes will occur — which would result in no self-discovery at all — but to minimize the costs of the mistakes when they do occur; and (ix) promotion needs to be renewable, so the cycle of discovery continues.

[166] See the remarks at the end of part IV of the corresponding chapter in the underlying publication for further indications.

middle-income countries, and over 70% for high-income countries. On the demand side, growth has relied too much on investment and net exports, with private consumption weak - in 2009, the latter comprised just 35% of gross domestic product (GDP).

- *Expanding services and scaling up urbanization;*

Policy options to promote services include, according to the ADB:

(i) reducing or further reducing entry restrictions in certain services subsectors such as education, health care, finance, transport, and telecommunications, while promoting market competition from the private sector in these subsectors;
(ii) promoting the development of high-value services, including finance, banking and insurance; transport and logistics; marketing, brokerage and advertising; management consulting; computing and information technology (IT); accounting and legal services; and design as well as R&D; among others;
(iii) promoting good quality services and strengthening market regulation of services firms to protect consumer interests, including establishing services quality codes and standards and dedicated regulatory agencies (for key public services such as water, electricity, and health care, for example);
(iv) reducing or eliminating policy biases in favour of manufacturing, including making the exchange rate more flexible and eliminating discrimination against services for access to credit and in taxation;
(v) encouraging services providers to invest more in services branding and, at the same time, strengthening protection of intellectual property rights;
(vi) investing more in services training and human capital development of employees, including introducing job skill grading; and
(vii) promoting urbanization and services trade, as noted elsewhere.

Over-reliance on net exports makes the economy vulnerable to external fluctuations and shocks, especially in the face of weak demand from advanced markets. Over-investment could lead to poor asset quality, which in turn could undermine the performance of banks and the stability of the financial system. This leads to the macro-economic and financial side of China's future development. The report observes that the PRC avoided the hyperinflation that derailed growth in Latin America and afflicted several other emerging markets. In addition, limited capital account liberalization helped insulate the country from global and regional financial contagion during crises. On the other hand, financial sector reform is widely considered to lag behind reforms in other sectors. When the reports pleads for

- *Maintaining macroeconomic and financial stability,*

the second aspect, financial sector reform, appears as more demanding. For years, low deposit interest rates combined with high household savings offered banks a steady flow of cheap funds. These savings were intermediated at low lending rates to enterprises, especially SOEs, enabling them to reap higher profits and thus increase corporate savings for investment. In 2008, households and the corporate sector contributed almost equally to savings - 22% and 23%, respectively. The consequence was an increase in the investment rate, from 26% of GDP to 46% during 1990–2009, before it declined to 44.4% in 2011. The financial sector itself also remains dominated by SOE, i.e. state-owned banks, with administrative intervention in credit allocation and controlled interest rates distorting capital allocation, providing low returns to investors and savers, and contributing to excessive investment and structural imbalances by a selection of creditors. At the same time, rural households and micro-, small- and medium-sized enterprises are not adequately served by the financial system. Markets for bonds and equity remain underdeveloped in other respects and are e.g. inadequate for long-term and risk financing. Furthermore, weak corporate governance and lax internal control and risk management practices on the creditor and the banking side expose the economy to potentially significant financial risk. The ADB claims that if the PRC is to rely more on efficiency, improved productivity, and innovation as sources of growth, it is critical that it deepens financial sector reform,

PRC's rapid growth has also had significant distributional consequences, including a rising skills premium, a falling labour income share, and growing spatial inequality. Not surprisingly, the report makes a claim for

- *Reducing income inequality to make growth more inclusive;*

Regarding inclusiveness, migrant workers are in a delicate situation. Estimates indicate that about 169 million migrant workers were working in urban areas in 2010, with this number expected to increase to 225 million by 2015, and 292 million by 2020 - as higher wages attract migrants. Meanwhile, the number of urban resident workers will start to decline from 151 million in 2010 to 147 million in 2015, and expected 139 million in 2020. The PRC now faces the unusual prospect of growing old before it grows rich. There is a large body of literature on how globalisation (especially trade integration) and technological change can increase wage differentials between skilled and unskilled workers. For the PRC, the move toward market-oriented wage determination consecutive to enterprise reform is also a major contributing factor to rising skill premiums. Evidence from survey data indicates that returns on higher education (universities and professional schools) have increased, while returns on upper- and lower-middle schooling decreased from the 1990s to the 2000s. Among the Asian countries listed, inter-person or inter-household differences in human capital and skill endowments can explain about 25%-35% of total inequality in the late 2000s. The PRC does not rank highest in terms of inequality, but its increase over time has been the most significant. Furthermore, urban elites are better prepared to face the cost of ageing. The migrant workers lack the *hukuo* system under which urban residents enjoy social welfare entitlements.

Decomposition analysis shows that more than half of the PRC's total inequality in 2008 is due to spatial inequality - rural/urban income gaps and inter-provincial disparities combined. The government has invested heavily in transport, energy, telecommunications, and urban services. Many middle-income countries have seen infrastructure gaps develop and widen. While not 'expressis verbis' in the report, the need to set up social security and fiscal equilibration schemes may become pressing. Simultaneously, the development of infrastructures is a factor that will continue to weigh heavily on public finances in coming years.

Another aspect possibly requiring the disbursement of public funds is environmental protection, energy being crucial in both regards, infrastructure and environment. Energy supply and security could not only constrain the country's future growth, but the PRC's coal-based energy system is also heavily damaging the local environment and contributing to global warming and climate change. The ADB report therefore recommends

- *Promoting green growth to conserve resources and protect the environment*

In 2009, PRC's total primary energy consumption was about 2.27 billion tons of oil equivalent (toe), five times the 1980 level, with coal accounting for 70%, crude oil 18%, natural gas 4%, and hydro, wind, and nuclear 8%. Although the total amount nearly matched the US, the world's top energy consumer in 2009 (IEA 2011), in per capita terms, PRC's energy consumption remains below the world average. In 2008, over 90% of its primary energy consumption stemmed from domestic production, compared with Japan (18%), US (75%), India (76%), and the average for members of the Organisation for Economic Cooperation and Development (OECD) (71%). Transport bottlenecks are already constraining coal production and will continue to limit future expansion. Inadequate power grid capacity and water availability for thermal power plants and coal washing in the north limit the coal-by-wire option. A study by the World Bank and PRC's State Environmental Protection Administration (2007) puts the costs of pollution - such as health care costs and absence from the working place due to health concerns as well as land productivity losses - at 3.8% of GDP as of 2005. Going green, especially under the 450 PPM scenario,[167] creates a significant financing challenge. Therefore, there is a strong case for an early green transition to avoid inefficient future lock-ins.

China's geography has as consequence that the pollution of waters has effects confined to the national territory. The government's 2009 Report on Environmental Statement (MEP 2010) indicates that surface water pollution remains severe nationwide despite recent efforts to control it. Of the 408 sections of 203 rivers monitored, only 57.3% are safe for human consumption after treatment (I–III classes), 24.3% are safe for industrial and irrigation use only (classified IV–V), and 18.4% are unsafe for any use (below class V). Water quality in northern river basins is notably worse than the Yangtze and Zhu rivers.

The report finally recommends

- *Strengthening international and regional economic cooperation.*

It does not go into details of this topic, however, perhaps because it involves regional and global international organisations like the UN and Development Banks directly. We therefore add some reflections taken from other sources. One problem is the sheer size of China's economy within the world economy. In 2010, only about 17% of all PRC's manufactured goods were exported, but this accounted for 14% of the world total. Increasing trade exposure to 20% would add an import demand and an export offer to the world market equivalent to that of Italy or France. Furthermore, spill-overs to world markets from closing or opening imbalances within China's domestic economy have a potential to destabilize world markets by a lever that is increasing with the country's GDP per capita. This makes out of internal evolutions simultaneously world market

[167] The BLUE scenarios in the IEA's Energy Technology Perspectives publication of 2008 describe pathways to a long-range concentration of 450 ppm (parts-per-million CO_2-equivalent (ppm CO_2e)) in the atmosphere.

evolutions, a justification for the relatively detailed presentation of China's needs for economic reform on the preceding pages. A first signal of this evolution are the tensions regarding equal opportunities to access natural resources that have grown significantly over the last decade. Since then, land grabbing has become a highly disputed topic. Apparently, the hot spot will not be Africa, however, where the US now want to check Chinese dominance,[168] but the South China Sea where natural resources meet with a history of expansionary national policies and consequent violent conflict, making it relatively easy to instigate hostilities. The region is not politically stable. The economic cooperation coined "ASEAN plus Three" resembles in an uneasy way the balance of power on which Bismarck built his policy in the 2nd half of the 19th century.[169] In terms of economic effects produced, geopolitics may indeed dominate over genuine economic policies to which we now return.

Above, we expressed our scepticism regarding the need for an industrial policy. Based on the ADB-report and using additional recommendations figuring in the report, we carry the argument one point further. In our view, government policies could more and more concentrate on setting up the public budget, a task that necessarily falls within the realm of politics. A first major structural reform would then be to determine more clearly what falls within the budget and what economic activities remain outside the public budget and will only be geared by market forces. While it is finally impossible to impose strict budget constraints on SOEs, a separation of public spending decisions and public entrepreneurial activity would at least constitute an important step in this direction. Strengthening asset management would complement the disciplining effect. Secondly, the size of the PRC's budgetary revenues may have to increase over time. This is due to the probable need for greater efforts in equalizing access to public goods and services, in reducing regional inequality, and in meeting other needs such as addressing climate change, protecting the environment, and responding to future macroeconomic shocks. Reforming property taxes that provide sources of government finance and - at the same time - help to control property speculation could be one element of revenue reform. Increasing the personal income tax as a share of GDP by broadening the tax base appears to be of similar importance, considering that the PRC already has a relatively high top personal marginal tax rate on wages and salaries (45%). Making greater and more effective use of green taxes to control pollution emissions, conserve natural resources - including energy and water - and promote green growth is a possible third element. Finally, a reform of the value-added tax (VAT) system to expand coverage to the entire service sector would further align public finances to the common denominator of tax and spending policies in developed countries.

Whether the party successfully concentrates on decisions along these lines which undoubtedly fall in the political sphere is doubtful since it means a loss of discretionary power. There is also no guarantee that the country successfully contributes to the regional and geopolitical balance. Political ambitions could give China's policies a different thrust. Both these points could turn out to be crucial for the realization of the long-term scenario sketched in the ADB report. According to this projection, per capita income in 2010 constant prices would increase to $16,500 by 2030 and, if applying the current World Bank threshold, China would reach high-income status by 2025. In 2030, its share of global GDP at market exchange rates would be 22.2%, followed by the US at 16.1% and India at 6.0%, the share of the combined EU situated at 23.4%. Under this scenario, the PRC would join its East Asian neighbours in completing the transition from low-income to high-income status within 30 years.

[168] On 4-6 August 2014, President Obama met with African heads of State and announced his administration's will to focus on trade and investment in Africa and highlighted America's commitment to Africa's security, its democratic development, and its people. The theme of the Summit was "Investing in the Next Generation."

[169] ASEAN plus Three designates a series of common conferences among the ten ASEAN countries with China, South Korea and Japan. Initiated by Japan in 1997, the substantive discussions extend beyond the sphere of economics. South Korea and China responded positively to Japan's initiative despite historical obstacles, since they did not want to see privileged relations between Japan and the ASEAN countries emerge.

EMS Chemie: An Evolving Pattern in FDI-Activities

About Ems Chemie

Founded in 1936, Ems Chemie (then named HOVAG) produced ethyl alcohol (or ethanol) out of wood as an alternative fuel for motor vehicles. The production proved essential in WWII when neutral Switzerland could only accede oil producing regions through territories under control of the Axis Powers. After the war, HOVAG had to give up this production. It was replaced by producing synthetic polyamide fibres, namely Grilon® fibres and Grilon® plastics. To do research and to exploit patents in this area, HOVAG had founded INVENTA AG in 1947. A major achievement of INVENTA AG was the development of a new manufacturing process for Caprolactam, a precursor substance of Polyamide. In 1954, the procedure was licensed to the Japanese enterprise UBE Industries. In the coming decades, INVENTA then constructed worldwide over 300 industrial plants for Caprolactam, synthetic fibres and engineering plastics, 117 of them alone in China. Ems had also become an exporter of business related services.

In 1972, Dr. Christoph Blocher was elected Chairman of the Board and Chief Executive Officer of the EMSER WERKE AG. Due to the oil / textile crisis in the 70', he focused on growth with high performance polymers and began to phase-out textile fibres. In this vein, in 1967, the fabrication of Griltex® Co-Polyamide had started at headquarters in Ems, a fusible adhesive powder for coating of textile interlinings. Bonding instead of sewing significantly rationalises production in the apparel industry. Launched in 1998, the Grilbond® bonding agent then guaranteed reliable bonding of polyester fibre reinforcement and rubber in car tyres, drive belts and conveyor belts. Today, Ems provides chemical products and components to a series of downstream industries, most prominently the automotive industry.

Geographical expansion

The success with high performance polymers led to a geographic expansion of the company. In 1982, EMS-AMERICAN GRILON Inc. started the production of polyamide materials in Sumter / South Carolina (USA), Production facilities for high performance polymers in Germany and Taiwan were added to the one in Sumter (USA), beyond establishing a network of sales companies.

FDI of a different kind started with the acquisition of the TOGO-Group based in Romanshorn (CH) in 1985. From the 70' on, the company had become a supplier of the automotive industry with engineered materials and application systems for bonding, coating, sealing and damping of car bodies. These inputs are produced just-in-time in plants in the immediate neighbourhood of customers, i.e. large car manufacturers. By the year 2000, EMS-EFTEC (as this branch had been named) had acquired or built up production facilities in Belgium, Spain, USA (Taylor (near Detroit), Kentucky) and Mexico. It comprised also an engineering company in Germany.

EMS-EFTEC expanded its local presence in South-Eastern Asia with subsidiaries in Singapore, Thailand, India and China (Shanghai, Changchun), in order to supply the growing automotive industry with locally-produced just-in-time supplied process materials. Some ten years later, in 2009, EMS-EFTEC founded a further production joint-venture company in Wuhu (south of Nanjing), where domestic car manufacturers were established. In 2010, EMS-EFTEC Guangzhou was founded to cover the automotive industry in Southern China. In 2013, a new production location in Foshan (near Guangzhou) was added. As the Chinese automotive industry continues to grow at a fast pace - still, only a small share of the Chinese population owns a car -, further EFTEC-production plants are planned in Changshu, Chengdu and Wuhan.

Presently, super-stiff polyamides as well as high-temperature polyamides from EMS are in high demand for metal replacement. To support this business, the constitution of an Application Development Centre 1990 in Domat/Ems was followed 2015 by the construction of a similar centre in Suzhou (China), the decentralisation of R&D marking a further milestone in the globalisation of the company.

In 2016, the EMS Group had 26 production sites in 16 different countries. EMS occupied more than 2,800 employees worldwide. In all these years, EMS also continually expanded its production capacity in Domat/Ems, which remains the main research and production site for the EMS-CHEMIE business.

Summary

The expansion of the EMS-Group is telling for the motives leading to FDI. The initial investment occurred in 1941/42 with capital from the company's headquarter in Zurich as well as public funds in a region at the periphery of the country in accordance with the presence of natural resources (wood waste). In the following decades, EMS continuously evolved from being a producer of basic chemicals to an innovation-driven producer of high-performance and high-margin specialty products and industrial solutions across a broad range of downstream industries. The first step in this transition occurred based on the traditional nexus existing between the chemical industry *and the textile industry, namely synthetic fibres. While itself a producer of synthetic fibres, EMS did not exploit knowledge acquired in producing synthetic fibres to start an expansion by proceeding to FDI, and also export activity from the synthetic fibre production at headquarters knew limits. Remarkably, the company considered it as more profitable to generate engineering and licence income out of the knowledge developed by creating INVENTA AG. Licensing as a third option to export activity and FDI is barely studied in the literature when it occurs as a genuine alternative to exports and FDI and not only as an element of a joint venture.*

In a second step, the continuous expansion of the range of promising chemicals out of own R&D led to locational decisions based on motives which are considered as typical. Opposed to EMS-EFTEC, EMS-CHEMIE (and its later subsidiaries like EMS-GRIVORY, EMS-GRILTECH a.s.o.)- has only a limited number of subsidiaries abroad. In the Far East, a production in Taiwan proofed adequate to supply the countries in the region for many years alongside to the continuous supply out of Switzerland. In a recent time, the market within the Peoples Republic became buoyant enough to justify a production on the mainland. Interestingly, an Application Development Centre was added to the new plant. This lends some support to the thesis discussed below in Chapter 14 where the argument is that larger countries are better placed to advance to the global knowledge frontier thanks to a better coverage of R&D costs out of the local market.

In the case of EMS EFTEC, the dominant motive for proceeding to FDI is the proximity to the downstream industry. Car manufacturing typically occurs in huge plants and there are not too many producers of cars in the world. This makes on-site just-in-time production attractive.

Overall, it is remarkable how also in the case of a small company within the global chemical industry the full heterogeneity of the motives to proceed to FDI appears.

5 China's Accession to the WTO

A major feature of the second wave of globalisation in the late 20th century was the integration of formerly centrally planned economies in the world trade regime as set up in 1995 by the constitution of the WTO. Since its start in 1995 with 128 members, 34 countries have joined the WTO, bringing the number to 162 by the end of 2015. Still, a number of countries of some importance remain outside the WTO. After long discussions already under the GATT, China became member of the WTO by the end of 2001.

When applying for membership, China's government had to claim that a nation-wide unified and open market system had been developed (see the introductionary section). The government also stated that an improved macroeconomic regulatory system had been put in place, using indirect means and market forces to play a central role in economic management and the allocation of resources. The representative of China to the WTO stated furthermore that although important achievements had been made in its economic development, China was still a developing country and therefore should have the right to enjoy all the differential and more favourable treatment accorded to developing country members pursuant to the WTO Agreement.

In response, the WTO member countries of the time raised numerous reservations. Examples are concerns over practices in relation to the pricing and procurement of goods and services and the distribution of import and export licences. Other members pointed to the authority of sub-national governments in the areas of fiscal, financial and budgetary activities, and the uncertainty how these governments will handle them. Reflecting the geopolitical circumstances of the time, negotiations started during which China had to bind tariff rates at or below the level of those practised in order to obtain the support for its accession by those countries which were already members. In parallel, a working party scrutinised the economic regime and policy of China in all its details. With regard to China's foreign direct investment measures falling in the realm of the TRIMs agreement, the representative of China confirmed that upon accession, as set forth in the Draft Protocol, China would fully comply with the agreement, without recourse to Article 5 thereof, and would eliminate foreign-exchange balancing and trade balancing requirements, local content requirements and export performance requirements. Also, Chinese authorities would no longer enforce the terms of contracts containing such requirements.

The Working Party did not only take note of these and similar commitments. In order to give sufficient grip to the outcome of the negotiations, the report of the working party also contained one hundred pages of annex with detailed lists on relevant provisions in place on Chinese markets, e.g. in form of price controls, and whether they have to be phased out and over which period. After accession, the other nations also made ample use of the antidumping and safeguards mechanism the WTO allows for. To these we turn next.

6 Antidumping and safeguards – the tire case

Binding tariffs and applying them equally to all trading partners according to the MFN-clause are key to the smooth flow of trade in goods. The GATT attenuates this strict regime under specific circumstances, however. There are essentially three such exemptions as far as single markets are concerned:

- actions taken against dumping (selling at an unfairly low price)

- subsidies and special "countervailing" duties to offset the subsidies

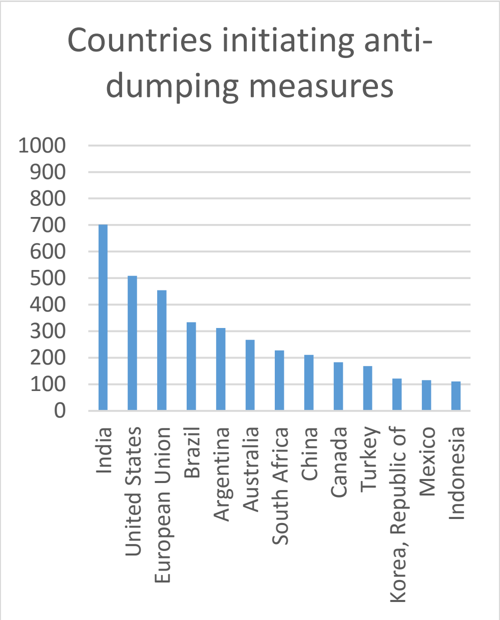
- emergency measures to "safeguard" domestic industries by limiting imports temporarily.

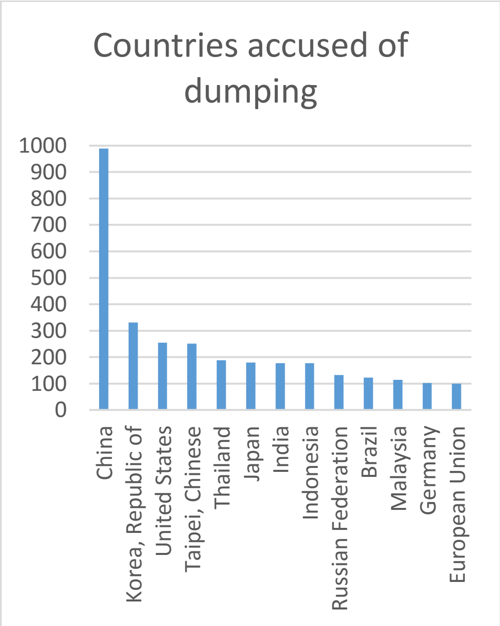
Chapter 1 considering Burkina Faso provided a detailed presentation of WTO provisions in the area of agricultural subsidies (the Brazil-US-cotton dispute) and Chapter 3 looking at Ghana brought up the issue of subsidies in the manufacturing sector (by considering special processing zones). For anti-dumping see the box below. In the remaining part of this section, we will present in some detail a case where the US invoked a safeguard clause to protect an industry.

Launched by a Labour Union, the U.S. International Trade Commission (ITC) initiated an investigation under Section 421 of the U.S. Trade Act of 1974 on the allegation that Chinese passenger vehicle and light truck tires were causing market disruption to U.S. tire producers. Based on the ITC's findings, on 11 September 2009, President Obama proclaimed increased tariffs on Chinese tires for three years, effective 26 September 2009. The tariff increase was 35% ad valorem in the first year, 30% in the second year, and 25% in the third.

The antidumping provisions in WTO law[170]

If a company exports a product at a price lower than the price it normally charges on its own home market, it is said to be "dumping" the product. Opinions differ whether this is unfair competition, but many governments take action against dumping in order to defend their domestic industries. The WTO agreement does not pass judgement. Its focus is on whether governments can or cannot react to dumping and how. The Anti-Dumping Agreement clarifies and expands Article VI of GATT allowing countries to take such action. The importance of the dumping allegations raised against China appears through the following graph.





Not all WTO-member countries initiate but all member states can be subject to dumping allegations. Frequencies of allegations are shown in the graph above.

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170 The indications are from the WTO homepage.

The President also directed the Secretaries of Labor and Commerce to provide other available economic assistance to affected workers, firms, and communities.

While in national law Section 421 of the Trade Act was used to implement this China-specific safeguard measure, within the WTO, to take a measure affecting only China found its backing in a provision in China's WTO Accession Protocol that was in force up until December 2013. This provision in the Protocol is separate from Article XIX of the General Agreement on Tariffs and Trade (GATT) 1994 and the WTO Agreement on Safeguards, which allow WTO members to respond to injurious import surges but on a stricter basis than under the Protocol. In particular, the generally applicable tool does not allow safeguards to be taken against imports out of selected countries. In spite of this fact, the tire case is revelatory of what needs to be established by a country when it intends to have recourse to a safeguard measure.

A general safeguard is subject to the following detailed obligations: The WTO Committee on Safeguards and the WTO Council on Trade in Goods need to be notified and the country has to consult with affected WTO members. The existence of an "unforeseen development" has to be proven. Also, the import surge needs to cause "serious injury". The WTO Appellate Body has found that this standard is "on the face of it very high", higher than in the case of alleged dumping, arguing that the measure is not taken on "'unfair' trade actions, but on an evolution on the market in question. The safeguard shall initially not be applied for more than four years but may eventually be extended to eight.

Four U.S. safeguards have been successfully challenged in the WTO. In the tire case, China lost the case, mainly because the US could invoke the special safeguard in China's accession protocol. The "material injury" standard required therein was considered less onerous than the "serious injury" standard contained in the Article XIX of the GATT and the Agreement on Safeguards. Secondly, the criterion that the market evolution must be "unforeseen" could hardly be applied since the measure could only be taken in a limited period after a known event, WTO-accession. A third consideration was that China might have taken such action as to prevent or remedy the market disruption, e.g. entered a voluntary export restraint agreement with the US, a measure made possible by the bilateral nature of the litigation. The panel's ruling remained tenuous, however. This appears through the sentence reading: "The decision [of US producers] to locate production in China might have been the result of an independent business strategy, but the decision to close plants might well have been a response to imports".

China's establishment on the global trade scene thus also encountered some hurdles.

The Significance of Globalisation for China

Within its borders China disposes of all the essential resources necessary for a successful growth process. The Wall of China is symbolic of the fact that the country evolved in relative isolation for centuries, missing developments in the Western hemisphere. The Cultural Revolution may be considered as a last expression of favouring an inward oriented societal evolution. A cautious economic opening then unleashed an unprecedented growth of GDP, allowing a large share of the world's population to leave the status of living below the lowest defined level of poverty. China's large internal market was conducive to foreign direct investment, carrying along technical and organisational knowledge so that the country now has good prospects of progressing also beyond a middle income level. An open question is whether a congruence of economic and democratic developments needs to be established to this end.

Chapter 6

The Czech Republic: Integrated into EU-wide Value Added Chains by M&As

CONTENT

Country Fact Sheet

			World	Czech Republic
GDP per Capita	(at 2011 PPP $)	2013	13,964	27,959
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	1,0
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	23
Agricultural Value Added	(% of GDP)	2014	3,1	2,7
Manufacturing Value Added	(% of GDP)	2014	26,4	38,0
of which Industry	(% of GDP)	2014	15,8	26,6
Services Value Added	(% of GDP)	2014	70,5	59,3
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	24,9
Research and Development Exp.	(% of GDP)	2005–2012	2,0	1,9
Internet users	(% of pop.)	2014	40,5	79,7
International Tourism, Arrivals	(mio people)	2013	1068,0	9,0
Consumer Price Index	(2010 = 100)	2014	..	107,2
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	67,0
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	62,5
Current Account	(% of GDP)	2013	..	0,9
External Debt Stock	(% of GDP)	2014	..	..
Exports plus Imports	(% of GDP)	2013	60,4	148,6
Private capital flows	(% of GDP)	2013	-0,9	-3,1
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	2,4
Official Development Assistance	(% of GNI)	2013	0,4	..
Remittances, inflows	(% of GDP)	2013	0,71	1,09
General Gov. Expenditures	(% of GDP)	2013	..	42,9
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-1,9
General Gov. Net Debt	(% of GDP)	2013,0	..	..
Ease of Doing Business Index	(rank)	2015	95	36
Corruption perception	0-100	2014	..	56
Population	(millions)	2014	7259,7	10,5
Surface	(1'000km²)	2015	134325	79
Populationb Density	(person/km2)	2014	56	136
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	0,4
Fertility	(births/woman)	2010/2015	**2,5**	1,6
Under-Five Mortality	(% < age 5)	2013,0	45,6	3,6
Life Expectancy at Birth	(years)	2014	71,5	78,6
Child Malnutrition	(% age group)	2008–2013	29,7	2,6
HIV-Prevalence	(% of pop.)	2013	1,1	0,1
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	..
GINI Index (income concentr.)	0-100	2005–2013	..	26,4
Homicide Rate	(per 100'000)	2008–2012	6,2	1,0
Primary School (enrolm.)	(% age group)	2008–2014	109	100
Secondary School (enrolm.)	(% sge group)	2008–2014	74	97
Tertiary School (enrolm.)	(% age group)	2008–2014	32	64
Genders in 2nd Schooling	(female/male)	most recent	97,1%	100,7%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	..
Employment to Population Ratio	(% aged 15+)	2012	59,7	55,9
Unemployment rate	(% aged ≥ 15)	2004-2013	..	5,045
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,75
Children in Employment	(% of age 7-14)	2013	..	..
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	3,8
Rural Population	(% of popul.)	2014	46,6	27,0
Energy use per capita	(kg of oil eq.)	2013	1894,4	3945,3
CO2-Emission	(t per capita)	2011	4,6	10,4
Improved Water Access	(% of popul.)	2014	90,5	100,0
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	1,3
National Resource Rents	(% of GDP)	2014	3,9	0,4
Protected Area	(% of surface)	2014	12,8	21,1
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,870

Chapter 6
The Czech Republic: Integrated into EU-wide Value Added Chains by Mergers and Acquisitions

The coordination of production units located in different places around the world can occur by way of market transactions. But it can also occur within companies. Today, a large share of international trade is trade within multinational companies or with multinational companies. Incorporating considerations of the theory of the firm into the analysis of international trade proves inevitable; otherwise, trade theory would no longer give satisfactory explanations of important features of current global exchange. In this respect, it is not only the within-company exchange of goods (such as intermediaries) and capital (financial means, specialised investment goods) that is relevant, but also the exchange of services (financial guarantees), labour (key personnel) and knowledge (intellectual property rights). In this process, scale economies are an essential aspect, since the extension of markets may lead to an upward shift of critical firm size. Not surprisingly, the process of globalisation goes along with a wave of mergers and acquisitions. This chapter will focus on this aspect.

The chapter starts by looking at the Czech Republic and the country's transition to a market economy. The end of communism in 1989 created an opportunity to integrate production facilities in this central European state into western value added chains.[171] [172] An appreciation of the currency in real terms testifies to the success of the country in improving its competitiveness. Then, the focus on industrial activities made the country suffer from the global crisis of 2008.

The business case in this chapter is devoted to a Swiss producer of glassware. This company expanded soon after the opening up of the country into the Czech Republic by acquiring a traditional local producer before extending, in a second stage, its network of production facilities even further to the East.

1 Main features of the country and its population

The Czech Republic has a population of 10.5 million people and a surface of 78'870km^2. It features therefore a considerable population density. For 41 years, after WWII, the country had to evolve as a single-party communist state under Soviet influence. The collapse of the communist regime in 1989 gave way to a multiparty parliamentary republic. On 1 January 1993, Czechoslovakia peacefully dissolved into its constituent states: the Czech Republic and the Slovak Republic. After 1989, the country successfully drew on industrial traditions and economic ties that had been built up in the pre-WWII period. The Czech Republic was the first among the formerly centrally planned economies to reach (in 2006) the status of a high income country according to the World Bank.

The Czech Republic is a pluralist parliamentary representative democracy with membership of the European Union (from 2005), NATO (from 1999), the OECD (from 1995), the OSCE (since its creation) and the Council of Europe (from 1991/93).

The Czech population is homogeneous with no significant linguistic minorities left. Interestingly, only some 10% of the population declare adhesion to the Catholic Church; a large majority leaves the question regarding their religious appurtenance open or declares themselves agnostic. With 1.6 children per woman, the birth rate is among the lowest in the EU. Life expectancy has reached 78.6 years. Income distribution is even with a GINI coefficient of 26.4.

Nearly all of the young attend primary and secondary school and tertiary education is also widespread. Accordingly, there is parity with regard to female and male participation in secondary

[171] In the theoretical part II of the chapter, the relevant motives for FDI and, in particular, M&A, will be explored.

[172] Part III of the chapter – devoted to legal framework conditions - will concentrate on taxes. Besides rising concerns in competition policy (a subject that we will address from the point of view of economic policy only in a later chapter), the emergence of multinational enterprises admittedly constitutes a problem for public finances. Taxing mobile factors is a delicate point anyway the more open an economy is. Even more demanding is coping with extended networks of parent companies and foreign subsidiaries. A country interested in locating headquarter services within its territory is in particular need of an attractive network of double taxation agreements. For these agreements, internationally adopted standards exist but they leave a number of loopholes. International organisations therefore increasingly address the topic of shifting tax bases that is inherent to the presence of multinational companies.

schooling (while, with 75%, the ratio in the labour market is lower than it used to be in Communist times). The employment to population ratio has some upward potential and after 2008 the unemployment rate rose to a considerable level.

Living conditions are good when considering access to an improved water source, forest area change and protected areas as a percentage of the country's surface. Also, the homicide rate indicates that personal safety is guaranteed.

2 A comparatively swift transition

After 1989, particularly in the Czech part of the country, a majority favoured a rapid transition to a competitive market based economy. The prospect of becoming an EU member was the overarching goal at the outset and presented the advantage that the single elements of the reform agenda were to a considerable degree predefined by the EU legislation with which the country would sooner or later have to comply. An Association Agreement with the EU was concluded in 1991. In convergence programmes, the agenda for adopting the 40 chapters of the EU's "acquis communautaire" were laid down. After the turn of the century, the responsible instances in the EU considered that sufficient convergence had been achieved so that the Czech population could decide on EU membership in 2003. In 2006, the Czech Republic became the first former member of Comecon to achieve the status of a developed country, according to the World Bank. Today, the country is among the top 30 nations if judged on the human development index.

A principal factor behind the comparatively successful catch-up has been the rapid and deep integration of the Czech economy into German led supply-chains.[173] Bilateral trade with Germany alone amounts to 35.6% of total goods exports and 35.2% of total goods imports (2014) while relatively few firms export to countries outside Europe (89.9% of exports remain in Europe). The rapid integration reflects an initial large differential in unit labour costs, a relevant labour skill endowment and specific advantages primarily on the German and Austrian markets, such as geographical proximity, shared economic traditions and similarities in industry structure. This has attracted large inflows of foreign direct investment, particularly in the form of modern assembly technology in the electrical and transport equipment producing sectors. As a result, Czech export oriented manufacturing is focused on final products with a relatively large amount of imported intermediate inputs, while Czech production of intermediate goods is subordinated and mainly for domestic use. Furthermore, the domestic service sector is poorly integrated; service content in exports is among the lowest in the OECD countries.

The transition to a market economy has led to significant changes in the labour market. In manufacturing, employment losses in low-technology and heavy industries have been offset by expansion in the transport equipment and electronics sectors. Employment by gender experienced a more dramatic change. The decline in the number of women working was partially caused by a drop in in-kind child care from more than 1'000 crèches in 1990 to less than 50 two decades later (mainly in the major cities). This is an outcome of the regionalisation of this responsibility without associated fiscal transfers or mandatory service obligations.

Regional disparities also accentuated during the transition process. The relatively small district with the capital Prague was the first region in EU transition countries to no longer qualify for EU regional development funds due to the stage of development reached. While per capita income in Prague is (on a PPP basis) at 43'095 € (2012), the other regions reach a per capita income between 14'593 € (Karlovy Vary) and 19'534 € (Brno), [174] so that with a national average of US-$ 26'333 (at the 2011 PPP value) the Czech Republic's GDP per capita was 84% of the EU-28 average (2014).

On the positive side, the Czech Republic has successfully addressed a substantial part of the environmental burden from the Communist era, such as reducing SO_2 emissions and improving river water quality, although emission intensity of non-greenhouse gas emissions remains relatively high. In 2013, there were still 17.8% of residents living in dwellings not connected to a public sewerage system.[175]

GDP was 23% higher in 2014 than in 2004. This low figure reflects that convergence lost dynamics since the crisis of 2008, in spite of the fact that five year GDP growth remained in the positive range (1.0% p.a. from 2009 to 2014). Due to the

[173] This and the following paragraphs are based in the Economic Survey of the Czech Republic 2014 by the OECD. The OECD takes the information regarding German led supply-chains mainly from Baldwin and Gonzalez (2013). See Richard Baldwin & Javier Lopez-Gonzalez, 2013. "Supply-Chain Trade: A Portrait of Global Patterns and Several Testable Hypotheses," NBER Working Papers 18957, National Bureau of Economic Research.

[174] http://vdb.czso.cz/vdbvo/en/tabparam.jsp?voa=tabulka&cislotab=NUC6510PU_KR&vo=null&kapitola_id=441

[175] http://issar.cenia.cz/issar/page.php?id=1776

comparatively high share industry, the sector most affected by the crisis, held and still holds in the country, achieving a better score was made difficult. In fact, foreign direct investment and export-driven growth underpin a share of manufacturing in value added of nearly 40% – the highest among the European OECD countries. Partly as a legacy from communist times, the service sector remains underdeveloped and is not internationally oriented.

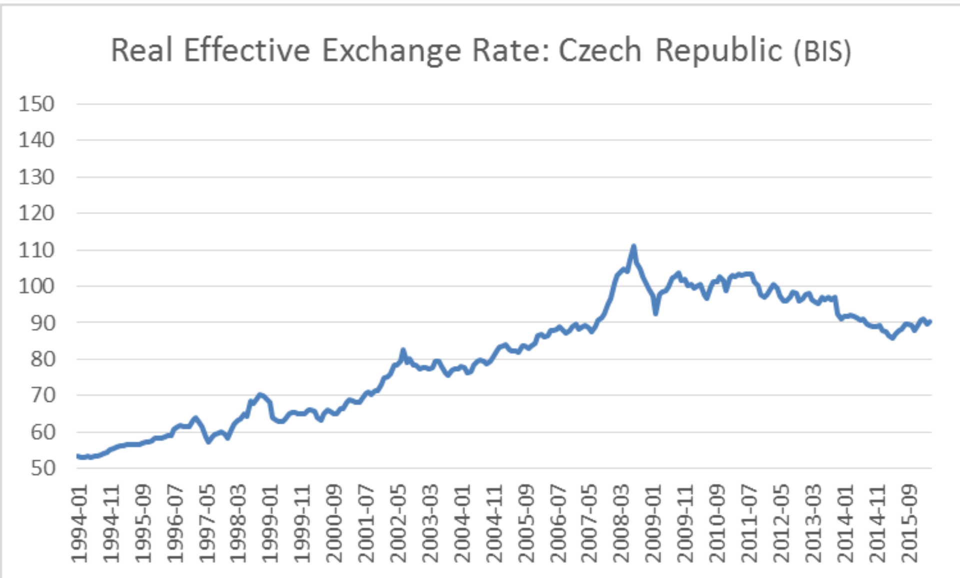
Agriculture accounts for 2.7% of value added, manufacturing 38.0% (of which industry 26.6%) and services 59.3%. Gross fixed capital formation reaches a considerable 24.9% of GDP, R&D expenditure amounts to 1.9% of GDP and 80% of the population uses the internet. The Czech Republic attracts 9 million tourists. Trade exposure is a high 150% of GDP, confirming the important role of the country at the assembling stage of production. FDI inflow runs at 2.4% of GDP, while domestic credit by banks amounts only to 67.0% of GDP, proving a potential in the development of services. The comparative price level to the US is 62.5% and inflation has been kept below 2% p.a. for years. Government spending as a share of GDP reaches 42.9 percent, while the public debt, formerly reported at 43.8% of GDP, is well below the threshold fixed by the Maastricht criteria. The Czech Republic performs quite well in the World Bank Doing Business indicator but the corruption perception index of Transparency International suggests a considerable problem in this respect.

3 Present-day challenges faced by the Czech economy

Based on the Economic Survey 2014 of the Czech economy by the Economic Development Review Committee of the OECD, four challenges will be highlighted:

How to pursue monetary and exchange rate policy?

Weak domestic demand plus slow export market growth made the Czech economy stagnate in the worldwide financial crisis starting in 2008, but recovery set in by mid-2013. In response to the concomitant fall of inflation below the lower bound of the inflation target range of 2% ± 1%, the Czech National Bank (CNB) not only reduced interest rates to close to zero, but also fixed an exchange rate floor of CZK 27 per euro on 7 November 2013, allowing the exchange rate to float freely above it, a measure that led to an immediate depreciation of the koruna of about 4.5%. The CNB indicated this to be a temporary measure and to exit from pegging the currency once inflation hits the target again. Exit is now postponed to 2016 and in July 2015, the CNB intervened again to defend the threshold, declaring that the CNB will automatically intervene for an unlimited time and in unlimited volumes to keep the koruna rate close to the level of 27 per euro.[176] Contrary to many other EU member countries, in the Czech case, monetary policy thus raises more doubts than fiscal policy (see box below).



[176] http://www.bloomberg.com/news/articles/2015-07-20/czech-central-bank-intervenes-in-market-first-time-since-2013

The issue of competing devaluations

Competing devaluations played an important role in the 30'. Gaining export shares by lowering the value of one's own currency expressed in gold enhanced the chance of a country's leaving the world depression earlier. This came at the cost of other countries (like Switzerland) which kept their parity to gold unchanged for a long time. After WWII, the IMF was founded to prevent devaluations that amounted to "beggar thy neighbour" policies. Under the regime of the gold standard (prevailing up until 1973), devaluations were conditional on the presence of a serious current account deficit and on taking measures disciplining national policy (i.e. compressing demand).

In today's world, where exchange rates float freely among the major currencies, countries also can deliberately depreciate their currency to attract business by adopting loose monetary policies (i.e. "by printing money"). To stem such practices, the declared consensus as held up by the IMF and in related fora (Bank for International Settlements (BIS) a.s.o.) is that countries may lower the interest rate if this proves necessary to keep inflation in a target range somewhere above zero.[177] A broad adoption of so called P-policies (i.e. monetary policies targeting a low inflation rate some two years ahead) leads to a meaningful international monetary coordination. If there is a worldwide recession, so that inflation tends to fall below the target band in many countries, economic activity in the single countries will essentially be stimulated by the domestic channels linking a generous monetary policy to GDP (essentially the interest rate channel). If a crisis hits countries asymmetrically, those more affected sooner come close to a situation where inflation may leave the lower bound of the target range for quarters. For this reason they will adopt a monetary policy more expansionary than that of their trading partners to avoid the risk of deflation. This will then usually entail a depreciation of their currency, stimulating export demand. Those countries less affected will implicitly accept this as their focus is on domestic inflation.*

As said, this is a declared consensus on how monetary policies should be pursued, but there are no enforcement mechanisms. Countries will differ in their assessment on how affected one's own country is compared to the others when an adverse evolution occurs. Theoretically, such differences in apprehension shouldn't do too much harm since the sheer size of the major currency areas (US, Eurozone, Japan) should make the exchange rate channel a channel of secondary importance. The stimulation by low interest rates (meaning low costs of credit and high prices of assets such as real estate, encouraging replacement) should dominate. However, this assertion of the secondary importance of exchange rate considerations is based on the principle of hope (consider e.g. the British £ after 2009).

Particularly for smaller countries who had decided to pursue an independent monetary policy, to switch the currency regime temporarily appeared as an additional option once it became generally accepted to have recourse to 'unorthodox' monetary policies in the 2008-crisis. However, the Czech decision to fix a minimum price of the koruna which was taken under such premises appears as more delicate than a similar decision taken somewhat earlier by the Swiss National Bank. This view is supported by the graphs on the real effective exchange rate in this chapter (for the Czech Republic) and the corresponding graph in Chapter 15 (for Switzerland): Presumably supported by the policy of the Central Bank, the trend appreciation of the Koruna (justified by the increasing competitiveness of the Czech economy) came to a halt with the onset of the recession in 2008, so that the Czech economy already had some relief from the exchange rate side when the Central Bank took its decision. In the Swiss case, in the summer months of 2011 the exchange rate significantly transcended the upper boundary of the long term fluctuation band of the currency with a dynamic suggesting a bubble. Problematic with Swiss monetary policies was that the Central Bank defended the peg for too long.

Fiscal policy is in the Czech Republic firmly anchored by the commitment to long term sustainability of public finances. As an EU member – although with its own currency – the country has to conform to the requirements regarding the public budget as laid down in the Growth and Stability Pact, enhanced by the European Semester. How high fiscal discipline ranks on the agenda of the Czech government was proven by the fact that the longer term prospects for public finances led to highly contested decisions limiting pension spending increases. These shall be contained by an increase in the statutory retirement age (currently nearly 60 for females and 63 for males) to 66 years and 8 months for both in 2041 and to nearly 70 in 2060 and by indexing pensions (from

[177] Inflation below zero creates a serious risk of deflation when this situation lasts. Deflation means a protracted slack in economic activity since everybody sees an advantage in terms of price when postponing purchases.

2016 onwards) to inflation plus only one third of real wage growth.

How to improve labour market outcomes?

Wage determination typically takes place at the sector or firm level. Furthermore, only 40% of all employees are covered by collective agreements (covering most of the larger firms) and only half of the agreements address pay increases. Despite these low restrictions in wage formation, wage increases tend to be very similar for all workers (except for managers), which is somewhat surprising. In a longer term perspective, the important geographical dispersions of labour market outcomes is more intriguing (see indications on regional incomes in section 2 above). Over more than 20 years, the loss of jobs linked to the transition process has not been fully offset by job-creating investment in many regions and this gave rise, combined with low geographical mobility, to a considerable unemployment rate (at the national level, the latter was in the range of 8-10% in the years 2000-2005, to fall then to 4% in 2007 before going up again to 7% in 2014). A disturbing development is the falling employment of workers with apprenticeships. There is concern that the vocational training programmes are neither providing the occupations demanded by the labour market nor the right skill sets within individual occupations, few apprentices having access to workplace training. Boosting enrolment in public universities is not matched by a corresponding increase in expenditures, so that private tertiary institutions have gained in importance, reinforcing the role the students' socio-economic background plays in the achievements of the education system.

How to spur competition in domestic markets?

Many of the network sectors remain dominated by vertically integrated state-owned incumbents, requiring additional measures to restrict public sector interference and securing non-discriminatory access to networks. Moreover, while the competition authority has tools which come close to best practice, cutting decisions are hardly ever taken. As a consequence, network consumers suffer from inefficiencies and high prices. Indeed, above-average prices .and corresponding profits - are (mainly) observed on markets where large firms (those with 250+ employees) dominate, suggesting that consumers and other end-users have not benefited to the extent possible from the economies of scale present in ITC, civil engineering, the retail trade and the manufacturing sector. A more effective competition policy requires a markedly shorter judicial review process and generally an improvement in obtaining legal recourse. Deficiencies in public procurement procedures and corruption are also mentioned by the OECD as domestic difficulties faced by the Czech economy.

How to develop an internationally oriented service sector?

Czech firms are well integrated into the international supply chains, with 90% of large firms active in the export market, a proportion falling to half for medium-sized enterprises and a quarter for small firms. Also, a relatively high proportion of all firms use material inputs/supplies of foreign origin. On the other hand, the World Bank's Ease of Doing Business indicators show considerable room for facilitating trading across borders, particularly in terms of improving documentation requirements, administrative delays and costs. This would facilitate the entry of SMEs into export markets and support the export sector particularly in markets outside the EU. Boosting the service content in final production to secure higher value added production also appears as essential. This requires modern and competitive services – such as business services, transport and logistics. M&A activity often privileges the service sector but this may not happen with extended state ownership, as mentioned above, to the detriment of the economic sectors relying on such inputs.

4 Framework conditions for FDI in the Czech Republic

With the opening up of Eastern Europe in 1989, existing markets were added to a sales region (Western Europe) with established industrial organisation. Accordingly, the integration of the new markets occurred primarily through mergers and acquisitions, and less through Greenfield investment (consider China in the preceeding chapter), although the newly acquired plants in the Czech Republic usually absorbed considerable funds to bring the production apparatus up to Western standards. As the empirics on FDI activity let anticipate (see box on next page), the proximity of markets (geographically and due to the common history) favoured the Czech Republic in the transition process. Their companies had the potential to become competitors on the German and Austrian markets and were therefore of particular interest to industrial groups originating or having a large stake in these German speaking countries. Expressed differently, considerations regarding a modified outcome on the established markets in the West may have added to the interest to be present in this transition country also with plants under the control of the group. The resolve of the Czech Republic in seeking a rapid integration in the EU added to the relevance of such considerations of industrial organisation.

Determinants of FDI according to empirics and economic theory

Countries trade in proportion to their respective GDPs and their proximity. This is the essence of the gravity equation used to explain the volume of trade. [178] *Relevant for this chapter, also FDI between two countries is well explained by this equation. Variables with significant explanatory power beyond national GDP and distance between countries include: common official language, colonial relationship, squared skill difference and regional trade agreements including customs unions.*[179] *Endowment-related terms such as the capital stock, disposable land or oil resources also have a high probability of turning out as significant in explaining FDI stocks. Surprisingly, the probability that a variable connected with "business costs and tax policies" should be included in the specification is below one quarter. Inclusion probabilities also remain low for groupings of variables related to communications infrastructure, financial infrastructure, and legal and political institutions. FDI (primarily to be understood as a flow of financial means, also to existing subsidiaries) does not respond to exactly the same determinants as mergers and acquisitions (M&A) (the latter consisting first of all in a shift of corporate control). A worldwide M&A sample shows high inclusion probabilities for a few additional variables. These include two variables connected with business costs in the host country (host firm tax rates and host years to resolve insolvency), variables connected with bilateral treaties (bilateral investment treaty and double taxation treaty), service sector agreements, and contiguous border. Since these variables reach high inclusion probabilities only when the sample is extended from M&A reported in the OECD to M&A reported worldwide, these additional variables appear to be of particular importance when considering investments into developing and between developing economies.*

The models proposed by economic theory to explain FDI[180] *build on the transportation costs between two countries on the one hand and set-up costs for headquarters and local plants on the other. The emphasis thus is on cost considerations and not on competitive outcomes. If transportation costs are sufficiently high and the ratio of headquarters scale economies relative to plant scale economies is large, then supplying a foreign market with goods from foreign affiliates becomes profitable relative to exporting from the home country. The models allow that when the smaller country grows to reach in size his trading partner, trade and foreign affiliate sales will move in opposite directions. The relative scarcity of human capital is supporting this evolution. It starts to become more profitable to engage skilled labour in setting up headquarters than in employing these people in the home production of the differentiated good, as the latter remains penalised by per unit transportation costs.*[181] *Prima facie, shrinking exports conflict with empirical results of trade and FDI gravity equations that imply bilateral trade and FDI are both growing with respect to GDP size and similarity. But theory needs also to explain why FDI growth was much more pronounced than trade growth in recent times. If – opposite to the model, where the product varieties stem from one production sector – product varieties are developed in more than one production sector, it becomes likely that the different production sectors reach at a different level of GDP-similarity the point where FDI replaces exports on a large scale. Heterogeneity in set-up costs of an headquarter or a plant as well as differences in trade costs – either due to the nature of the goods to be shipped or policy-imposed – will see to this. Then the aggregate over all sectors may exhibit the feature that exports of goods and FDI simultaneously grow with GDP similarity, but FDI will do this at a higher rate.*

[178] Initially, Newton's gravity equation applied to trade volumes was thought of merely as representing an empirically stable relationship. Later, the equation was derived based on micro-economic models. See i.a. UNCTAD (2012): A Practical Guide to Trade Policy Analysis, Chapter 3: Analyzing bilateral trade using the gravity equation.

[179] We build here on Blonigen, Bruce A. and Jeremy Piger (2011): Determinants of Foreign Direct Investment, NBER Working Paper No. 16704

[180] We consider here in particular: Bergstrand, Jeffrey H. and Peter Egger (2007): A knowledge-and-physical-capital model of international trade flows, foreign direct investment, and multinational enterprises, Journal of International Economics vol. 73(2), pages 278-308, November

[181] Consider that the public perception of outsourcing could be negative while skilled labour in general benefits. This may occur when the effects at the plant level are mediatised by the unions since within plants membership of skilled workers in unions may be frequent, while the latter are hardly present in growing headquarters. In this process, jobs typically occupied by men (those at the work bench) may be replaced by jobs typically occupied by women (clerks securing adequate and timely reporting by subsidiaries).

Up until today, the Czech Republic continues to transpose new EU-directives swiftly. Since the "acquis communautaire" in general translates sound policies into appropriate legislation, and since the Czech Republic pursues responsible policies in the realm of its own competencies, the overall framework conditions for foreign direct investment in the country remain good. This is confirmed by the 2013-2014 competitiveness report of the World Economic Forum (WEF), where the Czech Republic ranked 37th out of 144 countries. In the WEF ranking, the Czech Republic obtains a low score only regarding 'institutions', also reflecting the problems signalled above with regard to corruption. The IMD places the Czech Republic at rank 29 of 61 advanced economies in its 2015 competitiveness report.

A short comment on the competitiveness indicators produced by the WEF and IMD

Besides looking at several dozens of series generally used in macro-economic assessments, the summary measures of competitiveness produced by the WEF and the IMD also include "soft" factors, namely the valuation made by managers of the investment climate and the overall attitude of the government and the population to deploying an economic activity for profit ("business friendliness"). The conceptual framework behind these summary measures remains contested, however. Whether they validly translate where companies fare best when locating FDI is an unanswered question. Managers deciding on FDI will never overlook the current and projected buoyancy of the local market and markets that may be served from a new location, and particularly the latter aspect (openness) may not be adequately reflected by these widely cited rankings. The integration of manager's views in the index is an advantage in the sense that "what is perceived as real has real consequences". FDI decisions are not taken on objective grounds only, but also based on perceptions. More could be said, however, on differences between the facts and their appreciation.

In what follows, we concentrate on the legal obstacles to be overcome by an investor with an established interest in entering a country. This is the focus of the OECD's Foreign Direct Investment Restrictiveness Index.[182] In the box attached, we briefly present the components of the OECD's FDI-index. Table 2 then shows the scores of the Czech Republic and the other countries figuring in this book (provided they are covered by the OECD's FDI Index). The US is also included. The aggregation occurs first over sectors and then over measures and we show the scores by measure.

The FDI Restrictiveness Index released by the OECD

The obstacles considered by the OECD are classified into four categories: equity restrictions, screening and approval requirements, restrictions on foreign key personnel, and other operational restrictions (such as limits on the purchase of land or on the repatriation of profits and capital). The discriminatory nature of measures is the central criterion to decide whether a legal provision should be scored. Nevertheless, non-discriminatory measures are also covered when they are burdensome for foreign investors. This is the case, in particular, for rules regarding nationality of key personnel /directors. The score for each sector is obtained by adding the scores for all four types of measures, with the constraint that their sum is capped at a value of 1. The scores of the 22 sectors are averaged to obtain the FDI Index for the country concerned.

With respect to the validity of the synthetic measure developed by the OECD, the FDI stocks and the FDI index are negatively correlated, as they should be. The correlation is not very strong, however, making it clear that the restrictiveness of regulation as calculated does not make up the whole of a country's attractiveness for FDI. For this reason, the economic theory part of Chapter 6 in the underlying publication looks in a general way at the determinants of FDI economic research identified.

[182] OECD (2014): The FDI Regulatory Restrictiveness Index (http://www.oecd.org/investment/fdiindex.htm)
The index is now available for all OECD Members, adherents to the OECD Declaration on International Investment and Multinational Enterprises, OECD's Enhanced Engagement countries and other G-20 countries. It is one component of the revised 2008 OECD Indicator of Product Market Regulation (PMR) from which the *Going for Growth* policy priorities are drawn by the Paris based organisation. For OECD countries, the source of information for measures making up the FDI Index is the list of countries' reservations under the OECD Code of Liberalisation of Capital Movements and their lists of exceptions and of other measures reported for transparency under the National Treatment instrument (NTI). For the other countries, an effort has been made to ensure they reflect updated information.

Accordig to the table, the Czech Republic appears as the second liberal country in this selection, with an overall value about half the value for Switzerland and the US, the latter ranging somewhat above the OECD average. There may be an interest in knowing which economic sectors contribute most to the countries results. In the case of the Czech Republic it is the real estate business. Switzerland and the US catch their penalty points in electricity, transportation and media, Switzerland also with regard to real estate while in the USA the fishing and mining sectors are apparently subject to FDI-restrictions.

The OECD Foreign Direct Investment Restrictiveness Index 2013, selected countries

	Series	Index total				
	Year	2013				
	Sector / Industry	Total FDI Index				
	Type of restriction	Equity restriction	Screening & approval	Key foreign personnel	Other restrictions	All types of restrictions
Country						
Czech Republic		0.003	0.000	0.000	0.007	0.010
Portugal		0.003	0.000	0.000	0.004	0.007
Switzerland		0.062	0.009	0.000	0.011	0.083
United States		0.066	0.005	0.010	0.011	0.089
OECD - Average		0.039	0.017	0.002	0.010	0.068
Non-OECD	China	0.242	0.136	0.048	0.005	0.418
	Colombia	0.006	0.000	0.001	0.019	0.026
	India	0.205	0.037	0.008	0.014	0.264
	Morocco	0.056	0.000	0.005	0.006	0.067
	Peru	0.042	0.000	0.050	0.000	0.092

Clearly, the USA and Switzerland as net sources of global FDI are in a better position to preserve a restrictive stand, in some sectors, towards inward FDI than capital importers such as the Czech Republic which tend to pursue a policy of attracting FDI by a liberal regime.

5 Observations regarding the FDI-stock in the Czech Republic

Usually, FDI figures are compiled by Central Banks and the statistics released distinguish the year, sector and country of origin/destination of FDI-activity. Often, in order to conserve the business secret, the combined ventilation by country and sector is not publicly available. This is not the case with Czech data, however. We rely here first on the Czech data as released by UNCTAD.[183]

The table below suggests that the overwhelming part of FDI originates from Europe. This may correspond to reality. The fact that the Netherlands are twice as important as Germany, that Luxemburg accounts for FDI 50% the worth of German FDI in the country and that Cyprus appears as a major investor in this country in the middle of Europe advises caution with regard to the interpretation of the table, however. These countries act as turntables of global investment flows, offering particularly favourable framework conditions for holdings, headquarter companies and investment funds. Knowing that the major car manufacturers in the Czech Republic are Škoda, belonging to German Volkswagen, Hyundai, and Toyota, one understands the entry for South Korea in the table above, but misses the one for Japan, e.g.. The Czech statistics, on which UNCTAD builds, in fact show that the Netherlands are the most important county of origin for investments in the Czech automotive industry. A closer look at the history of Škoda[184] then reveals that while manufacturing of passenger cars was indeed sold by the company to Volkswagen, other investments of this conglomerate in the transportation sector are in the hands of a Dutch and a Cypriot holding company, the owners of the latter two being largely unknown. If the managers of the Czech subsidiary were the owners of these holdings, there wouldn't

[183] http://unctad.org/en/Pages/DIAE/FDI%20Statistics/FDI-Statistics-Bilateral.aspx

[184] https://en.wikipedia.org/wiki/%C5%A0koda_Works

be FDI at all from an economic point of view! To sum up, there can be important statistical pitfalls with these data.

UNCTAD also reports an outward FDI stock of the Czech Republic of US-$ 16.8bio (2012). This is a factor 8 smaller than the inward stock. However, it would be wrong to think that the difference between the inward and the outward FDI stock was a contribution of the other countries to capital deepening in the Czech Republic. Only a limited share of FDI in the country occurred in the form of green-field investments. Often, former state--controlled companies had been taken over - which was of course regularly welcome since the alternative might have been the shut-down of these production sites. But the takeover did not mean that new physical capital was brought into the country as tends to be the case with green-field investments. Much depends on the willingness of the acquirer to embark on a long term investment strategy, also comprising a renewal of the production site (see business case below). One has to assume that regularly, in the balance of payments statistic, capital exports in other form than FDI (including the build-up of a foreign currency reserve by the Central Bank) and a trade deficit were the counter-position to the purchasing price.

FDI stock in the Czech Republic by geographical origin (US-$ mio)

	2012		2012
World	136 001	**Developed Countries**	131 204
Europe	125 127		
European Union	118 845	**Other developed Europe**	6 282
Austria	17 642	Switzerland	5 875
Belgium	5 458		
Cyprus	5 226	**North America**	4 778
France	6 750	United States	4 570
Germany	19 199		
Italy	1 201	**Other developed countries**	1 300
Luxembourg	8 042	Japan	1 363
Netherlands	39 566		
Poland	2 151	**Developing Countries**	2 302
Slovakia	4 041	**East Asia**	1 566
Spain	4 031	South Korea	1 626
Sweden	1 487		
United Kingdom	2 822	Russian Federation	542

Source: UNCTAD Bilateral FDI Statistics 2014

This said, from Czech FDI statistics we have selected the countries which hold a stake of more than US-$ 1bio in single Czech industrial sectors (NACE-2 level).[185] Investments in financial intermediation plus real estate plus head office activities predominate. One explanation for this fact is that direct stakes in single Czech undertakings may first be grouped into a Czech holding and only the latter is then owned by the foreign company, and the holding gives the entry in FDI statistics. Another explanation is due to the composition of the capital stock. The four subcomponents equipment, industrial and commercial buildings, infrastructure and dwellings are usually of comparable importance. One may now hypothesize that to control an industrial or commercial undertaking, a company has to be the owner of the equipment but not necessarily of the constructions (including infrastructures) in which the activities are deployed. To finance the buildings linked to industrial ventures offers ample investment possibilities for financial intermediaries in domestic and foreign hands.[186]

A closer look at the entry involving Switzerland confirms observations made above with regard to the automotive industry. The steel industry in Switzerland is of negligible size in international comparison, so why should a parent company of a base metal producer in the Czech Republic come from Switzerland? The truth is different, indeed. Most likely, a stake of ArcelorMittal is primarily reflected in the statistics. ArcelorMittal is one of the world's leading steel and mining

[185] The corresponding table is in the corresponding chapter in the underlying publication.

[186] The Swiss-Re Building in the City of London designed by Norman Forster, widely known as the Gerkhin, provides an illustration. Swiss-Re sold the skyscraper it constructed but is still one of the tenants. The Brazilian billionaire Joseph Safra appears to be the present owner.

Vetropack – pursuing a strategy of regional expansion[187]

The business case we consider here is a truly industrial venture. Confronted with saturated markets in Western Europe, the portrayed company seized the opportunity of the opening up of Central and Eastern Europe in 1989 to embark on a long term strategy of regional expansion.

About Vetropack[188]

Vetropack is a Swiss-based manufacturer of packaging materials in glass. The company has eight production sites in seven countries and occupies 3'228 persons. It is listed on the Swiss Stock Exchange.

Vetropack was founded 1911 on the shores of the Lake of Geneva, in St-Prex. Six years later followed the acquisition of Glashütte Bülach Ltd. near Zurich. After the acquisition of Müller+Krempel in 1948, Vetropack operated as a Holding. Müller+Krempel Ltd, Zurich, was a company specialised in trading of glass products for the pharmaceutical industry like bottles and laboratory equipment. After WWII, it had on its turn acquired company Glashütte Ltd, Wauwil (established 1933), after the sourcing of glass items from Thuringia and former Czechoslovakia became difficult due to the political change occurring there. Later, a diversification into plastic packaging occured by the acquisition of Wirth-Plast Ltd in 1981 and Afex Folien Ltd in 1985. In 1986, production of PET bottles got under way, and with the acquisition of the firm Femit in 1987, the production of plastic packaging for pharmaceutical and cosmetics applications started. In 1993, this divisiowas sold, however. Vetropack from then on focussed on glass only but embarked on an ambitious geographic expansion.

Expanding to Central and Eastern Europe

Internationalisation of production had started in 1986 by the acquisition of Pöchlarn glass works in Austria. It was as early as 1991, i.e. barely two years after economic transition started, that Moravia Glass in the Czech Republic was acquired. Today the plant has two melting furnaces and a production capacity of over 670 tonnes of packaging glass per day. In 1993, glass production stopped in Wauwil, owing to the expansion of the Bülach melting furnace in 1991, added capacity in Austria and the increased use of substitutes for glass on the domestic mineral water and soft drink market. Pursuing expansion into Eastern Europe, Vetropack became in 1996 majority shareholder of the Croatian glass works Straža in Hum na Sutli. The plant underwent a comprehensive modernisation programme from the technical point of view, and obtained an ISO 9001 certification, like all the other Vetropack production facilities. In February 2002, glass production at Bülach plant shut down after 111 years of operation. The reason for the closure was the collapse in prices brought about by the internationalisation of the markets, as well as the generally high cost levels in Switzerland. Servicing the Swiss market with white and brown glass now fell on the Vetropack production facilities in Austria (the plant in St-Prex from where the company started, contributes today only 9% to the company's total turnover). The same year (1996), Vetropack expanded to Slovakia by acquiring the Slovakian glassworks Skloobal A.S. Nemsová, bringing the company in the position as market leader also in Slovakia. Continuing expansion into Central Europe, Vetropack became in a next step majority shareholder of the Ukraine Gostomel Glass Factory in the region of Kiev on 22 February 2006. Finally, in July 2015, Vetropack took over the glassworks in the Italian town of Trezzano sul Naviglio near Milan. Overall, there are today eight production sites within the Vetropack Group.

In Europe, Vetropack ranks fourth after the US company O-I (Owen-Illinois)[189]*, the Verallia Company*[190] *which is part of the Saint-Gobain Group and the Northern European Ardagh Group*[191]*. These three control some three quarters of the European market and have a global focus in their activities. A slightly smaller number of plants than Vetropack are owned by the Spanish company Vidrala, the Austrian company Stölzle and the*

[187] This business case figures in Chapter 6 of the underlying publication. The theme there is to show how the opening up and integration of markets pushes the critical firm size up. A wave of Merger and Acquisitions (M&A) may follow. A second aspect of the chapter, not dealt with in this business case, is corporate taxation at the Group level.

[188] The information is from the homepage of the company and the Annual Report 2015.

[189] O-I, founded in 1903, operates 80 plants in 23 countries and employs 27'000 persons.

[190] Verallia has an industrial presence in 13 countries and 9'700 employees. It claims on its homepage that the company is the 3rd largest global manufacturer of glass containers for the food&beverage industry.

[191] Ardagh operates 89 plants in 21 countries and has some 19'000 employees. Formerly concentrated in Northern Europe, it entered the US market in 2012 to become number 3 there. The company is also an important producers of cans, i.e. all the metal containers competing with glass.

originally Italian manufacturer Bormioli. A limited number of producers, usually with a national focus, are also present on the European market.

Investment in the Czech Republic[192]

Industrial production in communist times had been organised in large conglomerates. Using glass was the common denominator of the conglomerate within which the company in Kyjov interesting Vetropack operated. So first the conglomerate had to be sliced up into companies serving a particular customer segment. Concerning packaging material, the authorities also decided to separate the plant in Kyjov from its sister in what would soon become the Slovak Republic, namely the factory in Nemsovà. Ironically, this company would soon also become part of the Vetropack Group, having become insolvent.

The expansion in the Czech Republic comprised chances and risks. On the one hand, knowledge of glassware production was no doubt present at the firm level, given the region's long tradition in the industries of stone&earths, and a skilled workforce was also available. On the other hand, what was missing at the firm level was western management knowhow and modern equipment. Underinvestment in the communist era had left its traces. So, substantial financial means needed to be engaged in a country where financial markets had first to be built up and where only the perspective of EU accession provided reliable framework conditions. The investments proved justified. Substantial real wage increases going along with a considerable real appreciation of the koruna due to the country's success made modern process technology indeed important in order to keep operating costs under control.

Summary

Overall, we see a successful shift of a company's focus, out of a saturated market in an industrialised country into countries where the fundamental historic change of 1989 bringing the end of central planning offered new opportunities for private industrial ventures. This happened mainly by M&A, and not Greenfield investments, but important investments on the spot proved indispensable to meet the challenges concurrent with the economic development of the target country. As the chapter on China confirms, these regularly consist in real wage increases and a currency appreciation.

companies and owns ArcelorMittal a.s. in Ostrava, the largest Czech steel manufacturer. Created some ten years ago by an unfriendly takeover of the Arcelor Steel Company in Luxemburg (itself a merger of a Spanish, a French and a Luxembourg steel manufacturer) by the Dutch Mittal, ArcelorMittal is steered from London by the Mittal family, the majority holder, who is of Indian origin. The reason that Switzerland appears as an investor in the Czech steel industry is that ArcelorMittal Ostrava is entirely in possession of ArcelorMittal Holdings AG in Zug,[193] a small town close to Zurich, where other companies in the raw material business are also established (e.g. Glencore) - so that additional/alternative explanations for the statistical entry also need to be considered. But it is very likely that this "Swiss" investment in metal manufacturing in the Czech Republic is effectively steered from Luxemburg and London.

To sum up, FDI statistics by country of origin and by industry shed an incomplete light on global production networks and are often even misleading. Global value added chains are better identified by linking imports of intermediates by way of input-output-tables to (exported) outputs of the country under consideration. This is the approach chosen in corresponding statistical efforts (see the annex to this chapter). The reliability of results obtained by the latter method remain also doubtful, however. The step from anecdotal evidence (see the figure in Chapter 5 on value added in the case of the iPhone) to a comprehensive view of how global production is organised today is not sufficiently supported by statistics. Tax considerations, such as withholding taxes on dividends paid and their handling by double taxation agreements are not innocent in this regard. Corporate taxation is the topic that will be taken up after presenting the business case.

6 Corporate taxation in the Czech Republic

Many factors make a country interesting or not for FDI, and taxation is only one aspect. However, many countries offer special tax conditions for foreign firms which consider entering a country for production purposes (or expanding already existing plants significantly). Whether the tax package offered is really important for locational decisions is controversial. But if a country is on the short list of possible locations, the company

[192] This, and the next section, primarily reflect elements from a discussion with Claude Cornaz, the Group's CEO.

[193] http://ostrava.arcelormittal.com/about/ownership-structure.aspx

considering the investment will be in a good position to negotiate a tax package that matches the offer of competitors. And for certain specific types of firms, tax considerations are particularly important. This is most notably the case in the financial sector where in response investment vehicles with special tax treatment like fiscally transparent funds are available.[194]

Given that a country's objective is usually employment and knowhow transfer, we will concentrate here on FDI projects that require substantial investment in structures. This also makes it more difficult for a company benefitting initially from a special tax arrangement to run away once the period of a total or partial tax holiday has elapsed. To express it differently, a company that invests in structures will also consider the statutory rates. They appear to have informational value, despite the fact that due to numerous more or less admissible tax arrangements statutory rights give only a biased view of the effective tax attractiveness of a location. At least, these rates are regularly displayed by the agencies in charge of promoting a certain location in their high-touch brochures, thus supporting the view that they matter. The informative table a consulting firm produces for the Czech Republic[195] (and many other countries) reproduced below already lists numerous tax aspects which may be considered by investors.

Corporate Taxation in the Czech Republic at a glance

Corporate Income Tax Rate (%)	*19*	*(a)*
Capital Gains Tax Rate (%)	*0/19*	*(b)*
Branch Tax Rate (%)	*19*	
Withholding Tax (%)		
Dividends	*0/15/35*	*(c)(d)(e)*
Interest	*0/15/35*	*(c)(e)(f)(g)*
Royalties	*0/15/35*	*(c)(e)(g)(h)*
Income from Leases	*5/15/35*	*(c)(e)(g)(i)*
Net Operating Losses (Years)		
Carryback	*0*	
Carryforward	*5*	

As the third column shows, a series of remarks goes along with these basic indications:[196] These remarks illustrate in particular the importance of the EU Parent-Subsidiary Directive since the provisions of the latter lead to the "0" tax rates indicated in the table. Switzerland, while not part of the EEA, received similar treatment with time.

Corporate taxation usually becomes only relevant when a company makes profit (or when the parent company cannot avoid the subsidiary's showing profits although the latter is located in a tax hell …). For FDI, other taxes are at least as important, and the tax guides produced by consultants provide the necessary information. Indications regarding the Value-Added Tax (VAT) plus excise duties including the ones on hydrocarbon fuels and lubricants are indicated. With respect to employment decisions in FDI, social security and health insurance contributions matter. For real estate investments, information is provided on real estate transfer taxes and recurrent levies on real estate. Operating costs (think of shipping components to the subsidiary) are influenced by taxation of vehicles and user fees for highways. Environmental taxes such as CO_2 taxes also deserve consideration.

Interestingly, in the leaflets of consulting companies, information is scarce on personal income taxation. Since the parent company will second staff to the subsidiary, it may well be the case that the income tax bill in the host state has an impact on the salary the company's collaborators ask for.[197] Packages conceived to attract FDI occasionally therefore also englobe arrangements on how key personnel will be taxed (including the tax-deductability of the fees for an international school their children attend).

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[194] Considered as transparent are organisational entities that when fulfilling special conditions laid down in tax (and banking) legislation do not qualify as juridical persons in the eyes of tax authorities in spite of the fact that their decisions are steered by a board and that they dispose of an administration. Typically, collective investment vehicles (or financial funds) are set up as fiscally transparent institutions. The board deciding on the placement of the funds collected among a wider range of financial investors and the administration are usually supplemented by a separate company (often closely affiliated to a bank). The fund management company usually has to entrust the safekeeping of collective investment scheme assets to a custodian bank. Taxation occurs by 'looking through' the fund and charging the individual investors. Eventually, withholding taxes collected at the level of the fund will prevent abuse.

[195] EY (Ernst&Young) 2014 Worldwide Corporate Tax Guide, Czech Republic http://www.ey.com/GL/en/Services/Tax/Worldwide-Corporate-Tax-Guide---XMLQS?preview&XmlUrl=/ec1mages/taxguides/WCTG-2015/WCTG-CZ.xml

[196] They are reproduced in the corresponding chapter in the underlying publication.

[197] http://www.ey.com/GL/en/Services/Tax/Human-Capital/HC-Alert--Changes-in-taxation-of-executives-of-limited-liability-companies-in-Czech-Republic-effective-soon

Still, these long tables - available for numerous countries - do not yet provide a full picture of the tax environment in a country. Additional aspects concern e.g. whether or not tax authorities are ready to commit in advance how they will tax specific situations, e.g. a corporate restructuring. Information is also given with respect to how a country handles inventory valuations, provisions, constitution of reserves, groups of companies and the netting of benefits and losses within such groups. Of interest is also whether there are foreign-exchange controls, what anti-avoidance legislation looks like, which principles guide transfer pricing, whether there are restrictions on the tax deductibility of financing expenses, and finally on how foreign investment from the host is handled (reason: the subsidiary may constitute subsidiaries of its own).

A crucial question is whether resident enterprises are subject to tax on their worldwide income or only their domestic and what it takes for an enterprise to be considered as resident (think of sales over the internet). In the Czech Republic, resident enterprises are subject to tax on their worldwide income and an enterprise is considered to be a resident enterprise if it is incorporated in the Czech Republic or if its management is located there. As worldwide income is subject to tax, the question arises whether there is relief for taxes paid abroad. In the Czech Republic such foreign tax relief (through credit or exemption) is available only under tax treaties. If foreign tax relief is not available under a treaty, the income tax paid abroad may be deducted as an expense in the following year if it is imposed on income included in taxable income in the Czech Republic. Non-resident enterprises are subject to income tax on their Czech-source income only.

Indications regarding transfer pricing and admissible financing expenses are also given in the consultant's brochure and it is stated that the abuse-of-law concept is similar to the one developed by the European Court of Justice. As a reflection of the OECD-wide efforts to close loopholes, it is then detailed that, effective from 1 January 2014, the tax exemption for dividends does not apply if any of the following circumstances is present: (i) The parent company or the subsidiary is exempt from corporate income tax or similar tax applicable in its jurisdiction. (ii) The parent or subsidiary may opt for an exemption from corporate income tax or similar tax applicable in its jurisdiction. (iii) The parent or subsidiary is subject to zero corporate income tax or similar tax applicable in its jurisdiction. Finally the investor is informed that, while the koruna is fully convertible, several financial transactions, such as direct investments or acceptance of credit from abroad, are subject to a reporting requirement.

The topic of investment incentives is not left out in information brochures. In the Czech Republic, investment incentives are available to investors launching or expanding the following activities: Manufacturing production, Technology centres, Business support services centres, which are shared-services centres, software-development centres and high-technology repair centres. Investment incentives can be obtained in the following forms:

- Corporate income tax relief for 10 years
- Transfer of land at a discount
- Job-creation grants
- Grants for training/retraining of employees
- Cash grants on capital expenditures for strategic investments.

The total value of the incentives can be as much as 40% of total eligible costs, depending on the location and timing of the investment. No incentives are provided in Prague for large enterprises. Under the new rules forthcoming in the EU for state aid, the 40% support that is currently available must be reduced to 25% for large enterprises (small enterprises qualify for an additional 20% support, and medium-sized enterprises qualify for an additional 10% support). Further details regarding the incentives are then provided on another two pages.

We consider it as important to mention that the intention of this section is limited to the idea of providing the background on which the international debate about shifting tax basis to tax havens takes place. Appendix II below resumes these ongoing discussions engaged by the OECD on mandate by the G20 on a more systematic taxation of MNEs without making reference to specific countries or companies. On the question how the Czech tax regime compares with the ones of other nations, the law and institutions part of the corresponding chapter in the underlying publication provides indications. The assessment there is that the Czech Republic offers favourable tax conditions for FDI but apparently does not offer conditions that would make the country suspect of functioning as a tax haven.

7 Summary

A long established industrial tradition and the location close to important European markets, first of all Germany, have allowed the Czech Republic a comparatively smooth transition from a centrally planned economy to a market economy.

The obligation to adopt EU legislation provides a prospect that the Czech Republic will continue to offer favourable and reliable framework conditions for foreign investors. This is enhanced by the rules regarding the pursuit of macro-economies policies which the EU imposes on national governments. These have become more stringent in the aftermath of the financial sector and sovereign debt crisis initiated in 2008, the Czech government having supported this tightening of EU surveillance.

The Czech Republic has a liberal regime towards foreign direct investment in the country. These investments can be supported by adequate reforms on the labour market and by using EU funding to push the income in the regions upwards towards levels achieved in Prague. Although this will further strengthen the capital region around Prague, a diversification of FDI into the service sector and the build-up of knowledge intensive productions within the country by increased R&D may help transform the Czech Republic from a producer of industrial goods for the rest of Europe to an economy with a truly global focus. Part of the overall favourable framework conditions is a tax regime that can be interesting for foreign investors without placing the country in the class of potential tax havens.

Appendix I to this chapter shows statistics on trade in value added. Even if the Czech Republic and Switzerland are both advanced economies, significant differences between the two countries concerning industry structure appear.

The Significance of Globalisation for the Czech Republic

The significance of globalisation for the Czech Republic is not overwhelming if globalisation means worldwide business relations. The country evolves predominantly in a European context. Deeper integration in worldwide value added chains will become of increasing importance for the country in reaching the income levels of the countries where FDI into the Czech Republic originates today. Service sector development and enhanced R&D activities will be key in this process.

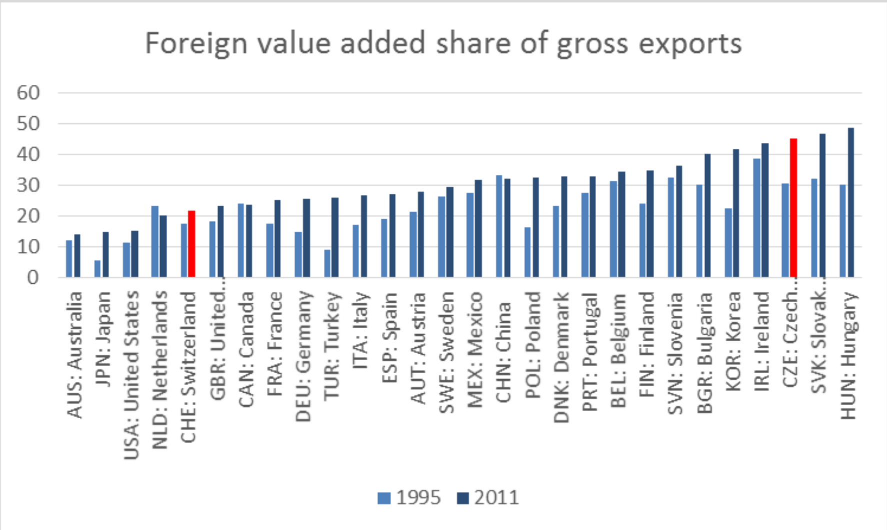
Annex I
Indications taken from the WIOD database on global value added chain in the case of the Czech Republic and Switzerland

Given that a large share of value added in exports stems from inputs into the production process that are imported, particularly raw materials, energy and intermediate products, but also a considerable share of services, researchers were interested in knowing what the domestic impact of a US-$ earned in exports really is. To this end, export and import figures by country and industry were combined with the input-output tables of the single countries. By looking at the import content of exports according to these tables, the value added in a final product or service could be traced back up to the value added generated when extracting the raw materials used in making e.g. a photographic camera.

The result was baptised World Input–Output Database (WIOD) and is the outcome of a project funded by the European Commission within the 7th Research Framework Programme. It was carried out by a consortium of 12 research institutes headed by the University of Groningen, The Netherlands. The work was then continued under the umbrella of both the OECD and the World Trade Organization (WTO). The following figures show the use one can make from the information thus generated. The analysis is based on the 2015 release of the databank as stored at the OECD. [198] The figures refer to the year 2011, if not indicated differently. 2011 was the last available year in the databank in October 2015.

Figure 1 gives the main result of the exercise. It shows the percentage in gross exports that can be traced back to imports that have flowed into the product or service exported. Similar indications are available for domestic final demand. The graph shows the position of Switzerland and the Czech Republic among a selection of the 63 countries that are presently figuring in the databank.[199] The share of imports re-exported after transformation in the case of the Czech Republic (some 45%) is considerably higher than in the case of Switzerland (some 21%). Assembling activities and similar transforming activities which add little value to the exported good or service are therefore considerably more important in the case of the Czech Republic than in the case of Switzerland.

Figure 1



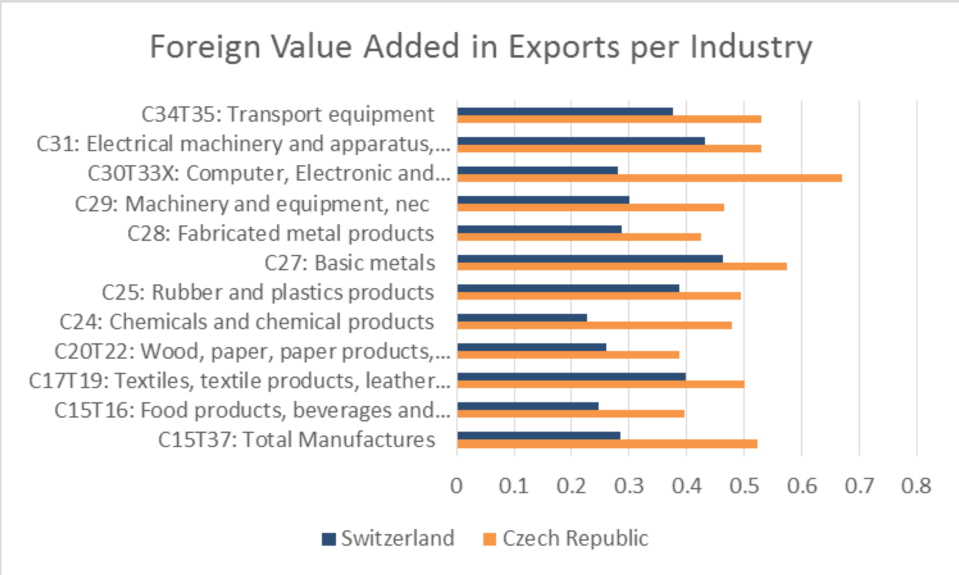
A possible hypothesis is that a single industry may dominate this result, in particular, the assembling of electronic equipment is considered to add little value to the final product (see in Chapter 5 the example of China's role in the fabrication of the iPhone). Figure 2 below shows that this is only partially the case. Clearly, in the case of 'Computers, Electronic and Optical Equipment', the value added remaining in the Czech Republic is less than one third compared to Switzerland where in similar export goods the

[198] http://stats.oecd.org/Index.aspx?DataSetCode=TIVA2015_C1

[199] Additional to the OECD countries, the other major economies in the world were also incorporated with their I-O-tables in the databank. This holds true for the BRIICS, but also for a selection of smaller countries. When data for regions are shown below, one needs to keep in mind that beyond Europe and North America, only a selection of the respective countries make up a region.

content of domestic value added is, astonishingly, more than two thirds. But it is generally the case that the blue bars representing Switzerland are shorter than the ochre bars representing the Czech Republic. The difference is lowest in basic metals and electrical machinery and apparatus but is as pronounced as with electronic devices in the class of exports of chemical products where pharmaceuticals figure. The conclusion is that Switzerland is generally more advanced in attracting the activities with the highest value added among all those needed up to the exportation of a good. (Please note that in the figure only a selection of manufacturing industries and no services are presented.)

Figure 2



An essential advantage of looking at trade in terms of value added either imported or from domestic sources is that the role of services can better be appreciated. While in the GDP, the share of manufactures to services tends to be 25:75, in exports, this ratio is usually just the opposite. Considering the service component in exported manufactures attenuates this cleavage. This is brought out in figures 3a and 3b where we present the decomposition of the imported value added by industry and, additionally, also by world region. This time, the focus is very narrow, since we do not look at exports in general, nor at domestic final demand, but concentrate on the foreign value added component in the exports of computers and electronic and optical equipment of the two countries considered. The distinctive feature of figure 3a, referring to the Czech Republic, as compared to figure 3b, referring to Switzerland, is certainly the much lower share imported intermediates from the electronics industry hold among the total of value added imported when the exports of the electronics industry are considered (column C30T33X). In the case of the Czech Republic, the share of imports originating in the same industry abroad is 20%, in the case of Switzerland it is less than 10%. The provenance of this intra-industry trade in the case of the Czech Republic is also more in line with what one generally expects than in the case of Switzerland. East Asia accounts for some 60% of these imports in the Czech Republic while Switzerland buys these intermediates predominantly in Europe. The share of services imported and flowing into exports of the said category is close to 45% in the case of the Czech Republic and close to 50% in the case of Switzerland. That there are the margin of traders, the remuneration of transporters and the payments going to banks and other financial institutes for the services rendered is easily understood. Remain the industry categories 70 to 74 which we have re-baptised in the graph as “business services, real estate” while in the databank they figure under ‘real estate, renting and business activities’. In this important but heterogeneous category e.g. advertising costs engendered in the destination market for the goods exported show up.

Figure 3a Czech Republic

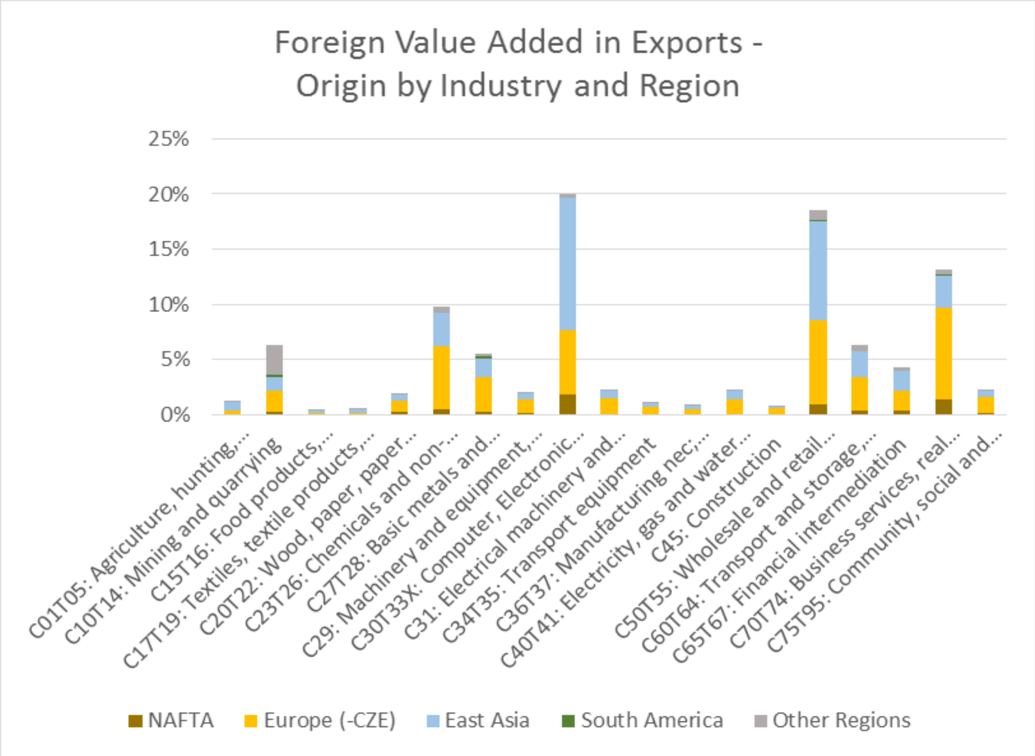
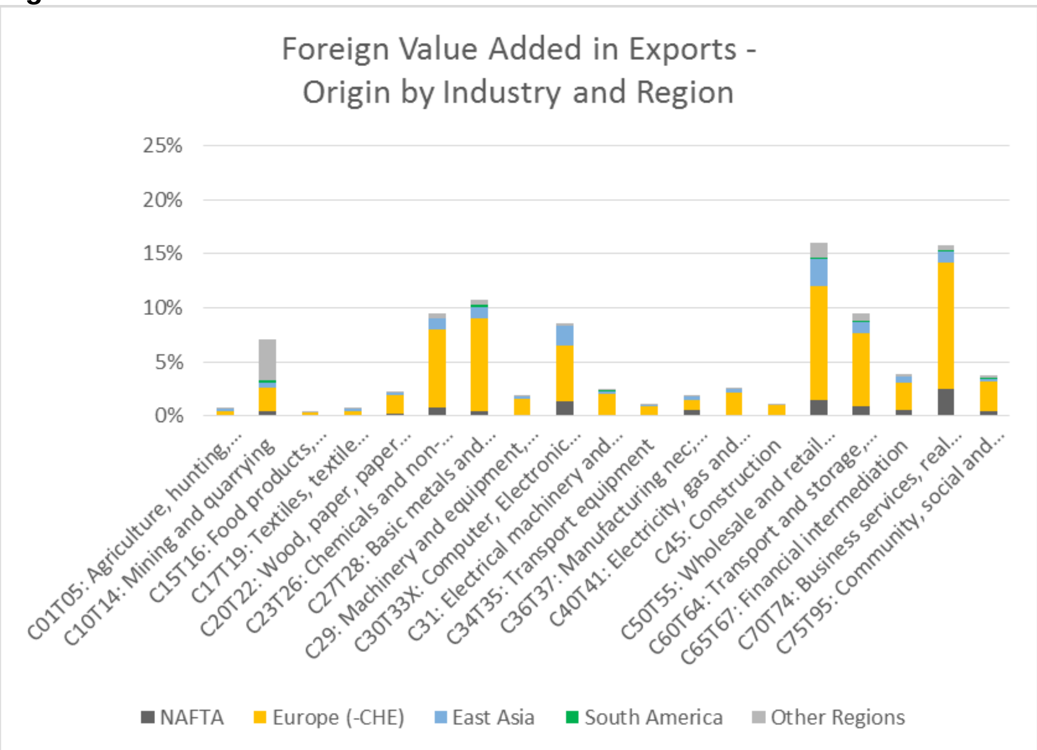


Figure 3b Switzerland



An interesting aspect of looking at trade in terms of value added is that destination countries may then have a different relative importance for the exporter. The ranking in the figure is according to share in value added exported. Germany is the major export destination, absorbing some 28% of the gross export volume or some 27% of the domestic value added exported. Here the difference is minor. But, while according to gross exports, France and the UK would rank before Poland and Russia as an export destination, according to the value added incorporated in the exports, the two neighbours are more important to the Czech Republic. This signals that exports to France and the UK are more made up of products where according to figure 2 the domestic value added content is low (e.g. computer equipment).

Figure 4a Czech Republic

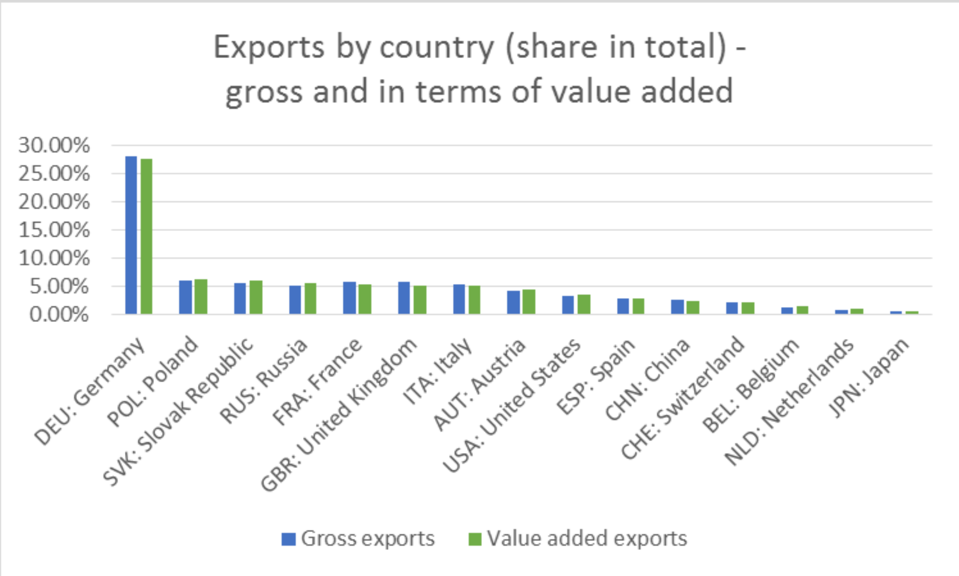
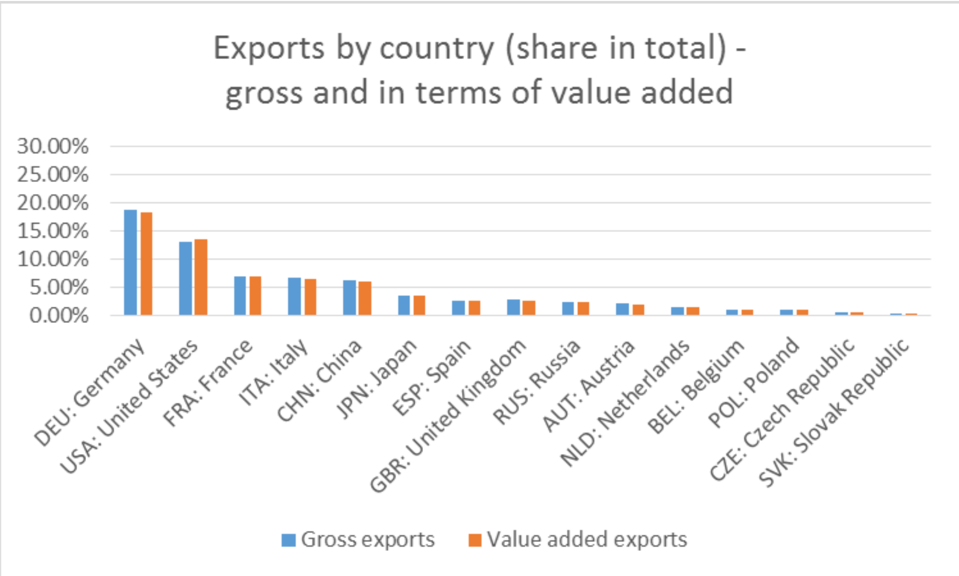


Figure 4b Switzerland



The juxtaposition of the Czech Republic and Switzerland in figures 4a and 4b corroborates our assertion in the main text of this chapter where it is said that the Czech Republic still has a focus on Europe. It thus has a considerable unexploited potential to grow up to a player in world markets, similar to Switzerland. For the latter, the USA, China and Japan rank high as a destination in exports and we do not observe a similar predominance of exports to Germany. Also in the case of Switzerland, the ranking of countries as export destination does not really change. Not surprisingly, but remarkably: when domestic value added is high, goods and services tend to be shipped over a longer distance. This is shown by the change in the length of the bars for Germany and the US when we switch from the blue to the ochre bars respectively. In value added exports, the US fall less behind Germany than when gross exports are considered.

One may also look at the country ranking from the import perspective. Hypothesising that the Czech Republic imports energy from Russia, it is not surprising that Czech imports from Russia have a comparatively high share of value added generated within Russia. On the contrary, the case of iPhones as portrayed in Chapter 5 is an explanation why the ochre bar for China, representing China's value added exports to the Czech Republic, is shorter than the blue bar, representing China's gross exports to the Czech Republic.

Figure 5a Czech Republic

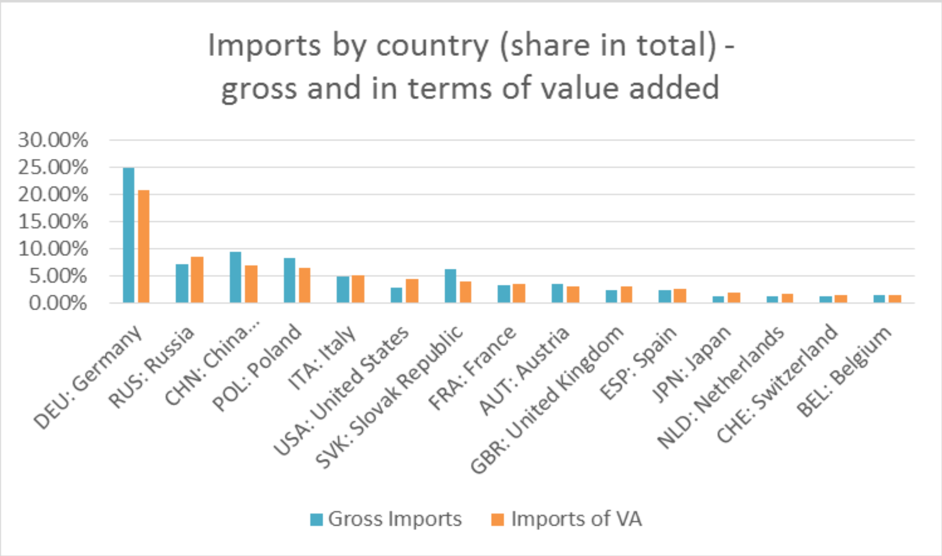
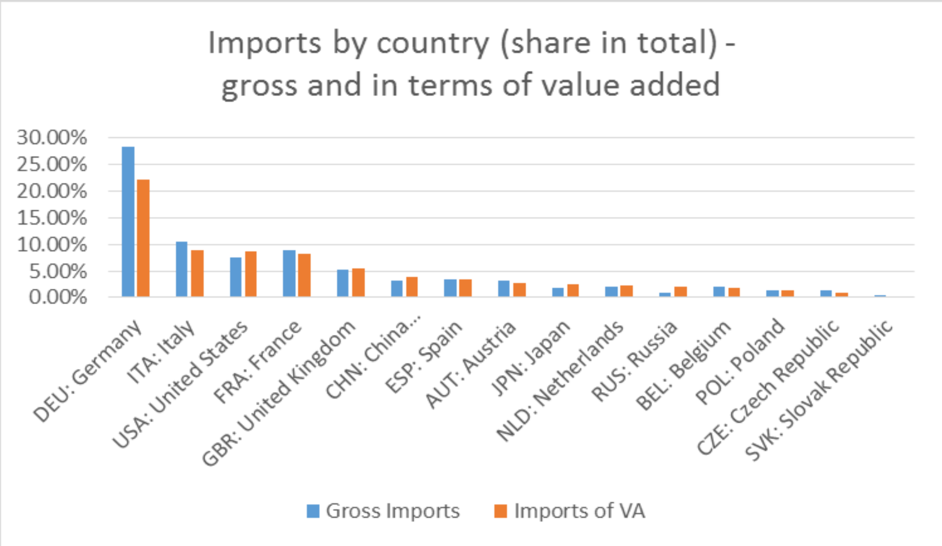


Figure 5b Switzerland



In the case of Switzerland, we observe again that goods and services with provenance in the United States, thus further away, have a higher content of local value added than those from neighbouring Germany, the two countries showing a similar level of development. The favoured interpretation is that activities with low value added are in a better position to compete on the Swiss market when they need not be imported over a long distance. Establishing a link to FDI, low value added activities may indeed be the first to be transferred towards local demand in intra-firm supply chains because for these exports transportation costs matter more.

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Annex II
On the ongoing negotiations regarding corporate taxation (Keyword: Base Erosion and Profit Shifting (BEPS))

Many countries think that the tax avoidance practises by MNE have become abusive. So do now also the U.S. Under the heading of "Base Erosion and Profit Shifting" (BEPS), the OECD was accordingly mandated by the G20 to examine ways to constrain "too aggressive" tax planning, the fluid notion of "too aggressive" leaving much of the project's goal in obscurity. The unsurmountable conceptual difficulties in designing an optimal international tax system for interrelated companies also provide a rationale for the absence of a clearly formulated goal (see box below).

By definition, taxes are due without presupposition and as such do not depend on nor entitle the person due to pay the tax to call on any specific service rendered by government. This said, there is a general tendency to consider taxes on income earned by companies as a quid pro quo for services rendered, so that the criterion of a production site gains relevance in the allocation of a tax base.[200]

In what follows, we abstract from the question whether an attenuation takes place in the case where corporate earnings are disbursed as dividends and taxed a second time as income at the household level and accept as given that companies have to pay taxes on their earnings. Under this proviso, which is generally made but not justified from a strictly economic point of view, we concentrate on the question how to tax interrelated companies located in different jurisdictions.

The discussion on base erosion and profit shifting is centred on issues arising in conglomerates where owners (or the board) of a company at the heart of the conglomerate have a decisive word to say regarding the prices subsidiaries have to pay for all kind of flows occurring within the conglomerate. In this respect, one has not just to think of intermediate goods sold by one subsidiary within the conglomerate to another subsidiary within this structure. Financing decisions, but also the licensing of intellectual property rights as well as management, consulting and IT services have to be considered as well. There is usually a business reason behind setting up such conglomerates, namely to secure a smooth functioning of the global value chain while building on a knowledge base within the conglomerate that is not, or only very partially, shared with competitors. However, in the design of these structures, tax considerations are also important.

In the conglomerates we consider, production units in countries with high taxation of corporate net earnings can be economically interesting provided net earnings in these units can be reduced to a low percentage of turnover through a number of flows within the conglomerate on which the subsidiary in question has to rely and which tend to contain a high value added (if they are not overpriced outright). These services are then provided from units within the conglomerate located in countries with low taxation of corporate (and manager's) income. On top of such a structure with a parent company and subsidiaries (or, more or less equivalent, a holding structure) may be superimposed additional companies, often intended to obscure ownership structures or to transform current income into capital gains which may then be accumulated or disbursed with lower tax expenditures. Family trusts or financing companies (e.g. on an island in the Carribean) qualify for such a superstructure. At the level of the parent company and its subsidiary, additional companies may also be put in place. A type of company that may be set up is a company that is responsible for the steering of the value added chain. In this function, the company e.g. dispatches managers to subsidiaries, coordinates advertising globally, collects brand and other intellectual property rights for all markets, performs controlling a.s.o.. Another type of company that may be set up is a financing branch where all the interactions of the units in the conglomerate with the financial sector are concentrated. Units in high tax countries will then be highly leveraged since interest paid is tax deductible (contrary to dividend payments); furthermore, the high leverage justifies a high interest rate on the subordinated loans that, then, come from the financing branch.

[200] If taxes shall be used for redistributive purposes, an all encompassing notion of income should be used to which a unique progressive tax scheme is then applied. This points towards taxing natural persons at their domicile for their global earnings according to their ability to spend and forecloses in principle taxing wages and capital earnings differently, a common practice e.g. in Scandinavian countries.

Difficulties in designing an optimal international tax system for interrelated companies

It is not possible to construct a corporate tax system that simultaneously responds to a number of criteria, each of these criteria established on defendable reflections. Consider in particular the following three criteria:

- *Global welfare should reach a maximum although countries are collecting corporate income taxes at different rates.*
- *Limited available funds and management capacity of domestic companies should be used to maximise national income.*
- *The market for corporate control should not be biased by corporate income taxation.*

With reference to these three criteria, the literature on international corporate taxation has shown the following:

- *The first criterion calls for a solution where the marginal return of capital is equal across countries. This can be achieved if, in the end, the domestic company pays the rate applicable on domestic corporate earnings on foreign earnings also. The global welfare criterion favours a solution with imputation, meaning that taxes paid abroad are deductible from a domestic tax bill established on income earned globally;*
- *the second criterion favours the solution where corporate taxes paid abroad may only be deducted as costs from the global earnings that are locally taxed. However, the prisoner's dilemma from this form of overt double taxation (less efficient domestic firms are protected from being taken over) should then be mitigated on a contractual basis, i.e. a DTA, between the countries involved;*
- *the third criterion favours exemption of foreign earnings from domestic taxation. The salient point is that a global capital market with a uniform rate of return is assumed. Domestic companies having to pay a tax on foreign corporate income – even if this occurs by imputation - have a disadvantage when bidding for control over existing foreign companies if other countries have opted for the exemption principle.*

The academic debate (which is ongoing) has shown that the outcome with regard to these three criteria is not as clear-cut as suggested above but also depends on a series of circumstantial factors such as capital supply elasticities faced by the actors which will differ from investment project to investment project. Consequently, neither a single country nor the international community can devise an optimal but still manageable corporate taxation system. Critical points are i) whether one adopts a global or a national view, resp. whether one sees a potential for international tax policy coordination or not, and ii) whether the focus is on (ab-) using the –assumed - scarce resources of domestic companies in the interest of domestic greenfield investment instead of letting companies maximise shareholder value. In the latter case one will typically hypothesise that buoyant refinancing possibilities in a globalised financial market exist for domestic companies and conclude that the national interest is best served by attracting headquarters. Expressed differently, important is to dominate in the market for corporate control. Clearly, the stage of development and the net debtor/creditor position of a country influence this appreciation, these two factors also being interrelated to a considerable degree.

Evidently, governments will check these three principles against their national interest and against the chances left by the internal political situation to disengage from legislation and treaties placing them in a disadvantage.

An alleviation for foreign investments by households, but equivalently for companies, is also worth mentioning, namely to set up economic entities, usually called funds, that are "transparent" from the fiscal point of view. Such funds may collect dividend, interest and licence income from several foreign sources and disburse then the money collected to the holders of the fund's shares, essentially without qualifying themselves as a taxable economic unit. The direction of the fund then informs shareholders and tax authorities about the source of the income disbursed and restitution and imputation possibilities. The activities of the fiscally transparent entities are usually restricted by tax legislation to decisions on financial investments. Such "look through" investment vehicles cannot steer a production unit and are not a response to the taxation of interrelated companies. They may, however, constitute an element in an aggressive tax planning construction of the corporate sector. As a similar measure, conduit companies may be set up, e.g. when double taxation treaties are missing or are not sufficiently attractive to allow a direct flow of funds. The involvement of companies located in a third or fourth country is often an indication of aggressive tax planning.

Within such a complicated setup, usually involving more than two countries, loopholes emerging by the interaction of national taxation principles and double taxation agreements which regard e.g. the imputation of dividend income may then be exploited. A number of jurisdictions have even offered special company forms where business that is done without touching the territory of the jurisdiction is not taxed, or at a lower rate. This is also exploited but shall now be proscribed by the current efforts of international corporate tax coordination. A recent innovation, so called ‘boxes’, are at least partly a response to the latter efforts. Earnings from IPR when registered in a ‘licence box’ are taxed at a lower rate. The fact that payments for licences may be subject to a withholding tax that is not or only partially restituted in a number of countries may even provide a justification for this kind of box.

The countries where income is generated are not deprived of instruments, either. A number of countries have implemented a specific tax law for non-residents which unilaterally does not recognize certain (tax-related) company structures. The interaction of these laws with DTAs is not always easy to assess and prior rulings on how tax authorities will qualify planned company structures are not obtainable in all jurisdictions. Furthermore, the sheer number of provisions to be considered (DTAs differ from one country-pair to the next) complicates the situation. Last but not least, there is lack of disclosure of administrative practices.

The report on BEPS was published in 2013 against this background under the responsibility of the Secretary-General of the OECD and on behalf of the Ministers of the G20. G20 countries that are not members of the OECD were invited to be part of the project as Associates. The report takes as its starting point the need for agreed international rules that are clear and predictable. It acknowledges that failing to take advantage of legal opportunities to reduce an enterprise’s tax burden can put a company at a competitive disadvantage. The report goes on to say that no taxation or low taxation is not per se a cause of concern, but it becomes so when it is associated with practices that artificially segregate taxable income from the activities that generate it. In other words, what creates tax policy concerns is that, due to gaps in the interaction of different tax systems, and in some cases because of the application of bilateral tax treaties, income from cross-border activities may go untaxed anywhere, only be taxed at an unduly low rate or taxation may be excessively postponed in time. The report goes on to say that these weaknesses put the existing consensus-based framework at risk, and that “a bold move by policy makers” is necessary to prevent worsening problems. Sceptical governments are comforted by stating that these actions are not directly aimed at changing the existing international standards on the allocation of taxing rights on cross-border income. The report then formulates 15 directions for action. Since the release of the report, the fora within the OECD have worked on giving these axes of action specific content.

To give a flavour of the complexity of the topic one may mention that the existing OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations of 2010 is a document of 372 pages and already addresses most of the topics that are currently debated under the BEPS action plan. While it is possible for a person who is not an expert in the field of corporate taxation to understand the direction of the actions to be taken under BEPS, it is not easy to see why the regulations already in place are not doing their job. A consideration immediately following is that to achieve a better compliance of nations with the existing provisions (that are only enforceable by putting countries on black lists) is presumably also part of the project.

It deserves to be mentioned that the discussion about base erosion and profit shifting has little to do with cases of fiscal fraud.[201] Usually, the tax declarations handed in by companies conform to the legislation of all jurisdictions involved. Also, exploiting a loophole created by coordination problems among national tax legislations is not per se objectionable. Furthermore, fighting “too aggressive tax planning” on the basis of an “abuse of law” clause is possible, although non desirable due to the arbitrariness of such steps. Eventually, one has to carry the argument even one step further. The role vested interests played when legislations and administrations left loopholes or deliberately opened them is not mentioned in any official document. Still, those in power will often serve the interest of their supporters by discretely opening side-doors. On other occasions, political opponents, and only these, are discredited by way of allegations for tax fraud.

The discussion on BEPS will continue on two levels: On the one hand, and not for nothing, selected MNEs will be exposed to public critique for paying quasi no taxes, while on the other hand, discussions in expert fora will go on where national representatives are also fibbing about how they handle elaborate tax constructions in their jurisdictions.

[201] The superstructures put over parent-subsidiary structures at the corporate level in the industrial world by way of (family) trusts in the Carribean are expressively exempt from this observation.

Chapter 7

Morocco: Women in Remunerated Work - an Idle Factor of Production

CONTENT

Country Fact Sheet			World	Morocco
GDP per Capita	(at 2011 PPP $)	2013	13,964	6,967
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	3,8
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	53
Agricultural Value Added	(% of GDP)	2014	3,1	13,0
Manufacturing Value Added	(% of GDP)	2014	26,4	29,3
of which Industry	(% of GDP)	2014	15,8	18,2
Services Value Added	(% of GDP)	2014	70,5	57,7
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	30,2
Research and Development Exp.	(% of GDP)	2005–2012	2,0	0,7
Internet users	(% of pop.)	2014	40,5	56,8
International Tourism, Arrivals	(mio people)	2013	1068,0	10,0
Consumer Price Index	(2010 = 100)	2014	..	104,6
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	115,5
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	42,6
Current Account	(% of GDP)	2013	..	-5,7
External Debt Stock	(% of GDP)	2014	..	41,1
Exports plus Imports	(% of GDP)	2013	60,4	80,5
Private capital flows	(% of GDP)	2013	-0,9	-3,0
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	3,2
Official Development Assistance	(% of GNI)	2013	0,4	1,9
Remittances, inflows	(% of GDP)	2013	0,71	6,63
General Gov. Expenditures	(% of GDP)	2013	..	33,0
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-4,9
General Gov. Net Debt	(% of GDP)	2013,0	..	62,9
Ease of Doing Business Index	(rank)	2015	95	75
Corruption perception	0-100	2014	..	36
Population	(millions)	2014	7259,7	33,9
Surface	(1'000km^2)	2015	134325	447
Populationb Density	(person/km2)	2014	56	76
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	1,4
Fertility	(births/woman)	2010/2015	**2,5**	2,8
Under-Five Mortality	(% < age 5)	2013,0	45,6	30,4
Life Expectancy at Birth	(years)	2014	71,5	74,0
Child Malnutrition	(% age group)	2008–2013	29,7	14,9
HIV-Prevalence	(% of pop.)	2013	1,1	0,2
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	2,6
GINI Index (income concentr.)	0-100	2005–2013	..	40,9
Homicide Rate	(per 100'000)	2008–2012	6,2	2,2
Primary School (enrolm.)	(% age group)	2008–2014	109	118
Secondary School (enrolm.)	(% sge group)	2008–2014	74	69
Tertiary School (enrolm.)	(% age group)	2008–2014	32	16
Genders in 2nd Schooling	(female/male)	most recent	97,1%	85,4%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	67,1
Employment to Population Ratio	(% aged 15+)	2012	59,7	45,4
Unemployment rate	(% aged ≥ 15)	2004-2013	..	9,879
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,35
Children in Employment	(% of age 7-14)	2013	..	..
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-2,7
Rural Population	(% of popul.)	2014	46,6	40,3
Energy use per capita	(kg of oil eq.)	2013	1894,4	564,4
CO2-Emission	(t per capita)	2011	4,6	1,8
Improved Water Access	(% of popul.)	2014	90,5	85,3
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	2,0
National Resource Rents	(% of GDP)	2014	3,9	2,7
Protected Area	(% of surface)	2014	12,8	20,1
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,628

Chapter 7
Morocco: Women in Remunerated Work - an Idle Factor of Production

The role of women in remunerated work is closely intertwined with the role of women in society. Since gender disparities in public life are important in many parts of the world, the rule of equal opportunities and pay at the workplace for both sexes is accordingly often also disregarded. This raises the question whether globalisation exerts pressure to pay factors in accordance with their marginal contribution to output, and thus more evenly.

The labour market and the opening up of an economy interact in many more ways, however.[202] Idle production factors or wages not reflecting the marginal product of labour make the gains from trade uncertain. When trade exposure shifts relative prices, the corresponding adjustment of the nation's production may lead further away from full employment. This risk is growing with labour (and product) market rigidities, but the opening up of an economy may also constitute an opportunity to reconsider how employers' and employees' organisations interact if these institutions are present and relevant.[203] Simultaneously, the presence of an informal sector greatly complicates any theoretical prognosis of the effects trade will have and makes empirical checks relevant.

The Kingdom of Morocco we consider in this chapter shows some particular features regarding the role of women in society and work. The country came under French influence in the era of imperialism, and adopted an urban lifestyle in major cities on the coast. At the same time, traditions of an Islamic country remain strong in many respects, e.g. female labour market participation. Since the educational effort has remained insufficient for a long time or has provided inadequate qualifications, the overall labour market situation in the country is also not encouraging. It comprises a considerable risk for political stability.

The business case in this chapter looks at an insurance company. In the late 19th century and up to WWII it could expand by offering insurance coverage against accidents at the workplace. Then nationalisation of this insurance branch in many countries in the world obliged the multinational to focus on other businesses such as car and transportation insurance. Improved social legislation re-opened the business field of protection at the workplace a few years ago in Morocco.

1 Main features of the country

The Kingdom of Morocco has a population of 33.9 million people and a surface of 446'550km^2. Population density is considerable only in coastal regions. It is the North African country which has access to both the Atlantic and the Mediterranean Sea. In the course of the first millennium, the endogenous Berber population was supplemented by an Arab population that brought with it the Islamic religion and culture. In the area of imperialism with a weak Ottoman government, the country fell into the French sphere of influence. Gaining independence by 1956, Morocco is today considered a constitutional monarchy with an elected parliament, but the King of Morocco holds vast executive and legislative powers, especially over the military, foreign policy and religious affairs. The Arab Spring caused only comparatively small economic disruptions but brought the adoption of a new constitution providing for further economic and political reforms. Morocco remains the only African state not to be a member of the African Union due to its unilateral withdrawal in 1984 over the admission of the Sahrawi Arab Democratic Republic, i.e. the Western Sahara, in 1982 by the African Union as a full member (Morocco holds this territory still occupied). Morocco has been given the status of non-NATO ally by the US government. Morocco is included in the European Union's European Neighbourhood Policy (ENP) and is negotiating a comprehensive free trade agreement

[202] Part II of the corresponding chapter in the underlying publication is indeed broader than the gender topic, and addresses the functioning of labour markets in general, since non-functioning labour markets make it difficult for a country to integrate successfully in global value added chains. Both formal and informal labour markets are examined, and a digression on social capital closes this part of the chapter.

[203] Legislation affecting national labour markets, while having far-reaching consequences, is very heterogeneous and the study of national idiosyncracies would quickly lead out of the topic of globalisation. For this reason, Part III of the corresponding chapter in the underlying publication narrows down the subject to core labour standards as defined by the ILO and their enforcement.

with the EU with a scope extending beyond the current Association Agreement. Morocco has free trade agreements with the US, EFTA and other countries and is examining deepening economic relations with Sub-Saharan Africa.

The overwhelming share of Morocco's population is of Arab, Berber or mixed Arab-Berber origin. Correspondingly, affiliation to the Muslim religion is predominant. Also, instruction in schools is in Arabic. In business and the public administration, the use of the French language is widespread, however. In 2010, there were 10'366'000 French-speakers in Morocco, or about 32% of the population. As a heritage of the past, and significant drop-outs in school, the adult literacy rate stands at a modest 67%.

Over the past fifty years, Morocco has undergone an important demographic transition. Life expectancy at birth increased from 47 years in the 60' to 70.9 years in 2013. Fertility decreased from 7.2 children per women in 1962 to a still considerable 2.8 in 2010/2015. Correspondingly, close to half of the population is in the range of 15 to 29 years of age. Today, the urban population accounts for 60% of the total population.

Under-five mortality can still be improved and a certain incidence of child malnutrition and extreme poverty subsists. The income distribution is rather uneven (GINI coefficient of 40.1).

Emigration from Morocco was already strong in the past. Some 3 million people of Moroccan origin live abroad, mainly in France, but also in Spain, Italy and elsewhere. Remittances from this population group are a significant component when it comes to balancing the foreign account.

Personal safety is remarkably high, particularly when one considers that a large share of the cannabis resin consumed in Europe comes from the Rif region where hashish has been cultivated since the 7th century. In addition, Morocco is a transit point for cocaine from South America destined for Western Europe.

2 Major aspects of Morocco's economy

Morocco's economy is considered a relatively liberal economy, governed by the law of supply and demand. Since 1993, the country has followed a policy of privatization of certain economic sectors that used to be in the hands of the government. King Mohammed VI, while not pursuing the repressive policies of his father King Hassan II who governed the country for four decades up until 1999, remains however in control of many companies throughout the economic landscape in Morocco[204] and this may curb private initiative in a number of sectors.

GDP per capita on a PPP basis was US-$ 6'967 in 2013, comparable to the Philippines and Guatemala, still higher than in India but today significantly lower than in China, Columbia and Peru. Morocco therefore is one of the countries that encounter difficulties in leaving the range of lower middle incomes. Growth over the period 2009-2014 was remarkable with 3.8% p.a., testifying to the ability of the country and the Sovereign in avoiding the turmoil of the Arab Spring suffered by the other Arab countries bordering the Mediterranean Sea. Over a decade, the GDP increase was a not overwhelming 53%.

The agricultural sector accounts for 13.0% of value added (and a considerably larger employment share (40% at the national level, 75% in rural areas)), but the sector shows some strengths in exporting a range of products to Europe. Services account for 57,7% of GDP; 10 million arrivals of foreign tourists contribute to this value. Manufacturing, accounting for the rest or 29.3% of GDP, comprises an industrial sector in the narrow sense of the term contributing 18.2% to GDP. The major industries are textiles and leather, the nutritional industry and car parts. The textile industry was the most affected by the shift in competitive positions from the old industrial countries in Europe to South and Eastern Asia.

The exposure to international trade is considerable. The country also attracts significant FDI. Gross fixed capital formation is strong, the number of Internet users is considerable and some R&D is taking place in the country. High government spending on education was supportive of these achievements. In its 2015 report on Morocco, on which we build henceforward,[205] the African Development Bank observes, however, that trade with the EU remains predominant (the EU accounts for some 70% of foreign trade), and it concluded that Morocco misses to fully take advantage of the other free trade agreements it signed.

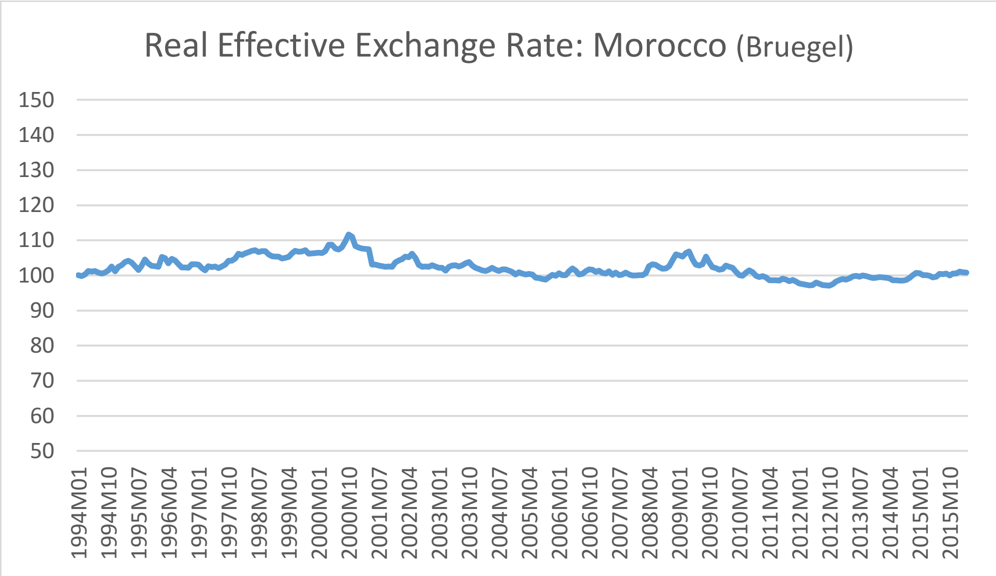
Monetary and financial stability are good. Inflation is contained (4.6% over 4 years), Morocco's Central Bank pursuing a cautious policy that goes along with only small variations in the effective exchange rate. Domestic credit by banks and the stock of foreign debt, while not exceptionally

[204] http://www.newsweek.com/despite-protests-moroccos-king-retains-control-67181

[205] African Development Bank (2015): African Economic Outlook, Country Notes, Morocco 2015. http://www.africaneconomicoutlook.org/fr/notes-pays/afrique-du-nord/maroc/

high, justify such a prudent stance, and more so the balance of payments.

In fact, the current account went into a considerable deficit in 2013. Exports of 21.2% and imports as high as 40.8% resulted in a trade balance of -19.5% of GDP. Factor incomes withdrew another 1.7% of GDP. Services improved the result by 5.4% and transfers (essentially remittances) by another 8.7%, but the total remained negative (-7.3% of GDP !).



In 2014, Morocco was able to reduce the current account deficit to -5.7% and build up its foreign exchange reserves to an equivalent of some five months of imports. The loan the country could issue on international financial markets in June 2014 at rather favourable conditions was seen as a sign that international investors trust the country in being able to rebalance the public household and the current account.

Government finances are going through difficult times, indeed. In 2014, current outlays were at 33.0% of GDP, while fiscal entries stood at 27.3% of GDP. Although the overall deficit was reduced to 4.9% of GDP, the primary deficit remained negative with 2.1% of GDP, both figures showing a continued need for fiscal consolidation.

3 A tense situation on the labour market

The situation on the labour market is not encouraging. According to Morocco's Statistical Directorate,[206] the economy created only 21'000 jobs between the years 2013 and 2014. The creation of 27'000 urban jobs was diminished by a loss of 6'000 in rural areas. The 21'000 new jobs represent the balance between the creation of 58'000 jobs in the services sectors and in agriculture, forestry and fisheries and a loss of 37'000 jobs in industry including the crafts. Since the population of working age (population aged 15 and over) increased by 1.5%, while employment among those aged 15 and over grew only by 0.9% nationally (+ 1.4% in urban and + 0.3% in rural areas), the level of activity recorded a decrease of 0.3 points, from 48.3% to 48%. Meanwhile, the unemployment rate increased from 9.2% to 9.9% nationally (from 14% to 14.8% in urban and from 3.8% to 4.2% in rural areas). Among the age group 15-24 years, the rate even increased from 19.3 to 20.1%, and among the holders of diplomas from 16.3% to 17.2%. The rate of underemployment meanwhile rose by more than a percentage point from 9.2% to 10.3% nationally.

This unfavourable evolution in recent times adds to the existing problems in the labour market in Morocco. According to official statistics, the main characteristics of the employed are as follows:

- 62% of the employed are without a degree, 26.6% have an average level degree and 11.4% a higher degree. According to the industry, the share among the employed who have no diploma passes from 42.8% in the services to 51.9% in industry and to 63% in

[206] Royaume du Maroc, Haut Commissariat au Plan, Direction de la Statistique, Division des enquêtes sur l'emploi : Activité, emploi et chômage, Année 2014, premiers résultats. http://www.hcp.ma/downloads/Activite-emploi-et-chomage-premiers-resultats-annuel_t13036.html

the Construction & Public Works (BTP) sector, to reach 84.1% in "Agriculture, forestry and fishing";

- the rate of women participating in employment is 23.0% nationally, 11.0% in urban areas and 36.3% in rural areas;
- 10.3% of the employed are underemployed with large disparities between sectors (17% in the construction sector, 10.3% in agriculture, forestry and fishing, 9.4% in services ; 8% in the industrial sector including the crafts);
- nearly two out of three employees (62.6%) perform their jobs without a contract, particularly in the area of "agriculture, forestry and fisheries", where the proportion is 91.6%;
- unpaid employment represents 22.5% of employment at the national level and 41.6% in rural areas;
- almost eight employed persons in ten (79.5%) do not have medical coverage provided for by the employer, 94.4% in rural areas and 64.8% in urban areas. Among employees, the proportion is 58.2% nationally, 81.6% in rural areas and 49.6% in urban areas;
- almost a quarter (23.6%) of the employed express a desire to change their job; the reasons given relate mainly to the search for better remuneration (71.2%), for more favourable working conditions (9.6%), for stable employment (9.5%) and for a job adequate to the training received (4.9%).

Finally, it appears from the survey that some 3% of the employed are affiliated to a union or professional organization, 5% in urban areas and less than 1% in rural areas. Among employees, the proportion rises to about 6% nationally, 7% in urban areas and less than 2% in rural areas.

Concerning the unemployed, joblessness remains particularly high among graduates and young people aged 15-24 years. More precisely, the unemployment rate is 4.7% among those without a degree, 15.5% among those with a medium level degree and 20.9% among those with a higher degree. Among those with a medium level degree, the rate is 22.4% for those persons holding a vocational specialization, while at the highest level schooling, those coming out of University faculties (as opposed to those leaving graduate schools) are particularly affected with a rate of 24.1%. Unemployment stands at a rate of 20.1% among those aged 15-24 (and as high as 38.1% among those dwelling in cities), against 9.9% for all persons aged 15 and over. Consequently, the survey reveals that nearly eight out of ten unemployed (80.1%) are urban dwellers; almost two thirds (62.6%) are aged 15-29 years; over a quarter (27.6%) have a higher degree; nearly half (45.4%) are first-time job seekers; nearly six out of ten unemployed (59.2%) have been unemployed for over a year; while some three in ten (29.2%) found themselves unemployed following the dismissal or termination of the activity of the employer.

4 Policies addressing the labour market outcome

One of the characteristics of the Moroccan economy is the existence of a vast network of micro and small enterprises (in 2008, 78.2% of employees were working in companies with less than nine employees), showing a low capacity to create employment, a high rate of shut-downs and only a small offer of innovative and high-end products. Companies are generally undercapitalised and controlled by family capital. Information systems are rudimentary and confined to the automation of daily management tasks, also in larger structures. The ratio of staff is inadequate, which hampers productivity, particularly in urban areas.[207]

These structures make the orientation of the education system in Morocco which is of French inspiration even more problematic. Remember that the French economy is marked by large conglomerates whose management is often in the hands of graduates from the major national schools, while the country struggles to develop a network of small and medium sized enterprises capable of going for exports by their own means. An education system underlying such industrial structures implemented in an economy with a large informal sector has all the more difficulties passing on to future employees knowledge corresponding to the economic environment in which they will evolve[208]. The atypical situation in Morocco, where the unemployment rate tends to increase with the level of education reflects this problem.

Educational policies

A study prepared at the University of Chicago[209] found that some of the structural reasons for the

[207] Paragraph taken from Rosso, Francesca (2012) : Etude sur l'emploi et l'employabilité au Maroc, European Training Foundation ETF Turin, Juillet 2012.

[208] Sadly enough, the Moroccan immigrants living in the suburbs of French towns suffer from the same deficiencies of an education system putting little emphasis on the acquisition of techniques immediately applicable at the working place.

[209] Benítez Molina, Juan Carlos et al. (2014): Youth Transition to the Labor Market in Morocco, enquiry by students of the Harris School of Public Policy at the University of Chicago, May 2014

high rates of unemployed college graduates are indeed related to the educational system. The study observes that inefficiencies in the system have led to over-crowding in public universities, low-quality instruction in certain majors, and an excess of students getting training in majors that are not giving them the skills they need for full employment. Simultaneously, enrolment in some of the technical branches, such as medicine and engineering, is very selective and limited by quotas. Only 9% of the student body attends highly competitive technical schools. Moreover, in order for students in the technical track to achieve admission into the highly competitive 'grandes écoles d'ingénieurs', they must complete two additional years of preparatory courses offered at one of 13 select schools known as 'classes préparatoires aux grandes écoles'. Instruction at these institutions is in French. Overall, Morocco's public universities collectively enrol 400'000 students, mainly in areas where one year of schooling is cheap to provide but where employment prospects remain poor. The fact that these majors are chosen also reflects an attitude in society. 46% of young people prefer working in the public sector compared to working in private companies or self-employment, but only 5% of the young will actually work in public sector jobs.

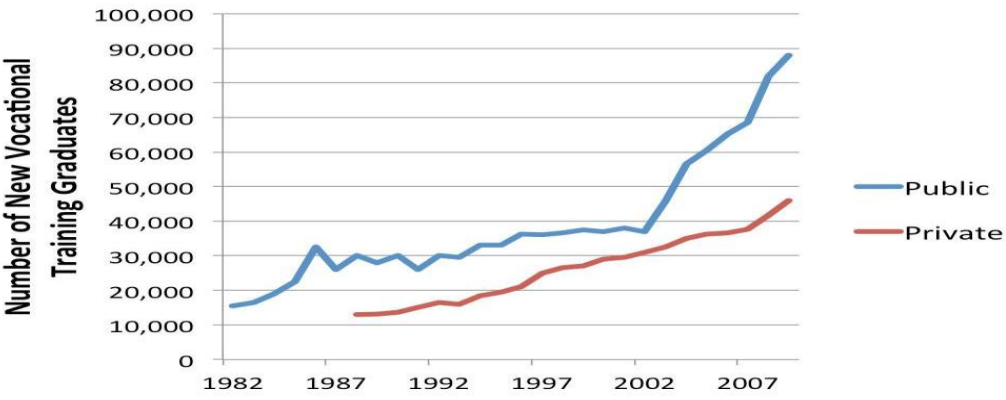
The Chicago study also comprises indications on the general educational system (where instruction is in Standard Arabic). Only 46% of pupils registered for the first year of primary school in Morocco finish a secondary education, while 23% of pupils enrolled in the first year of primary education complete high school (i.e. tertiary level education). Those who continue on to secondary education enter, based on the results and their preferences, one of three tracks: general, technical, or professional. The first two tracks—general and technical—lead to a Baccalauréat (BAC) degree. The professional or vocational track leads to the awarding of the Diplôme (or Certificat) de Qualification Professionnelle (DQP) or Diplôme de Technicien depending on years of secondary schooling and entrance exams taken. Students of the first two tracks also pass an entrance exam and have to meet minimum grade requirements in their respective programs of study in order to gain college admission. Some institutions only accept students who apply in the year they earned their BAC.

Given the poor employment prospects after having attended classes at the university, the question arises whether vocational training does not constitute an alternative. Vocational training programs are currently organized and provided free of charge by the Office de la Formation Professionelle et de la Promotion du Travail (OFPPT) and, to a lesser degree, by profit-based private schools. The study from Chicago observes that public programs currently enrol 71% of those students, but supply of programs remains far below potential demand: anywhere from three to twelve people apply for one available training position, As a reaction to this shortage, in February 2015, the Office for Vocational Training and Employment Promotion (OFPPT) announced that it targets the training of 1 million young people by 2017.[210] This goal shall be achieved notably through the launch of a professional high school degree (Baccalauréat) in the OFPPT institutions. In the 2015-2016 period, the Office's capacity will be stretched to 405'000 pedagogical seats compared to 370'000 currently. The OFPPT will also cooperate with the National Initiative for Human Development and micro-finance associations and cooperatives as well as the Mohammed V Foundation for Solidarity and some international organisations to promote the integration of the young in the labour market.

To extend vocational training in the way such training is currently offered in Morocco is not the panacea, however. This appears through an article by Boudarbat/Egel (2014).[211] They examine the achievements after Morocco had implemented an ambitious reform of its vocational training system in 1984, with the main goal of increasing youth employment. One element in this reform was to allow private VT institutions (for their role see figure below). Correspondingly, the number of private training institutions reached 1'650 in 2003, compared to only 584 in 1992. Boudarbat/Egel (2014) find now that both the privatization of VT and policies designed to encourage entrepreneurship among graduates have been largely ineffective. They quote a study saying that vocational training graduates perform worse than their peers. One reason may be adverse selection into these programs, but another reason appears to be that, while these vocational programs do provide specific skills that are useful in a particular vocation, they are not very effective in preparing individuals for the realities of the private labour market. Also, graduates are unwilling to take low paying jobs that offer valuable experience and instead delay employment in hopes of obtaining high wages that they feel their education entitles them to. In fact, informal activities,

[210] http://www.ofppt.ma/index.php/actualites/193-l-ofppt-tient-son-conseil-d-administration-approbation-du-plan-d-action-et-du-budget-2015-405-000-places-pedagogiques-prevues-en-2015-2016

[211] Boudarbat, Brahim and Daniel B. Egel (2014): The effectiveness of vocational training in Morocco- Quasi-experimental evidence, Regional and Sectoral Economic Studies, Vol. 14-2 (2014)



supported with job search, and parental connections accelerate hiring.

In response, by 2003, modernisation was implemented, first as a four-year pilot project, replacing existing teaching methods with the skills-based approach (SBA). Five training sectors were targeted: (1) textile/clothing industries, (2) tourism/hotel and catering industry, (3) tertiary (in particular information and communication technology), (4) mechanical, metallurgical and electrical industries, and (5) agriculture. A second phase, also four years long, should then help to evaluate the first phase and generalize the approach to the entire vocational training system.

Boudarbat/Egel (2014) show that participating in a traineeship after graduation has a lasting and strongly positive impact on subsequent labour market outcomes.

The Chicago study cited above observes, and this may serve as a conclusion to this subsection: 'The challenges in the education system are not caused by a lack of government spending. … Private sector firms complain about the lack of soft skills and trained workers to meet their staffing needs. At the same time, there are not many opportunities for internships or mentoring programs to supplement the classroom with on-the-job training.''

Zurich Assurances Maroc: Offering Insurance Coverage at the Workplace

The History of Zurich Insurance[212]

Founded in 1872, the Zurich Insurance Company offers in its first years of existence primarily general transportation and accident insurance. The basis for the latter business was laid by legislation in Germany, making insurance protection at the workplace compulsory for factory owners. In 1877/78, branch offices are opened in Brussels, Paris and in the Netherlands. Accident insurance is additionally offered to individuals. By 1886, compensation of workers is nationalised in Germany but the loss in premium income is with the time made up by liability insurance (for home-owners, medical malpractice, hunters, horse owners, a.s.o.). Drawing on the experiences with insurance for horse owners, the Belgian office establishes the first printed automobile liability rate schedule by 1900, a business of primordial importance in later decades. At the turn to the 20th century, France is the most important market for Zurich since accident insurance at the workplace became compulsory there in 1898 while being left as a business to private insurance companies. Similar legislation is adopted in Italy and Belgium, offering additional business opportunities. In December 1912, Zurich obtains the necessary licences to enter the US market. Success is immediate: After one year, the US contribute 9% to gross premium income. At the end of the expansion during the first wave of globalisation stands a first M&A-deal, the acquisition of the Barcelona based Hispana General Compañía de Seguros.

While most competitors concentrate on their home markets, Zurich continues its global expansion after WWI. And after WWII, it is the strong capital base Zurich could preserve in the non-war-ravaged US and Switzerland that supports the globalisation of activities.

In 1951 Morocco is entered (see below). This is only a small compensation for the loss in premium income caused by nationalisation of workplace insurance in France. Later, in 1972, nationalisation will force Zurich also out of India, en-

[212] The information stems from https://www.zurich.com/en/about-us/a-global-insurer/history-and-heritage

tered only ten years earlier. In the mid-70', comprehensive insurance coverage packages for internationally diversified companies are developed, and risk engineering is founded as a part of the international division, Zurich employing to this end an increasing number of engineers. Expansion into Asia occurs only gradually. The acquisition of a Malaysian insurer in 2011 marks Zurich's cautious strategy of entering emerging markets selectively. During these years, aspectsof Corporate Social Responsibility gain in importance (climate, gender, apprenticeships in countries not knowing this system)

The Zurich Insurance Group in Morocco

Zurich Assurances Maroc is headquartered in Casablanca and serves its customers through a large network of 150 agents as well as numerous brokerage firms throughout the country. The company itself employs approximately 230 people in Morocco.

Zurich Insurance Morocco provides products and services primarily in accident and property insurance. Customers are companies, including SMEs, as well as individuals on the Moroccan market. In its business with larger companies, Zurich revives with its initial business, namely accident insurance for the employed. Insurance against accidents at the work place became mandatory in November 2002, and supports all expenses incurred in the case of an accident such as medical and pharmaceutical expenses, hospitalization, daily allowances, disability payments and eventually an indemnity for the death of the victim. Overall, a long list of products reflects that Morocco is in terms of insurance an economically advanced country.

This is also revealed by a study the Zurich Group produced on insurance in MENA countries.[213] According to this publication, while the non-life sector in the MENA region is roughly comparable to those of other emerging economies, the region's life sector is conspicuously underdeveloped relative to other regions. This can partly be explained

- *i) by cultural and religious factors that influence insurance-buying behaviour,*
- *ii) by large segments of the population for which insurance is often unaffordable,*
- *iii) by public policy-related hurdles hindering the development of a strong and competitive private insurance segment.*

When insurance penetration is low in countries with a predominantly Muslim population, the lack of Sharia-compliant insurance products may be a main reason for this. The emergence of Takaful insurance that fully adheres to Sharia laws may help boost demand for insurance in the region.

Secondly, the insurance business relies on the emergence of a middleclass. This makes an undersupply in insurance more likely in the resource-poor economies of the MENA region. Micro-insurance, possibly distributed via mobile phones, may be a response.

Finally, adequate legislation and supervision plays a vital role in enhancing trust in insurance.

It is also essential that the regulatory framework does not impede risk adequate premiums and efficient risk pooling. By shielding off foreign insurers in accordance with an infant industry argument or by requiring that investments occur in narrow categories of domestic assets, risk pooling is made problematic and an abuse of funds for the financing of government becomes possible. If Morocco is one of the few countries in the region where the insurance penetration ratio is close to expected values, then this may also be attributed to legislation tracking EU developments and a capable supervisory office .[214]

Summary

The availability of insurance coverage is an asset for the business initiative that must develop in a country. If someone decides to embark on a trade or business, if not on constructing a real estate, it is important that he can protect creditors against the hazards of the trade that are out of his personal control. This may inter alia occur by concluding a life insurance of limited duration. On the downside, one has to remain aware of the fact that the offer of insurance companies is hardly affordable for those people operating in the informal economy and earning a low income. Basic health care coverage for all remains important. Furthermore, comprehensive public pay-as-you-go retirement systems look for the time also viable for MENA countries, considering their low old-age-dependency ratios. They are not helpful in the accumulation of capital, however.

[213] Suter, Roy and Benno Keller (2014): The role of insurance in the Middle East and North Africa, Zurich (Zurich Insurance Group) 2014, see https://www.zurich.com/en/knowledge/articles/2014/05/the-role-of-insurance-in-the-middle-east-and-north-africa

[214] Rodney Lester (2011): The Insurance Sector in the Middle East and North Africa, World Bank Policy Research Working Paper.

In countries at a low level of development, unions barely exist. Most employment takes place in the informal sector. To argue that an informal sector adds to labour market flexibility and is therefore beneficial for development appears as inappropriate, however.[215] The informal economy may offer too little job security and thus hamper all forms of learning by doing. The missing opportunities to participate in formal education and training programmes will enhance the scarcity of human capital as a production factor. An absence of access to a range of social benefits such as health and old age insurance may further add to myopic behaviour of both the employers and the employees. Additionally, jobs in the informal economy usually go along with lower incomes, and thereby shape the pattern of local demand. This may be one reason why countries with larger informal economies also experience lower export diversification. Furthermore, estimates suggest that countries where the size of the informal sector is above-average are more than three times as likely to incur the adverse labour market effects of a crisis at the level of the GDP compared to those with lower rates of informality, i.e. demand shocks have larger repercussions on employment and income and thereby also on internal demand in countries with large informal sectors. Addressing informality is, therefore, not only a matter of concern in terms of social equity. Driving back informality also helps to improve a country's dynamic efficiency.

By all means, economic theory offers little in terms of strong predictions regarding the effect of trade opening on labour market outcomes. The empirics presented in a joint WTO/ILO study[216] also point in the direction that domestic policies play a key role in explaining the success that countries have experienced following trade reforms.

Industrial Policies

The existence of a High Planning Commission suggests that industrial policies are also part of the policies designated to improve economic performance and to remedy the situation on the labour market. In this vein, in 2009, a National Pact for Industrial Emergence was decided, covering the years 2009-2015. The Pact should create jobs in six global value added chains selected by Morocco, namely the automotive sector, aeronautics, electronics, textiles and leather, the agribusiness and off-shoring in general. According to a report prepared in 2012 at the European Training Foundation,[217] the sectoral development plans correspondingly adopted by the government (including the "Green Morocco Plan" for agriculture, the "Plan Azur" for tourism, the "strategy e-Morocco* for information and communications technology and the "Moroccan solar plan" for renewable energy) encountered difficulties, however, due to lack of adequate resources and clear mechanisms for monitoring and evaluation.[218]

By 2014, the results of this industrial development strategy on the Moroccan economy were admittedly not yet fully tangible. This led the Moroccan government to adopt a new 2014-2020 industrial strategy which has two objectives. The first is the consolidation of the new Moroccan trades, namely the automotive sector, aerospace, electronics and Offshoring. The second is the better exploitation of Morocco's location close to Europe, Africa, the Middle East and America (by sea). The new plan seeks to establish a new relationship between large groups - locomotive businesses - and SMEs, and will support the transition from the informal sector to the formal economy of the very small businesses by a comprehensive set of measures. An industrial investment fund (IDF) will dispose of a budget of 20 billion dirhams (≈ US-$ 2bio) to be spent up until 2020. Also, establishment in industry parks will me made easier with lots for rental. The ambition of this plan is to push the share of industry in GDP by 9 points, from 14% to 23%, in 2020. The launch of this plan took place in the presence of HM the King and consisted in the signing of 14 documents comprising 33 agreements.[219]

[215] Bacchetta, Marc (WTO) and Ekkehard Ernst and Juana P. Bustamante (ILO) (2009): Globalization and Informal jobs in Developing Countries -A joint study from the ILO and the WTO.

[216] Source: See preceding footnote.

[217] See Francesca Rosso (2012): Etude sur l'emploi et l'employabilité au Maroc, European Training Foundation ETF, Turin, Juillet 2012. See : http://www.etf.europa.eu/web.nsf/pages/Employment_and_employability_Morocco_EN

[218] See e.g. http://www.leconomiste.com/article/903617-bilan-pacte-emergencedes-mesures-pour-d-bloquer-le-foncier-industriel

[219] The program content becomes visible by the affiliation of the notables signing the documents: The first document relating to the financing of the program is followed by a second paper on the development of single industrial sectors which are, in order of signatures, transport and logistics, agriculture and sea fishing, the food industries, the mechanical, metallurgical and electrical industries, Information Technology, Telecommunications and

It remains to be seen how this government initiative will help overcome the challenges faced by the economy of Morocco as summarized by the African Development Bank (AfDB) in its 'country note' of 2015. The challenges named are: i) the low qualification of human resources and the mismatch between labour supply and demand; ii) the strong dependence vis-à-vis foreign capital leaving the exposed sector dependent on international economic conditions; iii) the lack of diversification and the specialization in low value-added products; and iv) the high concentration of Moroccan exports (by product and by market). In accordance, for the AfDB the political priorities are i) the poor quality of the educational system and the mismatch between labour supply and demand; ii) the delays in the execution of court decisions; iii) the tax distortions; and iv) the difficulty of access to land (industrial and agricultural).

5 The significance of the functioning of a country's labour market

The notion of 'social capital' focuses on cohesion in society, cohesion typically being assessed by the number of people responding positively to the question: "Can you trust somebody else in your society?" The "why trust" - question is not asked, and for good reason since trust may build on factors that differ from society to society. Among the institutions relevant for social cohesion are the labour market organisations. They may help considerably to build up trust as long as their attitude is not purely confrontational. Whether they interact in a results-oriented way is in particular a determining factor when it comes to coping with the social and economic transformations that go along with globalisation. A good share of the heterogeneity of outcomes globalisation causes around the world may be rooted in these national idiosyncrasies. For this reason, assessments regarding the beneficial effects of globalisation remain conditional statements, valid under certain – eventually very broad - societal aspects. Aghion, Algan, Cahuc (2008) show e.g. that the share of negative answers to the question whether one can trust somebody else in society correlates with the adoption and rigidity of a minimal wage legislation.

Minimal wages are as such not necessarily detrimental for the functioning of an economy. When labour market legislation becomes so rigid as to impose a comprehensive wage grid over sectors and professions and the unions enforce employment guarantees, then, however, such legislation impedes adjustment to the changing employment patterns an open economy generates. Many countries around the world, in particular also countries in the industrialised world, are far from having interactions between employers and employees which function well. For these countries, globalisation comprises a higher risk of not leading to positive outcomes. The response is not necessarily to refrain from opening up, however. Rather, since the initial dysfunctionalities usually come at costs for the economy as a whole, the opening up of an economy constitutes an opportunity to reconsider how employers' and employees' organisations interact if these institutions are present and relevant.

6 On core labour standards

In a series of countries at a lower level of development exploitation of labour is wide-spread, and not only in the informal, but also in the formal economy, i.e. in industrial plants. Repressive governments are also a reality. Social capital is low. The guarantee of minimal labour standards has therefore become important. Respecting these standards was accordingly made a criterion in public procurement when passing contracts to third countries. Private companies which want to set up their global supply chains in a responsible manner increasingly also insist on the fact that their suppliers conform to basic labour standards. This section briefly reviews in what

Offshoring, manufacturing and trade of automobiles, the textile and clothing industry, finally the building materials industries. The third paper refers to infrastructure (water and environment, railways, airports, ports and also mines). The fourth document is on improving the competitiveness of enterprises through financing and includes banks and other financial intermediaries such as the Hassan II Fund for Economic and Social Development. The fifth document is on the integration of the informal sector and support for very small enterprises (TPE) while the sixth document seeks the revitalization of trade chambers to better support SME. The seventh document is on improving the business climate and strengthening the African vocation of Morocco while the eighth paper is about the strengthening of partnerships, the internationalization of enterprises and export promotion. The 9th paper specifically addresses investment and training in the aerospace sector. The topic of the 10th title is the implementation of 'ecosystems', while the 11th paper deals with supporting industrial investment in the Chemical and Pharmaceutical Industries. The 12th paper is concerned with giving support to investment projects in the upstream textile sector including technical textiles, while the 13th paper seeks improvements in access to industrial land. Finally, the 14th paper aims at enhancing the competitiveness of Offshoring through Telecom offers.

the core labour standards as defined by the ILO, the International Labour Organisation, consist and how they are enforced.

The ILO's Governing Body has identified eight ILO conventions as being “core”, i.e. as reflecting fundamental principles and rights at work. These comprise the freedom of association and the effective recognition of the right to collective bargaining; the elimination of all forms of forced or compulsory labour; the effective abolition of child labour; and the elimination of discrimination in respect of employment and occupation. In 1995, the ILO launched a campaign to achieve universal ratification of these eight conventions. There are currently over 1’200 ratifications of these conventions, representing 86% of the possible number of ratifications. Out of the eight core labour market conventions, Morocco has not ratified the convention granting the freedom of association.

Every year, the ILO releases a report of several hundred pages where the respect of the fundamental principles laid down in the organisation’s major conventions are examined in detail on a country by country basis. It is interesting to note that with regard to forced labour, the legal situation is primarily examined,[220] With respect to child labour, both the legal situation and programmes in place are presented, with a focus on enforcement,[221] whereas in the area of discrimination, the focus is on encouraging policies leading to more equity. This, of course, also reflects the situation in the field. With a predominance of female labour in smallholder farms and with a huge informal sector where, virtually by definition, labour contracts are absent, judicial enforcement of equal pay can hardly be envisaged.

In the case of Morocco, child labour is a major concern, but other conventions also give rise to admonishments addressed to the national authorities. With regard to child labour, the committee overseeing the respect of ILO conventions (CEACR) noted a statement from the International Trade Union Confederation (ITUC) saying that child labour, performed under conditions of servitude as domestic servants, is common practice in the country. Based on a Moroccan study, the estimated 50’000 children (mainly girls) employed in domestic work regularly get no schooling, are often beaten and exposed to the risk of abuse. In 2011, the Committee welcomed a bill regulating the conditions of employment and work of domestic workers which was in the process of being adopted. The CEACR report also referred to a National Multisectoral Programme implemented in collaboration with UNDP to fight child labour, and recalled the fact that ILO’s International Programme on the Elimination of Child Labour (IPEC) had launched an action programme to combat the use of young girls in domestic labour in the Marrakesh–Tensift–El Haouz region for the period from 1 January 2009 to 31 December 2010. In 2013, the Committee then noted with some consternation the Government’s indications that, with the entry into office of the new Government, the Bill on domestic work had been withdrawn from Parliament and resubmitted to the Council of the Government on 12 March 2012, which deferred it for in-depth examination.

Among other observations, the Committee then also noted the information provided by the International Trade Union Confederation (ITUC) according to which child labour was common in informal artisanal industries. A report entitled “Understanding Children’s work in Morocco”, estimated that some 372’000 children aged between 7 and 14 years, representing 7 per cent of the reference group, were engaged in work, 87 per cent of these working children living in rural areas where they are engaged in the agricultural sector. In urban areas, children were engaged in the textile, commercial and repairs sectors. The Committee noted the Government’s indication on the positive outcome of the activities undertaken with ILO–IPEC support to repress these situations. At the same time, the report observed that children employed in informal artisanal industries, or formal artisanal industries involving five employees or less, do not benefit from the protection of the Labour Code and, consequently, from the application of the minimum age of 15 years. The Committee requested the Government to take measures to ensure that the minimum age of 15 years is duly applied to all children working in artisanal industries, to which the Moroccan government responded by pointing to the fact that the law making attendance of school compulsory protects children in this age class. The report then observed that labour inspectors were only authorized by law to enforce the application of the labour legislation when there is an employment relationship. Consequently, labour inspectors did not carry out any supervision in the informal economy and the Committee suggested that this might be changed,

[220] Prison terms for infringement of restrictions imposed on the media comprise forced labour and make the corresponding ILO convention applicable.

[221] Child labour is not a problem of industrial manufacturing. Girls employed in private households and jobs performed by young people not having reached the required age in artisanal production are the principal concern.

It needs emphasizing that in Morocco problems are concentrated in labour relations within households and in small artisanal companies often evolving outside the formal economy. When one is ready to abstract from the missing formal guarantee of the freedom of association (labour unions exist in Morocco), the problems hardly affect Morocco as an exporter of industrial goods and provider of services for enterprises.

The Significance of Globalisation for Morocco

Morocco illustrates the case of a country that has got stuck in the middle income range. A pronounced population increase has slowed capital deepening as a driver of growth. The feudal structures may also inhibit development in what is prima facie a market economy. The potential of a location at the fringe of the industrialised world was barely used over decades and export dynamics in the AsiaPacific region further withheld progress in this country. The latter can build on raw material exports only to a limited extent so that it has to establish itself primarily downstream in the value added chains. This is taken up in industrial policy initiatives. The major problems in reaping the benefits of global trade reside in the human capital stock, however. Education is not sufficiently oriented towards offering young people a sufficient share of knowledge more or less directly applicable on the job. Furthermore, school drop-outs form a basis for child labour which is encountered in domestic work and in the small business units in the artisanal and agricultural sectors. Leaving the bottom range in the group of middle income countries would attenuate this problem.

Chapter 8

Philippines: To build up Human Capital is not sufficient for Sustained Growth

CONTENT

Country Fact Sheet			World	Philippines
GDP per Capita	(at 2011 PPP $)	2013	13,964	6,326
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	6,2
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	68
Agricultural Value Added	(% of GDP)	2014	3,1	11,3
Manufacturing Value Added	(% of GDP)	2014	26,4	31,4
of which Industry	(% of GDP)	2014	15,8	20,6
Services Value Added	(% of GDP)	2014	70,5	57,3
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	20,5
Research and Development Exp.	(% of GDP)	2005–2012	2,0	0,1
Internet users	(% of pop.)	2014	40,5	39,7
International Tourism, Arrivals	(mio people)	2013	1068,0	4,7
Consumer Price Index	(2010 = 100)	2014	..	115,8
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	51,9
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	41,2
Current Account	(% of GDP)	2013	..	2,9
External Debt Stock	(% of GDP)	2014	..	22,7
Exports plus Imports	(% of GDP)	2013	60,4	59,9
Private capital flows	(% of GDP)	2013	-0,9	-0,3
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	1,3
Official Development Assistance	(% of GNI)	2013	0,4	0,1
Remittances, inflows	(% of GDP)	2013	0,71	9,81
General Gov. Expenditures	(% of GDP)	2013	..	19,4
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	0,0
General Gov. Net Debt	(% of GDP)	2013,0	..	
Ease of Doing Business Index	(rank)	2015	95	97
Corruption perception	0-100	2014	..	35
Population	(millions)	2014	7259,7	99,1
Surface	(1'000km²)	2015	134325	300
Populationb Density	(person/km2)	2014	56	332
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	1,7
Fertility	(births/woman)	2010/2015	**2,5**	3,1
Under-Five Mortality	(% < age 5)	2013,0	45,6	29,9
Life Expectancy at Birth	(years)	2014	71,5	68,2
Child Malnutrition	(% age group)	2008–2013	29,7	30,3
HIV-Prevalence	(% of pop.)	2013	1,1	..
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	19
GINI Index (income concentr.)	0-100	2005–2013	..	43,0
Homicide Rate	(per 100'000)	2008–2012	6,2	8,8
Primary School (enrolm.)	(% age group)	2008–2014	109	106
Secondary School (enrolm.)	(% sge group)	2008–2014	74	85
Tertiary School (enrolm.)	(% age group)	2008–2014	32	28
Genders in 2nd Schooling	(female/male)	most recent	97,1%	109,8%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	95,4
Employment to Population Ratio	(% aged 15+)	2012	59,7	60,6
Unemployment rate	(% aged ≥ 15)	2004-2013	..	6,3
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,64
Children in Employment	(% of age 7-14)	2013	..	9,0
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-1,4
Rural Population	(% of popul.)	2014	46,6	55,5
Energy use per capita	(kg of oil eq.)	2013	1894,4	457,1
CO2-Emission	(t per capita)	2011	4,6	0,9
Improved Water Access	(% of popul.)	2014	90,5	91,5
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	18,3
National Resource Rents	(% of GDP)	2014	3,9	2,9
Protected Area	(% of surface)	2014	12,8	2,4
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,668

Chapter 8
Philippines: Developing Human Capital is not sufficient for Sustained Growth

Individuals with more education tend to have better employment opportunities and greater earnings, and it is widely accepted that they produce a qualitatively different output compared to those who are less educated. These findings provide a strong rationale for governments and households to invest substantial portions of their resources in education, with the expectation that higher benefits will result over time. The time the accumulation of knowledge takes and the extended period over which benefits then accrue justifies speaking of 'capital' also with regard to educational efforts and the earning potential they create. Investment in so-called human capital has, as a determinant of growth, to be placed alongside investment in physical capital.

The Philippines used to be one of the advanced countries in the Far East before they fell, starting in the 60', into a period of stagnation under the dictatorship of Ferdinand Marcos. In these years, as a heritage from the past, the Philippines continued to do well in terms of school enrolment and years of schooling. But, in the absence of adequate capital deepening, the country was subsequently taken over by a series of emerging economies in the region. The Philippines became rather prominent as an exporter of manpower.

The business case in this chapter examines emigration of Philippine nurses. It illustrates how people from developing countries may gain access to markets in the industrialised world even when higher professional qualifications are required.

1 Main features of the country and its population

The Republic of the Philippines has a population of 99.1 million inhabitants and a surface of 300'000km^2, resulting in a high population density. It is the 12th largest country in the world in population size. An additional 12 million Filipinos live overseas. A Spanish colony since the early 16th century, attached to the viceroyalty of Mexico, the country fell under US dominance at the beginning of the 20th century. After a period of Japanese occupation in WWII, the Philippines became recognized as an independent nation. The country then had an often tumultuous experience with democracy, which includes a People Power Revolution overthrowing the dictatorship of General Marcos in 1986. It is a founding member of the United Nations, the World Trade Organization, the Association of Southeast Asian Nations (ASEAN), the East Asia Summit (EAS), the Asia-Pacific Economic Cooperation (APEC), the Latin Union, the Group of 24 and the Non-Aligned Movement.

A population growth rate of 3.2% between 1995 and 2000 decreased to an estimated 1.7% in recent years, but a fertility rate of 3.1 children per woman shows that family planning remains a contentious issue. Life expectancy at birth is 68.7 years. Despite a long history of internal conflicts which had also ethnic roots, personal safety is fairly good.

More than 90% of the population are Christians; around 5% of the population are Muslim, most of whom live in parts of Mindanao, Palawan, and the Sulu Archipelago – an area known as Bangsamoro, or the Moro region.

According to the 1987 Philippine Constitution, Filipino and English are the official languages. Filipino is a standardized version of Tagalog, spoken mainly in Metro Manila, and other urban regions. Nineteen regional languages act as auxiliary official languages used as mediums of instruction in the first classes of primary school.

Child malnutrition remains widespread, in line with a significant share of the population falling below the lowest internationally defined level of poverty. Accordingly, the GINI index for income distribution is high, and, not surprisingly, a significant number of children are working.

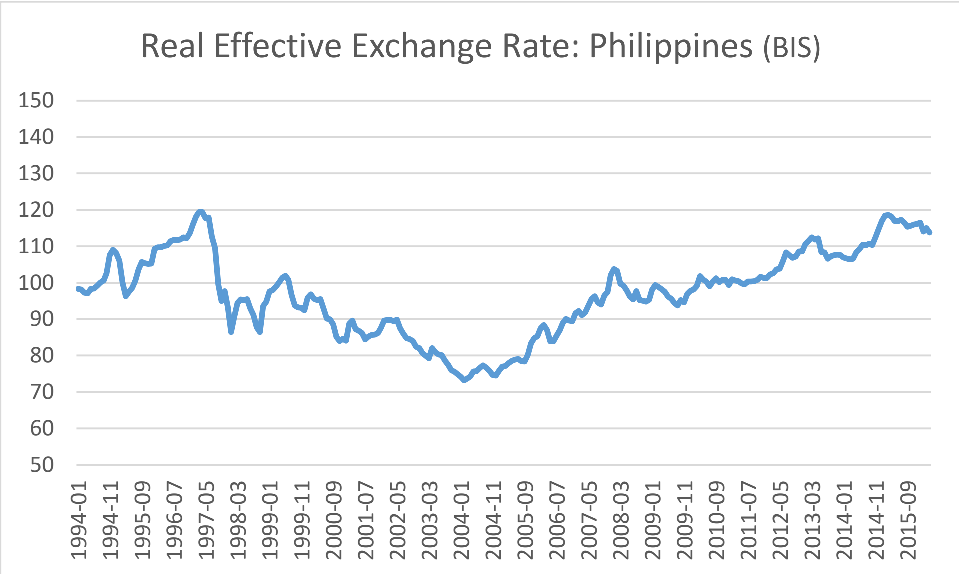
Enrolment at the primary school level is universal and also very high at the secondary level; it significantly falls at the tertiary level. In school, gender parity is achieved, while in the labour market the participation rate of women is two thirds that of men. Partly, this is explained by women working as family members on smallholder farms in rural areas. The adult literacy rate is 95.4%.

55.5% of the population live in rural areas. 91.5% have access to an improved water source. While only a limited part of the country's surface is protected area, reflecting also the high population density, the forest area is increasing. Natural resource rents account for a relevant part of national income.

2 A somewhat disappointing growth performance

GDP per capita reached US-$ 6'326 on a PPP-basis in 2012. This is somewhat lower than Guatemala, Morocco and Georgia and places the Philippines at rank 12 compared to the other 15 countries in this book, topping only India, Ghana, Kenya and Burkina Faso. This is disappointing considering that the Philippines were perceived in the 60' as one of the most promising economies in Asia. But then, the economy stagnated under the dictatorship of Ferdinand Marcos as the regime spawned economic mismanagement and political volatility.[222] Only in the 90', with a program of economic liberalization, did the economy start to recover. Growth over the period 2009-2014 reached 6.2% p.a. and the GDP in 2014 was 68% higher than in 2004, confirming an improved growth performance in recent times.

Agriculture, including fisheries, accounted for 11.3% of GDP in 2013, manufacturing for 31.4%, of which industry made up 20.6%, and services contributed 57.3%. The gross fixed capital formation was some 20% of GDP, a fair value, but not much R&D is done in the country and the share of internet users remains low. To assemble semiconductors and electronic products, a primary industry in the Philippines according to foreign trade statistics, does not mean that ICT is spreading throughout the country.[223] International exposure (imports plus export) is 59.9% of GDP, but assembling activity with its low value added in the country may somewhat boost this average figure.



The real effective exchange rate has been on an upward trend for ten years now.

The macro-economic framework offered by the Philippines is sound. Inflation is contained (a cumulated 15.8% over the period 2010-2014), and domestic credit by banks is at a rather low level (50.9% of GDP). The external debt stock is manageable and the country attracted a considerable amount of FDI in 2012. The current account was in surplus in 2013, pushed up in this range by inflows of remittances close to 10% of GDP.

General government expenditures remained slightly below 20% of GDP and public finances were more or less balanced. The public debt stock is also moderate, a significant consolidation having been achieved over the last decade. The Philippines score only medium in the Doing Business indicator and corruption is perceived as a significant problem.

3 Apparently remarkable educational achievements

At the time the Spanish arrived in the Philippines, Islamic Sultanates had already been established in the archipelago and the corresponding cultural ties to the Islamic world remained important for some of the islands. In the following five centuries, the major influences on the educational system were of Spanish and US origin, however.[224]

[222] Ferdinand Marcos was often nicknamed „Mister Ten Percent" for his alleged personal cut in all government contracts.

[223] This indicator should be completed by the penetration of cellular phones and, more importantly, the significance of the activities such as financial transactions performed on these nets. These are remarkably widespread in the Philippines.

[224] http://www.deped.gov.ph/about/history

In Spanish times, friars of different orders engaged in the education of the local population with the idea that reading skills allow for an improved access to religious beliefs. Right after having taken control of the Philippines, the US sent several thousand teachers to the different islands in order to build up primary schooling. Also the democratically elected governments of the Philippines adhered to the principle of compulsory primary schooling and launched national universities, copying the US system of degrees.

While, on paper, the elements for an efficient educational system are in place, in reality, the achievements are lagging behind. In the "Trends in International Mathematics and Science Study 2003" prepared by the International Association for the Evaluation of Educational Achievement (IEA), the Philippines finished near the end of the list of the 46 countries participating.[225] The dispersion of results was wide. In particular, a considerable gap appeared between educational attainments in the capital region and on more remote islands. In the case of the Philippines, these low scores risk to weigh particularly negatively since the country's competitors in the region are nations where the government and the families invest heavily in the educational achievements of their children.

Improvement in quality and attendance shall be brought by the newly introduced 'K to 12'-system.[226] 'K to 12' means that one year of Kindergarten, starting at the age of 5, is followed by 6 years of primary school and 4 years of junior high school plus two years of senior high school. In the Kindergarten and the first three years, education is in the mother tongue (12 mother tongues are distinguished), then from grade 4 to grade 6 Tagalog and English are gradually introduced as the language of instruction. Only these two languages are then used at the high school level. Senior High School has three ramifications, academic, technological and vocational, and sports and art.

At the Kindergarten level, attendance was 92% in 2011. Participation (not enrolment) at the primary level was 90% and at the secondary level 62% in 2011, with completion rates of 74% and 79% respectively. National achievement tests for the period starting 2006 show an improvement at the primary level but not at the secondary level.

At the tertiary level, the Commission on Higher Education (CHED)[227] lists 2'299 higher education institutions (HEIs) of which 656 are public and 1'643 private, 347 of them being linked to teaching (also) a religious belief. Some universities achieve a high standard in teaching. In the private sector, a large part of the offer is concentrated in colleges offering qualifications in a specific range of professions. Along with commercial colleges, schools for seafarers and nurses have gained considerable prominence.

The private offer rapidly reacts to changing demand, as the country migration report for the Philippines 2013 observes:[228] "When the Philippine government announced in 2002 that bilateral discussions were to be undertaken to explore the caregiver market for Japan's aging population this led to the proliferation of caregiver training programmes for about three years. … The bandwagon produced an oversupply of caregivers and Japan did not actually emerge as a big labour market due to cultural reasons, among other factors." The private offer lost in relative importance with the 2008 crisis, however. Also, the CHED had to intervene and closed a series of seafarer and nursing schools which did not meet the necessary standards of education. Securing an educational standard is essential to be successful in exporting manpower. Recruiting countries would lose interest if diplomas didn't meet minimal standards. Accreditation of teaching institutions and final exams organised by bodies entrusted by the government to perform this task thus have an established role in the education system of the Philippines. To sum up, education preparing young people for a qualified job abroad is a professionally run business in the Philippines.

4 Worker remittances: A primary source of national income

The report on migration from the Philippines we resume here[229] starts with the assertion that - domestically - the Philippines had missed the opportunity of capitalizing on important resources, such as a broad educational base and a young

[225] See http://www.iea.nl/timss_2003.html . In 2011, the Philippines did not participate.

[226] http://de.slideshare.net/arangkadaph/state-of-education-in-the-philippines-2012?related=1

[227] http://www.ched.gov.ph/index.php/higher-education-in-numbers/higher-education-institutions/

[228] P.40/41.

[229] International Organization for Migration (2013): Country Migration Report – The Philippines 2013. The text is a slightly rearranged excerpt of the executive summary of the report. Some text passages from the main body of the text were also inserted. The document may be retrieved at: http://www.cfo.gov.ph/index.php?option=com_content&view=article&id=2063:country-migration-report-the-philippines-2013&catid=165:migration-related-articles&Itemid=901

population. As indicated in section 2, the economy was for years unable to promote manufacturing and correspondingly employment in this sector. The expansion of a middle class was impaired. Instead, faced with severe current account problems as an expression of the bad policies pursued under the dictatorship of Ferdinand Marcos, the government of the time fell on worker remittances as a source of foreign exchange revenue. Initially thought to be temporary in nature, the export of manpower was soon institutionalised by the formation of the Philippine Overseas Employment Administration (POEA) in 1982. As a result, employment overseas has become for many the most promising escape from disappointing and sometimes dismal local alternatives.

In the past 40 years, labour migration from the Philippines has constantly grown and has more than doubled in the past ten years, reaching a deployment figure of 1’850’463 persons in 2011. An interesting characteristic is the increasing proportion of the rehires among land based workers which is 63 per cent of total land based deployment of 1’384’094 in 2011. Rehires represent Overseas Filipino Workers (OFWs) who go back to the same employer in the same country. This is indicative of a general phenomenon, namely that temporary migration tends to become permanent. Consequently, the rate of permanent return is low, also because of limited opportunities offering a competitive wage in the Philippines.

The number of seafarers has increased by 75 per cent in the past 10 years. The growth has occurred in the last five years in particular—100’000 more between 2008 and 2011— creating a stable, if not increasing lead share of Filipino seafarers in the global market, ranging from 25 to 30 per cent. A considerable portion of the increase is due to non-marine personnel, including women working on board of passenger vessels.

Migrants originate mostly from Metro Manila and the surrounding provinces, except for Pangasinan (in Luzon), Cebu and Maguindanao (in central Mindanao). Most of the migrants from the provinces of Mindanao are female domestic workers and, not surprisingly, their emigration is primarily directed to Malaysia and the Islamic Gulf countries. Over 70 per cent of OFWs are between 25 and 44 years of age. Women outnumber men in the annual outflow, at an average ranging from 55–60 per cent, and they tend to be younger. OFWs who are over 40 are mostly men. Between 85 and 95 per cent of overseas employment is mediated by private recruitment agencies, numbering approximately 1’300 in 2012, although other forms of recruitment are present. The largest concentration of OFWs is in domestic work. Nurses, another female-dominated occupation, are the number one category among professionals.

For many emigrants, overseas employment proved a beneficial experience, at least economically. While the employment objective is the most prominent reason for migration abroad, the acquisition of skills, the pursuit of a career—such as in seafaring, nursing or information technology—, the opportunity to reunite with families abroad, to learn of other cultures, to encounter other people and societies, and to experience a more developed standard of living are among other reasons that motivate some of them to leave the country.

In addition to support in court cases, migrants benefit from welfare protection from the Overseas Workers Welfare Administration (OWWA), both in terms of repatriation assistance or in terms of programs of assistance to the families left behind. The health of migrants is reason for concern because many migrants are subjected to unsafe living and working conditions. Also, health protection is not always available in all destination countries. Therefore, legally deployed OFWs are enrolled in the Philippine Health Insurance Corporation (PhilHealth) which covers hospitalization overseas and provides coverage for their eligible family members in the Philippines.

Temporary migrants are often excluded from social security benefits in the recipient countries. To supplement what is lacking, the Philippines has entered into social security agreements with nine countries, mostly in Europe.

Migration is often motivated by family reasons and the family is the most direct beneficiary of the gains of the migration project. Although migrating to improve the family’s welfare is mostly cited by migrants, difficult family circumstances can also result in migration. In general, and because of the role of the extended family, OFWs show resilience to the stresses generated by migration.

The impact of migration on the economy is evidenced by the inflow of remittances and, to some extent, by the alleviation of unemployment and other changes in the domestic labour market. OFWs are now present in more than 224 destinations. Remittances have increased tremendously, particularly in the past 10 years. It took 15 years to reach US-$ 1bio, 12 to reach US-$ 10bio and only 7 to surpass US-$ 20bio, the latest recorded peak in 2012. The growth is also attributed to relatively longer years of employment engagement, a growing market leadership in the high wage-earning seafaring sector, an assumed wage escalation among those with extended contracts, and longer service records. Improved accessibility to official and competitive channels to remit money, as well as improvements in remittance-related technologies and recording and estimating these transfers have also contributed to increased remittance flows. Remittances are estimated to contribute between 8 and 10 per cent of GDP, making overseas employment among the most important sources of the Philippines export earnings. The competitiveness of Filipino migrant labour in the global market in terms of productivity and wages is said to have maintained the country's favourable economic indicators even in times of regional or global financial crisis or low points of economic cycles.

5 The migration of nurses

The 'classic' push and pull factors such as wage differences can explain migratory movements between an open number of countries. To explain why for certain pairs of countries migration from one to the other has gained particular importance while many other opportunities for migratory movements remain unexploited requires additional considerations. Factors like colonial ties, common language and the presence of institutions such as recruiting agencies have to be added. Considerations specific to the profession are also of relevance.

In this vein, the status of the Philippines as a US dominion, the Christian religion – important in such sensitive fields as the provisioning of health care services - and the common structures in the education system were factors that supported a first emigration of Philippine nurses to the US already in the 50'. But it was the Marcos government which made a business in the national interest out of the export of human capital, as observed above.

The conditions in the receiving country are of course also important for a migratory movement to start and continue. Historically, migration to the US paved the way for migration of Philippine nurses to other countries in later times: During the Cold War, the U.S. Exchange Visitor Program was created to allow people from other countries to come to the U.S. to work and study for two years and to learn about American culture. With the periodic nursing shortages after World War II, the exchange program became a recruiting vehicle for U.S. hospitals. Another big upsurge in migration from the Philippines occurred after 1965, when U.S. immigration laws–which had favoured northern European countries–were changed, allowing more people from the Philippines and Asia in general to immigrate. Finally, the existence of a diaspora in the target country serving as a "docking station" needs also to be mentioned as an important determinant of migration. A Philippine Nurses Association of America was founded as early as 1979.

To get the visa screen in the case of the US, nurses must pass either the certificate issued by the Commission on Graduates of Foreign Nursing Schools CGFNS, an international authority on credentials evaluation of health care professionals worldwide, or the National Council of State Boards of Nursing's NCLEX-RN® exam. In the Philippines, nursing licensure examinations are managed by the Professional Regulation Commission (PRC), which was founded by decree of President Marcos in 1973. It regulates licensing and registration of professionals in 43 fields, each of which is supervised by a professional regulatory board. The nursing licensure examination is given twice a year (in June and December) in over a dozen cities nationwide.

In the course of time, destination countries have changed. The number of nurses attracted by the US was heavily influenced by the business situation prevailing there. To a considerable extent, countries in the Gulf region stepped in. They are particularly important as a destination for nurses from the Southern Philippines due to religious ties. In Europe, migration to the UK was for a long time predominant. More controversial was an agreement passed between the Philippines and Japan, also due to the experiences of WWII. As part of a second generation free trade agreement, Japan opened a quota for Filipino health workers (nurses and trained caregivers) of 1000 persons per year, including 300 nurses. They are given permission to stay beyond the four-year time limit in place if they acquire a Japanese license and increase their language skills. The Philippine Nurses Association criticised the Philippine government and treaty negotiators for accepting terms that the organisation perceived as unfair to Filipino nurses (obligation to acquire a Japanese license in addition to the certificates already obtained) and failing to protect their rights. Since the arrangement was part of a trade agreement, the association extended this criticism to a broader indictment of the government for treating nurses as a commodity. Recently, Germany showed an increased interest in attracting Philippine nurses. To sign the corresponding agreement, the competent German Minister van der Leyden personally went to the Philippines.

The educational system in the Philippines responded to the job opportunities offered abroad. The number of nursing schools went up from 40 in the 1980s to 470 in 2006 and existing nursing schools increased enrolment when faced with growing demand, both from students and the migratory agencies. Interestingly, some of the candidates are second-career nursing students, particularly physicians. 70% of nursing graduates go overseas to work, making the country the world's biggest supplier of nurses.

The mass migration of nurses from the Philippines occurs despite the fact that the country's health system is poorly funded and plagued by shortages and serious mal-distribution of physicians, nurses and other health workers between urban and rural areas. It would be hasty, however, to imagine that nurses, if not given the opportunity to work abroad, would fill the gaps in rural areas in the Philippines. The reaction could also be a decline in the number of nurses trained. Not all of those undergoing training will in the end realise their initial goal to work abroad, some may stay in the country. Correspondingly, it is difficult to argue that there is a general shortage of health care personnel in the country. In the last decade, there were an estimated 90'370 physicians or 1 per every 833 people, 480'910 nurses, 43'220 dentists, and 1 hospital bed per every 769 people. Since most of the national burden of health care is taken up by private health providers, the problem is not supply but the affordability of health care in peripheral regions. In 2006, total expenditures on health represented 3.8% of GDP. 67.1% of the amount came from private expenditures while 32.9% was from government.

CarePers: Providing Temporary Access for Philippine Nurses to the Swiss Labour Market

The preceding considerations set the background on which CarePers deploys its activities. CarePers was formed in 2011 as an agency specialised in bringing health care personnel and hospitals together. The company located on the Lake of Zurich holds the permission for agencies recruiting personnel required by federal law and could raise its share capital to CHF 400'000.- in 2014. The company offers a platform where vacancies can be announced by hospitals and consults health care personnel in finding a job that suits their professional qualifications and their personal circumstances (location, part-time etc.). In 2012, CarePers launched a pilot project with Philippine nurses. The recruiting of nurses from the Philippines has continued since then. CarePers collaborates with a German institution, WIBU, a limited liability company founded in 1920 and proposing all the equipment and services needed to operate homes for retirees. The Philippine nurses recruited for Germany by intermediation of WIBU undergo e.g. the language training (to level B2) developed by CarePers.

In the case of Switzerland, recruiting of nurses from the Philippines can only occur within narrow limits. According to basic principles guiding recruitment of foreign employees, the latter have to be found within Switzerland or in the EU/EFTA countries. Recruitment in third countries is only possible if the required qualifications may not be found on the European labour market, a condition which is not met in the case of nurses. The recruitment will therefore remain limited to the 50 professionals who according to a stagiaire agreement between Switzerland and the Philippines can come to Switzerland each year for a stay of 18 months. After this period, the nurses will often continue to work in Germany. There, the salaries are considerably lower, however. In Switzerland, it is a legal requirement to pay the stagiaires the regular salaries.

The qualifications the nurses have acquired in the Philippines are high. They have completed a 4 year bachelor course and attended classes to learn German. The hours of practical work during this education are considerable and the candidates have an additional 1-2 years of professional experience on the job when entering Switzerland (typically at the age of 23-32). The kind of treatment nurses are allowed to administer differs significantly among countries but in the Philippines their competencies are rather far-reaching. Accordingly, to pass the exams and be registered by the Professional Registration Commission is demanding. Also, CarePers recruits only in selected universities. They are not only located in the Greater Manila region, but also in Cebu in the centre of the archipelago and in Zamboanga on the southern island of Mindanao. René Mangold, the manager in charge of Philippine nurses at CarePers, emphasises the high number of nurses that are not finding decent job opportunities in the Philippines and the fact that recruitment by CarePers occurs in accordance with the Code for the ethical international recruitment of health personnel established by the WHO. He only reports positive experiences. The high esteem still held in the Philippines towards the traditional values of the family and the elder generation are considered essential in this regard.

Unless migration legislation changes fundamentally, the recruitment of Philippine nurses can in no way constitute an answer to any shortage that may exist and further develop in the provisioning of health care services in Switzerland. Considering the individual situation of the migrants, a critical aspect of using the stagiaire agreement is that the Philippine nurses are not offered genuine employment prospects over a longer period. Their swift reintegration in the Philippine labour market after having acquired experiences abroad is rather illusionary. To come close to realising the model of "circular migration", the conditions offered to remigrants on the Philippine labour market would have to improve substantially. But this hinges on the uncertain overall economic success of the country.

The retention of skilled practitioners appears as a serious problem caused by emigration, however. Migration contributes to a rapid nurse turnover in urban hospitals. As a result, many domestically employed nurses are relatively inexperienced. More experienced nurses, including many nursing instructors, often pursue employment opportunities overseas as soon as they can.

6 Effects of migration on the home country

Overseas employment adds to employment opportunities of the domestic labour force. The overall effect on the domestic economy of having one's citizens working abroad are manifold and per saldo uncertain, however.

First, a direct correlation between labour migration and a drop in unemployment remains difficult to establish. More evidence is needed to determine whether overseas workers come from the unemployed, and/or whether the vacancy they leave behind is filled by the unemployed. Unemployment depends on many factors, including necessary qualifications and work experience.

As for the issue of brain drain / brain waste, no direct evidence has been established suggesting that overseas employment is creating a shortage of skills in the Philippines. The recruitment industry has expressed difficulties in sourcing qualified workers for the overseas markets as they believe that the quality of graduates produced by the education system, on-the-job training/apprenticeships and local employment experience is not on a par with the requirements of the market. As a result, overseas employment opportunities cannot be filled. In parallel, there is some evidence of brain waste, since at least one third of overseas workers have some level of college education, but are employed as household service workers or labourers, or in other areas unrelated to their academic training.

The promotion of financial literacy among migrants and their families to encourage savings, investments and productive use of remittances has become an area of convergence of the programmes and initiatives of the government, the private sector and the civil society.

Reintegration is the final stage of the migration process, a stage which –in the official language - is embedded in the temporary labour migration system. Compared with the relatively more developed pre-departure and on-site programmes, measures favouring reintegration lag behind, however. Because of the lack of sustainable reintegration opportunities or sufficient resources, many migrants prolong the overseas employment experience beyond what they originally planned.

The "Migrants Law" is essentially protective legislation. It states that "the State does not promote overseas employment as a means to sustain economic growth and achieve national development. The existence of overseas employment rests solely on the assurance that the dignity and fundamental human rights and freedoms of the Filipino citizens, shall not, at any time be compromised or violated." As articulated by President Benigno C. Aquino III, the current policy focuses on creating jobs at home so that there is no need to look for employment abroad, while at the same time providing the best protection for Filipinos who still go to work abroad.

The assertions quoted on re-integration and priority of job creation at home deserve a comment, however. They rather belong in the category of paying lip service to the politician's constituency at home. The economic conditions making remigration interesting are rarely met in the eyes of those who have left the country, and in the Philippines an industry living on the export of human knowledge has built up and keeps an interest in maintaining this business model working smoothly, e.g. by chapters on the "exchange of professionals" in 2nd generation free trade agreements (such as the one with Japan).

Finally, one may question what the money sent back home by the foreign workers provokes. The finding in the economic literature on worker remittances is not favourable. While lifting thousands out of poverty, remittances could also finance investment, in addition to consumption necessities like food, clothing, medicine, and shelter. The funds will be received by households with a high marginal propensity to consume, however, and the favoured spending on housing is not necessarily growth enhancing. Eventually, the remittances reduce the need for younger members of the household to abandon formal schooling in order to work and contribute to household income. but other recipients may divert the resources received to an increased consumption of leisure. Still, there is a chance that the funds flowing through the banking system may lead to enhanced financial development and thus to higher economic growth. The drawback then might be that this goes along with an equilibrium real exchange rate appreciation, although this is not a necessity, the import content of increased consumption and, eventually, investment limiting such an effect. More intriguing are potentially adverse political economy effects. The costs of poor domestic macroeconomic performance are at least partially shifted on to migrants, who increase their transfers to domestic residents when things go badly at home. Thus, in the worst case, remittances expand the tax base, enabling the government to appropriate more resources and distribute them to those in power.

Overall, discussions persist on the productive versus non-productive use of remittances. If these funds are not yet appropriately used, possibly they will be productively engaged in the future. The incentive for such investment will have to come to a considerable degree from improved investment opportunities in the domestic economic and financial markets, however. Remittances as such do not produce by themselves these beneficial effects. To build on emigration, remittances and the later remigration of a qualified workforce is barely a model for economic development. Developing human capital, while essential, does not by itself secure progress.

The Significance of Globalisation for the Philippines

In the case of the Philippines, globalisation takes on a particular form. While worker remittances are an important source of foreign income for numerous developing countries, in the case of the Philippines, emigration occurred on a large scale mainly after the country had reached – by the standards of the world region - a considerable level of development. The question whether the country can enter global value added chains with domestic production is crucial for further development.[230] There are a few footholds on which to build now that after decades of neglect domestic policies have improved.

[230] One is tempted to ask whether the influence exercised over the Pacific (first as a Spanish colony attached to the vice-royalty of Mexico and then as a US dominion) proved less conducive to growth in recent times than the strong influences one would expect but actually does not observe over the much narrower China Sea.

Chapter 9

Colombia: Infrastructure Development will improve the Access to the Pacific

CONTENT

Country Fact Sheet

			World	Colombia
GDP per Capita	(at 2011 PPP $)	2013	13,964	12,025
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	4,8
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	59
Agricultural Value Added	(% of GDP)	2014	3,1	6,3
Manufacturing Value Added	(% of GDP)	2014	26,4	36,0
of which Industry	(% of GDP)	2014	15,8	12,2
Services Value Added	(% of GDP)	2014	70,5	57,7
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	24,5
Research and Development Exp.	(% of GDP)	2005–2012	2,0	0,2
Internet users	(% of pop.)	2014	40,5	52,6
International Tourism, Arrivals	(mio people)	2013	1068,0	2,3
Consumer Price Index	(2010 = 100)	2014	..	112,0
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	70,1
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	59,2
Current Account	(% of GDP)	2013	..	-5,2
External Debt Stock	(% of GDP)	2014	..	28,0
Exports plus Imports	(% of GDP)	2013	60,4	38,0
Private capital flows	(% of GDP)	2013	-0,9	-4,1
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	4,3
Official Development Assistance	(% of GNI)	2013	0,4	0,2
Remittances, inflows	(% of GDP)	2013	0,71	1,09
General Gov. Expenditures	(% of GDP)	2013	..	29,5
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-1,8
General Gov. Net Debt	(% of GDP)	2013,0	..	33,8
Ease of Doing Business Index	(rank)	2015	95	54
Corruption perception	0-100	2014	..	37
Population	(millions)	2014	7259,7	47,8
Surface	(1'000km²)	2015	134325	1142
Populationb Density	(person/km2)	2014	56	43
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	1,3
Fertility	(births/woman)	2010/2015	**2,5**	2,3
Under-Five Mortality	(% < age 5)	2013,0	45,6	16,9
Life Expectancy at Birth	(years)	2014	71,5	74,0
Child Malnutrition	(% age group)	2008–2013	29,7	12,7
HIV-Prevalence	(% of pop.)	2013	1,1	0,5
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	5,6
GINI Index (income concentr.)	0-100	2005–2013	..	53,5
Homicide Rate	(per 100'000)	2008–2012	6,2	30,8
Primary School (enrolm.)	(% age group)	2008–2014	109	115
Secondary School (enrolm.)	(% sge group)	2008–2014	74	93
Tertiary School (enrolm.)	(% age group)	2008–2014	32	48
Genders in 2nd Schooling	(female/male)	most recent	97,1%	
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	93,6
Employment to Population Ratio	(% aged 15+)	2012	59,7	60,7
Unemployment rate	(% aged ≥ 15)	2004-2013	..	9,117
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,70
Children in Employment	(% of age 7-14)	2013	..	6,6
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-0,5
Rural Population	(% of popul.)	2014	46,6	23,8
Energy use per capita	(kg of oil eq.)	2013	1894,4	668,5
CO2-Emission	(t per capita)	2011	4,6	1,5
Improved Water Access	(% of popul.)	2014	90,5	91,4
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	-3,6
National Resource Rents	(% of GDP)	2014	3,9	8,4
Protected Area	(% of surface)	2014	12,8	17,4
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,720

Chapter 9
Colombia: Infrastructure Development will improve the Access to Markets in the Pacific

The geographical expansion of markets needs support by the development of adequate transportation facilities. The need for infrastructure development as a precondition for trade and economic growth also extends to energy, water and communication. Compared to other investments in tangible capital, infrastructures have particular characteristics. They are often marked by large economies of scale or network effects. This contributes heavily to the prospect that the owner of an infrastructure will hold a position as a monopolist in the relevant market. Also, their indivisibility poses problems and creates strong political pressures since local communities will seek to influence the priority ranking among the locations that will be connected to the grid. Additionally, externalities are of great importance, where, in addition to positive externalities in the form of improved growth prospects, negative externalities in the form of environmental damage also need consideration.

Infrastructure development is not a direct responsibility of the public authorities in the sense that they have to assume the financial and organisational responsibilities for the construction and the operation of infrastructures. Nevertheless, it holds true that decisions in the sphere of politics are precursors to the realization of eventual private initiatives in this sphere. Without expropriation rights, a coherent grid can e.g. not be constructed, and in countries reaching minimal legal standards, the exercise of these rights will require an overarching, politically supported plan for the development of the utilities. How to manage the capital stock represented by infrastructures is therefore a political decision of utmost importance.

Beyond the development prospects of the community, aspects of competition policy deserve attention and should shape the market regime that is established in the single infrastructure sectors. Often the granting of exclusive rights in the form of concessions under fair conditions is the preferred option but, for roads e.g., undertaking public construction work prevails, the latter raising the question of how to handle public procurement. Public procurement and, to a lesser extent, the granting of concessions are increasingly ruled by international economic law. Therefore, the Government Procurement Agreement within the WTO and similar arrangements have become of considerable importance.

The chapter begins with a presentation of the economy of Colombia, a country boarding the Atlantic and the Pacific, where East-West connections of high capacity need now to be added to the road system that is essentially running North South along the Cordillera ranges.[231] [232] *The construction of the La Línea tunnel is part of this extension. The business case in this chapter takes up the experiences of a Swiss based company which, with its products, sets technical standards in construction work globally. It was involved in the tendering for the La Linea tunnel.*

1 Main features of the country and its population

The Republic of Colombia has a population of 47.8 million people and a surface of 1’141’748km^2, so that the country remains sparsely populated. The territory of what is now Colombia was originally inhabited by indigenous peoples such as the Muisca, Quimbaya, and Tairona of whom little is known. The Spanish arrived in 1499, ultimately creating the Viceroyalty of New Granada, with its capital in Bogotá. Independence from Spain was won between 1810 and 1819, but by 1830 "Gran Colombia" had collapsed with the secession of Venezuela and Ecuador. Panama seceded in 1903 linked with the construction of the Panama channel by the U.S. Since the 60’, the country has suffered from an asymmetric low-intensity armed conflict that escalated in the 90’. In the last decade, President Uribe fought back the guerrilla and demobilised the paramilitary. His successor, Juan Manuel Santos, is determined to bring the peace negotiations started in 2012 with the guerrilla to a successful end.

[231] The economic theory part in the corresponding chapter in the underlying publication addresses the complementarity between the private and the public physical capital stock in an economic growth process.

[232] The legal and institutional part of the corresponding chapter in the underlying publication presents, in addition to the Government Procurement Agreement of the WTO, the public procurement chapter in the Colombia-EFTA free trade agreement which draws heavily on the former.

According to the 2005 census, 49% of Colombia's population is Mestizo or of mixed European and Amerindian ancestry. Approximately 37% is of European ancestry (predominantly of Spanish, and a part of Italian, French, and German). About 10.6% is of African ancestry. Indigenous Amerindians comprise 3.4% of the population.

Whites tend to live mainly in urban centres, like Bogotá or Medellín, and the burgeoning highland cities. The populations of the major cities also include mestizos. Many of these are artisans and small tradesmen who have played a major part in the urban expansion of recent decades. Traditionally, mestizos lived as campesinos in the Andean highlands where Spanish conquerors mixed with women of Amerindian chiefdoms. Large Afro-Colombian communities are found today on the Caribbean and Pacific coasts. They had early on been brought by the Spaniards to these hot and humid areas to replace the indigenous population succumbing to the diseases which were brought along with colonisation.

In 2013, the National Administrative Department of Statistics (DANE) reported that 30.6% of the population were living below the national poverty line. Some 5% appear to fall below the lowest internationally defined threshold of poverty (US-$ 1.25 a day on a PPP basis). Fortunately, several hundred thousand people could move out of poverty over the last decade. With a fertility rate of 2.3 children per woman population growth now has fallen to 1.5% p.a. Life expectancy has reached 74 years. Under five mortality can still be improved, however, and child malnutrition may be brought down to lower levels. Furthermore, child labour remains a concern.

A total of 93.6% of the population aged 15 and older were recorded as literate, including 97.9% of those aged 15–24, reflecting the considerable share of the public budget that is allocated to education. Primary school enrolment is complete and secondary school enrolment almost reaches this coverage, while enrolment at the tertiary level is at 48%. Accordingly, there is gender parity at the secondary level and the female to male participation rate on the labour market is also high with 70%.

A serious concern is personal safety. The homicide rate is 30.8 persons per 100’000 people. To appreciate this figure, one has to consider that more than 30 countries in the world, among them some of the largest such as China and India, reach levels of 1 person and below.

2 The economic challenges faced by Colombia

With a GDP per capita of US-$ 12’025 on a PPP basis in 2013, Colombia is an upper middle income country, but its income per capita remains 70% below the OECD average and below many other emerging economies. Low labour productivity explains most of the gap, although labour productivity has grown rapidly during the mid-2000s, largely reflecting factors such as the improvement in collective security brought about by pushing back the civil war to more emote regions. Bringing informal activities into the formal sector is key to raising aggregate productivity. Overall, growth reached a remarkable 4.8% p.a. in the 2009-2014 period, and GDP was 2014 59% above the level reached a decade earlier.

Historically an agrarian economy, Colombia urbanised rapidly in the 20th century. According to the national statistical office,[233] in 2013 agriculture accounted for 7%, mining for 11% and industry in the narrow sense of the term for 13% of GDP (at factor costs, provisional data). Energy and water contributed close to 4% and construction close to 10%, leaving for the service sector 55% of GDP.

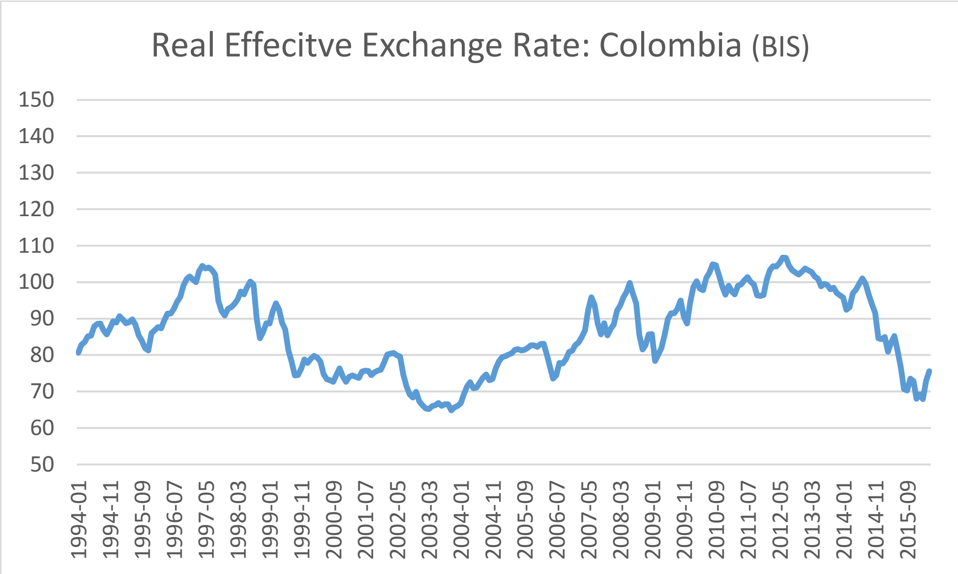
Colombia continues to suffer from one of the most uneven distributions of income. The GINI coefficient reaches a very high value of 53.5. If poverty remains widespread, this needs partly to be ascribed to the long-standing internal conflicts and a consecutive massive displacement of people. Secondly, the large informal sector has particularly low productivity, and generates therefore only dismal incomes. In addition, the wage dispersion for those working in the formal sector is wide. Children with a disadvantaged socio-economic background have particular difficulties in reaching tertiary education.

Significant policy reforms have led to a modernisation of the economy since the early 1990s.[234] Prudent macroeconomic management has helped Colombia weather the financial crisis remarkably well. These reforms, together with the improved security situation, the ongoing peace process, rising mining activity and strong commodity prices, were underpinning strong growth. Accumulated over a five year period (2008-2013), mining grew by 56% and construction by 34% while manufacturing and agriculture have lagged behind (agriculture grew by 11% and industry by 3% only). The non-tradable sectors

[233] http://www.dane.gov.co/index.php/esp/pib-cuentas-nacionales/investigaciones-especiales/77-cuentas-nacionales/cuentas-anuales/5153-cuentas-de-bienes-y-servicios-base-2005

[234] Most of the Information in this section is from the OECD’s Economic Surveys of Colombia 2013 and 2015

have also been buoyant, particularly transportation and the financial services. Overall, the branches of the services sector have grown by some 23% in real terms. Together, the rising terms of trade thanks to natural resources and related capital inflows have contributed to a sharp appreciation of the exchange rate, undermining the price competitiveness of the lagging sectors (see graph below). With declining raw material prices, the exchange rate situation was reverted.



The IMF estimated that the exchange rate was broadly in line with fundamentals in 2011. Since the value of commodity exports had soared, imports had boomed driven by buoyant private consumption and investment.

The macro-economic balance is preserved

The inflation targeting regime introduced in 1999 has successfully anchored inflation expectations. Core inflation measures stand close to the headline inflation rate and have converged to the 3% long-term target.

Macro-economic risks are to be located in soaring house prices (40% increase since 2006) and high household indebtedness. While the requirement that bank capital be above 4.5% of risk-weighted assets is not very demanding, on the other hand, the high margin between credit to deposit rates poses a problem to the rest of the economy. Lack of access to finance has been identified as the fourth most important concern for businesses in Colombia, after corruption, lack of infrastructure and an inefficient government bureaucracy.

The budgetary situation is encouraging. The deficit of the non-financial public sector declined from 3.1% of GDP in 2010 to 1.8% of GDP in 2013. In parallel, the central government debt to GDP ratio declined to 33.8%, back to its early 2000s level. Furthermore, the share of public debt with fixed interest rates is high and most of the public debt (75%) is denominated in local currency.

Having exposed the stance of macro-economic policies, we will consider in the following paragraphs several ambitious structural reforms that have been decided or need to be undertaken. We will take up the introduction of a fiscal rule, the labour market, and taxation, but leave pensions and the health care sector out (which are also covered by the OECD's 2013 survey of Colombia's economic situation on which we built this section[235]).

Remarkable steering mechanisms for public finances were introduced

In spite of strong fiscal indicators, for a country faced with uncertain revenues from mining, adopting appropriate fiscal rules remains crucial. Adequate decisions have been taken in recent years. This happened based on the experience that previous commodity booms in Colombia had destabilised the economy and that exposure to such shocks remains high. In 2011, e.g., oil and mining represented 8% of GDP, but they accounted for 70% of exports. Government expected dividend and corporate tax revenues from the public oil company (Ecopetrol) to rise from 1.4% to 2.3% of GDP in only one year (2011/2012). Simultaneously, the expected life of commodity resources in Colombia is difficult to

[235] OECD (2012): Economic Survey of Colombia, Paris: OECD

estimate. Proven reserves are low, but in many regions exploration has still to take place.

In designing a fiscal rule, the pressing need to alleviate the situation of a society with many poor people needs consideration. This makes it difficult to establish a Sovereign Wealth Fund that would store revenues from mining abroad, although this would alleviate the pressure on the exchange rate in periods of a mining boom. Investing the funds along a continuous spending path in the development of the country appears as indicated. However, the latter policy requires stabilising the economy by appropriate fiscal arrangements in spite of volatile commodity prices.

To this end, a new fiscal rule was approved in June 2011. The principle target is to bring down the public deficit, corrected for cyclical influences, to 1% of GDP by 2022 (down from 2.7% in 2011). The rule also includes an escape clause. When the output gap is negative and the expected real output growth rate is at least 2 percentage points lower than the long-term rate (estimated at between 4.3 and 4.8% by the government), additional spending is allowed. Two committees consisting of independent experts have been set up to provide estimates for the long-run growth rate of the economy and for commodity revenues while a third committee of independent experts will assess the parameters embodied in the fiscal rule and any eventual modifications. While welcoming this scheme, the OECD only criticises that the corrective actions to be taken in case of slippage are not clearly defined; secondly, the rule should also take into consideration the profits and losses of public enterprises and entities. To counter the former problem, the OECD suggests that a spending rule should be added to the framework.

In addition to the fiscal rule, a Savings and Stabilisation Fund (SSF) has been established. It will accumulate revenue windfalls to finance countercyclical fiscal policies during downturns and the costs associated with natural disasters. This is all the more welcome as the automatic stabilisers are limited in a country where tax collection is highly deficient (see the OECD's Economic Survey 2015) and unemployment benefits are not sufficiently important so that they could help stabilise demand in the advent of a recession.

A third element of the reform affected the distribution of royalties. In the past, commodity producing regions had received most of the royalties (almost 1.4% of GDP in 2011) but these revenues had neither boosted growth significantly, nor reduced poverty, and corruption was widespread. The share of royalties going to producing regions will therefore be drastically cut. Royalties not allocated to producing regions will largely be spent on infrastructure and innovation, conditional on there being an approved project. Spending on R&D stands at a very low 0.15% of GDP, suggesting the presence of opportunities to invest these funds. Infrastructure development would also be welcome (see below), but deficiencies in the administration of corresponding projects are regularly encountered. The OECD also claims that close co-ordination between projects approved at the department and municipality level is needed.

The functioning of the labour market is impaired

Labour costs are high in the formal sector, also due to minimum wage legislation. Indeed, Colombia has one of the highest minimum wages in relation to the average wage in the world, pushing people with low productivity into the informal sector or into unemployment. As regional differences in incomes are high, the uniform national minimum wage is at or above median incomes outside the capital. Additionally, non-wage labour costs are very high. These amount to 82% of wages, a high figure even by the standards of fully industrialised countries. Furthermore, incentives to pay social security contributions are reduced by the universal coverage of core public services, such as health care.

While the legislations mentioned inhibit the functioning of the labour market, adequate labour supply is also not secured. PISA scores are well below the OECD average. Furthermore, at the tertiary education level the dropout rate is high and the overall quality is poor, particularly for technical programmes. The OECD suggests increasing the accountability of tertiary institutions for their results. On the positive side, the cash subsidy programme for poor families conditional on school and health service attendance has been successful in raising school enrolment rates.

The tax mix should be reconsidered

Large tax deductions and exemptions are accompanied by high tax rates, which distort economic incentives. Personal income tax revenues are very low by OECD standards. At the same time, very high social security contribution rates deter, as shown, employment creation in the formal sector and do not raise much revenue. More revenue could also be raised from mining, inheritance and real estate taxes which are less distortive and more growth-friendly than many other taxes. Replacing royalties in the mining sector by income- and rent-based taxes would create better incentives, but such a system would be more complicated to administer and require more advanced administrative capacity.

Finally, the OECD survey does not omit mentioning the many environmental challenges Colombia faces, which are compounded by the mining boom. The surface area used for oil extraction and mining quadrupled between 2005 and 2010. It represents now 5% of the country's total land area. Illegal extraction continues to affect the environment. Environmental assessments are required by law, but it appears that the administration of these permits is exposed to corruptive practices.

3 The development of the road infrastructure is lagging behind

The OECD report points to the need to develop the road infrastructure but it also casts some doubts on the ability of the involved authorities to handle corresponding projects satisfactorily. This general assessment is confirmed by the experiences with the prestigious project of the La Lìnea Tunnel which figures prominently in the business case in this chapter.

The assessment that Colombia lags behind in transport infrastructure (roads, railroads and ports) in comparison with both developing and developed countries is corroborated by the fact that with nearly seven million inhabitants, Bogotá, Colombia's largest city, still lacks a metro train system. An improvement is possible, however, also because close to 40% of the royalty revenues (currently about 1½ per cent of GDP) will be channelled through regional development and compensation funds and be used mainly to finance infrastructure projects (see preceding paragraphs). At the same time, the OECD – focussing on Private Public Partnerships - observes that weak design and supervision of road concession contracts have resulted in frequent renegotiation. This means large extra costs and delays well beyond those resulting from contract incompleteness which is inherent in PPPs. Competition cases investigated by the Superintendent of Industry and Commerce (SIC, the competition authority) have concentrated on horizontal agreements and involved e.g. cement companies. The observation that corruption affects subnational governments in particular is also not encouraging. These entities are major contractors of the construction sector and shape by such behaviour commercial relations among a broader range of economic agents.

Sika and the construction of the La Linea Tunnel

Sika AG

Sika AG was founded in 1910 by the genial tinkerer Kaspar Winkler who worked himself up from poverty to become a successful entrepreneur. Although the company started with limited success, it had already founded a subsidiary in Germany in 1912 and a little later also one in England, Italy and France respectively. Electrification of the railway line through the Gotthard made insulation of the tunnels necessary. The successful trials the Swiss Federal Railways ran using 'Sika-1' to waterproof the tunnels meant the breakthrough for the company, since it represented a prestigious reference project. Some 100 years later, Sika has more than 16'000 employees, subsidiaries in 84 countries, and an annual sales turnover of CHF 5.14bio (2013). Sika is headquartered in Baar in the canton of Zug and manufactures and supplies products for bonding, sealing, damping, reinforcing and protecting in the building sector, the latter accounting for 80% of turnover. It diversified its production in the motor vehicle industry. The controversy over a takeover of Sika by the French multinational St.Gobain is not yet settled.

Sika has been present in Colombia for 58 years and has participated in a majority of the main construction projects in the country throughout these years. For Sika, Colombia constitutes the 4th largest market, after Spain, France and Germany. Employing some 400 persons, Sika is represented by sales units in eight regions and has production plants in Rionegro, Duitama and Tocancipà. The latter is located close to the capital of Bogotà and was inaugurated in July 2009. The plant will also export products to other Central American Markets.

The "La Línea" Tunnel

Route no. 40 linking Bogotá to the Pacific port of Buenaventura has to cross the Cordillera Central. This section between Calarcá and Cajamarca is currently 47 km long. It is a windy and dangerous road that reaches at its summit 3300m, while the starting points in Calarcá and the end point in Cajamarca are 1536m and close to 2000m above sea level, respectively. By constructing a tunnel beneath the Cordillera Central at a level of some 2500m.a.S. and expanding the access roads to two lines in each direction, the length of this road section will be cut to 33km and the capacity will be enhanced. Numerous dangerous spots on the old road will be eliminated (a 75% reduction in the number of accidents is anticipated). The benefits are estimated at US-$ 37mio for the first operating year. Colombia considers the construction of *the La Línea Tunnel with a length of 8580m and the corresponding access roads as representing the largest road infrastructure project launched in Latin America up to now.[236]*

A lengthy tendering procedure

The construction of the La Línea Tunnel turned into a lengthy undertaking, however. Given that the geology of the Cordillera Central was hardly known from prior construction work, it was decided to start the project by drilling a pilot tunnel. The construction of this pilot tunnel was put to tender for the first time in 2001[237] but the five pre-qualified competitors submitted no bid. One reason was e.g. that they obtained no insurance coverage. After renewed bidding procedures, finally, in 2004, the contract worth some Col-$ 80'000mio was adjudicated to a consortium. In this consortium the Swiss enterprise Sika was part. The construction of the pilot tunnel with a diameter of 4.4m started in April 2005 and was completed within 44 months (initial estimate 18-24 months).

Based on the results obtained by these prior drillings, the main construction work could be put for tender. In December 2008, an international consortium baptised "CONSORCIO UNIÓN TEMPORAL SEGUNDO CENTENARIO" won the contract, offering some 10% below the forecasted Col-$ 703'000mio and a construction time of 70 months.[238] Participating in the consortium were two Spanish, one Mexican and eight Colombian enterprises.[239] Two other international consortia did not obtain the same number of points in an adjudication procedure that was supervised by the Audit Court, the Prosecution and the Anti-corruption Authority.

Once the work had started, the tricky ground conditions proved challenging and resulted in a redesign of the tunnel, with considerably more drainage and support. Additional difficulties the project ran into contributed further to the postponement of the final opening. The consortium had to accept that a third basin was necessary for sedimentation of the spoiled water running out of the tunnel. Furthermore, the clean water supply of the town of Calamarcá also had to be refurbished. Labour conditions provoked a controversy as well. A conflict with workers over their pay could only be settled after negotiations with the Defensoría del Pueblo del Quindío and INVÍAS. [240] Finally, end of July 2014, INVÍAS initiated a fining procedure against the consortium for not completing the work within due time.[241] Owing to these difficulties, the direction of the consortium decided to replace the management.

Outlook

The opening up of the new tunnel is now expected in 2016. At the end of 2011, the parallel second tunnel was put for tender. The contract was awarded to the two Colombian enterprises Odinsa and Mincivil and to the Italian corporations Salini and Impregiglio.[242] The costs will be US-$ 1bio and the opening is scheduled for 2018.

The history of this construction project supports the OECD's critical view on the execution of road projects in Colombia even though the legal framework of public procurement in Colombia is not obviously deficient (see below). The price to pay for the economy is that the return on investment accrues only with a significant delay.

4 Public procurement in Colombia

The parsimonious use of public funds, transparency, competition and equal treatment constitute essential requirements of an efficient government procurement system. These objectives are secured by detailed prescriptions on tendering procedures. Of the three procedures commonly applied (see box), not open tendering (everybody can submit an offer), but selective tendering was chosen in the case of the La Línea tunnel. This means that first a restricted number of companies are selected based on pre-established criteria. Only these are then admitted to the second stage of the procurement procedure where they elaborate a project specific offer. Tendering by invitation is possible below thresholds or when open or selective tendering led to no offer satisfying the

[236] These indications were taken from http://www.calarca.net/tuneldelalinea.html

[237] The lengthy history of launching the project is documented in an article in the journal "tunnel-builder". See http://rss_instructions.projectstatus.in/Archive/Projects/Colombia.aspx

[238] The name derives from the designation of the project as chosen by the Ministry of Transport and the National Road Institute INVÍAS, "CRUCE DE LA CORDILLERA CENTRAL: TÚNELES DEL II CENTENARIO Y SEGUNDA CALZADA CALARCÁ – CAJAMARCA".

[239] See http://www.calarca.net/tuneldelalinea.html

[240] http://www.defensoria.gov.co/es/nube/regiones/664

[241] Journal CRONICADELQUINDIO:COM, Jueves , 31 Julio , 2014

[242] www.larepublica.co El segundo túnel de La Línea estaría en 2018 2.Jul.2013

pre-established adjudication criteria. This has apparently been the case at the stage of launching the pilot tunnel. But in these situations also, a handful of companies (or consortia) should be invited, unless the conditions detailed in the GPA apply where a procurement agency can directly negotiate a contract with a company (an example is urgency after a natural disaster).

The Legal Framework for Government Procurement

Despite the great share of government spending for the purchase of goods, services and construction works in GDP, government procurement was explicitly excluded in the General Agreement on Tariffs and Trade, originally negotiated in 1947. Later, OECD-work brought into the ongoing Tokyo Round of Trade Negotiations in 1976 resulted in the first Agreement on Government Procurement in 1979, covering central government entities and procurement of goods only. In parallel with the Uruguay Round, Parties to the Agreement held negotiations to broaden the coverage of the Agreement to purchases by sub-central government entities and other public enterprises and to the services and construction services sectors. Following these negotiations, the Agreement on Government Procurement (1994) ('GPA') was signed in Marrakesh on 15 April 1994, at the same time as the Agreement Establishing the WTO. It led to an estimated ten-fold increase in the value of procurement subject to international competition under its rules. A decision on the outcomes of the re-negotiation of the Agreement, which had been on-going for more than a decade, was taken at Ministerial level in Geneva in December 2011. The restricted membership in the GPA certainly helped spare this agreement from the general stalemate that affected the WTO and the Doha-negotiations. GPA parties have opened procurement activities worth an estimated US-$ 1.7 trillion annually to international competition.

The GPA is a plurilateral agreement under the WTO Agreement. As a plurilateral agreement, signatories of the GPA are only committed towards the other signatories of this specific agreement, not towards all members of the WTO. Currently, forty-two WTO Members are covered by the WTO Agreement on Government Procurement, twenty-two other WTO Members have observer status under the Agreement of which nine are in the process of acceding to it. Colombia contents itself with an observer status. However, the agreement serves broader purposes as evidenced by the Free Trade Agreement concluded between Colombia and the EFTA which contains essentially the same provisions as the GPA.

The GPA (like the procurement chapter in the FTA Colombia-EFTA) is composed mainly of two parts: the text of the Agreement and parties' market access schedules of commitments (which government levels and agencies are covered?). The outstanding feature in the body of the agreement is Article XVIII, requiring that all parties to the Agreement should establish domestic review systems that are timely, effective, independent, transparent and non-discriminatory. Companies of all signatory states of the GPA submitting a tender benefit from legal protection which they can activate independently, i.e. without needing the support of their home state. Furthermore, the very detailed procedural provisions of the GPA need mentioning. These leave national legislators little room. In particular, there are only three tendering procedures, either an open tender, selected tendering or, under certain provisos, tendering by invitation.

Activities in public procurement covering all WTO member states are very limited since no agreement on modalities for negotiations had been reached at the Fifth Ministerial Conference, held in Cancún in September 2003. On 1 August 2004, the WTO General Council adopted a decision, which confined, inter alia, future work of the WTO with regard to procurement to a better handling of transparency in government procurement. Member states would also be supported in capacity building in the area of public procurement.

The Public Investment Management Index (PIMI) developed by Dabla-Norris et al. (2011)[243] is an attempt to measure the efficiency of national procurement legislation and organisation. In deriving the PIMI, Dabla-Norris et al. (2011) consider only formal aspects in the execution of public investment, i.e. the PIMI is a synthetic measure compiled out of answers to a series of questions such as: 'Are investments selected on the basis of relevant sector strategies and recurrent cost implications?'. The questions are grouped according to where in the investment process they are important, i.e. the PIMI has sub-indices reflecting the legal and administrative requirements in a country applying to i) project appraisal, ii) project

[243] Dabla-Norris, Era and James Brumby and Annette Kyobe and Zac Mills and Chris Papageorgiou (2011): Investing in Public Investment: An Index of Public Investment Efficiency, Journal of Economic Growth 17, 235ff.

selection, iii) project implementation and iv) project evaluation. The index is compiled for 40 low-income countries and 31 middle-income countries. According to Gupta et al. (2011),[244] econometric estimates suggest that project implementation is the most important component of the overall investment process, followed by project selection. This result is heavily influenced by the less developed countries. Improving project implementation, comprising competitive bidding and internal audit, as well as project selection, comprising the existence of medium-term frameworks and their linkage to annual budgetary policies, can therefore significantly benefit public investment and growth. This holds particularly true in low-income countries.

It is noteworthy that according to this investigation into the formal aspects of public investment decisions, Colombia performs quite well. The country ranks third in the sample of 71 countries. It is only in one subcomponent of the PIMI-index not in the first quarter of countries, namely project implementation, where it ranks only 28th. The delay in the realisation of the La Línea tunnel lends some support to this assessment. There is ample anecdotal evidence, however, that further advanced countries like Switzerland also experience significant difficulties in implementing efficient infrastructure spending.

The Significance of Globalisation for Colombia

The significance of globalisation for Colombia is middle to high. Colombia is primarily dependent on world markets as an exporter of natural resources. Some of them – like coffee – are also labour intensive so that not only government revenues are dependent on world market prices. On the other hand, Colombia has only started to establish itself as a producer of intermediates and final goods and services for export, the establishment of export capacity also going along with improved domestic efficiency. Continuing on this path is reflected by an ambitious strategy to conclude free trade agreements. These will make more parts of the global framework for trade relevant for the country - as was exemplified here by the government procurement provisions established internationally on a plurilateral basis. Openness and adherence to international standards spurs competition and enhances knowledge. The presence of MNEs as tenderers is of particular importance in those sectors where critical company size is high as this is the case in infrastructures.

[244] Gupta, Sanjeev and Alvar Kangur, and Abdoul Aziz Wane and Chris Papageorgiou (2011): "Efficiency-Adjusted Public Capital and Growth," IMF Working Papers 11/217, International Monetary Fund, Washington, 2011.

Chapter 10

Georgia: Where Economics and Geo-Politics interfere

CONTENT

Country Fact Sheet

			World	Georgia
GDP per Capita	(at 2011 PPP $)	2013	13,964	6,946
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	5,6
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	75
Agricultural Value Added	(% of GDP)	2014	3,1	9,2
Manufacturing Value Added	(% of GDP)	2014	26,4	24,4
of which Industry	(% of GDP)	2014	15,8	13,4
Services Value Added	(% of GDP)	2014	70,5	66,4
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	21,9
Research and Development Exp.	(% of GDP)	2005–2012	2,0	0,2
Internet users	(% of pop.)	2014	40,5	48,9
International Tourism, Arrivals	(mio people)	2013	1068,0	5,4
Consumer Price Index	(2010 = 100)	2014	..	110,3
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	42,9
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	48,4
Current Account	(% of GDP)	2013	..	-10,6
External Debt Stock	(% of GDP)	2014	..	85,0
Exports plus Imports	(% of GDP)	2013	60,4	102,3
Private capital flows	(% of GDP)	2013	-0,9	-4,9
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	5,9
Official Development Assistance	(% of GNI)	2013	0,4	4,1
Remittances, inflows	(% of GDP)	2013	0,71	12,05
General Gov. Expenditures	(% of GDP)	2013	..	29,8
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-1,8
General Gov. Net Debt	(% of GDP)	2013,0	..	..
Ease of Doing Business Index	(rank)	2015	95	24
Corruption perception	0-100	2014	..	52
Population	(millions)	2014	7259,7	3,7
Surface	(1'000km²)	2015	134325	70
Populationb Density	(person/km2)	2014	56	79
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	-0,4
Fertility	(births/woman)	2010/2015	**2,5**	1,8
Under-Five Mortality	(% < age 5)	2013,0	45,6	13,1
Life Expectancy at Birth	(years)	2014	71,5	74,9
Child Malnutrition	(% age group)	2008–2013	29,7	11,3
HIV-Prevalence	(% of pop.)	2013	1,1	0,3
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	14,1
GINI Index (income concentr.)	0-100	2005–2013	..	41,4
Homicide Rate	(per 100'000)	2008–2012	6,2	4,3
Primary School (enrolm.)	(% age group)	2008–2014	109	103
Secondary School (enrolm.)	(% sge group)	2008–2014	74	101
Tertiary School (enrolm.)	(% age group)	2008–2014	32	33
Genders in 2nd Schooling	(female/male)	most recent	97,1%	100,3%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	99,7
Employment to Population Ratio	(% aged 15+)	2012	59,7	56,6
Unemployment rate	(% aged $\geq$ 15)	2004-2013	..	14,563
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,75
Children in Employment	(% of age 7-14)	2013	..	..
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-5,8
Rural Population	(% of popul.)	2014	46,6	46,5
Energy use per capita	(kg of oil eq.)	2013	1894,4	1032,1
CO2-Emission	(t per capita)	2011	4,6	1,8
Improved Water Access	(% of popul.)	2014	90,5	99,6
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	-1,5
National Resource Rents	(% of GDP)	2014	3,9	1,3
Protected Area	(% of surface)	2014	12,8	6,5
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,754

Chapter 10
Georgia: Where Economics interfere with Geo-Politics

Fuels make up close to 20% of world trade in value terms. In volume terms, world oil production amounts to more than 4'000mio metric tons p.a. (more than 10'000 times the load of a supertanker). Given these huge volumes and the presence of widespread landlocked world regions, the construction of pipelines is indicated. This holds particularly true with respect to gas, liquefying being only the second best solution. As indicated by the keyword 'pipeline politics', on the route from the producer to the final customer, considerations of cost efficiency go hand in hand with considerations regarding safety of supply. The build-up of costly transportation infrastructure dedicated to determined forms of energy will often make it necessary to forge alliances. This nexus between the two topics of trade and geopolitics is core in this chapter.

Georgia, a former Soviet Republic, is strategically located on the corridor between Central Asia and the Mediterranean Sea. Not surprisingly, it is of interest to both the former superpowers, USA und Russia. After the breakdown of the Soviet Union, it has consequently suffered a number of conflicts with its northern neighbour. The country is currently seeking access to the EU, making the geostrategic interests and the energy market rules of the EU relevant for the country. The geo-strategic aspects appear in the EU project of a Southern Gas Corridor from the Caspian Sea to Western Europe. The construction of a segment of this pipeline was launched by a Swiss electricity company.

The situation of Georgia is also well suited to present provisions in international law securing the freedom of transit.

1 Main features of the country and its population

Georgia has a population of 3.7 million inhabitants and a surface of 69'700km^2, which results in a rather low population density. Georgia is relatively homogenous from an ethnical point of view but in parts of the country significant minorities of Armenians, Azeris, Chechens, Abkhazians, South-Ossetians and Mingrelians are present. For centuries, the Georgian Orthodox church preserved the unity of the country, but its nationalist and very traditional attitude may be one of several internal reasons why in recent times Georgia has not succeeded in integrating its minorities. The presumably major external reason for the loss of its territorial integrity – the territories of Abkhazia and South-Ossetia are de facto under Russian control – is linked to geo-strategic considerations. Located on the corridor from the oil and gas fields in and on the shores of the Caspian Sea and NATO-member state Turkey with its access to the Mediterranean Sea, Georgia is of considerable interest for both former superpowers. After the fall of the Soviet Union, Georgia remained initially a member of the Community of Independent States (CIS). It made then negative experiences with Russia also in its economic relations, so that, today, the country seeks EU membership. The envisaged membership in NATO would constitute an even more provocative act in the eyes of its mighty northern neighbour. Georgia is a member of the United Nations, the Council of Europe, the World Trade Organization, the Organization for Security and Cooperation in Europe and the Organization of the Black Sea Economic Cooperation (BESC). The last BSEC ministerial meeting dates back to 2013, however.

The population growth rate is negative, although the number of children born per woman is close to the level needed for population reproduction. Emigration thus persists – Georgia has lost roughly a quarter of its population in the past 25 years. Life expectancy at birth is a considerable 74.9 years but improvements in under five mortality could push this figure up. A certain presence of child malnutrition is also reported, together with a non-negligible rate of extreme poverty. In contrast to Soviet times, the GINI index now shows considerable unevenness in incomes.

Enrolment in schools continues to be universal at the primary and the secondary level, but falls to a rather low level at the tertiary stage. It had been boosted in the first decade after the turning point in 1989 by the activity of title mills. The employment to population ratio is 56.6% and the female participation rate is three quarters of the one for men. Unemployment stands officially at 15% but in reality it is significantly higher.

Close to half of the population lives in rural areas. Supported by the country's topography, access to an improved source of water is quasi secured for all and the forest area is slightly decreasing. The surface singled out as protected area is low, however. Mining and, accordingly, national resource rents are not an important source of national income (some oil continues to be drilled in the country).

Personal safety is not as good as in Western Europe, the homicide rate comes close to the one in the US but does not show the marked increase observed in Russia.

2 A difficult transition

Georgia was considered one of the richest republics of the former Soviet Union. Today, it still has not reached the per capita income levels reported for the period before transition started in the early 90'. While all such estimates need to be taken with some caution,[245] the fall in GDP is said to have amounted to 70%. Undoubtedly, industrial production was quasi wiped out. Value added chains as they had been conceived by the central plan in Moscow broke down, and even if these industrial relations might have been re-established on a contractual basis, Georgia wouldn't have been in a position to deliver. It lacked the funds to secure the energy provision. On top of that, Georgia had to absorb several hundred thousand citizens who were expulsed from Abkhazia and, to a lesser extent, South Ossetia.

An elder generation among the industrial workforce appears to have moved back to their places of origin in the countryside from where they supported the younger generation who remained in the cheap dwellings of former industrial towns like Rustavi. Here, nearby Tbilisi offered some more or less regular job opportunities. But in winter, the heating of the buildings was often not guaranteed. Most Russians re-migrated and a considerable number of Georgians also went abroad, to Russia as well as to western countries. Coming to power in 1992 – two years after independence - the government of former Soviet foreign minister Shevardnadze[246], proved a disaster. Corruption affecting the daily life of citizens was so widespread that Saakashvili who finally replaced Shevardnadze at the end of 2003 decided to sack a majority of the police force. Implementing principles of good governance, starting in 2004, Georgia advanced significantly in most of the sub-items of the 'Doing Business' report produced by the World Bank to reach rank 15 in 2015[247]. Although he neglected agriculture, Saakashvili finally brought Georgia onto a path of sustained economic growth.

In the political sphere, Saakashvili had also some success in his first term. He managed in particular to re-integrate Adjara, the former autonomous region around Batumi on the Turkish border, into Georgia.[248] However, the military invasion of South Ossetia, started in 2008 after many provocative acts from the Russian side,[249] led to a military fiasco. It also meant a setback for the country in economic terms. Saakashvili lost the elections of 2012 to Ivanishvili, who had been, like other oligarchs, economically successful in the turbulent times Russia went through in the 90'. Having moved back to his country of origin, Ivanishvili assumed the role of Prime Minister only for a short time but the government currently in place appears to continue his politics. The social dimension has gained in importance relative to market reforms, however, and a pragmatic attitude prevails towards Russia. During these difficult years of transition, Western support granted through international organisations has helped alleviate the situation of the population and set the conditions for economic redress.[250]

3 The high exposure to geostrategic tensions persists

As said, the regions of Abkhazia - the attractive landscape constituting the northern part of Georgia's Black Sea coast - and South Ossetia - an extended, but sparsely populated region north of the central point of the country - are no longer under control of the Georgian Government, but

[245] The Net Material Product calculated in the former Centrally Planned Economies emphasized industrial production and neglected the provision of services. More importantly in a region which is a garden where a wide range of agricultural products can be cultivated, subsistence production could have been more important than reported. Furthermore, overinvestment in industrial plants may have taken place before 1990, so that Georgia continues to be an exporter of scrap metals. The fall in GDP may therefore have been more pronounced than the fall in consumption.

[246] Eduard Shevardnadze, before becoming foreign minister, was First Secretary of the communist party in Georgia. In this function, he had some success in fighting the corruption that had already plagued Georgia before transition started.

[247] http://www.doingbusiness.org/CustomQuery/georgia

[248] The region was not constituted due to ethnic considerations, but due to the fact that it was adjacent to Turkey, a member-state of NATO. Adjara was ruled or, more precisely, robbed by Aslan Abashidze.

[249] Details may be found in the report of the international independent fact-finding mission on the conflict in Georgia of 2009, http://eu-un.europa.eu/articles/en/article_9045_en.htm

[250] https://www.imf.org/external/np/fin/tad/extrans1.aspx?memberKey1=335&endDate=2015%2D09%2D10&finposition_flag=YES; http://siteresources.worldbank.org/EXTCOUASSEVAL/Resources/GeorgiaCAE.pdf

de facto independent regions under Russian influence.

The current situation essentially goes back to the time immediate after the break-down of the Soviet Union. In Abkhazia, a mixed population of Abkhazians, Armenians, Russians and Georgians prevailed in Soviet times. The majority saw an advantage in keeping close ties to Russia. The conflict between the Abkhazian separatists, supported by Russians, and Georgian troops in the early 90' ended with the population of ethnic Georgians being to a large extent expulsed. Simultaneously, in South-Ossetia, clashes between the ethnic groups emerged as well. Since Georgia was then a member of the Community of Independent States (CIS), an armistice was negotiated under the auspices of this organization, and CIS peace-keeping forces (essentially of Russian origin) secured demarcation lines (together with a UN observatory mission that lasted up until 2009). Although all the former Soviet bases on Georgian territory were closed by 2005, the Russian Army thus kept a foothold south of the Caucasus, a fact that became relevant in 2008.

While the segregation of Abkhazia means the loss of a considerable touristic and economic potential for Georgia, its problem with South Ossetia is the latter's location. The demarcation line established in the 90' comes as close as a few kilometres to the east-west highway (and the Baku-Tbilisi-Ceyhan pipeline; see below) running through Georgia. Being in control over this region was of interest to other countries than just Georgia, and in fact, one week before Saakashvili launched his disastrous military campaign in 2008, Georgian troops exercised together with US forces.[251] As reasons for the war, the oppressive acts committed[252] against the Georgian population remaining in South-Ossetia need to be mentioned on an equal footing, however. The result of the report prepared later under the guidance of Swiss diplomat Heidi Tagliavani on the events leading to the war concluding in split responsibility has thus a basis in facts and not only in considerations of political opportunity. In the 2008 conflict, the fortunes of war were quickly on the Russian side and the way for a push of Russian forces to Tbilisi was essentially open after a few days. In this delicate situation, French president Nicolas Sarkozy personally flew to Tbilisi and succeeded in negotiating an armistice that made the Russian troops retreat more or less to the former demarcation lines. Fortunately for the Georgian economy, the number of Georgians who had to leave South Ossetia after the aborted military action was considerably lower than the number of refugees out of Abkhazia 15 years earlier. But it remains true that the territory under Russian control up until today is not further than 65 km from the Georgian capital.

The military clashes are but one element of the long lasting tensions between Georgia and its northern neighbour. There are also the ups and downs in trade with Russia, reflecting Moscow's ambition to regain control over the strategically located country. Sometimes, exports to Russia were allowed, then – in accordance with the political situation – export allowances were again withdrawn. The project of a Eurasian Free Trade Zone promoted by Russians President Putin finds very little support in Georgia after these experiences although Georgia could build on the geographical proximity of these markets and the good reputation of, e.g., its wine in Russia. Based on past experiences, the assessment in Georgia is that Russia cannot credibly commit to guaranteeing market access on a long-term basis so that exports would always remain exposed to Moscow's political mood of the moment. These considerations underpin the Georgian political elite's resolve to seek EU -and NATO membership, for economic and political reasons.

The situation is further complicated by Armenia's vital interest in keeping close economic ties with Russia over its tensions with neighbouring Azerbaijan and its historic cleavages with Turkey. In fact, also in times when the Russian border remained closed for Georgian exports, lorries out of Armenia crossed Georgia South-Nord, making use of the freedom of transit and being sealed under the TIR rules. It's also worth mentioning that there is an Armenian speaking population living in the southern Georgian province of Samtskhe-Javakheti (almost adjacent to South Ossetia). In fact, this Armenian population accounts for a majority of 54% of the population in this region. They see their demand for a recognition of their language as an official language in the region rejected. This population is also hardly represented at the level of the Central Government in Tbilisi. Tensions such as those escalating in the Eastern Ukraine therefore raised some concern in Georgia that Russia could build on this

[251] The memories of Condoleezza Rice, in 2008 US Secretary of State, suggest that Saakashvili might have heard two voices from the US side. See: http://www.theatlantic.com/international/archive/2011/11/condoleezza-rice-warned-georgian-leader-on-war-with-russia/248560/

[252] In areas with small subsistence farmers, there is little room for trade so that ownership of land is determinant for incomes. Arguably, this makes expulsion of defeated population groups more likely.

division, handing out Russian passports and declaring itself protector of the Armenian people living in Georgia.

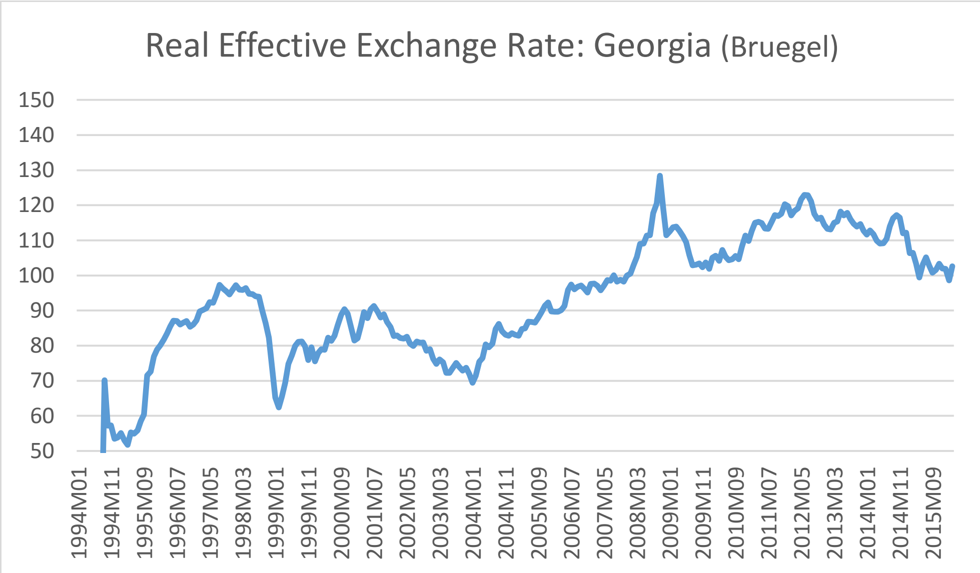
In both the cases of Georgia and the Ukraine, a consideration deserves attention, namely that, based on the statutes of the Atlantic alliance, these countries can hardly be offered NATO membership as long as Russia can preclude their territorial integrity by keeping some of their territory occupied. In other words, Abkhazia and South-Ossetia also remain occupied as pawns in a global power game.

4 The situation of the economy

On a PPP basis, GDP per capita in Georgia remains as low as US-$ 6'946 in 2013. The encouraging development since 2002 is confirmed, however, by a GDP growth rate of 5.6% p.a. over the 2009-2014 period. GDP in 2014 was 75% higher than a decade earlier.

Agriculture accounts for 9.2% of GDP, manufacturing makes up 24.4% of which 13.4 is industry,while services contributed 66.4% to GDP in 2013. Gross fixed capital formation was a satisfactory 21.9% of GDP. R&D is done on a small scale basis while the proportion of internet users in the population had reached only 48.9%. Tourism arrivals amounted to 5.4 million people, reflecting the country's potential since its territory extends from glaciers to sea shores.

The current macro-economic situation of Georgia is quite remarkable. The public sector in particular stands out. It showed a deficit of 1.8% of GDP in 2013, while the public debt to GDP ratio had been reported as a low 32%. Current spending may be financed out of tax income. The inflation rate is also at a satisfactorily low level. The cumulated CPI increase from 2010 to 2014 was 10.3%. The comparative price level remains low, a fact that also reflects the fertility of the region.



The current account was seriously in deficit in 2013, due to private capital outflows. These were not matched by considerable FDI (from e.g. Turkey), substantial official development aid received, significant worker remittances and sustained growth of exports. In this situation, the valuation of the Georgian currency according to the real effective exchange rate index no longer continued its upward trend. On the contrary, the years 2014/2015 saw a considerable devaluation of the currency and a corresponding increase in the rate of inflation to 5%.

The importance of the exchange rate for the business sector is difficult to gauge. Most of the lending is done on a dollar basis and more than half of the deposits with banks are also denominated in foreign currency. To the extent that, in the agents' balance sheets, assets do not match debt in foreign currency, this exposure constitutes a high risk for the country. Furthermore, with the limited lever of the Georgian Central Bank over the economy, changed interest rate policies in Western countries comprise considerable risk for Georgian debtors. Currently, the interest rate applied by the Central Bank is 3.75%, compared to a target rate of 6%. The situation of Georgian banks is sound. They show one of the highest interest margins in the region. The high interest rates private debtors have to pay are the other side of the coin. This is not conducive to the urgently needed development of a performing SME sector (see below). Still, credit to enterprises increased by a rate of 17% in 2013.

5 Economic challenges on the path towards stable growth

The overall satisfactory macro-economic indicators should not obscure the fact that Georgia is experiencing substantial economic difficulties. We will highlight them based on the substantive report the World Bank released on the country's economy before extending a framework for credits to Georgia on 29 April 2014. Four major challenges to the Georgian economy come forth:

Private consumption needs to be aligned with income perspectives

As remarked above, Georgia went through a period where it was one of the richest Republics in the former Soviet Union. By choosing Ivanisvhili, his electorate expressed the hope of being able to recover former standards of living. For the moment, consumption expansion is financed to a great extent by credits, however. In fact, the growth rate of loans to consumers was higher than the growth rate of credit extended to business. The World Bank therefore warns that consumption outlays are evolving faster than justified by long-term income perspectives, and calls for an alignment of private consumption with trend income. Simultaneously, the World Bank remains sceptical whether trend income may grow faster. To maintain a high growth rate of GDP and income is only possible if capital deepening is occurring at a high rate, the Bank says. For many years, this was ascertained by FDI inflows. For the World Bank, there is no guarantee that these flows will stay at current levels over many years, however. The Bank therefore suggests stimulating private savings by appropriate tax incentives. According to the Bank, the constitution of a capital based old-age pension scheme would be a solution.

For the time being, the new government has improved the situation of the older generation by increasing pension payments. Health insurance coverage for the whole population has also been extended. Such spending policies do not necessarily constitute a risk for macro-economic stability. A large share of this extra-income will be spent domestically where idle resources are abundant.

The import share in overall consumption, however, should be brought down.[253] This would also constitute a response to the high current account deficit. It would indeed be better to achieve a reduction of the latter thanks to structural reforms rather than a compression of overall demand. In Tbilisi, one finds on the shelves imported products that were formerly major Georgian export products (e.g. tea). Expressed differently, the alignment of consumption to income perspectives should and could be achieved by reforming the supply side.

The skill mix has to be adapted to the needs of the economy

Georgia claims that the country has a very high proportion of people holding diplomas attesting completion of a formation at the tertiary level (University a.s.o.). The intriguing question is what these diplomas are worth. It is not contested that in the 90', an untenable situation prevailed with title mills distributing diplomas in mass. The Saakashvili government changed the situation. The excessive focus on tertiary education remains doubtful, however. To qualify for the "Intelligencia" still earns high prestige. Universities of Applied Sciences have been created, but the population is said to not to hold them in high esteem. And their graduates cannot replace a workforce that has undergone appropriate vocational training. The World Bank is quite outspoken in this regard: The existing employment structure implies that few jobs require higher education, while there is a shortage of workers with vocational skills.[254] Changes in the skill mix cannot be dissociated from the perspectives in creating a performing SME sector, the next challenge to be taken up. Furthermore, if it were feasible to propagate a system of vocational training in spite of a missing SME sector, this system would have to rely on the knowledge taught in compulsory schooling. With regard to educational achievements at this level, Georgia's performance in PISA tests signals urgent need for action.

Private initiative is called for to create a SME sector of normal size

As stated above, the end of central planning meant that the industrial sector of the period with its large plants was wiped out. 20 years later, Georgia is still lacking the industries that could replace the share industry formerly held in Gross Value Added. The World Bank observes that Georgia has not yet demonstrated success in tapping into vertically integrated international production networks. The report then examines two possible sectors on which Georgia's economy could build, namely the production of wine and of textiles. It is always risky to name certain sectors that present special opportunities, suggesting a need for specific support by the government. Additionally, from the point of view of the

[253] The devaluation in 2015 has this effect.

[254] World Bank (2013): Georgia – Sustaining Rapid Economic Growth (Country Memorandum), July 2013. The three quotes on this page are from page 47, introductionary page XX and page 83.

author, the choice of these two sectors is also not very convincing. Currently, the Turkish textile industry appears to draw advantage from the low income and wage levels by locating some manufacturing within the country. It is questionable, however, whether Georgia's labour force can in the long run compete with the busy hands working in this industry on the Indian subcontinent. With respect to wine, the World Bank observes that in relation to the quality achieved the price of Georgian wine has already reached the upper limit of the price band within which wine sells worldwide. But it is certainly true that wine produced in artisanal factories can considerably be improved in quality when appropriate knowledge regarding cultivating grapes and elaborating wine is more widely disseminated. Perhaps, this could also be done based on the local tradition of wine production that dates back to ancient times. Such peculiarities would also support tourism, presumably the fastest growing sector within the country. Indeed, Georgia with its high topographical variety over short distances has essential natural assets to offer. Furthermore, the Georgian cuisine has a long tradition of its own, offering dishes of high quality. Tourism could add demand for agricultural products. The downward trend in this sector needs to be redressed. As the World Bank observes, in addition to upgrading vineyards, the irrigation infrastructure also needs major improvements if it is to support production in dry years. Processing food could be an area where production facilities can be created based on private initiative. Within industry, the repair and overhaul of used cars for later export seems to be progressing. The construction sector is another area where SME could spread based on private initiative. Structures in the old towns have been neglected over a century and just by adding balustrades in colour to the prefabricated dwellings of the Soviet period does not assure that they are worth living in. Currently, prestigious development projects are initiated top down from the central government and involve huge investment sums. In parallel to these contested projects, small scale construction work is going on with a minimum of equipment. Thinking of large investment projects, the exploitation of the hydroelectrical potential of the country is still at low levels. The potential has attracted foreign investors, from Japan and China, e.g., (but not from Switzerland). Infrastructure investment along the east-west axes is going on. A highway is under construction parallel to the Baku-Tbilisi-Ceyhan pipeline. The latter was completed in May 2005 and attracts as said considerable geo-strategic interests but produces only limited annual incomes.

The country needs access to stable markets

The title of the chapter, "Georgia: Where economics interfere with geo-politics", should better read "Building up an economy while remaining located in a geo-strategic exposed area." It is indeed our argument that gaining economic strength by domestic reform is essential to defend sovereignty when a country is located at the intersection of Western and Russian interest spheres. This explains the emphasis put here on required changes in the skill mix, on the need to develop a performing SME sector, but also on eventually replacing FDI by domestic savings. However, Georgia does not and cannot develop in economic isolation. Trade exposure is considerable and may further increase. This makes strategic decisions in trade and foreign policy necessary. As indicated above, integration into the EU is the preferred choice within the country. The EU, on its side, states:[255] "By signing the Association Agreement (AA) in June 2014, relations between the EU and Georgia were brought to a qualitatively totally new stage. The Association Agreement with its Deep and Comprehensive Free Trade Area (DCFTA) foresees far reaching political and economic integration with the EU by significantly deepening political and economic ties, bringing Georgia closer to Europe. The EU and Georgia have also agreed an EU-Georgia Association Agenda, which defines a set of priorities for the period 2014-2016 with a view to implement the AA/DCFTA. The Agenda will help Georgia to fully enjoy the benefits of the AA, which provisional application (notably its trade part) started as of 1 September 2014." This is to some extent also diplomatic language, but the conditions set for EU membership constitute a far reaching and solid agenda for internal reform. [256]

Georgia does not only build on the EU. As mentioned above, FDI from Turkey is of considerable importance. Furthermore, China not only has significant strategic interest in Central Asia but its interest extends further to the west on what used to be the Silk Road, and also reaches Georgia. Depending on internal evolutions in Iran, this country could also become of increasing interest to Georgia.

6 The freedom of transit

International agreements do not guarantee that goods can be shipped through a country but they considerably enhance the chance of transit being possible. Evidence is provided by the Turkish Straits. In 1923 the Treaty of Lausanne demilitarised the Dardanelles while the modern treaty .

[255] http://eeas.europa.eu/delegations/georgia/eu_georgia/political_relations/index_en.htm

[256] This is illustrated elsewhere in this text, when dealing with the Czech Republic and Bulgaria.

The Southern Gas Corridor

Europe's founding fathers were resolved to 'place the instruments of war at the service of peace' (Jean Monnet). Energy supply is key in pursuing strategic goals. The Treaty establishing the European Coal and Steel Community (ECSC), mainstreamed into EU policy in 2002, and the EURATOM Treaty on Atomic Energy, which is still in force today, thus preceded the Treaty of Rome.

Today, the EU imports 53% of the energy it consumes. Energy import dependency relates to crude oil (almost 90%), to natural gas (66%), to a lesser extent to solid fuels (42%) as well as nuclear fuel (40%). Energy supplies from Russia account for 39% of EU natural gas imports or 27% of EU gas consumption; Russia exports 71 % of its gas to Europe with the largest volumes going to Germany and Italy. The dependency of the Baltic States is particularly high.

With this background, the recurrent and escalating conflict between Russia and the Ukraine makes the need even more urgently felt to look at energy policy specifically from a security policy point of view, thereby focussing on gas provision.[257] *27 projects in gas and 6 in electricity have been identified as critical for EU's energy security in the short and medium term. Among them, the Trans Adriatic Pipeline TAP from Greece through Albania to Italy, initially inspired by the Swiss based Elektrizitätswerke Laufenburg AG, figures as the intra-EU section of the Southern Gas Corridor. The strategy also deals with the situation regarding oil dependency, the potential of renewables and makes some observations on nuclear energy. These observations are relevant for the TAP project in the sense that alternative ways to cover the energy needs and provide energy security have an impact on its financial viability.*

It is expected that in a first phase of the TAP project (i.e. by 2020) 10 bcm/y of natural gas produced in Azerbaijan will reach the European market through the Southern Gas Corridor. The capacity could then be increased up to 25 billion cubic metres by adding additional looping and two new compressor stations, at a cost of US-$ 3bio. Thus exports from other countries such as Turkmenistan, Iraq and Iran could also build on this infrastructure. This requires a coherent and targeted foreign policy by the EU vis-à-vis these countries.

The South Caucasus Pipeline (also known as: Baku–Tbilisi–Erzurum Pipeline, BTE pipeline, or Shah Deniz Pipeline) is a natural gas pipeline from the outstanding Shah Deniz gas field in the Azerbaijan sector of the Caspian Sea to Turkey. The 42-inch (1,070 mm) diameter gas pipeline runs in the same corridor as the Baku–Tbilisi–Ceyhan pipeline for oil as far as Erzurum where the latter turns south to the Mediterranean shore. The current perspective is that the South Caucasus Pipeline will supply Europe through the Trans-Anatolian gas pipeline and, consequently, the Trans Adriatic Pipeline. First deliveries through the BTE pipeline commenced on 30 September 2006. As a transit country, Georgia has rights to take 5% of the annual gas flow through the pipeline in lieu of tariff and can purchase a further 0.5 billion cubic metres of gas a year at a discounted price. The shareholders of the consortium are: BP (UK) 28.8%, SOCAR (Azerbaijan) 16.7%, Statoil (Norway) 15.5%, Lukoil (Russia) 10%, Naftiran Intertrade (Iran) 10%, Türkiye Petro-lleri Anonim Ortaklığı (TPAO) (Turkey) 19%.

A critical appraisal

In January 2015, CEE Bankwatch Network released a critical report on the project of a Southern Gas Corridor.[258] *They highlight the following points:*

- *European companies are obliged to import at least 115 bcm/year of Russian gas or approximately 75 per cent of the 2013 import level up to 2025.*
- *Much of the existing EU gas import infrastructure, especially for liquid natural gas (LNG), is under-utilised at the moment.*
- *Demand is not expected to increase significantly in any of the EU's scenarios in its Energy Roadmap 2050. In reality, EU consumption of gas has been in decline for the last decade by 9%.*
- *No more than one-third of proven reserves of fossil fuels can be consumed prior to*

[257] To this end, a Communication from the Commission to the European Parliament and the Council on "European Energy Security Policy" was released in May 2014 (SWR (2014) 330) and completed in October 2014 by a report on the short term resilience of the European gas system.

[258] CEE Bankwatch Network is an international non-governmental organisation (NGO) with member organisations from countries across central and eastern Europe (CEE). The NGO monitors the activities of international financial institutions (IFIs) which operate in the region and promotes environmentally, socially and economically sustainable alternatives to their policies and projects. See http://bankwatch.org/about-us/who-we-are

2050 if the world is to achieve the 2°C goal".

- *Potential energy savings of 174 Mtoe per year by 2030 through energy efficiency measures is around 20 times more than the gas that will be imported through the Southern Gas Corridor. East and South East Europe have the highest potential for energy conservation.*
- *While South Stream is clearly seen by the Commission as a rival to the Southern Gas Corridor, linking Russia to Bulgaria appears of interest to selected EU member countries. Furthermore, Russian gas could be fed into the trans-Anatolian pipeline, leading to an underutilisation of the pipeline's leg through Georgia.*
- *Lukoil Overseas Shah Deniz Ltd is a fully owned daughter company of Lukoil Overseas Holding Ltd, the latter being a 100 per cent subsidiary of the second largest private oil company in Russia OAO Lukoil This partner may complicate the pursuit of EU security interests.*
- *Finally, the Southern Gas Corridor "will end up in dancing with repressive regimes of all shades like those in Azerbaijan, Turkey and Turkmenistan."*

The EU looks set to take on many of the risks via the Connecting Europe Facility, potentially the European Investment Bank (EIB) and the Project Bonds Initiative, and indirectly via a loan by the European Bank for Reconstruction and Development to Lukoil for the second phase of developments at Shah Deniz. Export credit agencies from EU countries may also back the Corridor. The total investment needs are estimated at approximately US-$ 45bio according to the TAP website. The political and economic stakes linked to this project are thus considerable and the changing composition of the project partners shows that the private companies involved differ in their assessment of these risks.

controlling access from the Black Sea to the Mediterranean is the 1936 Montreux Convention, given Turkey's refusal to sign UNCLOS III The Montreux Convention gives the Republic of Turkey considerable control over warships entering the straits but guarantees the free passage of civilian vessels, at least in peacetime. One may speculate that the dependence of Russia on the respect of the rules established regarding the usage of the Turkish Straits may impact on Russia's attitude towards granting secure transit south of the Caucasus and through Georgia from the Caspian Sea to the Black Sea.

While the rules on using the Turkish Straits stand alone as an international agreement, the transit guarantees as laid down in a general manner in important international treaties govern the utilisation of many other 'passages obligés' on international transportation routes. The two treaties to be mentioned primarily are the GATT within the WTO and the Law of the Seas as established within the UN (UNCLOS III). They are complemented by a number of agreements, particularly with regard to customs procedures. The TIR rules – hosted by the UN Economic Commission for Europe - provide an important illustration. The TIR Convention stipulates that goods carried under the TIR procedure in approved and sealed road vehicles, or a combination of vehicles and containers, are not subject to Customs examination, unless irregularities are suspected. Physical inspection during transit remains limited to checking seals and the external conditions of the load compartment or container. As observed above, TIR worked e.g. for Armenian camions when the Russian border was shut for Georgia. It is therefore an instrument to prevent conflicts in a region affecting third countries. The risk of an escalation of a conflict is attenuated.

To sum up: While the rule-based trade system cannot prevent the use of economic power in a conflict among nations emerging for other reasons, it is crucial in preventing the escalation of economic tensions among nations in violent clashes.

The Significance of Globalisation for Georgia

The significance of globalisation for Georgia is high but this constitutes rather a mixed blessing for the country since, after the end of central planning, Georgia also experienced a reverse side of globalisation, namely the geostrategic tensions to which transit countries in world trade may be exposed. Since fuels will continue to be shipped from the Caspian to the Mediterranean Sea for a long time, exposing the country to such tensions, Georgia needs to develop the inherent strengths location and topography provide to the country. This is a prerequisite for strengthening its political sovereignty and for deriving larger economic benefits from its location. On the positive side of globalisation for the country figures worldwide tourism. Extending from the sea to mountain ranges with permanent ice, Georgia may offer a wide variety of distractions.

Chapter 11

Bulgaria on the Way to meet EU Environmental Standards

CONTENT

Country Fact Sheet

			World	Bulgaria
GDP per Capita	(at 2011 PPP $)	2013	13,964	15,695
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	0,9
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	31
Agricultural Value Added	(% of GDP)	2014	3,1	5,3
Manufacturing Value Added	(% of GDP)	2014	26,4	27,2
of which Industry	(% of GDP)	2014	15,8	..
Services Value Added	(% of GDP)	2014	70,5	67,6
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	21,3
Research and Development Exp.	(% of GDP)	2005–2012	2,0	0,6
Internet users	(% of pop.)	2014	40,5	55,5
International Tourism, Arrivals	(mio people)	2013	1068,0	6,9
Consumer Price Index	(2010 = 100)	2014	..	106,7
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	71,1
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	45,6
Current Account	(% of GDP)	2013	..	1,2
External Debt Stock	(% of GDP)	2014	..	90,1
Exports plus Imports	(% of GDP)	2013	60,4	137,4
Private capital flows	(% of GDP)	2013	-0,9	-2,0
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	3,5
Official Development Assistance	(% of GNI)	2013	0,4	..
Remittances, inflows	(% of GDP)	2013	0,71	3,06
General Gov. Expenditures	(% of GDP)	2013	..	37,3
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-3,6
General Gov. Net Debt	(% of GDP)	2013,0	..	-2,3
Ease of Doing Business Index	(rank)	2015	95	38
Corruption perception	0-100	2014	..	41
Population	(millions)	2014	7259,7	7,2
Surface	(1'000km^2)	2015	134325	111
Populationb Density	(person/km2)	2014	56	67
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	-0,8
Fertility	(births/woman)	2010/2015	**2,5**	1,5
Under-Five Mortality	(% < age 5)	2013,0	45,6	11,6
Life Expectancy at Birth	(years)	2014	71,5	74,2
Child Malnutrition	(% age group)	2008–2013	29,7	8,8
HIV-Prevalence	(% of pop.)	2013	1,1	..
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	..
GINI Index (income concentr.)	0-100	2005–2013	..	34,3
Homicide Rate	(per 100'000)	2008–2012	6,2	1,9
Primary School (enrolm.)	(% age group)	2008–2014	109	100
Secondary School (enrolm.)	(% sge group)	2008–2014	74	93
Tertiary School (enrolm.)	(% age group)	2008–2014	32	63
Genders in 2nd Schooling	(female/male)	most recent	97,1%	96,5%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	98,4
Employment to Population Ratio	(% aged 15+)	2012	59,7	47,2
Unemployment rate	(% aged ≥ 15)	2004-2013	..	11,524
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,81
Children in Employment	(% of age 7-14)	2013	..	..
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-1,4
Rural Population	(% of popul.)	2014	46,6	26,4
Energy use per capita	(kg of oil eq.)	2013	1894,4	2327,4
CO2-Emission	(t per capita)	2011	4,6	6,7
Improved Water Access	(% of popul.)	2014	90,5	99,4
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	23,7
National Resource Rents	(% of GDP)	2014	3,9	1,9
Protected Area	(% of surface)	2014	12,8	31,5
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,782

Chapter 11
Bulgaria on the way meeting EU environmental standards

Environmental concerns rank high in the list of arguments drawn up by the opponents of globalisation. They reiterate concerns that had already been risen prominently by the Club of Rome in the 1970ies in their publication "The Limits of Growth". The major link to globalisation appears in fact to be that globalisation will speed up growth as measured by world GDP. Critical thresholds with regard to the absorptive capacity of the environment may then be reached earlier. There is also an opposite view, however, namely that with economic development, environmental concerns will weigh more heavily. Once certain levels of per capita GDP are reached, environmental quality will once more start to improve, also due to deliberate actions taken. In fact, in many instances, the endangered aspect of the environment exhibits the characteristics of non-rivalry in consumption plus difficulties in sanctioning by private action those not contributing to the preservation of the environment. The protection of the environment has therefore to be assumed by public authorities to a considerable extent. Governments have also to coordinate their efforts internationally. Foremost, CO_2 emissions constitute an outstanding problem of global dimension. This requirement makes non-action more likely, in spite of proven risks that later action will be costly or that irreversible evolutions might occur.

Coordinated international action is possible, however, and is actually taking place. The Basel Convention on the control of trans-boundary movements of hazardous wastes and their disposal may be mentioned in this respect. It stipulates the principle of treatment of waste within national borders. This produces limited conflicts as long as waste qualifies as a 'bad' and does as such not benefit from WTO rules seeking unimpaired trade of 'goods'. This situation is further illustrated below using the example of used versus scrap cars. The business case examined in this chapter suggests that this distinction of 'goods' and 'bads' is not free of ambiguities. Additionally, the case examined raises the question whether environmental services such as the disposal of the residues from automobile shredders can be entrusted to a national agency by granting the latter a monopoly for car disposal.[259] [260]

The country considered below will be Bulgaria. The communist period left the country a sad heritage. Central planning was not able to integrate concerns for the environment, a public good, in production and investment decisions. Air quality suffered in particular. EU membership now provides Bulgaria with a framework to restore environmental quality, although this will take years.

1 Main features of the country and its population

Bulgaria has a population of 7.2 million inhabitants and a surface of 111'000km^2, making it a rather sparsely populated country. Settled by Slavs from the 6th century on and Christianised, the Ottomans subjected Bulgaria at the turn of the 15th century and ruled the country up until the 2nd half of the 19th century. Then Bulgaria gained independence with the help of the Russian Empire. Fighting on the losing side in WWI and WWII, the country became part of the Soviet Block up until 1989. The transition to a parliamentary democracy and a dynamic market economy was not free of setbacks. It was finally consolidated by

[259] The economic theory part in the corresponding chapter of the underlying publication addresses the conceptual problems of coming up with a general assessment of environmental quality. The integration of effects on the environment in the calculation of the GDP is rendered difficult by the number of environmental concerns to be considered and the usually missing price tags for using the many aspects of the environment, a consequence of their 'public good' characteristic. We are not confined looking at each dimension of the environment separately, however. Economic theory provides some general insights regarding the growth-GDP nexus and is helpful in developing instruments preventing environmental degradation. Rare earth minerals, fossil fuels ("peak oil") and climate change are the environmental concerns considered.

[260] The legal part of the corresponding chapter in the underlying publication starts with indicating that the community of nations has already adopted a series of environmental agreements. It then addresses the topic of trade and the environment. Selected measures taken unilaterally by countries or groups of countries are examined under the aspect of their conformity to WTO law. These are: export prohibitions in the case of rare earth minerals, import bans intended to promote recycling within the country, and compensatory border measures adopted as flanking measures when introducing domestically a CO2 tax or an emissions trading system.

Bulgaria becoming member of the EU in 2007. The year 2013 once again saw substantial political turbulence, nationwide protest expressing deception over protracted low living standards. Bulgaria as a unitary parliamentary republic with a high degree of political, administrative, and economic centralisation has been, besides EU membership, a member of NATO since 2004. It has also adhered to the Council of Europe since 1992 and the OSCE since its beginnings. The country participates in the WTO and numerous free trade agreements thanks to its EU-Membership.

85% of the population are Bulgarians, 9% have a Turkish origin and 5% are Roma. The Bulgarian Orthodox church is dominant among the confessions but a considerable share of the population declares having no religious affiliation.

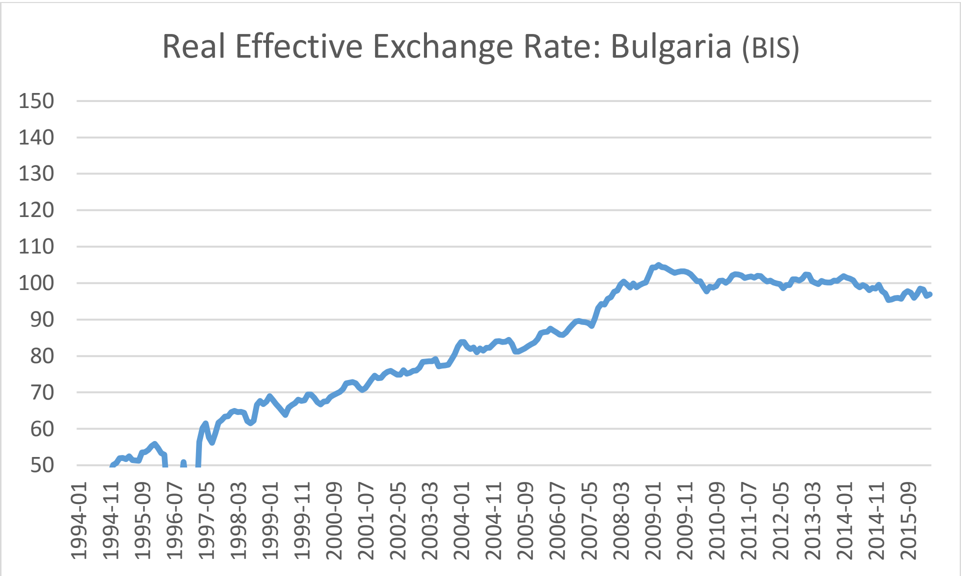
The population is declining due to emigration to other EU countries and the birth rate is only 1.5 children per woman. Life expectancy is maintained at 74.2 years and personal safety is also preserved. Under five mortality is above the level in Western Europe and the income distribution is uneven when other EU-countries are taken as a reference. Extreme poverty continued to affect a small portion of the population.

The population is literate and enrolment at the primary school level is universal and high at the secondary level. A relevant share of the age class attends tertiary schools. The female participation rate in the labour market remains above three quarters of the male rate.

Access to an improved source of water is universal, the surface covered by forests is increasing and a large part of the country is protected area. Natural resource rents contribute to national income to some extent. The decline of heavy industry has attenuated CO_2-emissions.

2 Bulgaria's economy shows some encouraging signs

The GDP growth rate was 0.9% over the period 2009-2014, too small to close the gap to the EU average. GDP was also only 31% higher in 2014 than 10 years earlier. With a per capita GDP of US-$ 15'695 in 2013 on a PPP basis, Bulgaria is the poorest EU-country but this figure is still one third above those of Peru, Colombia and China, the nations ranking next among the 16 countries considered in this book.



Agriculture continues to contribute 5.3% to GDP, manufacturing stands at 27.2% and the service sector accounts for 2/3 of GDP. Gross fixed capital formation is above 20% of GDP, some R&D is done in the country, although little by EU standards, and more than half of the population uses the internet. Exports and imports cumulated are well above 100% of GDP. The country attracts considerable FDI which helps keep the current account in surplus. While domestic credit extended by banks is not a problem, the external debt stock is substantial. Consumer inflation is low and the overall price level appears as competitive when considering the level of real GDP per capita. Bulgaria could react to the world economic and financial crisis which began in 2008 by no longer exposing its economy to an appreciating real effective exchange rate.

Against this background, the report[261] released by the European Commission in March 2014 on macro-economic imbalances we consider next indicated better scores for the country in terms of economic performance than the political instability of the time let anticipate.

Serious macro-economic imbalances have been corrected

Bulgaria experienced a period of very rapid accumulation of imbalances during the boom phase that coincided with accession to the EU in 2007. High foreign capital inflows contributed to the overheating of the economy and sustained increases of fixed asset prices. Since 2009, the recovery in Bulgaria has been slow and the economy continues to operate considerably below potential. Inflation has decelerated sharply in 2013 and is projected to remain low. The fiscal position has stayed strong overall, despite an increase in the budget deficit in 2013. A sustained current account adjustment has helped reduce the country's external financing needs, but the stock of liabilities remains high. Following deficits of more than 20% of GDP over 2007- 08, the current account has returned to balance in 2010-13. The adjustment appears to be mostly non-cyclical: it has been driven by a decrease in imports brought about by the crisis but also by a strong export performance, as reflected in Bulgaria's steady gains in world market shares. The gross external debt is mostly euro-denominated, implying a limited foreign exchange risk since the country pursues a kind of a currency board policy towards the €.

Attracting FDI in the tradable sector remains crucial.

Bulgaria's net inward FDI stock is high and likely to increase. Continuously attracting foreign capital and caring for its efficient allocation remains crucial for speeding-up growth and accelerating convergence. FDI has benefitted parts of the manufacturing and tourism sectors, the former having been the driver of growth after the crisis of 2009. The energy sector, including renewable energy sources, has attracted most attention, the FDI stock in energy doubling over 2010-13. Manufacturing has attracted 21% of the investment flows. Transportation, telecom and financial services have more or less maintained constant inflows. Construction investments have also continued but remain linked to infrastructure development, given the sharp reduction in real estate activity. Sectors like education and healthcare, which have received very little attention from foreign investors so far, could also contribute positively to competitiveness and the overall development of the country.

The country's saving-investment balance has improved

Corporate indebtedness remains high and deleveraging pressures could limit growth in some sectors, but immediate risks for the economy appear contained. However, since most of the debt of non-financial corporations is in the form of intra-company loans, potential spill-overs to the financial and public sectors appear limited. Newly introduced rules on late payments and revised bankruptcy procedures should facilitate the deleveraging process. Although the drop in house prices has affected households by lowering the value of their property, their indebtedness remains relatively low, and is decreasing. The stability of the banking sector has been preserved. Non-performing loans have stabilised and remain well-provisioned. Credit growth has resumed in some tradable sectors. Domestically-owned banks are expanding their portfolio faster compared to subsidiaries of foreign banks. No financial sector-related imbalance could be identified.

An underperforming labour market holds back the growth potential

Since 2008, unemployment has more than doubled, reaching 13% in 2013. Two groups, the low-skilled and young workers, have been hardest hit by labour shedding, the number of young and long-term unemployed increasing drastically. So far, active labour market policies, including training, have not succeeded in reintegrating even the more experienced workers, thus contributing to skills mismatches and a high level of structural unemployment. The low employment rate shows that a large section of the population faces major challenges of participating in the labour market, which exposes many to poverty. In fact, nearly half the population is at risk of poverty or social exclusion. Means-tested benefits have not increased noticeably since the crisis, unlike non-means tested ones. Unit labour cost (ULC) growth has moderated but wage growth continues to outpace gains in productivity, supported by the minimum wage and social security thresholds (MSST). In fact, minimum wages have been raised considerably since 2011. Employment status depends strongly on the level of educational attainment. Looking forward, weaknesses in the educational system are a key concern for the employability of future workers.

[261] See European Commission (2014): Macro-economic Imbalances –Bulgaria 2014, European Economy, Occasional Papers 173, March 2014. The report for 2015 may be retrieved under http://ec.europa.eu/economy_finance/publications/occasional_paper/2015/op213_en.htm

The quality of schooling is low as measured in international studies. The existence of an important disparity between higher education outcomes and labour market demand worsens structural unemployment and limits the adjustment capacity of the economy. In conclusion, the reasons for the protracted labour market adjustment appear deeply rooted.

3 Assessing the state of the environment in Bulgaria

The state of the environment in Bulgaria is not considered to be the best when compared with other EU member states. This is confirmed by the ranking of the country according to the environmental performance index as proposed by the universities of Yale and Columbia.[262] With respect to EU member-states, only Lithuania and Romania lie behind Bulgaria. However, among the 178 countries retained in the index, Bulgaria is ranked 41st and figures therefore in the first quarter. In addition to 27 EU- and EFTA member states, Australia, Singapore, New Zealand, Canada, the United Arab Emirates, Japan, Chile, Serbia, Belarus, the US, Saudi Arabia, Brunei and Israel are ranked (in this order) before Bulgaria.

We remain sceptical about the validity of the Yale EPI index since it isn't too difficult to criticise the indicators retained in its calculation. Even more, the weighing applied when aggregating the indicators under the different headings remains an open question (see box further down where the construction of the Yale EPI is explained and critically reviewed and where a link to the disputed concept of an inverted environmental Kuznets curve is also made).[263] But, by looking at the sub-indices, the Yale EPI may be useful in suggesting priorities for environmental policies. The impression emerging with respect to Bulgaria out of the following table is that air quality remains a major challenge in spite of the considerable improvement realised over the last ten years. The score is also low in fisheries, this line referring to maritime (coastal) fishing (so that in the table, the line for landlocked Switzerland remains empty). Bulgaria scores rather well with regard to forests and water/sanitation.

The Yale Environmental Performance Index 2013
Scores for Bulgaria and Switzerland

	BULGARIA			SWITZERLAND		
	Score	Rank	10year change	Score	Rank	10year change
Overall Score	64.01	4	3.6%	87.67	1	0.8%
Health Impact	87.46	57	10.9%	100	1	3.1%
Air Quality	77.2	99	14.9%	76.6	103	-3.6%
Water + Sanitation	95.0	29	0.4%	100	1	0%
Water Resources	28.9	54		97.0	4	
Agriculture	81.6	61	-9.3	49.2	156	17.2%
Forest	84.1	16		49.6	41	
Fisheries	0	98	0%			
Biodiversity+Habitat	68.9	71	0.4%	100	1	2.7%
Climate+Energy	48.2	70		78.1	7	

[262] See http://epi.yale.edu/epi. The Environmental Performance Index is a joint project between the Yale Center for Environmental Law & Policy (YCELP) and the Center for International Earth Science Information Network (CIESIN) at Columbia University, in collaboration with the World Economic Forum. As stated in the text, this indicator is, in the author's view, only useful up to the level of the information provided by the sub-indices.

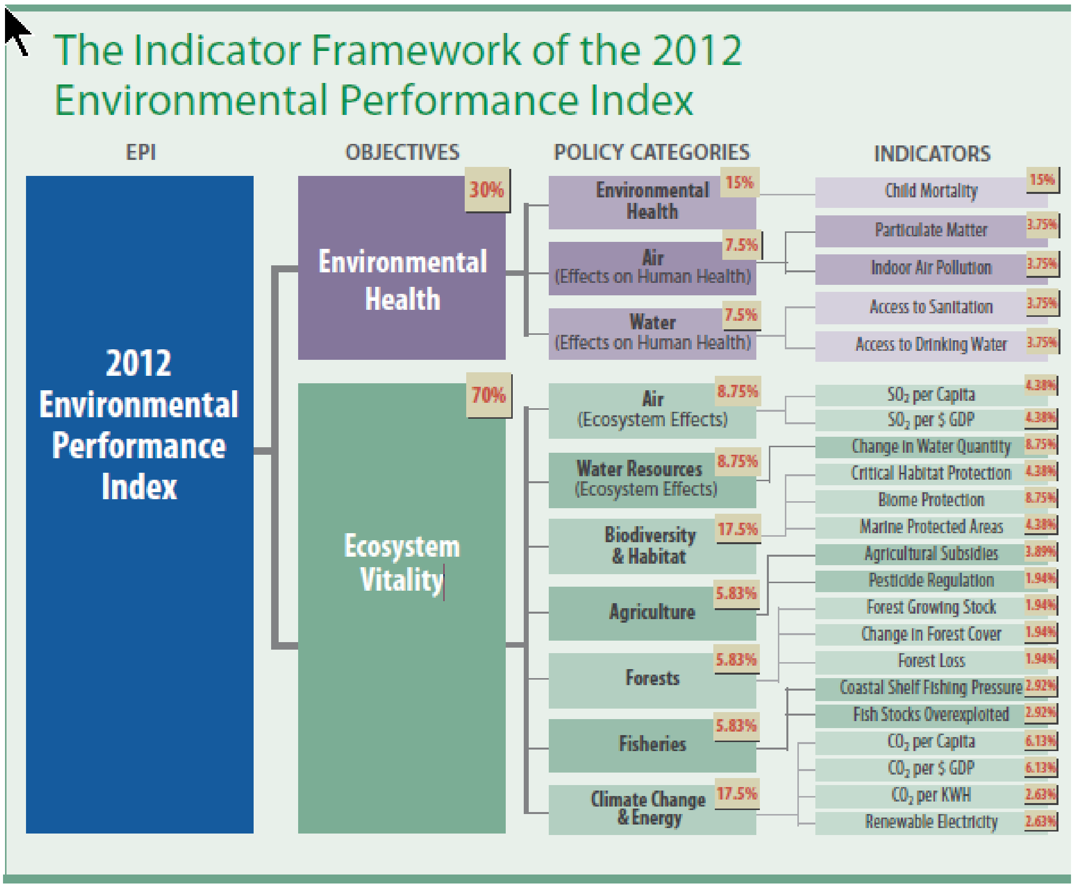
[263] Regarding the initial 2006 version, the German Umweltbundesamt observed that „At this point in time, it cannot be conceded that the claim to establish an analytically sound quantitative composite index has been achieved." http://www.umweltbundesamt.de/publikationen/analysis-of-yale-environmental-performance-index

The Yale Environmental Performance Index: Presentation and Critique

Construction of the Yale Environmental Performance Index

According to the authors, the two objectives that provide the overarching structure of the EPI are 'environmental health' and 'ecosystem vitality'. 'Environmental health' measures the protection of human health from environmental harm, while 'ecosystem vitality' measures ecosystem protection and resource management [which is not identical to resilience, the common understanding of vitality!]. These two objectives are further divided into nine categories that span high-priority environmental policy issues. The issue categories are considered extensive but not comprehensive. 20 indicators calculated from country-level data and statistics underlie the nine issue categories. Relevant details of the calculation are that for each indicator the distance to a target value is measured, leaving the question how quickly penalties increase with distance to target. When the distribution of the indicator values is heavily skewed to the right or to the left, a logarithmic transformation is applied. The choice of the weights remains a nimbus.

Below we show how the EPI was composed for the 2012 release (in the 2014 release, the scheme has not significantly changed).



The inverted environmental Kuznets curve

The economist and Nobel Prize winner Simon Kuznets argued in the early 60' that with raising GDP per capita, the income distribution first becomes more uneven but that after a peak point, further growth will lead to a more even income distribution. The same argument was made with regard to the state of the environment: With raising GDP per capita, environmental quality first deteriorates but, above a certain level of GDP, the environment improves again. Since– opposed to the curve relating GDP to income inequality (the latter first rising, then declining) – the environmental quality curve first falls and then increases, one speaks of the 'inverted environmental Kuznets curve'. One reason advanced for the existence of such a relationship is that at higher income levels, the valuation of the environment tends upwards. Also, higher economic activity may make tighter legislation regarding the environment a direct necessity, by the objective impact the state of the environment may have on factors of production (consider e.g. calculations regarding years of life lost due to air pollution in China, this indicator pointing to high costs in terms of health spending and absence from the workplace for the whole population due to air quality). The presence of an inverted environmental Kuznets curve remains contested, however.[264]

Relation of the Yale EPI to the inverted environmental Kuznets curve

The country ranking obtained by the Yale EPI suggests two points: Environmental performance is positively related to GDP per capita, and Europe is setting the performance standards in the field of environmental protection. The first result can be an artefact. This happens when primarily the reaction to environmental degradation enters the statistic, and environmental degradation increases with GDP. Among the components, the indicators 'maritime protected area' or 'pesticide regulations' are candidates to act in the sense of creating an artefact. The other retained indicators reflect the environmental concerns correctly, however, when - as conceptually required - 'performance' means outcome and not protective measures taken. They measure effects that are generally blamed to go along with industrialisation, such as a degradation of water quality and growing emissions of air pollutants. The country ranking as resumed in the main text therefore lends some support to the presence of an inverted environmental Kuznets curve in the sense that a degradation of the environment with raising GDP spurs the adoption of measures aimed at stemming further deterioration; also, these measures appear to produce the intended effects. However, the assessment whether the latter is also the case depends heavily on the dimensions of the environment considered, on the choice of the indicators of environmental quality retained and on their weighting.

Critique of the Yale EPI

As said, a critical point in the concept of the Yale EPI is where in the sequence of events measurement takes place. The adoption of pesticide regulation may become a necessity only when income is high enough so that pesticides are applied on a large scale. After the adoption of the regulation (the indicator retained), the situation may remain inferior to the pristine state where the absorption capacity of the environment was not stressed. Furthermore, when pesticides are used in plantations of export crops, one might also decide to impute any environmental costs to the customers, normally located in countries with high GDP. We also doubt whether the Yale EPI is resistant to a permutation of the weighting scheme. For similar reasons, we reject other aggregate measures in the underlying text, notably those commonly used to measure sustainability as the 'global footprint'. We only consider the choice of the policy fields and the corresponding key indicators as defendable, although agriculture e.g. deserves a further comment.

Specific doubts regarding the measurement of agriculture

The result in the sphere of agriculture is a further illustration of the difficulties even renowned universities such as Yale and Columbia run into when they want to map such multi-facetted topics as 'environmental performance' on a single scale. Agriculture shows intriguing entries for both countries examined here. The reason is that financial support granted to the agricultural sector is valued negatively. Bulgaria, having become an EU member over the last ten years, benefits at the end of the period from the EU's rather generous common agricultural policy (CAP) so that the indicator deteriorates. Switzerland shows a remarkable improvement but still finishes on one of the last ranks since, also according to the OECD, it is leading in the world in subsidising the sector. To see subsidisation of agriculture as negative is correct provided the reflection holds true that more subsidies make a type of agriculture highly relying on artificial manure and pesticides more profitable. But, in the Swiss case, subsidies are only paid out provided certain conditions are fulfilled, the latter reflecting environmental concerns. To defend the indicator also in this case, a politico-economic argument has to be added, namely that high subsidisation reflects the power of the sector stemming regulation that, while fundamentally justified, would come at its cost. Switzerland targets e.g. in climate policy only CO_2, not methane, although at least equally novice as CO_2, but closely linked to the live-stock. The latter is excessive in Switzerland since favoured by a subsidisation intended to retain a high agricultural workforce by favouring labour intensive activities such as milk production. An environmental component added to the said subsidisation scheme may remain less effective than a direct cut in the subsidisation of the live-stock. The subsidy then enters the indicator still with the correct sign. In defence of the Yale EPI, one could also argue that benefits produced by the agricultural sector and accruing to the community as a whole such as the preservation of the landscape are adequately caught elsewhere in the calculations, e.g. by the component 'biodiversity+habitat'. When this effect is also considered, subsidies when tied to environmental concerns could have an overall neutral impact on the global indicator. We therefore conclude that while not telling "the" truth, the way the Yale index values subsidisation of agriculture tells "a" truth. Without going deeper and considering the indicators retained and possible alternatives, valid assessments may not be obtained.

[264] An authoritative discussion of conditions invalidating the chance of an inverted Kuznets curve holding true appeared already in 1995 and was e.g. authorized by Nobel Prize winner Kenneth Arrow. See: Arrow,K., B.Bolin, R.Costanza, P.Dasgupta, C.Folke, C.S.Holling, B.O.Jansson, S.Levin, K.G.Mäler, C.Perrings and D.Pimentel (1995), 'Economic Growth, Carrying Capacity and the Environment'. Ecological Economics, 15, p . 91-95.

More conclusive than the Yale EPI in assessing the challenges countries face with regard to the environment is the 'State of the Environment Reporting' required by the Environmental Agency of the EU.[265] It does not cover countries outside Europe, however. The reporting builds on the European environment information and observation network (Eionet) to which over 350 agencies and around 1000 experts contribute data. It refrains from aggregating over the different spheres that make up the environment. We lack the space to resume here the detailed results obtained in the case of Bulgaria.[266] A certain overlap with the components of the Yale EPI appears, however, since in the report for the EU, 'red flags' are also primarily hoisted in the area of air pollution.

Another way to look at the environment is to consider legislation in place. Here again, the heterogeneity of legal traditions and initial conditions of the environment renders any international comparison difficult. Once more, the situation for EU member countries is better since the EU monitors the implementation of the directives and ordinances adopted at the Union's level. In its annual report DG Environment indicates the number of open infringement cases of EU environmental legislation which it launched.[267] As of 2014, 86 non-reporting cases, 50 non-conformity cases and 198 bad application cases were reported. Bulgaria totalled 15 of them (Greece 36, Romania and Spain 30) but in no case does Bulgaria fail to comply with a judgement of the Court of Justice of the EU (there being 8,7,5,4 and 3 cases in Greece, Spain, Italy, France and Ireland, respectively).[268] In this context, it needs mentioning that countries may profit from some holiday periods, since the EU may not require the immediate and full implementation of its legislation in countries lagging behind in their development.

As a general observation based on the example of Bulgaria, one may note that collective decision making – i.e. central planning up to 1989 - did not help the environment as one might have anticipated based on the idea that a benevolent social planner would incorporate environmental damage in project assessment. The reason is that central planning did not generate enough growth, and this fact led authoritarian rulers to secure a (poor) improvement of material living conditions at the expense of serious environmental damage. A market economy assigns the roles to different agents. While the private sector is essentially responsible for economic growth, public authorities are primarily responsible for the protection of collective goods such as the environment. A primacy of politics over individual economic interests has to make sure that necessary legislation (plus public spending) is adopted and implemented, however. International spill-overs also need to be considered. In this regard, the EU exercises beneficial effects in the sense that the Union is in a position to confine trans-border spill-overs and to reduce moral hazard (i.e. reliance on others to clean up the mess at a later period). Democracy and a market economy do not create an ideal world, however. Democracy gives no voice to future generations and despite public and private research efforts, knowledge will remain deficient in many areas with a bearing on the environment. Such insecurity brings the attitude of a society towards risk and intergenerational equity into play: When to stop the build-up of risks and how important may the legacies be a generation leaves behind in the form of unchecked environmental problems? There are no institutional guarantees in modern societies to ensure that an adequate answer will be given.

The relation between economic development and the state of the environment is a highly disputed topic within the discussion on the benefits and costs of globalisation. The presence of an inverted environmental Kuznets curve remains disputed and the box on the Yale EPI shows the unsurmountable difficulties in deriving a solid statement regarding a positive or negative relation of growth to the environment at all stages of development. The phenomenon of environmental quality has too many dimensions, precluding a measurement of the environment in a similar way as the GDP does based on observed prices when it comes to resume the output in numerous economic sectors. The 'public good' character of many facets of environmental quality such as clean air or a beautiful landscape is decisive for these measurement problems. Valuations of the environmental quality are at best revealed indirectly, in land prices e.g. Consequences may only become visible after generations. Furthermore, the approximation of current valuations and costs for future generations by abatement costs remains a poor yardstick. The calculation of a Green GDP has never really succeeded in the sense of gaining broad acceptance.

The difficulty of coming up with an overall indicator on the state of the environment does not preclude informed action in specific fields, however.

[265] http://www.eea.europa.eu/soer

[266] A summary and the report for Bulgaria may be found under http://www.eea.europa.eu/soer-2015/countries/bulgaria

[267] Entry 'environment' under http://ec.europa.eu/atwork/synthesis/aar/index_en.htm , page 22.

[268] http://ec.europa.eu/environment/legal/law/statistics.htm

4 The Disposal of Old Cars

In 2014, Switzerland exported 121'000 of the cars withdrawn from circulation while 105'000 finished in a shredder. Of the exported cars, more than 60% went to African countries, Libya still absorbing the bulk, followed by Niger, Benin and Togo. A quarter was exported to EU-countries, of which 13'693 went to Poland and 6'775 to Bulgaria. The average price per vehicle exported to Bulgaria was CHF 807.-, a rather low value among all export destinations.[269]

The definition of waste

When exporting an old car, the first question arising is whether it is a used car or a scrap car and how to operate a distinction between these two categories. In the former case, the ordinary rules for exporting goods apply, i.e. essentially the export needs only to be registered statistically. In the case of a scrap car, the Basel Convention also becomes applicable. Enforced by a permit requirement, exports are only admitted to countries offering sufficient guarantees that waste is treated in an adequate way.

The Basel Convention and the OECD have established lists indicating what qualifies as waste and what can be sent across borders without restrictions. Subject to control are the goods and substances according to supplement II and VIII of the Basel Convention as well as waste with dangerous characteristics according to supplement I and III of the Convention. The yellow list of the OECD is also applicable in the case of Switzerland. The scope of the permit requirement is also determined from the other side. The green list of the OECD and supplement IX of the Basel Convention indicate waste that can freely transcend borders. However, both the exporting and importing countries are free to submit waste figuring on the green list or List B to a formal control procedure (e.g. prior notification a.s.o).

How to dispose of residue from automobile shredders?

As indicated above, some 100'000 cars a year end in shredders within Switzerland. This raises the question of how to deal with the residue left by shredders. The technical ordinance on waste applicable in Switzerland forbids the deposition of organic waste in landfills. This also concerns residues from automobile shredders, mainly due to the material used for car seats, insulation and dashboards. Automobile shredder residue (ASR) is a complex mixture, however, and finding an adequate treatment is not easy on account of the harmful compounds in ASR. As early as 1996, as a trial, up to 10% ASR had been added to the ordinary waste burned in large municipal waste incineration plants. While emission standards could still be respected, the objective of the Federal Office of the Environment to obtain inert slag could not be reached. In 2001, the members of the Swiss Association of Automobile Importers launched the Auto-Recycling Foundation to find appropriate solutions. The foundation considered constructing a special plant for ASR in Monthey which would have employed the RESHMENT-procedure developed by the Austrian company Voestalpine. For two reasons, the project was finally not carried out. First, the Swiss Confederation refused to apply pertinent provisions in the law on the protection of the environment. Secondly, costs would have been very high, making the project not viable financially. Ten years later, the Automobile Importers Association does not regret that the project then flopped. Technical improvements in waste incineration plants such as flue gas purification and energy recuperation have allowed the Federal Office of the Environment to accept the addition of ASR to ordinary waste burnt in these installations as a durable solution. There are no longer any plans to construct an ASR disposal plant.

Of particular interest in the present context is why the Confederation did at the time not consider applying the pertinent provisions in the Environmental Protection Act. The latter, besides transposing in national legislation the provisions of the Basel Convention with regard to export permits, also entitles the Confederation to fix catchment areas for specific forms of waste. Presumably, the law would have made it possible to grant the Auto-Recycling Foundation a monopoly over the disposal of scrap cars, despite the constitutional freedom of contract. In the discussions, the main concern was the conformity of such a measure with Article XI GATT prohibiting export bans. The DSB ruling in the 'Brazil Retreaded Tyres' case clarifying possible exceptions under Article XX GATT was not yet known at the time. This decision fell only three years later. It remains doubtful whether this decision had changed the situation. If the ban had been adopted and challenged by another country, the WTO-Panel, would have examined the definition of scrap cars as opposed to used cars (protected by GATT/WTO). A careful examination regarding the necessity of the Swiss standards with respect to disposal in landfills

[269] Autorycling Schweiz, Annual Report 2014, see http://www.stiftung-autorecycling.ch/en/downloads/jahresberichte

would have been needed and also an examination of possibilities for ASR disposal in the rest of Europe. Finally, Switzerland would have been well advised to consult with neighbours and the EU regarding their interest in having the relation of GATT/WTO rules and principles of the Basel Convention checked out by a WTO Panel. In particular Article 4 (2) (b) is critical since it stipulates: "Each Party shall take the appropriate measures to: …(b) Ensure the availability of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes, that shall be located, to the extent possible, within [the country], whatever the place of their disposal." The chance of technical advancement and the financially and therefore politically limited possibilities of abolishing the costly monopoly consequently was also an argument at the time and proved to be correct.

Motor vehicles are an environmental concern because they contain noxious liquids and a number of other pollutants. This risk is enhanced in the case of old cars qualifying as scrap. Their dismantling should occur without endangering health and the environment. In order to qualify as a used car – and not as scrap - a car needs to dispose of all parts needed to circulate (i.e. tyres, an engine a.s.o.). Cars having suffered an accident also qualify as used cars if the penalty points attributed in accordance with their deformation remain below a certain threshold. Old-timers that had been licenced for circulation more than 30 years ago also qualify as used cars. An export permit is needed for cars not disposing of a permit to circulate (possibly annulled), those which had burnt, those where the motor loses liquids, those where air conditioning uses substances today prohibited, or those which shall be dismantled to obtain spare parts. The kind of vehicles that may be sent to Bulgaria as used cars is therefore fairly well delimited.

The overlap of the two international treaties, the GATT/WTO and the Basel Convention, is considerable and presumably growing as recycling of waste is of increasing importance. More and more, waste will sell at a positive price, at least when it has undergone some treatment before exportation. Additionally, the question arises whether in addition to GATT- also GATS-rules apply. The argument is that when the exporter pays for the disposal, a service is rendered.[270] The scope of national rules regarding the treatment of waste that can be adopted without considering trade regulations is thus narrowing.

Importantly, most nations simultaneously adhere to the WTO and the Basel Convention. It is hardly conceivable to bring a case to the WTO regarding disadvantages experienced due to export controls of another country which are based on a treaty which the plaintiff has himself signed. Problems with trade and the Basel Convention therefore exist more from a conceptual than a practical point of view. The priority accorded to treatment within national borders is no longer up to date. More and more, waste qualifies as a tradeable commodity, and treatment of waste is a service that may be covered by a country's GATS obligations. This does not mean that the regime of export permits should be abolished, but it should be handled in a way that recognises gains from trade.

It may be of some interest to know what happens to the used cars exported to Bulgaria. Most of the used cars exported to Bulgaria will not remain there but will be re-exported after an overhaul, mainly to Russia. If old cars are used to generate spare parts, the installations to treat scrap cars are present in Bulgaria since there are 9 car shredders. With regard to residue from car shredders, a company present in Bulgaria operates a plant in nearby Thessaloniki where ASR is recycled and valorised in steel manufacturing, cement production and plastics recycling or prepared to be used as alternative fuel. The high EU standards, namely to reach a recycling and valorisation of 95% of the end-of-life vehicle weight, can therefore be met by Bulgaria, provided sufficient enforcement activities are deployed.

The Significance of Globalisation for Bulgaria

The significance of globalisation for Bulgaria is indirect in nature. For the time being, the focus of the country is on regional integration. Due to the low wage level the opportunities may presently dominate and help Bulgaria become an export-oriented manufacturer of intermediates and final goods and services. As an EU member, Bulgaria is affected by the trade rules that govern global exchange and also the decisions taken with regard to global challenges such as the limitation of CO_2 emissions. These are heavily shaped by the position the EU adopts, knowing that they affect member countries differently. Whether these fit Bulgaria is open to debate but mechanisms internal to the EU can attenuate problems which may emerge

[270] Note however that by far not all countries have commitments in environmental services.

Chapter 12

Peru: Good Governance to be matched by Corporate Social Responsibility

CONTENT

Country Fact Sheet			World	Peru
GDP per Capita	(at 2011 PPP $)	2013	13,964	11,396
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	5,8
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	81
Agricultural Value Added	(% of GDP)	2014	3,1	7,4
Manufacturing Value Added	(% of GDP)	2014	26,4	36,8
of which Industry	(% of GDP)	2014	15,8	14,9
Services Value Added	(% of GDP)	2014	70,5	55,8
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	26,6
Research and Development Exp.	(% of GDP)	2005–2012	2,0	..
Internet users	(% of pop.)	2014	40,5	40,2
International Tourism, Arrivals	(mio people)	2013	1068,0	3,2
Consumer Price Index	(2010 = 100)	2014	..	113,7
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	22,0
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	54,6
Current Account	(% of GDP)	2013	..	-4,4
External Debt Stock	(% of GDP)	2014	..	34,3
Exports plus Imports	(% of GDP)	2013	60,4	48,4
Private capital flows	(% of GDP)	2013	-0,9	-7,1
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	4,6
Official Development Assistance	(% of GNI)	2013	0,4	0,2
Remittances, inflows	(% of GDP)	2013	0,71	1,34
General Gov. Expenditures	(% of GDP)	2013	..	22,6
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-2,2
General Gov. Net Debt	(% of GDP)	2013,0	..	5,6
Ease of Doing Business Index	(rank)	2015	95	50
Corruption perception	0-100	2014	..	36
Population	(millions)	2014	7259,7	31,0
Surface	(1'000km²)	2015	134325	1285
Populationb Density	(person/km2)	2014	56	24
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	1,3
Fertility	(births/woman)	2010/2015	**2,5**	2,4
Under-Five Mortality	(% < age 5)	2013,0	45,6	16,7
Life Expectancy at Birth	(years)	2014	71,5	74,6
Child Malnutrition	(% age group)	2008–2013	29,7	18,4
HIV-Prevalence	(% of pop.)	2013	1,1	0,3
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	2,9
GINI Index (income concentr.)	0-100	2005–2013	..	45,3
Homicide Rate	(per 100'000)	2008–2012	6,2	9,6
Primary School (enrolm.)	(% age group)	2008–2014	109	102
Secondary School (enrolm.)	(% sge group)	2008–2014	74	94
Tertiary School (enrolm.)	(% age group)	2008–2014	32	41
Genders in 2nd Schooling	(female/male)	most recent	97,1%	99,8%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	93,8
Employment to Population Ratio	(% aged 15+)	2012	59,7	73,1
Unemployment rate	(% aged $\geq$ 15)	2004-2013	..	6
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,81
Children in Employment	(% of age 7-14)	2013	..	26,1
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-2,0
Rural Population	(% of popul.)	2014	46,6	21,7
Energy use per capita	(kg of oil eq.)	2013	1894,4	708,3
CO2-Emission	(t per capita)	2011	4,6	1,8
Improved Water Access	(% of popul.)	2014	90,5	86,3
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	-3,5
National Resource Rents	(% of GDP)	2014	3,9	8,7
Protected Area	(% of surface)	2014	12,8	19,4
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,734

Chapter 12
Peru: Efforts aiming at Good Governance merit Completion by Corporate Social Responsibility

The rental incomes the extraction of minerals generates, i.e. the returns over direct production costs, tend to lead to distrust in society. In order to halt the build-up of suspicion about where the proceeds from natural resources go, a government should adopt high standards of transparency. Efforts by the government should be completed by responsible conduct on the part of the mining companies. Corporate social responsibility also extends as a requirement to companies outside the extracting industries, considering that labour standards in many developing countries may be below acceptable levels. Corporate social responsibility cannot be reduced to labour relations, either; it regards the position of a company with respect to the concerns of the society in the host country in general.

Peru harbours numerous minerals in its soil. The extracting industry is therefore of considerable importance for the country. Not surprisingly, how mining rights are conferred and extraction taxed is a source of ongoing dispute within Peru where considerable rights now also accrue to provinces and districts. The legislation afferent to mining and drilling rights and to the distribution of the corresponding proceeds is elaborate, striking a good balance between creating incentives to exploit natural resources and having all regional entities participate in the natural richness of the country. Furthermore, Peru could agree with mining companies on a high standard of disclosure of their payments to the government. [271]

Both international organisations and the private sector have defined codices supporting Corporate Social Responsibility. The subject of the business case in this chapter are the detailed provisions that have been put in place to make the commerce of gold respond to enhanced standards of how to do business.

1 Main features of the country and its population

The Republic of Peru has a population of 31.0 million inhabitants and a surface of 1'285'220km^2, making it a country with low population density. Peru was home to a series of ancient civilisation, the latest, the Inca, succumbing to Spanish conquistadores in 1532. Exploitation of mines already constituted the richness of the Vice-Royalty with capital Lima. Peru gained independence in 1820/21. From then on, the country shared the experience of many other Latin American States: Rivalry among leading families, 'golpe de Estado' initiated or supported by the military forces and social upheaval by a politically barely represented indigenous population destabilised the country. These events were often followed by periods where authoritarian leaders initiated reform and allowed the country to prosper. The latest in this series was Alberto Fujimori. Since the turn of the century, the country has seen four times democratic elections and experienced sustained growth, also thanks to the absence of politico-economic experimentation. Growth still needs to become more inclusive, however.

With regard to international institutions, Peru participates in the United Nations and the Organization of American States and is a founder of the Andean Community. Peru is also member of the WTO and the APEC and promotes integration into the Andean Free Trade Area. It has concluded Free Trade Agreements with the USA, China, the EU and more than a dozen other countries and is an active participant in negotiations towards a Free Trade Area of the Americas (FTAA).

[271] Despite Peru's remarkable efforts in the sense of good governance, protests with sometimes fatal incidence occur. This raises the question whether there is a curse on the extraction of natural resources. Part II in the corresponding chapter in the underlying publication examines the three articulations of the so-called 'natural resource curse' that may be found in the economic literature. One strand claims that relying heavily on resource extraction in generating a country's GDP, trend growth is negatively affected, mainly due to depressed prospects for other economic sectors in the country. The other two strands rely more on the political sciences than on pure economic reasoning. The argument is that dispute over rental incomes destabilises a country politically and thereby affects prosperity in a negative way. Oil and mining income is also considered as favouring authoritarian regimes. These hypotheses find limited empirical support once appropriate econometric tools are applied. Much hinges on measurement issues, the type of conflict considered and how political institutions evolve.

The Peruvian population self-identifies primarily as mestizo (59.5%), followed by Quechua (22.7%), Aymara (2.7%), Amazonian (1.8%), Black/Mulatto (1.6%), white (4.9%), and "Others" (6.7%). Chinese arrived in the 1850s, replacing slave workers, and have since greatly influenced Peruvian society. The main spoken language is Spanish, although a significant number of Peruvians speak Quechua or other native languages. In the 2007 census, 81.3% of the population over 12 years old described themselves as Catholic, 12.5% as Evangelical, 3.3% as of other denominations, and 2.9% as non-religious.

The population growth rate is a low 1.3% although fertility is somewhat above the reproduction level with 2.4 children per woman in the relevant age class. Life expectancy at birth is 74.8 years. Under five mortality has been brought down while child malnutrition continues to affect a considerable number of the young. This contrasts somewhat with a low share of the population falling below the lowest internationally defined poverty threshold of US-$ 1.25 a day but is consistent with an uneven distribution of income (the GINI index is 45.3). Child labour is not sufficiently addressed.

Literacy was estimated at 93.8%; this rate is lower in rural areas (2007: 80.3%) than in urban areas (2007: 96.3%). Primary and secondary education are compulsory and free in public schools. Enrolment at the primary school level is therefore universal and close to universal at the secondary level. Tertiary education reaches more than 40% in the relevant age class. Differences by gender are not very marked.

The rural population amounts to less than a quarter of the population, mainly reflecting the excessive weight the capital Lima has in relation to the country's total population. Access to an improved water source may still be enhanced. A quarter of the surface is protected area. Forest losses are contained.

The homicide rate is considerable with 9.6 persons killed per 100'000, slightly more than twice the level of the USA but less than one third of the rate observed in the seriously affected countries of Guatemala, Honduras and El Salvador. Coca leaves are locally consumed as a means to divert a feeling of hunger. Drug trafficking, a major problem in neighbouring Bolivia and Columbia, affects also Peru.

2 Main features of the economy

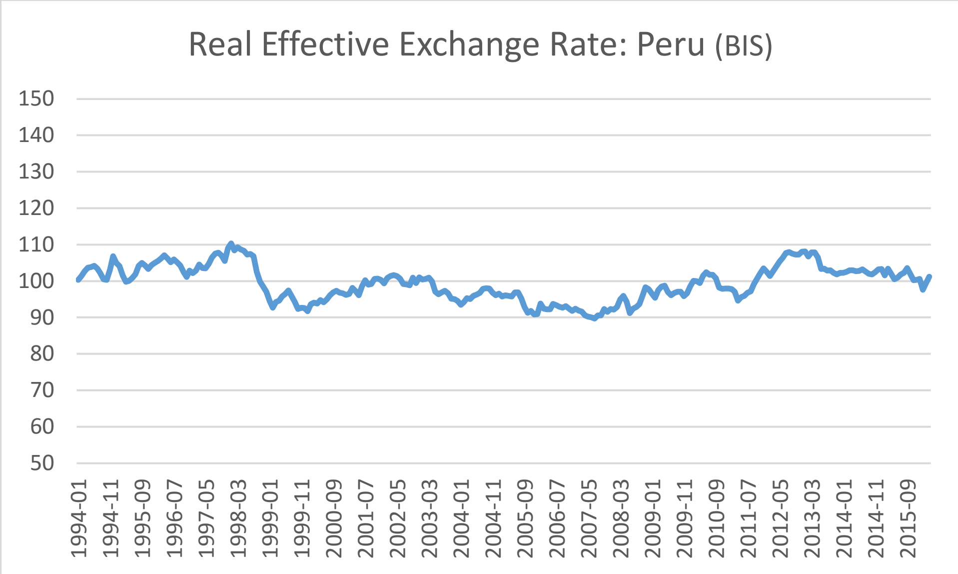
GDP per capita on a PPP basis reached US-$ 11'396 in 2013 and was thus at par with the figures for Colombia and China. At this level, an annual GDP growth rate of 5.8% p.a. in the period 2009-2014 is remarkable. In 2014, GDP was 81% above the level reached a decade earlier. Peru is classified as upper middle income by the World Bank and is the 39th largest economy in the world.

Services account for 55.8% of the Peruvian GDP, followed by industry (14.9%), and the extractive industries (mining 11.9% and agriculture + fisheries 7.4%).[272] Gross fixed capital formation is above one quarter of GDP, also reflecting equipment needs of mining. On the other hand, the number of internet users is low and so is the importance of spending on R&D. International trade in relation to GDP is not very high but the increasing number of FTA helped diversify the export structure from ores (copper, gold, zinc) to agricultural products such as asparagus.

Inflation is not very high (a cumulative 13.7% from 2010-2014).The reported domestic credit by the banking sector is astonishingly low (22.0% of GDP). The comparative price level to the USA of 54.6% in 2014 is in accordance with the level of development. After a fall in 1997/98, concomitant with the Asian crisis, the real effective exchange rate only underwent small changes for a decade, but has exhibited a marked upward tendency since 2007. The current account was in 2012 with -4% in deficit (2013: -4.4%), a trade surplus of 3% was driven down by a slight deficit in services (-1%) and considerable factor payments (-7%). Current transfers added 2%.

General government expenditures are somewhat above 20% of GDP while the annual public deficit is moderate, testifying good capacities in collecting government income (also out of the extracting industries, see below). The position in the Doing Business indicator is quite good (rank 50) but the country is only average in the corruption perception index.

[272] http://www.inei.gob.pe/estadisticas/indice-tematico/economia/



3 The socio-economic challenges Peru faces

During the last few years, Peru has been one of Latin America's most dynamic economies in a context of fiscal stability, external equilibrium, and low inflation. Social indicators have improved in line with macroeconomic trends, and significant progress is being made in the fight against poverty and extreme poverty. The gradual reduction in income inequality conceals, however, a widening territorial disparity. Accordingly, the rural poverty rate is now three times the urban rate—the largest gap in Latin America. Historically, the country's economic performance has been tied to exports, which continue to provide hard currency to finance imports and external debt payments. In 2012, natural resource rents accounted for almost 10% of GDP, motivating the choice of Peru when considering the problems arising out of the extracting industries. The development level achieved means that continued growth will increasingly depend on sustained productivity gains. However, achieving self-sustained growth has proved elusive. The outlook on moving down the value added chains from the extractive to the transforming industries is not too good.

Against this background, and together with the Peruvian authorities, the Inter-American Development Bank has defined a lending strategy that should address the most serious economic challenges the country faces.[273] We benefit from the document where this strategy is laid down to indicate the way that lies ahead of the Peruvian economy.

THE INTERAMERICAN DEVELOPMENT BANK IN PERU

The IADB has traditionally been Peru's main international financier, accounting on average for almost 28% of the country's public external debt and 42% of its multilateral debt over the last five years. By the end of 2011, the total outstanding debt in respect of sovereign guaranteed (SG) loans with the Bank stood at US-$ 3.9bio, distributed mainly between the following sectors: transportation (41.5%), institutional strengthening (19.5%), water and sanitation (17.6%), science and technology (10.2%), and social sectors (7.2%). The current SG loan portfolio consists of 21 loans for US-$ 626mio and 61 technical cooperation programs amounting to US-$ 100mio. The non-sovereign guaranteed (NSG) portfolio grew from US-$ 60.7mio in 2006 to US-$ 447mio by the end of 2011, comprising 66 operations and accounting for 35% of the Bank's portfolio in Peru.

During the effective period of this strategy, the Bank's different branches will take steps i.a. to expand the services to the private sector, through NSG operations aligned with the priority sectors identified in the overarching document here resumed. The Structured and Corporate Financing Department SCF will target the following sectors: energy, transportation, financial services, climate change, health, education, and export competitiveness. The Inter-American Investment Corporation IIC will support small and medium-sized enterprises (SMEs) in the areas of renewable energy, agriculture, and competitiveness of productive chains while the Multilateral Investment Fund MIF will continue to work on social inclusion issues, by improving access to services and economic opportunities in rural areas. The Opportunities for the Ma-

[273] This section is drawn from the 2012-2016 Country Strategy of the Inter-American Development Bank. http://www.iadb.org/en/about-us/country-strategies,7809.html

jority (OMJ) Sector will target private-sector projects with a high social impact, focusing on the education, health, and housing sectors, and supporting the development of new products and services for the base of the pyramid in Peru.

The strategy of the IADB for the period 2012-2016 has a focus on the following areas: (i) social inclusion; (ii) rural development and agriculture; (iii) water, sanitation, water resources, and solid waste; (iv) housing and urban development; (v) transportation; (vi) climate change adaptation and disaster risk management; (vii) energy; (viii) public management; and (ix) competitiveness and innovation. Below, we have placed salient assertions regarding these nine areas under four headings, public management being dealt with in section 4.

Social inclusion (including housing)

According to the 2010 National Household Survey (ENAHO), heads of household in rural areas have on average 4.5 years less education than their counterparts in urban zones, and there are risks that the situation becomes permanent. Children from rural zones display significant deficits in relation to their cognitive development (vocabulary), scoring 75.6 points compared to the 99.3 points of their peers in urban zones. They also have a higher rate of chronic malnutrition, which affects 47% of children under 5 in rural areas compared to 13% in urban areas. The prevalence of low height-for-age among children under 5 is 40% in rural areas compared to a national average of 20%. While the net enrolment rate at the preschool level is 66.2% nationally, it is only 42.8% in indigenous/rural areas. Another indicator illustrating the disparity between the countryside and the city is the secondary school completion rate, which is 71.7% in urban zones, compared to 39.3% in rural areas.

There are still weaknesses in the quality and equity of the education system. National and international education evaluations show that in comparison Peruvian students perform poorly: Of the 65 countries evaluated in the 2009 Program for International Student Assessment (PISA) test, Peru ranked 62nd in reading skills, 60th in mathematics, and 63rd in science. One reason is that many children speak a language other than Spanish at home and that rural and bilingual intercultural education in Peru is just beginning to be developed and has persistent and severe curriculum and standardization problems. Secondly, there is also poor teacher quality: nearly half (47%) could not perform basic mathematical operations or reproduce routine, short procedures, and 33% were not able to locate concrete, evident data or identify the main ideas in a text.

Despite the progress made in recent years, the housing deficit has affected 1.86 million families, representing roughly 29.1% of the nation's households. Of the calculated housing deficit, 79% or 1.46 million homes have deficiencies in terms of the quality of living space and/or access to basic services (qualitative deficit); whereas the remaining 21% corresponds to the number of families without a home (quantitative deficit). The formal housing deficit is estimated to grow by 118'000 households per year. It is estimated that there are 5'772 urban fringe neighbourhoods, in which actions have been taken in less than 10%, and only in 44 comprehensively.

Spending on social protection programs grew almost 2.5 times between 2000 and 2010, and represented about 0.5% of GDP in 2010. It is concentrated in nutrition programs, the JUNTOS conditional cash transfer program, and the Vaso de Leche (Glass of milk) program. The main challenge in the social protection system is the low coverage of most of its programs, which reach no more than 20% of target households. It is estimated that leakage to non-poor families ranges from a minimum of 21.9% in the JUNTOS program to a maximum of 46.8% in the Comedores Populares program.

Rural development and agriculture

Although it produces 8% of GDP and accounts for 37% of total employment, the agriculture sector has been losing momentum despite an expansion of agro-export activities. The sector has the lowest output per agricultural worker in Latin America and the Caribbean. Farming provides the main source of income in the rural sector, where 80% of rural poor live by this activity. Peru's main constraints for achieving sustainable rural development are as follows: (i) the low level of public investment in research, agricultural health, and information; (ii) the inefficiency of direct government support to the agriculture sector, particularly incentives to adopt modern technologies among small-scale producers; (iii) the lack of economies of scale and scant exploitation of natural wealth for non-agricultural purposes; and (iv) the presence of extensive areas of the country with problems caused by fragmented property ownership and a lack of clarity in property rights over land that thus restricts private investment. The low level of development in the particular case of the forestry sector is related to: (i) higher rates of return obtainable from migratory agriculture, livestock breeding, and informal mining, which leads to deforestation; (ii) inefficient zoning and land management; (iii) lack of property rights and forest use rights; (iv) weaknesses in the State's crosscutting, decentralized management capacity; and (v) lack of economic incentives, appropriate technologies, and access to financing.

The rural sector generally suffers from a failure to promote forestry, agricultural, livestock, and fishery practices that reduce the sector's vulnerability to the effects of climate change, and lacks infrastructure to effectively help reduce greenhouse gas emissions.

Climate change, disaster risk, water, sanitation, solid waste, energy and transportation

Peru is one of the countries most vulnerable to natural disasters and climate change. Between 1970 and 2009, it suffered 105 disasters that caused over 74'000 fatalities and affected 18 million people. Disaster risk management and climate change adaptation face numerous challenges, e.g. the public investment instruments do not include a climate change adaptation perspective, and risk management protocols and regulations are not fully defined.

Access to drinking water services is unequal between rural areas, where coverage is 40%, and urban zones where the figure is 89%. The same is true for sanitation, with rural coverage of 45%, compared to 84% in urban zones. The rate of wastewater treatment is low compared to the rest of the region: only 32.7% of all wastewater is treated, and coverage is particularly low in rural zones. Just 43.5% of urban solid waste is disposed of in sanitary landfills, whereas the rest is mostly discharged into open-air dumps. These gaps and disparities essentially reflect the absence of an integrated approach to water resources. A growing gap between supply and demand in specific geographic regions is compounded by imbalances between agricultural and non-agricultural use, deterioration of quality and the environment, and insufficient rationalization of use. Institutional difficulties among service providers also persist and impair the coverage with water and sanitation services. They also affect the municipalities which are responsible for the local management of solid waste.

Installed electric power generation capacity has grown at an average annual rate of 7% over the last five years. Nonetheless, the share of hydropower in the generation matrix remains relatively low. The development of relatively less efficient and geographically concentrated thermal power plants has been encouraged. Peru's electrification rate is relatively low, ranking 22nd out of the 26 Latin American countries. Although electricity reaches 82% of the population, only 29.5% of rural households are connected to the public grid. The government's strategy is to support widespread domestic and industrial use of natural gas. The objectives regarding increasing hydropower generation will be accompanied by renewed efforts to safeguard affected communities from potential environmental and social effects.

In recent years, there has been a positive trend in the overall situation of transportation infrastructure, reflecting a better allocation of the budgets for its development. Road conditions vary greatly between the national and subnational levels, however, with 71% of national roads considered to be in good/fair condition, compared to 51% of departmental roads and just 33% of neighbourhood roads. The deficient road network generates high logistics and transportation costs, deteriorating the country's competitiveness. Logistics costs in Peru are estimated at 30% of GDP, compared to an average of 24% in Latin America and the Caribbean, and 13.4% worldwide.[274] Urban transportation in Lima (where 8 Mio of Peru's population of 30 Mio live) suffers from problems of micro-transportation, with subsequent excessive journeys, constant stops and irresponsible competition, causing major congestion. The development of an urban railway system is seriously lagging behind.

Competitiveness and innovation

Despite the economic growth of recent years, Peru continues to lag behind the rest of the region in terms of productivity. Most exports continue to be heavily concentrated in commodities (89% of the total) which make only a small contribution to GDP and involve little participation by micro, small, and medium-sized enterprises (MSMEs). Moreover, the sustained economic growth has not been reflected in greater investment in research and development (R&D), with expenditure in this area equivalent to 0.15% of GDP, compared to 0.54% as a Latin American and Caribbean average and 2.3% among OECD countries. Private sector participation remains limited. The small number of scientists and engineers and low scientific productivity are reflected in few publications and patents. The IADB's NSG operations will continue to support competitiveness in the fastest-growing tradable sectors, by catalysing finance for external trade by financial entities, financing of creative industries, and support for export sectors, such as mining, in implementing best environmental and social sustainability practices.

[274] Peru is ranked 67th out of 155 countries in the Logistics Performance Index (LPI), published by the World Bank in 2010. The LPI provides a good benchmark for the international competitiveness of a country's logistics systems, but it also includes benchmarks for the cost and time associated with the physical distribution of cargo for export and import procedures nationally.

4 The mining sector in Peru[275]

Peru is one of the countries with the highest concentration of mining activities in the world. The rapid increase in the prices of metals on global markets in the period up to the 2008 financial crisis allowed a further expansion of mining activities. Between 1996 and 2009, annual mining investments increased from US-$ 387 to US-$ 2,771mio (MINEM, 2004, 2009). From 1995 to 2005, mining GDP grew at yearly average rates of 8.2 per cent compared to a total GDP growth of 3.2 per cent. In this period, Peru enhanced its position as a producer of metals and in 2008 it was the first and second world producer of, respectively, silver and zinc, and the third world producer of copper, tin and bismuth. The decade of the mining boom also witnessed a strengthening of the role of the state in environmental regulation and monitoring. Furthermore, since 2000–2002, Peru has promoted fiscal and political decentralization and the current fiscal legislation provides for redistributive mechanisms that should prioritize those areas more exposed to potential negative effects of mining operations (for details see below). These new rules and the surge in mining production have led to a rapid increase of transfers to regional governments that in 2007 reached a level 38 times higher than in 2002. In 2008, revenues generated by the mining sectors accounted for a large share of total transfers to regional (60 per cent) and local governments (39 per cent). Mining expansion has also created new labour opportunities, especially in areas at high altitudes where several economic activities are not viable or remunerative. Between 2000 and 2009, expenditure of mining companies for infrastructure and social programs grew from US-$ 30.5 to US-$ 73.5mio. Direct investment by mines in social development and infrastructure remained highly concentrated, however. In 2008, two companies alone financed 36 per cent of all funds allocated in that year.

Considering the effort to comply with the current international consensus on sustainable mining development and the investment of some of the biggest mining companies in CSR-related spending, the recent mining boom has, in theory, occurred in an institutional context that encourages a positive interaction between mines and local populations. In practice, the recent mining boom has seen a proliferation of new mining-related social conflicts. In 2009, the Peruvian Ombudsman's office recorded 129 socio-environmental conflicts and about 65 per cent of them (83) were mining-related disputes. Most mining conflicts are, primarily, struggles over the use and contamination of water resources (60 per cent) and for land acquisition and access (15 per cent). Also, local populations claim that labour opportunities in mines are very limited and not stable, while fiscal revenues distributed at the local level had been lower than expected. Section 2.3 in the corresponding chapter in the underlying publication presents a detailed analysis of the local effects of new mining activities and provides at least a partial explanation for this apparent contradiction.

5 Distributing income from the extractive industries responsibly

An important element in the discussion on mining rights is knowledge of the political structure and of the taxation of mining activities in Peru. This is the topic of the present section.

Peru is divided into 25 regions and the province of Lima. Each region has an elected government composed of a president and council that serve four-year terms. These governments plan regional development, execute public investment projects, promote economic activities, and manage public property. The province of Lima is administered by a city council. The goal of devolving power to regional and municipal governments was, among others, to improve popular participation. NGOs played an important role in the decentralisation process and still influence local politics. Voting is compulsory for all citizens aged 18 to 70 and the Peruvian government is directly elected. According to the Inter-American Development Bank, over the last decade, Peru has made progress in modernizing various areas of its public management and administrative systems. Nonetheless, significant challenges remain, particularly subnational capacities to provide basic services.

The tax burden is 18% of GDP, 2.5 percentage points below the average for Latin America and the Caribbean, and also below the average level prevailing in countries with income levels similar to Peru. Since, compared to other Latin American and Caribbean countries, the level of revenue obtained from personal income tax and property taxes is low, the Peruvian tax structure tends to be more regressive.

Of particular interest are the taxes affecting mining. The design of taxation in the extractive industries is not an easy task. The more promising a mining sites appears based on preceding investigations, the more costly exploration activities are. Still, the spending on exploration remains exposed to a full write-down up to the stage when the decision is taken to start with pro-

[275] Elisa Ticci, Javier Escobal: Extractive industries and local development in the Peruvian Highlands; Environment and Development Economics 20: 101–126 © Cambridge University Press 2014

duction. Once the heavy investments in the production site and in transportation facilities have been made and production is under way, uncertainty remains how long the repository of ores and oils will cover current outlies and justify the exploitation. Only a combination of fees, taxes and royalties is likely to create appropriate incentives along the life of a mining project. Furthermore, expectations of investors need to be anchored in credible commitments by the authorities. New governments suffer from the temptation to submit mines that emerge as particularly profit-yielding to extra levies once their richness is known but such behaviour will cool down exploration and make new investments too risky for the private sector. On the other hand, mining companies can help governments politically when engaging in credible commitments regarding future taxation. In case they fall on a bonanza, they need to be ready to pay sufficient royalties in excess of the ordinary corporate income tax. It needs to be recalled that as part of regional economic development initiatives, levies affecting new ventures will often also be partly negotiated.

The scheme applying to the mining sector in Peru has a sufficient number of components to satisfy these criteria (see below) although the question whether the rates applied are too high or too low will always remain a subject of political controversy.

Additionally, Peru has decided to participate in the Extractive Industries Transparency Initiative (EITI). The motivation was that an absence of information on payments by the sector and the revenues registered by the authorities can facilitate corruption, create distrust and trigger social conflicts. At the core of EITI is the preparation of a report (called the National Conciliation Report in Peru) wherein an independent consultant checks the balance between the payments of extracting firms and the earnings received from the mining sector by the government, as well as the distribution of these revenues.[276]

The report starts by showing the importance of the mining, gas and oil sectors for the Peruvian economy. Primarily, their contribution to the national GDP of 6.9% in 2011 and 6.3% in 2012 [277] underpins this fact. So does secondly the composition of exports. Exports of minerals and of metallic and non-metallic products, jewellery and metalworking made up 62% of the country's exports, and petroleum and natural gas added another 10%. The value in 2013 was quasi six times the value of 2003.[278] Mining also accounted for 75% of total investments made in Peru in 2013. Furthermore, the mining industry employed people in 22 of the 25 regions, but the wage sum was only US-$ 2'468mio. Some 200'000 people had direct employment in the industry either by mining companies or through contractors of these companies, 95% of them men. The sometimes extremely high capital intensity of the large production sites in the sector appears through the Camisea gas field in the Amazonas Basin. The gas is transported from there through a pipeline which runs over 700 kilometres through the mountains of the Ayacucho Region to reach the port of Lurin near Lima.

In 2012, approximately 41'817 mining concessions existed, covering 15% of the country,[279] the granting of 10'780 mining rights was pending and 244 mining plants were recorded. The mining cadastre exists in an electronic version. Holders of mines in Peru are grouped into three categories by size. In addition to these three categories of formal mining activities there is also small-scale mining that often occurs informally, with a high risk of causing negative environmental and social impacts. Accordingly, the government has the eradication of informal mining among its priorities. Corresponding legalisation shall also prevent the environmental damage these activities may generate. In late 2012, according to the Ministry of Energy and Mines, 77'723 artisanal miners were going through this formalisation process.

The report then goes on with detailed indications regarding the government revenues that are collected under five headings in the mining sector, namely:

- Income taxes, including the canon and sobrecanon minero.
- Royalties (mining and petroleum sub-sectors)
- Special Mining Tax IEM (only in the mining subsector).

[276] Extractive Industries Transparency Initiative (EITI) (2012): Report on Peru (prepared by Ernst&Young), see https://eiti.org/Peru/reports

[277] Exports from the industrial sector made up less than 10%, composed of textiles and chemicals. The remaining 15% were evenly split between fisheries and agricultural products, Peru having become a world leader in the production of asparagus.

[278] Copper and gold account for US-$ 10bio, leaving lead, zinc, iron, tin, molybdenum and silver far behind.

[279] It is important to note that the mining concession titles do not confer rights on the surface of the premises where the activities are performed. Therefore, the mining company must also obtain a right to use the property for the land surface of the mine, regularly a contentious affair.

- Special Mining Levy GEM (only in the mining subsector).
- Mining Right Fee (only in the mining subsector).

The coverage of the third EITI report released in 2012 was high (86.60% in mining and 93.68% in the hydrocarbon sector) although only 59 companies participated (44 from the mining and 15 from the hydrocarbon sector). According to the assessment by the independent consultant, Ernst & Young, with regard to the income tax, the Mining Royalties, the Oil Royalties, the Special Mining Tax and the Special Mining Levy no differences were found between what was declared as paid by the companies and what was reported as collected by the treasury (SUNAT). With regard to the Mining Rights Fee, the difference amounted to 18.63% of the total amounts received.[280] Overall, less than 0.04% of the consolidated revenues from participating mining companies remained unmatched by entries on the government side.

A considerable share of the overall tax bill in the mining sector is distributed to the regional and municipal authorities in the regions concerned. E.g., of the canon minero the municipality where the mine is located receives 10% of the 'canon', the other municipalities in the province 25% and in the district 40%; the region receives 25% of the canon of which one fifth accrues to the universities. The distribution among municipalities at the level of the province and the district is according to population and an index of uncovered basic needs. Useful to note, the Special Levy on Mining (GEM) applies only to holders of mining concessions and companies engaging in the exploitation of metallic mineral resources provided they benefit from guarantees and investment promotion measures as foreseen in the General Mining Law. This voluntary contribution has been in effect since 1 October 2011, and originates in the Mining Program of Solidarity with the People (PMSP), a mechanism conceived in 2006 (first for a period of 5 years) under the impression of booming natural resource prices, to collect additional funds to fight poverty and promote development. The rate of the Special Levy on Mining depends on the operating margin and increases from 4% for margins between 0% and 10% to a marginal rate of 13.12% for margins above 85%.

The Mining Rights Fee is the annual payment to be made to maintain the status as holder of the concession area. When a company defaults on paying the fee in two consecutive years, the claim expires. Ongoing exploration or production activities have to be proven. The fee is US-$ 3 per hectare, small scale and artisanal miners paying US-$ 1 or 0.50 respectively. 75% accrue to the municipalities at the district level while 20% go to the Mining and Metallurgical Geological Institute in charge of maintaining and developing the mining cadastre and 5% to the Ministry of Energy and Mines for the maintenance and development of its own information systems.

The report also contains figures at the company level. Overall, the amounts collected appear as substantial when set in relation to GDP and government finances. Simultaneously, the considerable net payments for factor services in the balance of payments should not be overlooked (although little is known regarding the economic sectors from where reported remuneration of foreign capital originates).

6 Securing the Traceability of Gold

The international framework

The international framework is primarily made up by '*The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas'* and its *'Supplement on Gold'* which we will briefly describe below: Using this guidance, the OECD Council recommends that members and non-member adherents to the Declaration on International Investment and Multinational Enterprises actively promote the observance of the 5-Step Framework for Risk-Based Due Diligence. The five steps consist in establishing of company management systems, in a risk assessment, in defining a strategy how to meet these risks, in having recourse to third-party audit of smelter/refiner's due diligence practices and in reporting annually on supply chain due diligence. The measures to be taken within these five steps are detailed in the text in a very pragmatic way. Enterprises may meet the requirements in a variety of ways, including but not limited to:

- Industry-wide cooperation in building capacity to conduct due diligence.
- Cost-sharing within industry for specific due diligence tasks.

[280] Apparently the main reason is that the office responsible for the mining cadastre is not always informed when mining rights are transferred to other companies. These are normally the larger companies participating in the study so that their payments exceed what the responsible office expects to receive from them.

The Better Gold Initiative – a Swiss multi-stakeholder initiative[281]

The Better Gold Initiative (BGI) is a 'responsible gold'-project formed through an alliance between the Swiss Better Gold Association, a group of major refiners and jewellers, alongside Max Havelaar Switzerland, a fair trade organisation, and Switzerland's State Secretariat for Economic Affairs (SECO).

The programme aims at bringing gold miners of small scale closer to the market in Switzerland, thus offering producers better prices through direct export without intermediaries while creating greater transparency and traceability of the gold supply chain for the end buyer. It also promises miners access to special funds as well as financing for sustainable development projects.

Switzerland's involvement in the initiative stems from its key role in the international gold trade, with some 60% of all gold globally traded transiting through the country. The reason for this high share are the capacity and expertise in gold refining built up e.g. in the southern Swiss canton of Ticino in recent decades. The four major Swiss refineries have the high quality product the jewellers want.

The complementary role of the BGI appears through the fact that the Responsible Jewellery Council (RJC), which most high-end jewellery businesses are signed up to, provides standards that are essentially applicable to large-scale miners. The World Gold Council also offers certificates for conflict-free gold that are essentially an option for large mining companies.

While concerns over the gold industry's environmental footprint, and to a minor degree also concerns over health and labour issues, are anchored in the discussions about large scale project such as the Conga Mine in Northern Peru, small scale mining is not innocent at all. Widespread deforestation, mercury pollution, alleged people trafficking and forced labour practices are amongst the issues generated by illegal mining. Document trafficking is also a known fact, making the formalisation initiative of the Peruvian government an arduous task.

Third-party certification of small and artisanal miners, provided the latter respect certain social and environmental standards, are thus essential in promoting decent working conditions, human rights and the gradual elimination of mercury in small-scale mining. However, these laudable efforts require a significant input by the parties involved. Therefore, they risk to remain of limited impact. Trade statistics with Peru exhibit this fact. According to official Peruvian statistics, 190 tons were exported from Peru to Switzerland in 2011. Of these exports, only a small share was covered by the Better Gold Initiative, however. The BGI director expects to reach two to three tons annually in the coming years. This would start to become relevant, since it is estimated that, worldwide, 15-20% of gold comes from artisanal and small miners, and this estimate may extend to Peru.

On the side of Swiss refiners, the METALOR company was a leader in establishing this initiative allowing for gold mining in conflict prone regions while improving on social and environmental problems arising in artisanal mining. It became the first gold refiner worldwide to be audited and certified to the corporate social responsibility (2010) and conflict-free (2012) standards of the Responsible Jewellery Council at all of their refineries. Furthermore, they approached industry associations to implement the OECD's due diligence guidance through their membership compliance standards and supported the London Bullion Market Association and the Electronic Industry Citizenship Coalition and Global e-Sustainability Initiative to create their 'conflict-free'-standards. All of these associations conform their standards to the OECD Guidance and Gold Supplement. According to these standards, the company's Peruvian customers have to provide sworn statements regarding CSR, environmental protection and human rights. In particular, the sworn statements need to confirm that the exploitation, extraction, and export of minerals fully comply with Peruvian laws and that the companies have appointed compliance officers dealing specifically with these concerns. As discussed below in the main text, these initiatives remain exposed to the risk of document trafficking, however.

[281] The text (except for the last two paragraphs) is taken from the document: "Bringing fair trade to artisanal gold mining", prepared by Paula Dupraz-Dobias in Peru for Swissinfo.ch but was rearranged by the author (see http://www.swissinfo.ch/directdemocracy/better-gold-initiative_bringing-fair-trade-to-artisanal-gold-mining/37653264). The 2nd last paragraph is from the homepage of METALOR.

Participation in initiatives on responsible supply chain management.

- Coordination between industry members who share suppliers.
- Cooperation between upstream and downstream companies.
- Building partnerships with international and civil society organisations.

Supplement on Gold: The 5-step procedure indicated above is made more precise through supplements. In the case of gold, the supply chain includes e.g. the extraction, transport, handling, trading, processing, smelting, refining and alloying, manufacturing and sale of end product. The abilities of the actors in the supply chain also deserve attention. Artisanal and small-scale gold producers should not be deprived of their earning possibilities in favour of large and medium sized producers. Therefore, according to the supplement, artisanal and small-scale gold producers such as individuals, informal working groups or communities are not expected to carry out due diligence as recommended in this Guidance. However, they are encouraged to remain involved in due diligence efforts of their customers and to formalise their company so they can carry out due diligence in the future.

A critical aspect of all such initiatives is enforcement. In this respect it is essential that all refiners producing London Bullion Market Association (LBMA) good delivery gold bars must comply with the Responsible Gold Guidance for Good Delivery Refiners[282] in order to remain on the LBMA Good Delivery List. The guidance by the LBMA follows the five steps framework for risk-based due diligence of the OECD. Despite the involvement of principal markets and agents, claims were raised that all the diligence efforts occur on paper but often not in reality.[283] The situation may change, however, not least under the impact of the Dodd-Franc-Act in the USA.[284] Through this act, US enterprises are obliged to report to the Security and Exchange Commission over the origin of their natural resources and in particular whether they come from the problem zone constituted by the Democratic Republic of Congo and the country's neighbouring regions. This obligation produces effects along the whole value added chain. Providers can also rely on industry initiatives such as the one initiated for tin by ITRI.[285] Within this system, indication numbers are given to single lots, so that the latter can be traced back to the producer. The disadvantage with these approaches is, as said, that documents may be forged. This risk may be overcome when combined with the "analytical fingerprint" the German Federal Institute for Geosciences and Raw Materials (BGR) has developed. The BGR uses forensic methods in order to determine the place of origin of minerals. Based on a reference data bank, an identification down to the level of the single mine appears possible. Such fingerprints are already in use to trace explosives in order to fight terrorism. While, with explosives, the fingerprint is added in the production process, the approach of the BGR relies on the geochemical differences of the mineralization in the different mining zones.

The Significance of Globalisation for Peru

The significance of globalisation for Peru is simultaneously big and limited. Peru harbours numerous minerals in its soil so that the extracting industries are of considerable importance for the country. Exports continue to be heavily concentrated in commodities (89% of the total), however. Their contribution to employment is limited and offers to micro, small, and medium-sized enterprises only scant opportunities for participation. Moreover, the sustained economic growth has not been reflected in greater investment in research and development (R&D). Consequently, Peru functions as a provider of primary inputs to production processes taking place abroad but still has a long way to go to establish itself also as a producer downstream in global value added chains.

[282] Indications taken from http://www.lbma.org.uk/responsible-gold

[283] http://www.swissinfo.ch/eng/commodities_ngo-reports-illegal-gold-imports-by-refiner/41706564

[284] http://www.marktundmittelstand.de/nachrichten/produktion-technologie/zertifizierung-in-der-lieferkette/

[285] http://enact-kp.streamhouse.org/the-itri-tin-supply-chain-initiative-itsci/

Chapter 13

Kenya: Is there a Direct Way into a Service Economy?

CONTENT

Country Fact Sheet			World	Kenya
GDP per Capita	(at 2011 PPP $)	2013	13,964	2,705
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	6,0
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	66
Agricultural Value Added	(% of GDP)	2014	3,1	30,3
Manufacturing Value Added	(% of GDP)	2014	26,4	19,4
of which Industry	(% of GDP)	2014	15,8	11,1
Services Value Added	(% of GDP)	2014	70,5	50,4
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	20,4
Research and Development Exp.	(% of GDP)	2005–2012	2,0	1,0
Internet users	(% of pop.)	2014	40,5	43,4
International Tourism, Arrivals	(mio people)	2013	1068,0	1,4
Consumer Price Index	(2010 = 100)	2014	..	140,9
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	42,8
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	45,8
Current Account	(% of GDP)	2013	..	-10,4
External Debt Stock	(% of GDP)	2014	..	26,7
Exports plus Imports	(% of GDP)	2013	60,4	50,9
Private capital flows	(% of GDP)	2013	-0,9	-0,5
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	0,9
Official Development Assistance	(% of GNI)	2013	0,4	5,9
Remittances, inflows	(% of GDP)	2013	0,71	2,41
General Gov. Expenditures	(% of GDP)	2013	..	27,4
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-7,5
General Gov. Net Debt	(% of GDP)	2013,0	..	43,3
Ease of Doing Business Index	(rank)	2015	95	108
Corruption perception	0-100	2014	..	25
Population	(millions)	2014	7259,7	44,9
Surface	(1'000km²)	2015	134325	580
Populationb Density	(person/km2)	2014	56	79
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	2,7
Fertility	(births/woman)	2010/2015	**2,5**	4,4
Under-Five Mortality	(% < age 5)	2013,0	45,6	70,7
Life Expectancy at Birth	(years)	2014	71,5	61,6
Child Malnutrition	(% age group)	2008–2013	29,7	35,2
HIV-Prevalence	(% of pop.)	2013	1,1	6,0
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	43,4
GINI Index (income concentr.)	0-100	2005–2013	..	47,7
Homicide Rate	(per 100'000)	2008–2012	6,2	6,4
Primary School (enrolm.)	(% age group)	2008–2014	109	114
Secondary School (enrolm.)	(% sge group)	2008–2014	74	67
Tertiary School (enrolm.)	(% age group)	2008–2014	32	4
Genders in 2nd Schooling	(female/male)	most recent	97,1%	93,0%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	72,2
Employment to Population Ratio	(% aged 15+)	2012	59,7	61,2
Unemployment rate	(% aged ≥ 15)	2004-2013	..	..
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,86
Children in Employment	(% of age 7-14)	2013	..	..
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-0,2
Rural Population	(% of popul.)	2014	46,6	74,8
Energy use per capita	(kg of oil eq.)	2013	1894,4	491,7
CO2-Emission	(t per capita)	2011	4,6	0,3
Improved Water Access	(% of popul.)	2014	90,5	63,1
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	-7,1
National Resource Rents	(% of GDP)	2014	3,9	2,9
Protected Area	(% of surface)	2014	12,8	10,6
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,548

Chapter 13
Kenya: Is there a Direct Way into a Service Economy?

Countries tend to go through various stages of growth, in which the main driving forces, the rate and the composition of growth by large economic sectors change. A first stage is to overcome Malthusian stagnation. This occurred in Europe in the industrial revolution, starting with England. In a subsequent period, when industry had replaced agriculture as the largest employer, growth based on capital accumulation gave way to more innovation-based growth in the developed world. As a parallel movement, the manufacturing sector started to lose ground in favour of service activities. Today, the industrialised world is seen as heading towards a knowledge and service society. Several questions immediately arise: Is there a guarantee that a growth process with rising per capita income will start? Will this process finally lead to convergence of per capita GDP across all nations? Will all countries within this process go through the same stages of development? Will this path depend on whether a country is open to trade or, alternatively, decides to develop under autarky?

This chapter uses the case of Kenya to examine these questions. Kenya remains one of the poorest countries in the world. It still has a very large agricultural sector. At the same time, Nairobi intends to become the financial and commercial centre of East Africa. Supported by loans of International Organisations, Kenya has recently embarked on a promising growth path in a series of sectors, a momentum that is now at risk due to security concerns. [286] [287]

Within the service sector, tourism plays a primordial role in earning income from foreigners. Tourism has a skill mix conducive to early development, although training of employees remains a requirement. The business case in this chapter presents the activities of the Aga Khan Development Network, presumably the largest private development organisation. The AKDN owns i.a. a hotel group in Kenya.

1 Main features of the country and its population

The Republic of Kenya has a population of 44.9 million inhabitants and a surface of 580'370km^2, making it a less densely populated country. While the ports on the Indian Ocean played a role in global trade for centuries, European exploration of the interior, populated by Bantu tribes, began only in the 19th century, the British Empire establishing the East Africa Protectorate in 1895. The Republic of Kenya became independent in December 1963. Agriculture is a major employer; the country traditionally exports tea and coffee and has more recently begun to export fresh flowers to Europe. The service industry led by tourism is also a major economic driver. Kenya enjoys relatively high political and social stability but suffers from the conflict in South-Sudan and the attacks of radical Islamic groups have not spared the capital (e.g. occupation of a commercial centre in 2013).

Kenya is inter alia a member of the East African Community, re-established in March 1996 by the presidents of Kenya, Tanzania, and Uganda to

[286] Is the low level of income an indication that Kenya has been specialising in the wrong sectors for a long time, in particular agriculture? The question is examined in the economic theory part of the corresponding chapter in the underlying publication. The proposition of immiserising growth presented there shows the preconditions needed for such a rather theoretical evolution to occur. The next question examined is then whether importing manufactured goods comes at the cost of suppressing the evolution of its manufacturing industry, the latter securing self-sustained growth. Is such an industrialisation indispensable within an economic convergence process or can export oriented service sectors step in? Finally, will service sector growth, the promulgation of tourism in particular, trickle down so that a (rather artisanal) manufacturing sector can also develop?

[287] Part III of the corresponding chapter in the underlying publication has only in the last section a direct link to Kenya. Here the projects financed by the International Organisations in the country are presented and put into relation with the growth path along which Kenya intends to evolve. Previous to this, the landscape of international organisations is exposed. First, organisations with a political or environmental focus are presented, then organisations offering credits mainly to developing countries. This chapter concentrates on IMF support granted to single countries. International organisations with a strong focus on shaping the global monetary and financial relations will only be taken up in the corresponding part of Chapter 16. Thus, the IMF appears there for a second time.

harmonise tariffs and customs regimes, secure the free movement of people, and improve regional infrastructures. In March 2004, the three East African countries signed a Customs Union Agreement.

Among the local residents, Bantus (67%) and Nilotes (30%) constitute the majority. Kenya's various ethnic groups typically speak their mother tongues within their own communities. The two official languages, English and Swahili, are used in varying degrees of fluency for communication with other populations. The vast majority of Kenyans are Christian (83%), with 47.7% regarding themselves as Protestant and 23.5% as Roman Catholic of the Latin Rite. Sizeable minorities of other faiths do exist (Muslim 11.2%). In particular, the upper part of Kenya's Eastern Region is home to 10% of the country's Muslims, where they constitute the majority religious group. In addition, there is a large Hindu population in Kenya (around 300,000), who have played a key role in the local economy; they are mostly of Indian origin.

Population growth is considerable with 2.7%. It is supported by a fertility rate of 4.4 children per woman. Life expectancy at birth is only 61.6 years, also because under five mortality is high with 70.7 deaths per 1,000 children in 2013. The WHO estimated in 2011 that only 42% of births were attended by a skilled health professional, also leading to a high maternal death rate in selected regions. Child malnutrition is also widespread and HIV prevalence remains a problem despite improvements. Weak policies, corruption, inadequate health workers, weak management and poor leadership in the public health sector are largely to blame. The poverty rate was a high 43.4% in 2005. Consequently, child labour is also considerable. The GINI index regarding income distribution shows also a precarious picture of high inequality.

The country's literacy level stands at 72.2% of the whole population, rather favourable given the overall level of development. Enrolment at the primary school level is reported to be over 100%, but falls considerably at the secondary school level while education at the tertiary level is rare. Women’s participation at the secondary school level and in the labour market is considerable.

Three quarters of Kenya’s population live in rural areas. Access to an improved water source is disappointingly low. The forest area is slightly declining, but improvement appears to be under way. Only a limited part of the surface of the country is protected area. Natural resource rents are not an important source of national income. This may change upon the discovery of oil fields and other deposits, however.

Kenya ranks low on Transparency International's Corruption Perception Index. The homicide rate is considerable. According to the AfDB-report 2015, violence in several districts led to the deaths of more than 125 persons. The number of internally displaced persons across the country was estimated to be higher than 215’000 at end-2014. The security situation in the country will continue to remain fragile, exacerbated by long, porous borders, the presence of more than 600’000 refugees in the north-eastern part of the country and the instability in this region of the world, especially in Somalia, South Sudan and the Great Lakes Region.

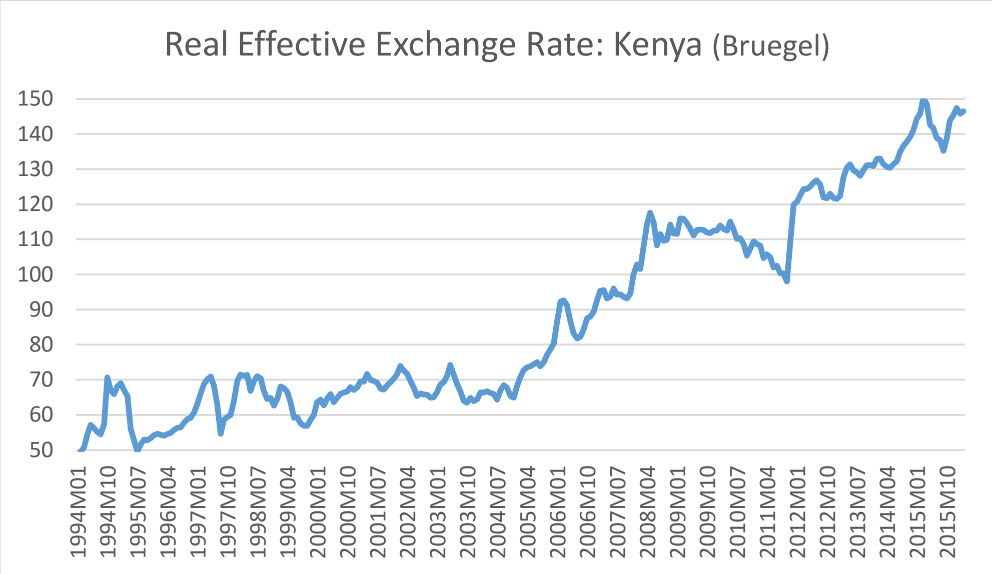
2 A low level of economic development has not been overcome

Kenya is still a poor developing country. GDP per capita was a low US-$ 2’705 in 2013 on a PPP basis. The growth rate is considerable, but not overwhelming with some 6% p.a. over the period 2009-2014 (the score in 2014 was somewhat lower due to missing tourists). Accordingly, GDP in 2014 was 66% higher than ten years earlier.

The important agricultural sector is one of the least developed and largely inefficient, employing 75% of the workforce, but contributing only 30.3% to GDP. Manufacturing accounts for 19.4% of GDP, of which 11.1% stem from industry, with almost no large industrial plants. On the positive side, East and Central Africa's biggest economy has posted remarkable growth in the service sector, boosted by rapid expansion in telecommunication and financial activity over the last decade. Services now contribute 50.4% to GDP.

In accordance with sector shares and their state of development, gross fixed capital formation was not very high as a share of GDP (20.4% over 2005-2012). The pronounced centrum-periphery gradient is also apparent in a low, but increasing share of internet users (43.4%). R&D has not yet gained momentum. Exposure to trade is rather low with 50.9% of the (depressed) GDP.

Inflation is being brought under control. The cumulated CPI-increase from 2010 to 2014 was 40.9% but CPI inflation should stay around 5% in 2015. Domestic credit is considerably better developed than e.g. in Burkina Faso (42.8% to 25.4% of GDP) while the price level in the two countries is comparable (45.8% and 44% of the US-level respectively.)



The effective exchange rate has clearly taken an upward trend in recent years. It remains to be seen whether devaluations can be avoided on the background of the current account situation. In 2014, the trade balance was in deficit with 14.1% of GDP, imports of 26.6% of GDP having only exports of 12.5% of GDP as counterpart. The service sector barely compensated this deficit with a surplus of 4.1%. Factor incomes were negative with -1-1% of GDP while current transfers brought 3.5% of GDP. Overall, the current account was seriously in deficit with 10.4% of GDP. Still, the World Bank/IMF Debt Sustainability Analysis (DSA) completed in September 2014 indicated that Kenya's risk of external-debt distress continues to be low.

A 'prudent' fiscal stance kept the budget deficit at an average of 5% of GDP in the five years leading to 2013. The deficit was projected to be as high as 7.5% in the short term, mainly on account of continued expansionary fiscal policy due to large infrastructure investments and consumption expenditure (the public sector wage bill weighs heavily). In 2014, overall public debt was estimated to have risen to 43.3% of GDP. In subsequent years, based on the assumption that the primary deficit is kept at 3% of GDP in 2016 (in 2013/14, the primary balance stood at -5%) and gradually brought down thereafter. The AfDB expects that public debt should ease to below 46% of GDP by 2018.

In the author's view, an encouraging current economic situation is seriously at risk, partly due to the political situation in East Africa, but partly also due to imbalances in domestic economic policies. The prospect that the precautionary financing package granted by the IMF at the beginning of 2015 will effectively be used is higher than officially communicated.

3 A comprehensive reform agenda had been supported by the IMF

On 2 February 2015, the IMF Executive Board approved a financing package for Kenya of about US-$ 700mio that the East African country's authorities plan to use as insurance against external shocks. This financing is precautionary, as Kenya plans not to draw on it unless the balance of payments comes under pressure. The granting of this credit line had been helped by Kenya's prosperity in recent times. Also, foreign currency reserve buffers had increased, covering 4½ months of prospective imports, presumably due to the successful issuance of a Eurobond in 2014, which generated US-$ 2bio for the government. While the AfDB qualifies macroeconomic policies as relatively sound, the IMF is more enthusiastic about Kenya,[288] stating that Kenya has implemented reforms in a market-friendly environment, attracting strong interest from foreign investors operating across East Africa, including China, India, and Korea. It is acknowledged that banks are using medium-term credit lines for small and medium-sized enterprises' project financing more intensively. An overall increase of 18 percent in Kenya's generation capacity had been made possible by targeted infrastructure investment, bringing the unit electricity cost down

[288] See also the latest available press release of the IMF on Kenya of 10 May 2016, which confirms the observations and assessments that follow (http://www.imf.org/external/np/sec/pr/2016/pr16209.htm)

by 25 percent in recent months. Kenya's relatively high current account deficit, at 7.7 percent of GDP in 2013/14 is seen in the report preparing the granting of the loan by the IMF against the background of strong capital goods imports—in particular of equipment for oil exploration.

The report also names five principal drivers of growth in Kenya that support positive projections of economic expansion.

- Improved business conditions arising from the removal of bottlenecks by increased infrastructure investment not only in energy, but also in transportation;
- Expansion of the East African Community market thanks to decisive steps toward regional integration with neighbouring Burundi, Rwanda, Tanzania, and Uganda;
- Reduced social strife as a result of devolution and central government transfers to 47 newly formed counties under the 2010 constitution;
- A more dynamic small and medium-sized enterprises sector arising from strong financial inclusion and small business access to credit;
- Higher agricultural productivity and reduced medium-term vulnerability of agricultural production to weather shocks, reflecting implementation of large irrigation projects.

Kenya has been closely monitored by the IMF for some time. In the following paragraphs we review the support which was granted by the Fund to the country since 2008.

Kenya had already registered strong growth during the 2004–07 period, but the expansion stalled in 2008 due to a series of adverse developments. Recovery from post-election violence that had disrupted agricultural and manufacturing production was cut short by high fuel and food prices. In addition, high maize imports due to domestic drought weakened the external position. Also, the global financial crisis led to a steep decline in private capital flows, and low exports and depressed receipts from tourism all contributed to a further weakening of the external position. Official foreign exchange reserves fell by about 20 percent of the stock of reserves between mid-2008 and early 2009, increasing the country's vulnerability to further shocks. On the capital market, there was substantial capital outflow from the Nairobi Stock Exchange, where the key share index declined by 35 percent in 2008 alone.

In mid-2009 Kenya requested IMF financial assistance under the rapid access component of the Exogenous Shocks Facility, a loan program designed to help low-income countries cope with emergencies caused by events beyond their control. The US-$ 200mio loan helped Kenya to close the financing gaps estimated for 2008/09 and 2009/10 while enabling an orderly rebuilding of foreign reserves.

The new constitution, ratified in August 2010, provided for reforms on fiscal decentralization, the public expenditure framework, and land ownership. The constitution also addressed long-standing governance issues by strengthening the judiciary and preparing the ground for an overhaul of the public finance management system that would effectively reduce the scope for corruption. This paved the way for further IMF assistance.

On 31 January 2011, the IMF's Executive Board approved a loan to Kenya under the institution's Extended Credit Facility which was augmented, on 9 December 2011, for a total of SDR 488.52 million or US-$ 756mio (180 percent of quota). The accompanying press statement said that the policies supported by the loan strike a balance between fiscal adjustment and making resources available for reforms envisaged in Kenya's new constitution. In conformity with IMF's role in macro-economic stabilisation, the orientation of monetary and fiscal policies were core in the envisaged adjustment.

As a monetary target, the Central Bank of Kenya would focus on its medium-term inflation target of 5 percent, taking into consideration the impact of rapid progress on financial inclusion on monetization and financial deepening. Under the program, the central bank would also purchase foreign exchange as needed to achieve the foreign reserve target while maintaining the floating exchange rate regime.

Fiscal policy had to continue to focus on medium-term consolidation, and front load the adjustment to temper domestic demand. It should bring the debt-to-GDP ratio below the 45 percent ceiling over a three-year horizon, from the 47 percent of GDP projected for the 2012 fiscal year. However, priority social spending programs as well as public investment in critical infrastructure projects were safeguarded. In particular, investment in geothermal and energy projects as well as rail and road infrastructure remained a priority in order to remove bottlenecks to growth.

A new value-added tax law had to be submitted to the cabinet before the end of 2011. In addition, the Public Finance Management Law had been dispatched to the Commission for the Implementation of the Constitution. This law defines the responsibilities and the revenue sharing mechanism among different levels of government, consistent with the fiscal decentralization envisaged by the new constitution. Structural reforms in the financial sector, such as the demutualization of the Nairobi Stock Exchange and raising capital requirements for listed companies also had to progress, and the National Social Security Fund had to undertake significant reform.

Less than a year after drawing on this loan from the IMF, Kenya started to show first signs of economic recovery. On 2 December 2013, the Executive Board of the International Monetary Fund (IMF) completed the sixth and final review of Kenya's economic program as agreed in the three-year arrangement under the Extended Credit Facility (ECF). The completion of the review enabled the immediate disbursement of an amount equivalent to SDR 71.921 million (about US-$ 110mio), which brought total disbursements to the full arrangement amount of SDR 488.52 million (about US-$ 748.4mio). It is worth adding that some of the projects mentioned benefitted also from the support of the World Bank, as shown by the list figuring in the next section.

4 Multilateral aid to Kenya

To make the activities of the portrayed institutions intelligible we list in this section the projects undertaken in Kenya by the World Bank and the African Development Bank. The IMF does not support countries on a project basis but supports, as indicated above, countries for limited time periods based on the adoption of reform programmes by the country. When the country is in a situation to call in IMF support, this leads to a certain overlap since the government share in the projects undertaken by the country with development banks need financing in spite of the austerity programs submitted to the IMF. The former should normally be of high priority, however, so that coordination between development banks and the IMF is more necessary on the conceptual than the project level.

The World Bank

In the period since the beginning of 2007, more than 50 projects have been financed. The 28 projects with a committed amount above US-$ 50mio are (in inverted historic order):

World Bank Projects in Kenya 2007-2015

(> US-$ 50mio)

May 2015	Primary Education Project	88
March 2015	Electricity Modernisation Projects	450
December 2014	Coastal Region Water Supply	200
July 2014	Petroleum Technical Assistance	50
March 2014	Transport Sector Support	203
July 2013	National Safety Net	250
June 2013	Kenya Climate Resilience	155
November 2012	Judicial Performance Improvement	120
August 2012	Urban Transport Improvement	300
May 2012	Nairobi Metropolitan Services	300
May 2012	Water and Sanitation Improvement	300
February 2012	Private Power Generation Support	166
December 2011	Additional Health Sector Support	57
April 2011	Transport Sector Support	300
March 2011	Settlements Improvement	100
December 2010	War against Aids and HIV	55
June 2010	Health Sector Support	100
May 2010	Electricity Expansion	330
May 2010	Youth Empowerment Project	62
May 2010	Municipal Program	100
June 2009	Agricultural Productivity/Agribusiness	82
April 2009	Northern Corridor Financing	253
April 2009	Energy Sector Recovery	80
March 2009	Cash Transfer for Orphans	50
December 2007	Water and Sanitation Service	150
June 2007	War against HIV and Aids	80
March 2007	Natural Resource Management	69
March 2007	Western Kenya Flood Mitigation	86

The African Development Bank

The African Development Bank has approved over 4,501 projects amounting to US-$ 118.7bio from 1967, when it commenced operations, to the end of 2013. Looking at the time span since 2006, 26 of these projects were located in Kenya. They fall into five areas:

Transport: Nairobi-Thika road (ongoing), Timboroa road (ongoing), Nairobi airport (two emergeny projects after a fire, one ongoing, one approved), outer ring project (approved), Mombasa road (lending phase);

Energy&Power: Mombasa-Nairobi transmission line (ongoing), grid improvement (ongoing), Meneghai geothermal project (ongoing), Lake Turkana windpower (approved, Dutch sponsored project in pipeline), Turkana transmission line (approved);

Water Supply&Sanitation: Support to Water Services Board (ongoing), integrated land and water management project (ongoing), small towns' water supply and waste project (ongoing), Nairobi river systems (ongoing), rainwater management (ongoing), Thwake water supply and sanitation (approved), Branded Toilet Entrepreneurship (approved);

Agriculture&Agro-Industries: Kimira-Oluch Smallholder irrigation (ongoing), smallscale horticulture (ongoing), livestock disease infrastructure (lending phase);

Human Capital: TIVET-project (training, industrial, vocational, entrepreneurship) (ongoing), community empowerment and institutional support (ongoing), quality of higher education in science and technology (ongoing), TIVET phase II (pipeline).

There is considerable focus on transportation, also to support access to the Great Lakes Region. The enhancements at the Port of Mombasa were combined with keeping it operating 24h seven days per week. This project was linked with investing in the improvement of the northern corridor road network; finally, in 2014, the construction of the Standard Gauge Railway to link Mombasa to Kampala (Uganda) was launched, supported by a US-$ 5bio loan from China.

The focus is on infrastructure development. No bias in favour of one of the three large economic sectors – agriculture, industry, services – is therefore discernible.

5 Is industrialisation indispensable?

The generally accepted view is that the growth process over decades is accompanied by a shift in the pattern of production. Output and employment in agriculture lose in importance, manufacturing becomes the leading sector but this role will be taken over after several decades by the service sector. The latter accounts today in most industrialised nations for two thirds to three quarters of value added and employment.

The interest in the shift in sector shares stems from the supposition that this shift is causal for a multiplication of the level in incomes. In the medieval agrarian societies, annual growth of real disposable income per head remained closer to zero than to one percentage point a year for centuries. The situation changed with the industrial revolution, i.e. the transition towards a newly organised manufacturing sector occurring at the end of the 18th and the beginning of the 19th century. But it took Great Britain, the leading country in the initial stages of the industrial revolution, several decades until per capita income doubled for the first time (twice the level of 1750 was reached in 1875). The expanding economies in the Far East took off much faster and appear to be on a trajectory which will lead to convergence of income per head with industrialised nations. In the UK, real income per head was in 2010 14 times what it was in 1750, i.e. two and a half century ago. In China, it was in 2010 18 times what it was only 60 years ago, i.e. in 1950, when it was at only one quarter of the level reached in Great Britain in 1750. In Kenya, on the other hand, GDP per capita was in 2010 only 75% higher than in 1950, and the 2010 level was still only two third of the level reached in Great Britain in 1750.[289] The pressing question is whether Kenya will get stuck at this level when remaining a producer of cut flowers and a tourist destination?

The question is all the more justified as the process of economic development has not produced uniform results across countries in the world. Views regarding the essential ingredients needed to start and successfully complete a convergence process in incomes have changed over decades and were shaped by the political views of the authors and the attention their views gained within evolving geo-political circumstances. Final answers were not reached. Obviously, results were considerably influenced by societal circumstances which are disregarded when a uniform economic model is applied. There are certainly a lot of idiosyncracies pertaining to different countries and a corresponding path dependency in all national growth processes.[290]

This reservation made, it is in the view of the author relatively well understood what is needed to leave an agrarian society and have a take-off in incomes.[291] To overcome Malthusian stagnation,[292] an economic sector has to develop which can expand without significantly increasing the mass of land needed, industry conforming to this requirement. While one may question why this did not happen earlier, at least four factors may be named that interacted at the end of the 18th and beginning of the 19th century to overcome Malthusian stagnation in England. A first factor certainly was technical progress (see above

[289] The data are in purchasing power parity according to the Geary-Khamis method and reflect what one dollar bought in 1990. They are from the Maddison project: http://www.ggdc.net/maddison/maddison-project/data.htm which is based on the pioneering work of Angus Maddison in the area of calculating long term GDP series. The level comparisons are at best indicative, however. While the IMF sees Norway top the US in per capita income in PPPs by 24%, in this databank the US tops Norway by 9%.

[290] In growth theory, the question raised is therefore whether we have conditional convergence, i.e. whether the mechanisms under study (such as trade or technology spill-overs) will lead to convergence of per capita GDP across countries, *provided* the countries were identical for a number of other growth determinants (e.g. political stability).

[291] A more formal treatment of the ideas in this paragraph can be found in Chapter 10 of Aghion/ Howitt (2008): Theory of Growth.

[292] The Reverend Thomas Robert Malthus (1766-1834) argued that an improvement in the return on land will enhance the chance of survival of diseases and famine and allow the population to grow, but that the improvement in individual living conditions will remain temporary in nature since the population increase will - without an increase in agrable land - make individual consumption possibilities fall back to the initial level which is barely above what is needed to avoid starvation.

Chapter 4 devoted to the textile industry). A second factor was reform in the agricultural sector with the new assignment of property rights and the corresponding change in the way the soil is exploited. A third factor was a loss of power of the leading class living in the centres but in possession of most of the land and restricting access to many economic activities. This went along with the gradual constitution of a class of entrepreneurs exploiting the economies of scale industrial production allows for. A fourth factor presumably is progress in sanitary matters. First the death toll fell and the birth rate only later. A possible explanation is that higher life expectancy (particularly of children) made spending on education more rewarding than having the greatest number of offspring possible.

In the ensuing phase, the accumulation of several factors of production appears as essential. The accumulation of means of production in the form of machines or agricultural equipment was dominant for a considerable time. The build-up of human capital then gained growing importance as a determinant of growth. Finally, the presentation of the "smile curve" at the end of Chapter 4 gives a good impression of what is important in the post-industrialised era. The latter is characterised by a movement out of blue collar jobs and in activities related to a knowledge society such as R&D, marketing or the steering of (global) production processes.

The question whether or not there is a need to build-up a manufacturing sector along this process is all the more important as economic theory shows that under specific circumstances, opening up to trade may hinder industrialisation in the narrow sense. If it were indeed true that such industrialisation is indispensable within a process of economic development and that the beneficial effect of trade on industry growth is all but certain, then the infant industry argument deserves consideration. In a nutshell, the infant industry argument states that a country should first develop manufacturing to a certain stage before opening up to trade. On the other hand, recommending industrialisation in the narrow sense of manufacturing as the best way to economic development may be terribly at odds when the industrialised countries themselves leave this stage of development and move into what is called the post-industrialised era.

Today, with the fragmentation of production processes and the localisation of single production steps around the world, there are obviously more opportunities to circumvent the development of a specific economic sector.[293] The political economy considerations arguing against the creation of protected sectors – and implementing the infant industry argument is tantamount creating such petted sectors - may weigh all the heavier.

Secondly, the service sector exhibits the same characteristics that make manufacturing distinct from an expansion of agriculture. Services can also be concentrated on a comparably small slice of the land, and technical improvements exist in this sector as well. If they are not as pronounced as in manufacturing, they may generate more employment opportunities and thus even allow for a more inclusive form of growth. Finally, nothing precludes a similar reorganisation of the agricultural sector and the described effects of learning on procreation activities and education if services develop instead of industry.

Furthermore, there are also arguments pointing to the existence of a direct way into a service economy. Taking up the image that the world of today resembles a global village, one may e.g. argue that in the different districts within a township very different economic activities prevail. Still, incomes within the village may be relatively equally distributed due to self-selection of the inhabitants in the different sectors in accordance with earning prospects. There is also the example of the urban towns in the Alps. It can be left open whether these resorts export natural resources (in the form of a unique landscape) or services (beyond sports, cultural amenities such

[293] It is e.g. an open question whether a research centre should be located close to manufacturing so that information regarding product and process design can easily move to and fro, or whether it is better to locate the centre in a location where the qualified labour force that needs to be attracted finds all the amenities the employees search for their family (education, personal safety) and for personal leisure (sports and cultural distractions). In support of the latter view, one may draw on experiences in Germany, France and the US. In Germany, one finds a transfer of industrial activity from the Ruhr region to Bavaria which is not supported by wage differences. France, famous for its industrial policies, has also experienced a decline in the North while promoting a Technopolis on the Côte d'Azur and locating Airbus Industries in Toulouse. In the US, the shift from the 'rust belt' to California where, in the Southern part, according to a song "it never rains" is well known, suggesting that regions may prosper by proposing a certain way of life and not only by building on the often quoted industrial traditions. In the film industry, more light for outdoor scenes was also an objective factor and induced its move from New York's Broadway (a "cluster" in the arts) to Hollywood.

as concertos of high-end performers and financial services are of growing importance). What is essential in the present context is that these regions never relied on manufacturing. Furthermore, cities have existed for centuries and they operated predominantly as service centres also in the early stages of development while manufacturing expanded for a long period outside the towns along the rivers, due to the availability of energy. Today, industry may develop in special processing zones, due to tailor-made framework conditions. If a service economy cannot rely on itself, the proximity to poles of industrial activity can prove to be sufficient, the presence of manufacturing on the spot is not needed. Furthermore, distance loses in importance. By ICT, service centres may tap business that is hundreds of kilometres away. Think of data processing centres in India proposing client services to Western service providers. Based on these observations, our argument is that the need to develop a manufacturing sector is a paradigm and that as such it has never been proven. Furthermore, the idea of manufacturing as the key sector in development is losing in importance provided that other branches of economic activity also realise substantial productivity gains. A similar effect occurs when the beneficial effects of the productivity gains for which the manufacturing sector is known diffuse quickly among all income earners by relative price shifts. One example is the price decay of ICT and the service sectors which could consequently develop all the better.

A critical aspect in developing services generating foreign income remains the political and economic stability of the country, however. The importance of political stability appears through the exposure of Kenya's tourism industry as shown by the business case that follows, while macroeconomic stability appears as a prerequisite for successful financial sector development. The final section in this chapter will point to some encouraging evolutions in Kenya's financial industry.

A Venture of the Aga Khan Development Network

The Aga Khan Development Network and its relation to Kenya[294]

The agencies of the Aga Khan Development Network (AKDN) are private development organisations working without regard to faith, origin or gender particularly in Asia and Africa. The AKDN employs approximately 80'000 people, the majority of whom are based in developing countries. The AKDN's average annual budget for non-profit development activities is approximately US-$ 600mio. The project companies of the Aga Khan Fund for Economic Development generated revenues of US-$ 3.5bio in 2013 (all surpluses are reinvested in new development activities). Founded and guided by His Highness the Aga Khan, the initiatives in the AKDN range from education, health and rural development, to architecture and the promotion of private sector enterprise. The AKDN comprises the following agencies:

Aga Khan Academies (AKA)

Aga Khan Agency for Microfinance (AKAM)

Aga Khan Education Services (AKES)

Aga Khan Foundation (AKF)

Aga Khan Fund for Economic Development (AKFED)

Aga Khan Health Services (AKHS)

Aga Khan Planning and Building Services (AKPBS)

Aga Khan Trust for Culture (AKTC)

Aga Khan University (AKU)

Focus Humanitarian Assistance (FOCUS)

The University of Central Asia (UCA).

The Aga Khan and his institutions keep close links to Kenya where they deploy a series of activities. In 1975, Harvard University developed a blueprint for the Aga Khan University which was founded in Karachi in 1983, and for an extension of its work into eight different countries, arriving in East Africa in the year 2000. A focus is the training of nurses, building also on the Aga Khan University Hospital in Nairobi, and of teachers, primarily head-teachers of secondary schools due to their multiplier potential. The Aga Khan then announced that a new Media and Communications School will share a new building in Nairobi with two other new Graduate Professional Schools, one in Leadership and Management, and the other in Hospitality, Leisure and Tourism. New Graduate Schools in the fields of Government, Civil Society and Public Policy; Economic Growth and Development; Law; and Education were also planned. Over 15 years, the total investment in Kenya for these programs will exceed US-$ 350mio.

[294] The bulk of this text is taken from different parts of the AKDN internet site. See http://www.akdn.org as well as from www.serenahotels.com .

The Aga Khan Fund for Economic Development

The Aga Khan Fund for Economic Development (AKFED) is an international development agency dedicated to promoting entrepreneurship and building economically sound enterprises in the developing world. Different from the other agencies in the AKDN, it is an organisation working for profit. AKFED focuses on building enterprises in parts of the world that lack sufficient foreign direct investment. It also makes bold but calculated investments in situations that are fragile and complex.

AKFED operates as a network of affiliates with more than 90 separate project companies employing over 30'000 people, with revenues of US-$ 2.3bio in 2010. The Fund is active in 16 countries in the developing world. The activities under the AKFED umbrella range from banking to electric power, agricultural processing, hotels, airlines and telecommunications. AKFED seeks to create profitable, sustainable enterprises through long-term investments, also providing them with managerial and technical expertise. AKFED often works in collaboration with local and international development partners.

In Kenya, AFED deploys activities in financial services, in tourism, in industry (e.g. agro-processing) and in infrastructures (e.g. the Tsavo Power plant in Mombasa). The Nation Media Group, founded by the Aga Khan in 1960, has its origins in Kenya's Taifa and Nation newspapers, which were set up to provide independent voices during the years just preceding the country's independence. In recent years, the Group has expanded its operations into Uganda and Tanzania.

Challenges Facing the Serena Hotel Group

The Serena Group offers quality accommodation, holiday and conference solutions, cultural heritage and adventure tourism in 35 hotels, resorts, safari lodges and camps, palaces and forts located in East Africa (Kenya, Tanzania, Zanzibar, Rwanda, Uganda), Mozambique and Southern Asia (Pakistan, Afghanistan and Tajikistan). Staff undergoes extensive training and receives health and community support.

During the Year 2014, the Company faced a challenging business landscape in Kenya, which to some extent caused a ripple effect in the East Africa Region. Foreign leisure and to a lesser extent, corporate business segments took a cautious approach due to the elevated travel advisories and other forms of security alerts issued by governments of main source markets. The advisories, coupled with the negative international media reports since 2013, terrorist threats and local security incidents cumulatively led to a significant slowdown in bookings and the withdrawal of Charter flights to Kenya. Also, the introduction of a Value Added Tax (VAT) on Tourism services and park fees in September 2013 made destination Kenya uncompetitive compared to the other safari destinations. Furthermore, during the last quarter of 2014, the Ebola epidemic originating from West African Countries negatively impacted all African tourist destinations.

On 16 February 2015, TPS Eastern Africa Limited (the Company behind the Serena Group) had to make an announcement pursuant to the requirements of Kenya's Capital Markets Regulations and the Nairobi Securities Exchange Listing Regulations. The Company had to report that profit for the year ended 31st December 2014 will be at least 25% below the profit reported for the same period in 2013.

6 The financial industry, key in service sector development[295]

Kenya's financial sector continues to demonstrate strong growth largely thanks to information and communication technologies and innovations, macroeconomic stability, and expansion in economic activities devolved by the government to the private sector.[296] The banking sector is also largely private-sector driven, and comprises 43 licensed commercial banks and 1 mortgage finance company, 9 deposit-taking microfinance institutions, 7 representative offices of foreign banks, 101 foreign-exchange bureaus, 1 remittance provider and 2 credit reference bureaus.

Persons accessing financial services increased from 27% of the adult population in 2006 to 67% in 2013. 77% of the adult population lives within 5 km of a financial service provider, compared to 35% in Tanzania, 47% in Nigeria and 43% in Uganda. According to the Central Bank of Kenya, transferring money by mobile phone has taken off

[295] Unless indicated differently, the text in this section is from the 'country note' on Kenya for 2015 produced by the African Development Bank.

[296] Privatisation of state corporations has led to their revival because of massive private investment. The outstanding example is the defunct Kenya Post and Telecommunications Company out of which emerged one of East Africa's most profitable companies – Safaricom (see https://en.wikipedia.org/wiki/Safaricom).

in the country, benefitting the poor the most. Use of low cost technology has cut transaction costs as more people pay bills remotely. Annualised mobile phone payments have actually risen from an equivalent of less than 8% of GDP in 2008 to an equivalent of close to 50% in 2013.

Domestic credit from the banking sector increased by 21.1% in the 12 months to August 2014, versus 13.0% in the same period in 2013. This increase was largely reflected in growth of credit to the private sector, which accelerated to 24.5% in the year to August 2014 from 16.2% in the same period in 2013. The private sector continued to dominate as recipient of banking-system lending, accounting for 81.2% of total lending in August 2014 compared with a 17.0% share of lending to the government.

The Nairobi Stock Exchange is the largest securities exchange in both East and Central Africa. It accounts for 59 of the 93 listed companies in the whole of East Africa and it is the fourth largest market in Africa. In terms of value, which comprises both debt and equity, it stood at some US-$ 17bio in January 2015.

Credit growth has accelerated sharply in lending to manufacturing, real estate, telecommunications, business services and individuals. This is explained to a large extent by an upward shift in credit demand consistent with the initiation of new projects. On the other hand, central bank data showed that non-performing loans increased by 30.9% up to December 2014. This was mainly due to the poor performance in the tourism sector after it was hit by the wave of insecurity concerns in 2013, a slowdown in agricultural exports and the government's delay in paying contractors. The Banking Supervision Department of the Central Bank of Kenya monitors these risks closely, and regards the impact of rising non-performing loans on banks' financial statements as largely manageable.

The Significance of Globalisation for Kenya

The significance of globalisation for Kenya is considerable. According to per capita income, the country is one of the underperformers in the Sub-Saharan region; it exhibits also a pronounced centrum-periphery gradient. The capital Nairobi has the potential to become a hub for high end services in Western Africa, however, building on banking and information & communication technology. This evolution may then trickle down to the other regions, some of them having considerable potential of their own, primarily by servicing foreign tourists. The more a country relies on these sectors, the more important political stability becomes, however. For a long time, internal politics held back development but currently tensions and the lack of personal safety at the periphery of the Islamic World constitute the predominant threat to the country's economic success.

Chapter 14

India: Striving for a Role in the Global Knowledge Society

CONTENT

Country Fact Sheet

			World	India
GDP per Capita	(at 2011 PPP $)	2013	13,964	5,238
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	7,3
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	110
Agricultural Value Added	(% of GDP)	2014	3,1	17,8
Manufacturing Value Added	(% of GDP)	2014	26,4	30,1
of which Industry	(% of GDP)	2014	15,8	17,1
Services Value Added	(% of GDP)	2014	70,5	52,1
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	28,3
Research and Development Exp.	(% of GDP)	2005–2012	2,0	0,8
Internet users	(% of pop.)	2014	40,5	18,0
International Tourism, Arrivals	(mio people)	2013	1068,0	7,0
Consumer Price Index	(2010 = 100)	2014	..	140,4
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	77,1
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	27,7
Current Account	(% of GDP)	2013	..	-1,3
External Debt Stock	(% of GDP)	2014	..	22,7
Exports plus Imports	(% of GDP)	2013	60,4	53,3
Private capital flows	(% of GDP)	2013	-0,9	-1,8
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	1,5
Official Development Assistance	(% of GNI)	2013	0,4	0,1
Remittances, inflows	(% of GDP)	2013	0,71	3,73
General Gov. Expenditures	(% of GDP)	2013	..	26,7
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-7,0
General Gov. Net Debt	(% of GDP)	2013,0	..	
Ease of Doing Business Index	(rank)	2015	95	134
Corruption perception	0-100	2014	..	38
Population	(millions)	2014	7259,7	1295,3
Surface	(1'000km^2)	2015	134325	3287
Populationb Density	(person/km2)	2014	56	436
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	1,2
Fertility	(births/woman)	2010/2015	**2,5**	2,5
Under-Five Mortality	(% < age 5)	2013,0	45,6	52,7
Life Expectancy at Birth	(years)	2014	71,5	68,0
Child Malnutrition	(% age group)	2008–2013	29,7	47,9
HIV-Prevalence	(% of pop.)	2013	1,1	0,3
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	23,6
GINI Index (income concentr.)	0-100	2005–2013	..	33,6
Homicide Rate	(per 100'000)	2008–2012	6,2	3,5
Primary School (enrolm.)	(% age group)	2008–2014	109	113
Secondary School (enrolm.)	(% sge group)	2008–2014	74	69
Tertiary School (enrolm.)	(% age group)	2008–2014	32	25
Genders in 2nd Schooling	(female/male)	most recent	97,1%	100,9%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	62,8
Employment to Population Ratio	(% aged 15+)	2012	59,7	52,2
Unemployment rate	(% aged ≥ 15)	2004-2013	..	..
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,34
Children in Employment	(% of age 7-14)	2013	..	1,7
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	-0,4
Rural Population	(% of popul.)	2014	46,6	67,6
Energy use per capita	(kg of oil eq.)	2013	1894,4	606,1
CO2-Emission	(t per capita)	2011	4,6	1,7
Improved Water Access	(% of popul.)	2014	90,5	94,1
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	7,5
National Resource Rents	(% of GDP)	2014	3,9	4,9
Protected Area	(% of surface)	2014	12,8	3,1
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,609

Chapter 14
India: Striving for a Role in the Global Knowledge Society

The breaking up of value added chains, leading companies to re-locate their activities all over the world, increasingly also reaches activities formerly considered as being closely linked to the company's place of origin or to its headquarters. The production of new knowledge is also concerned. Globalisation can therefore no longer be reduced to the outsourcing of blue collar jobs.

The case of India not only supports this assertion, but also presents a number of interesting features regarding the protection of Intellectual Property Rights (IPR). This because of the long time India was reluctant to grant IPR the same degree of protection as is common in industrialised countries. This changed with WTO membership of India, bringing the question of the flexibilities of the TRIPS agreement to the fore.

Patent protection is of particular interest to the pharmaceutical industry, presently in a process of globalisation of its knowledge base. [297] [298] *The business case in this chapter will show the motives inducing Novartis, Switzerland's largest pharmaceutical company, to establish an R&D centre and locate other corporate functions in Hyderabad in India, despite a setback the company suffered in India's High Court in an IPR litigation.*

1 Main features of the country and its population

India has a population of 1'295 million inhabitants and a surface of 3'287'260 km^2, making the country one of the most densely populated in the world. It has, as a country, the 2nd largest population worldwide and may sooner or later overtake China as the most populous country. Only temporarily united under a common ruler, India's history was marked for centuries by the succession of changing dynasties in its different regions. Initially the place where Hinduism emerged, Muslim invasions added considerably to the country's heterogeneity from the ethnical and religious point of view. Trading posts were established by many European nations on its coasts, starting with Vasco da Gama landing in 1498 on the Malabar Coast, but it was the British East India Company that finally gained comprehensive political control over the country. Upheavals then forced the UK government to administer directly the subcontinent from 1858 on. Led by Ghandi into independence in 1947, India is today a federal constitutional republic governed under a parliamentary system consisting of 28 states and 7 union territories. Following market-based economic reforms starting in 1991, India became one of the fastest-growing major economies. However, it continues to face the challenges of poverty, corruption, malnutrition, inadequate public healthcare, and terrorism. A nuclear weapons state and a regional power, it has the third-largest standing army. Relations with Pakistan, its western neighbour, used to be tense. India played a leading role in the non-aligned movement. Today, India is part of the BRICS, i.e. in the group of the five largest emerging economies, and seeks to deepen economic relations with ASEAN, Japan and South Korea.

Historically, speakers of the Indo-Aryan languages in the North and North-West rejoined speakers of the Dravidian languages in the South. Today, the fact that India is a multi-ethnic country is apparent by the cultural heterogeneity at the level of the 28 states. Many of the states and union territories have e.g. more than one official language, while the federal constitution recognises 22 "scheduled languages".

Buddhism and Hinduism developed in the northern part. At a later period, Islam spread, primarily into the North-Western parts of the country. While the Islamic population of the subcontinent primarily inhabits neighbouring countries Pakistan and Bangladesh after their secession of 1947, Islam with some 15% of the population continues to fol-

[297] The theoretical part II of the corresponding chapter in the underlying publication is devoted to knowledge as a non-exhaustible source of economic growth. The Schumpeterian strand in the theory of economic growth presented there also allows some conclusions with respect to the optimal protection of intellectual property rights, beyond linking knowledge production and growth.
[298] In line with the focal point of the chapter, namely knowledge production, part III of the corresponding chapter in the underlying publication starts with a presentation of the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) and precursor agreements. It then looks at the controversy between developing countries using the flexibilities in the TRIPS Agreement and pharmaceutical companies insisting on including provisions beyond basic TRIPS rules in free trade agreements.

low Hinduism (80% of the population) as the second religion in India. According to the 2011 census, other religions include Christianity, Sikhism, Buddhism, Jainism, Judaism, Zoroastrianism, and the Bahá'í Faith or none (6% of the population).

An additional dimension to socio-cultural heterogeneity is added by the caste system. It emerged out of Hinduism and helped govern the country, also under British rule. The Indian Constitution then foresaw positive discrimination of the untouchables (as well as similar quotas for native people belonging to 'scheduled' tribes). Over the last decades, marriage across caste-delineations has become ever more widespread, however. Hinduism has also not been favourable to an equal role of women compared to men in society. Boys continue to be favoured over girls, also due to the substantial costs a dowry represents for poor families, the dowry having been transformed into an endowment the bride has to bring with her.

Population growth is still strong, so that projections see India's population to be larger than China's by 2025. A significant contribution comes from an increase in life expectancy which stood at 68 years in 2014. The number of children per woman is declining but still reaches 2.5 with significant regional differences. Although famines could largely be eliminated by the "Green Revolution" of the 60', continued population increase puts a burden on the further improvement in social conditions. Malnutrition is at a high level, and so is child labour. According to a Food and Agriculture Organization report of 2015, 15% of the Indian population remains undernourished. However, when measured according to the World Bank's international poverty line of US-$ 1.25 per day, the proportion of the poor has decreased from 60% in 1981 to 42% in 2005 and 25% in 2011, a remarkable reduction.

India is now approaching near-universal enrolment in elementary education. Spending on secondary education has risen significantly in recent years, and the 2009 "Secondary Education for All Action Plan" aims at providing universal access to secondary education by 2017. The quality of education remains poor, however. In the two Indian states which participated in OECD's PISA assessment, the average performance of 15-year-old students was far below the OECD average and well behind other emerging economies. Only 10% of the labour force aged 15-59 is vocationally trained, and of those only a quarter received formal vocational training. This contrasts heavily with the fact that India also disposes of an intellectual elite, favoured by a British style higher education system. An expression of the high level knowledge base which may also be found in the country can be seen in the fact that India in 1974 was able to react to China's accession to the group of Nuclear Powers in 1964 with an own test of a nuclear warhead.

The population lives still predominantly in rural areas. Access to an improved source of water has been brought to a coverage of over 90% of the population, forest areas are slightly increasing while the share of protected areas in the total of the country's surface is low. Rents out of national resources contribute significantly to GDP but this statistic is boosted by the low value of per capita GDP.

2 The current economic situation of India

According to the International Monetary Fund (IMF), India is by now the 7th-largest economy by market exchange rates, and the third-largest according to purchasing power parity. However, the country ranks 140th in the world in nominal GDP per capita and 129th in GDP per capita at PPP.

Until 1991, Indian governments followed protectionist policies which were influenced by socialist thinking. Widespread state intervention and regulation largely walled the economy off from the outside world. An acute balance of payments crisis in 1991 forced the nation to liberalise its economy. Since then, the country has slowly moved towards a free-market system by emphasising both foreign trade and direct investment inflows. While in 1990/91, the value of exports was US-$ 18bio, it increased to US-$ 305bio in 2011/12, and the value of imports increased from US-$ 24bio to US-$ 489bio, corresponding to an annual growth rate of 15.4%. This signifies that while in 1995, the share of export of goods and services to GDP was 11%, it increased to 25% in 2013. Services exports have grown in an even more pronounced way, software exports doubling from 2% of GDP in FY 2003-04 to over 4% in 2012-13. According to the ADB,[299] barriers to international trade and investment remain high in some important sectors, however, and the financial sector needs further reforms to ease the flow of funds to new and innovative companies. Foreign direct investment (FDI) has stagnated at about 1.25% of GDP since 2010. The uptick in FDI early in 2014 may signal a shift away from debt financing, however.

[299] Asian Development Bank (2013): Innovative Asia: advancing the knowledge-based economy: country case studies for the People's Republic of China, India, Indonesia, and Kazakhstan. Philippines: ADB, 2013.

As a consequence of more market oriented policies, India has enjoyed strong economic growth in the last decade. GDP grew by 7.3% over the 2009-2014 period, and the level of GDP in 2014 was 110% above that of 2004. This brought per capita income to US-$ 5'238 in 2013 on a PPP basis. India thus closes up to the Philippines, Morocco and Guatemala as other countries considered in this book. In line with the indications given above regarding the reduction in poverty is the fact that the GINI index on income distribution is 33.6 and therefore in a middle range between the Scandinavian countries with values close to 20 and the middle and lower income countries considered in this book which regularly have values of 40 and far above. Growth in India was inclusive.

Growth faltered between 2012 and 2014 as gains from past reforms diminished, and fiscal and monetary stimuli applied from 2009 on could no longer be sustained due to high inflation and a significant current account deficit. In 2013, GDP growth was at its weakest since 2003 with -4.7%. By tightening fiscal and monetary policies, the budget deficit and inflation started to decline and the current account deficit narrowed. Activity rebounded in 2014 and is projected to accelerate, the depreciation of the rupee in summer 2013 having helped revive exports. Investment should also recover as the decline in political uncertainty has boosted business sentiment.

The OECD[300] considers that reducing macroeconomic imbalances further is key to sustaining consumer and investor confidence as well as containing external vulnerabilities. It also admonishes that this will require adhering to the fiscal roadmap and implementing the proposed changes to the monetary policy framework.

Fiscal policies and measures to alleviate the situation of the poor

India's public deficit (at 7.0% of GDP in 2013) and public debt (at an earlier reported 65.5% of GDP in 2013) are high compared with other emerging economies. The OECD therefore welcomed that the budget presented by the incoming government for FY 2014/15 confirmed India's commitment to fiscal consolidation. The organisation also sees a focus of spending on transport (road, rail and ports), clean energy, rural housing and sanitation as well chosen, since such investment is badly needed to sustain economic and social development. On the other hand, the 2013 Food Act extended the food subsidy from one to two-thirds of the population at an estimated cost of between 0.2% to over 1% of GDP when the Act is fully implemented. The cooking gas subsidy was also raised again early in 2014. This leads the OECD to remark that inefficient subsidy programmes for food, energy and fertilisers have increased steadily while public spending on health care and education has remained low. Therefore, a recommendation by the OECD is to better target subsidies and reduce abuse.

The OECD supports this view with the following considerations: A key objective of subsidies has been to protect vulnerable households but they have disproportionately benefitted the rich and the middle-class. For rice and wheat, leakages in the food subsidy, including widespread diversion to the black market, had been estimated at 40% and up to 55%,[301] while public spending on health care, which contributes to reduce inequality in well-being, has remained very low in India. The OECD then makes reference to Indonesia where oil prices were raised by 44% in summer 2013 and simultaneously a cash transfer for the poorest households was introduced. The OECD sees India well placed to embark on a similar reform, based on the unique personal identification number which had been granted to 560 million citizens, or almost half of the population, and which serves to administer 28 subsidy programmes (mostly scholarship and pension programmes). Extending the system to consumer subsidies would capitalise on its success.

On the income side, the OECD considers it important to raise more revenue in a less distortive way by streamlining the many tax breaks which undermine revenues and contribute to the complexity of the tax system. Tax revenues (excluding social contributions) stood at 17.1% of GDP in FY 2012-13, which is below the level in most other BRIICS.[302] At the same time, tax rates tend to be high. This is only possible when the tax base is narrow and compliance is low. Effectively, the central government tax expenditures are estimated at 6.5 % of GDP. Much also remains to be done to broaden the bases of indirect taxes. According to the OECD, a value-added tax, yet to be passed by Parliament, will provide an opportunity to restrict the use of reduced rates and exemptions.

Monetary policy and financial sector reform

Consumer price inflation has been high in recent times. Over the period 2010-2014 it reached some 10% p.a.. Not surprisingly, high inflation

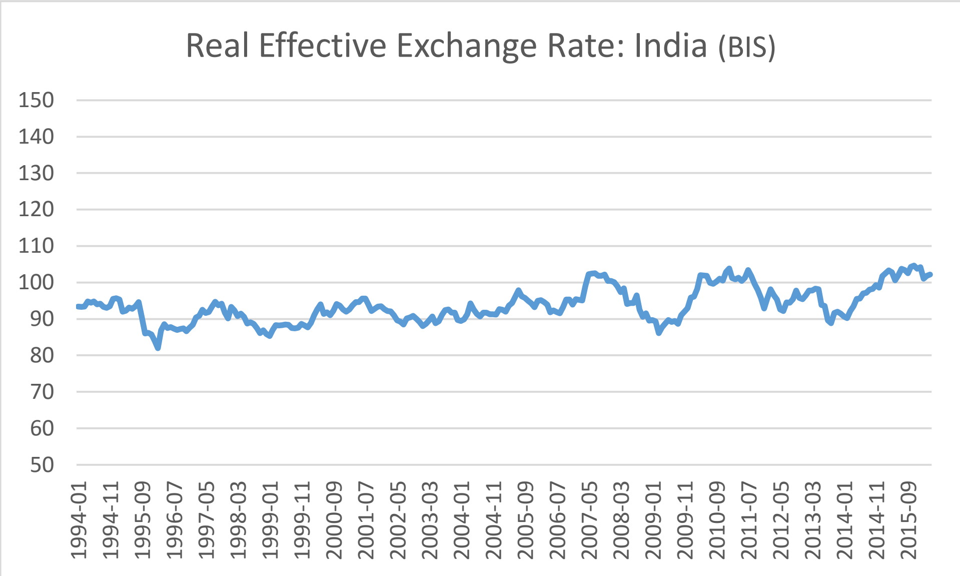
[300] Information in this section is to a considerable extent taken from the OECD's Economic Survey of India 2014, released in November 2014. See http://www.oecd.org/eco/surveys/economic-survey-india.htm

[301] The source is indicated in the Economic Survey of India produced by the OECD on which this section builds.

[302] The second I stands for Indonesia.

and negative real interest rates on bank deposits have distorted household behaviour. Gold and real estate have been preferred to bank deposits. The associated current account pressures then let the government raise import duties on precious metals. This is symptomatic therapy, however. Monetary authorities face the challenge of bringing down inflation expectations which have remained stubbornly high. To this end, India is reforming its monetary policy framework. An expert committee of the Reserve Bank of India recommended in January 2014 that inflation should be the nominal anchor for monetary policy, giving the headline Consumer Price Inflation (CPI) preference over Wholesale Price Inflation (WPI). The inflation target should be 4%, with a band of +/- 2%, following a 3-year transitional phase (the target would be 8% for one year and 6% for the next two years). Furthermore, a Monetary Policy Committee should be established and extensive reporting put in place to help anchor inflation expectations and confine capital flow volatility.

India, as a large country, has smaller problems stabilising the external value of its currency as the figure below shows. This said, to keep a surplus of private savings over investment and to contain government deficit spending remains important to keep the current account balanced and to avoid situations where the country has to have recourse to a devaluation



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Although the gross national saving rate, at over 30% of GDP, is high by OECD and BRICS standards, it declined by 6 percentage points of GDP between FY 2007-08 and FY 2012-13 reflecting the decline in public and corporate saving. High corporate leverage and deteriorating asset quality in the banking sector may put the current investment recovery at risk. While, according to RBI stress tests, the capital position of banks is strong,[303] the IMF still requested in 2013 that the early recognition of impaired assets and stricter asset classification continue.

The OECD looks at financial sector reform in a broader sense. The Survey of India observes that public banks hold more than 70% of total commercial banking sector assets. Furthermore, regulations on the allocation of bank resources are strict. They have to allocate at least 40% of their net credit to "priority sectors" determined by the government – agriculture, small-scale industry and a number of other "weaker" socio-economic categories. Also, the Statutory Liquidity Ratio (SLR) requires banks to hold 22% of their deposits in government securities. This raises the question whether there aren't other ways to mobilise private capital for longer term investment than channelling money through banks. Indeed, in the last five years, India has had the highest amount of infrastructure investment co-financed with the private sector among the low and middle income countries. This is welcome since India's infrastructure, especially electricity supply, is poor.[304] As an illustration, the OECD mentions that due to unreliable power supply, around half of the manufacturing companies experienced power cuts for more than 5 hours each week.

Finally, to enhance financial inclusion, the OECD suggests that more attention could be given to

[303] Credit extended by banks to the domestic economy is also not excessive.

[304] See part IV showing how investment funds helped in building up electricity infrastructure in Switzerland a century ago.

less costly service provisions such as mobile phone banking as mobile phone penetration in India is high (see the corresponding observations in the chapters on Kenya and the Philippines). This would improve the business environment for the large part of small scale businesses run in India.

3 Major medium term challenges faced by India's economy

The government projects an increase in the labour force by 88 to 113 million people between 2010 and 2020, mainly through the entrance of the young who tend to be better educated. Integrating these people remains a challenge since the demand for labour emanates from a rather feeble corporate sector. About 65% of jobs were in firms with less than 10 employees in 2012. To have a larger workforce requires complying with rigid labour market regulations, however. Recent efforts at the central government and state levels to modernise labour regulations and reduce compliance requirements are steps in the right direction according to the OECD.

India stands out with less than a third of working-age women in work. Participation is higher among the poor and somewhat surprisingly declines with education and family incomes, reflecting various supply and demand factors, including social norms, as staying at home is often considered to increase the family's social status. Weak implementation and remaining gender biases in laws also affect women's opportunities for work; labour laws e.g. restrict women's working hours and access to certain occupations.

In 2013, India had the highest level of state control of the economy among 36 countries covered by the OECD Product Market Regulation indicator PMR, although the level has fallen since 2008. India also has complex regulatory procedures and high administrative burdens for firms.[305] Lengthy authorisation processes and uncertainty surrounding land acquisition have held back infrastructure investment. Discretion within government bureaucracy also enables corruption. India ranks 94 out of 177 countries in 2013, according to the Transparency International Corruption Perception Index, and its relative rank in control of orruption has declined over time. Many good initiatives at the top level never reach the ground due to lack of political will and capability in the administration. States in India have direct responsibility for a number of areas, but, according to the OECD, their attitudes and the efficiency with which they administer basic laws can differ considerably.

Achieving better health outcomes in a cost-effective way is a next topic on India's agenda. The most significant gains in improving health will come from population-wide measures outside hospitals and consist in improving sanitation and access to clean water, as well as better sex-education and child immunisation. With regard to the health sector, the OECD observes that India has a national health care system which in principle provides a comprehensive array of services to all and at no cost. In practice, this system struggles to do so consistently, also due to a lack of funds. While public health spending has increased slightly in recent years, at 1.2 % of GDP it remains very low compared to other BRICS. In particular, India suffers from a low number of nurses as they are the ones largely responsible for providing basic health care services to the poor. The OECD then goes on to note that government sponsored health insurance schemes targeted at the poor to promote equity in access have grown quickly. The National Health Insurance Programme as the largest of such insurance schemes was launched in 2008 for the below-poverty-line population and informal sector workers. It now covers 38 million out of an estimated 60 million below-poverty-line families. Still, poor families rarely use health care services financed by the system, partly because they lack information on their coverage.

To sum up: Major obstacles India needs to overcome to sustain growth over a medium to longer term horizon are infrastructure bottlenecks, a cumbersome business environment, complex and distorting taxes, inadequate education and training, and outdated labour laws. Female economic participation remains exceptionally low, holding down incomes and resulting in severe gender inequalities. Furthermore, absolute poverty remains high. An improvement in this respect may require a reconsideration of the subsidisation of food, energy and fertilisers combined with increased efforts to achieve better health outcomes in a more cost-efficient way.

4 Securing India its role in the global knowledge society[306]

A study by the Asian Development Bank agrees with the OECD that a lack of adequate labour market reforms and slow opening up to foreign

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[305] In the Ease of Doing Business indicator India ranks 142nd.

[306] The following section builds on Asian Development Bank (2013): Innovative Asia: advancing the knowledge-based economy: country case studies for the People's Republic of China, India, Indonesia, and Kazakhstan. Accessible through http://www.adb.org/publications/innovative-asia-advancing-knowledge-based-economy

direct investment have hampered growth. The report then adds that a severe lack of skilled employees has triggered high-skilled wage rates, thereby making businesses less competitive. The share of people in India with a secondary education is indeed only half that of China. Specifically, while India will add 28 million workers to the labour force between 2010 and 2030, compared to 13 million by China, the number of workers with tertiary education in India in the same period is projected to reach 27 million compared to 30 million in China. These deficiencies are a cause for concern, particularly from the point of view of making India a Knowledge Based Economy. This is the theme of the ADB study which we now will resume. The report also covers China, Indonesia and Kazakhstan.

The report starts by observing that India's economic growth in recent years has largely been driven by the growth in the services sector, the latter having increased its share in GDP from around 40.3% in the 80' to 58.8% in 2012/13. In accordance with the classic evolution of sector shares in a development process, in recent years, the agriculture sector has seen a low growth rate and continues to show low productivity. This sector had witnessed several innovations in the past, such as the "Green Revolution" in the 60' and the "White Revolution" in the 70' which helped India attain self-sufficiency in food grains and to become the largest milk producer in the world. There remains the manufacturing sector. Here, the ADB report observes that this sector is largely constituted of labour-intensive manufacturing and that the country has not been very successful in developing high-value manufacturing.

India's exports basket has correspondingly limited diversification and largely comprises primary products, while the country imports finished products. Considering only the exports of special economic zones (SEZs) in the country, in 2010–2011, 76% of the total exports consisted of computer software, chemicals and pharmaceuticals, and gems and jewellery. The overall low sophistication of manufacturing surprises somewhat since in services, the growth was driven by the growth of knowledge-based subsectors such as business services (including information technology) and telecommunications. Outward orientation played a role in this regard. Knowledge-based services, mainly IT-enabled, have become an important component of India's trade basket. As the World Bank observed in 2012, India's rank in commercial services exports improved from 28th in 1998 to 8th in 2011.

To further analyse India's position on the way into a Knowledge Based Economy, the ADB uses the Knowledge Economy Index (KEI). The KEI is based on four pillars and uses several variables as proxies to asses a country's position with regard to these four subcomponents. The 12 knowledge variables used in the Basic Scorecard were selected on the basis of their ability to proxy the respective KEI pillar. Important was also their availability for numerous countries and for a longer time, so as to provide consistent comparisons for a large number of countries across three time periods, 1995, 2000 and the most recent year. The table below presents India's score in the KEI and its four pillars in 1995, 2000 and in 2012.

Table 6: India and the Knowledge Economy Index

Year	Rank	KEI	EIR	Innovation	Education	ICT
1995	106	3.57	3.57	3.70	2.51	4.50
2000	103	3.14	3.56	3.83	2.30	2.85
2012	109	3.06	3.57	4.50	2.26	1.90

KEI = Knowledge Economy Index EIR = Economic Incentive Regime ICT = information and communication technology
Source: World Bank, Knowledge Assessment Methodology. http://www.worldbank.org/kam.

India's position in the KEI has worsened since 2000 compared to other economies in the region which did better, such as Indonesia (108th), Malaysia (48th), China (84th), Sri Lanka (101st), and Thailand (66th). India's KEI value is about 2.5 times lower than the average of OECD-members. With the exception of the innovation subindex, India's performance on the other three pillars is below even the average of the Asia Pacific region.

The ADB report then goes on to discuss one pillar after the other, starting with indicating relevant statistics and then addressing possible policy measures:

Economic incentive and institutional regime (EIR) policies

Among the indicator variables used to assess the EIR regime, India recently scored better in the annual GDP growth rate, the Human Development Index, and patents granted by the US Patent and Trademark office. All the other indicators have not shown an improvement: The low gross enrolment ratio in secondary and tertiary education and the limited availability of telephones, computers and internet access are causes for concern.

The poor quality of regulations and the presence of several tariff and nontariff barriers to trade have also affected India's overall rank in this component of the KEI. India's rank in the World Bank's Doing Business Indicators is much lower than the ranks of Malaysia (12th), China (91st), the Republic of Korea (8th), Sri Lanka (81st), and Thailand (18th). With 13.7% average tariffs, India also has one of the highest tariff levels in the world.

India has not been able to attract significant FDI in manufacturing (23% of total FDI in 2010–2011) compared to the services sector (43%). The Inward FDI Performance Index of UNCTAD shows that India (ranked 97th in 2010 among 141 countries) has been attracting less FDI than other emerging markets such as Brazil (69th), China (79th), and Mexico (84th) while India ranked 3rd among 182 countries in terms of inward FDI potential.

Economic incentive and institutional regime (EIR) policies need to draw on India's strengths, such as democratic governance, a sound and independent judiciary, a diverse scientific community and research base, good intellectual property rights (IPR) laws, the presence of a robust private sector, and a growing middle class willing to spend on education and technology, education constituting the second pillar to consider.

Educational achievements

In accordance with what the OECD stated in the Economic Survey of India 2014 (see above), the ADB observes a mismatch between demand and supply in higher education at three levels: low enrolment numbers, disparity in access, and poor quality of education. Tertiary enrolment is not outstanding and the acquisition of skills under vocational education is rather rare. Secondly, there is wide disparity in access to education across gender, states, regions, and communities. Thirdly, the quality of higher education is poor. The ADB refers to a survey by the McKinsey Global Institute showing that only 25% of Indian engineers are employable. Relevant for the pharmaceutical cluster, India shows a remarkably high migration of health professionals to OECD countries.

India's competitive advantage in exporting skilled professional services can better be achieved if the country signs international agreements that facilitate professional movements or the exchange of the services rendered by these professionals. This is increasingly vital for a borderless global economy. An example is the India–Singapore Comprehensive Economic Cooperation Agreement, wherein there is a provision for mutual recognition agreements in the fields of medicine, nursing, dentistry, chartered accountancy, company secretary-ship, and architecture.

Information and Communication Technology

Communication services registered an average growth rate of 25% in 2000–2010. India has now the second largest wireless or mobile telecommunications network in the world (after China). India is also the world's largest film-producing country, producing an average of 1'000 feature films annually in 27 different languages. It is the world's third-largest television market, and the radio and terrestrial broadcasting network is one of the largest in the world. It is an essential asset to dispose of an English-speaking workforce. On the negative side figures that the number of internet and broadband subscribers is low compared to the population of the country although it has increased in recent times. A digital divide exists between the urban, rural, and remote areas. And there are multiple regulators so that no single agency or government body can take a holistic decision for the growth of this sector.

Innovation and Technological Adoption

India has improved its performance significantly only in the innovation pillar of the KEI, compared to the year 2000. India's R&D expenditure as a percentage of GDP was 0.9% in 2011, which according to the ADB needs to increase at least to 1.5% to enable a critical mass of high-quality R&D to support the transition to a high-income economy. Although India doubled its R&D spending between 2007 and 2012 to US-$ 40bio, it still lags behind China's spending of US-$ 200bio. IPR protection is considered weak although the laws in themselves are considered solid.

The Science, Technology and Innovation Policy aims to establish world-class infrastructure for research and development (R&D) in India and to position the country among the top five global scientific powers by 2020. The policy supports the development of both manufacturing and services. By January 2014, 12 national manufacturing investment zones (NMIZs) had been announced; these zones will encompass SEZs, industrial clusters, integrated townships, world-class logistics infrastructure, training facilities, and single-window administrative procedures. The Ministry of Commerce and Industry proposed a National Services Competitiveness

Council in 2013 to provide an institutional framework for the growth of the services sector, with the scope to enhance the sector's global competitiveness and diversify the country's exports basket. The ADB considers that these policy measures are all highly supportive of the development of a KBE; however, implementation quality will be critical to their success.

Private participation in R&D has increased in recent years. There are several private initiatives to facilitate research and innovation. For instance, the ICICI Knowledge Park (IKP) located in Hyderabad (Andhra Pradesh) has a wet laboratory with utilities for customized, i.e. business-driven research.

Reports of sectoral innovation councils propose sector-specific reforms to ensure growth of knowledge-intensive sectors and R&D and innovation in India. 10 sectors were identified where more resources can be deployed for R&D including agriculture, health, and drug discovery. The report by the Sectoral Innovation Council on Industrial R&D articulates the plea to set up more than 100 world-class research institutes and universities in collaboration with institutes in the US, Europe, and Japan; to facilitate a reverse brain drain; to enable the quick conversion of ideas into products and to make innovation an integral part of engineering courses.

To enhance the suggested international collaboration in knowledge-based sectors, the government has signed agreements and memoranda of understanding for collaboration in science and technology with over 70 countries and is undertaking over 400 R&D projects with international collaboration. Science and technology cooperation is a key component of India's bilateral free trade agreements.

5 The move of the Pharmaceutical Industry to India

PricewaterhouseCoopers (PwC) has released a study on the huge potential of the Indian pharmaceuticals market.[307] The introduction of the study is perfect in explaining the driving forces inducing pharmaceutical companies to establish and expand subsidiaries in India:

"The pharmaceutical industry's main markets are under serious pressure. North America, Europe and Japan jointly account for 82% of audited and unaudited drug sales; total sales reached US-$ 773bio in 2008, according to IMS Health. Annual growth in the European Union (EU) has slowed to 5.8%, and sales are increasing at an even more sluggish rate in Japan (2.1%) and North America (1.4%). Impending policy changes promoting the use of generics in these key markets are expected to further dent the top- and bottom-line of global pharma majors. The industry is bracing itself for some fundamental changes in the marketplace and is looking at newer ways to drive growth.

Further, higher R&D costs, a relatively dry pipeline for new drugs, increasing pressure from payers and providers for reduced healthcare costs and a host of other factors are putting pressure on the global pharmaceutical companies. Pharma companies are looking for new ways to boost drug discovery potential, reduce time to market and squeeze costs along the whole value chain.

How can industry leaders best face these challenges? Analysis by PricewaterhouseCoopers (PwC) shows that several regions offer considerable promise, either as places with untapped demand for effective drugs or as suitable areas for conducting research and development (R&D) and/or clinical trials. In this paper we shall examine the opportunities available in India. India's population is growing rapidly, as is its economy – creating a large middle class with the resources to afford Western medicines. What's more, India's epidemiological profile is changing, so demand is likely to increase for drugs for cardiovascular problems, disorders of the central nervous system and other chronic diseases. Together these factors mean that India represents a promising potential market for global pharmaceutical manufacturers. More than that, India has a growing pharmaceutical industry of its own. It is likely to become a competitor of global pharma in some key areas, and a potential partner in others. India has considerable manufacturing expertise; Indian companies are among the world leaders in the production of generics and vaccines. As both of these areas become more important, Indian producers are likely to take a major role on the world stage – and potentially partner with global pharma companies to market their wares outside India. Indian companies have also started entering the realm of R&D; some of the leading local producers have now started conducting original research. India has the world's second biggest pool of English speakers and a strong system of higher education, so it should be well-positioned to serve as a source for research talent. A new patent regime provides better protection of intel-

[307] PricewaterhouseCoopers (PwC) (2010): Global Pharma looks to India: Prospects for growth. http://www.pwc.com/gx/en/industries/pharmaceuticals-life-sciences/publications/india-growth.html

lectual property rights, although some issues remain. Clinical trials can also be conducted here much more cost-effectively than in many developed nations, and some local companies are beginning to develop the required expertise. All of these factors add up to a strong case for partnering with Indian companies around R&D, including clinical testing. Furthermore, healthcare has become one of the key priorities of the Indian Government and it has launched new policies and programmes to boost local access and affordability to quality healthcare. Global players in the pharma industry cannot afford to ignore India. The country, many predict, will be the most populous in the world by 2050. India will make its mark as a growing market, potential competitor or partner in manufacturing and R&D, and as a location for clinical trials."

How Novartis organises its Research and Development

Key figures of Novartis

Novartis is a global healthcare company based in Basel, Switzerland, present in more than 180 countries worldwide and employing approximately 120,000 full-time-equivalent persons. The 2014 letter to shareholders of the Head of the Board indicates succinctly the major ongoing transformations in the company: "We undertook important changes to our business portfolio with the aim of being a global leader in our three core areas: pharmaceuticals, eye care, and generic medicines. We plan to divest or spin off operations that lack the potential to be global leaders, including businesses in vaccines and over-the-counter medicines. The planned acquisition of the oncology products of GlaxoSmithKline will strengthen our high-priority oncology business. In January 2015, we sold our Animal Health business and we aim to complete the remaining transactions in 2015. In parallel, we are expanding research efforts in age-related and chronic diseases, which are growing in importance as the population ages. We are consolidating our internal services into a single organization, strengthening Group-wide collaboration. We also have updated the values and behaviours we expect associates to follow to further emphasize collaboration and high ethical standards. At the same time we are working to advance access to medicine in developing markets and intensify research in the area of neglected diseases so that patients everywhere can live longer and healthier lives."

Underpinning the last sentence are also solid business reasons. The company expects worldwide healthcare spending to more than double by 2025, to over US-$ 15 trillion, and estimates that about half of that growth will be in the developing world as more and more people in these countries can afford access to modern medical care.

In pharmaceutical production, the costs of producing the goods sold are not much more than one third of their sales value. Approximately one sixth of net sales are spent for R&D. As will be shown below, part of R&D costs would be production costs in an engineering company, however.[308] A litigious aspect with pharmaceutical companies is their high spending on the sales organisation and marketing (presently quasi one quarter of net sales). Novartis currently faces allegations of misbehaviour in this regard. In the Annual Report 2014, this is addressed under the heading 'Corporate Social Responsibility' and stated that the former Chief Commercial Officer of Novartis Pharmaceuticals was named as Chief Ethics, Compliance and Policy Officer and that he will be reporting directly to the CEO.

Different cost components are then reviewed in the annual report, the remarks on administrative costs being of specific interest in the present context. Specifically, the creation of Novartis Business Services (NBS) in Hyderabad in July 2014 where business support services across Novartis' divisions are concentrated meant an important strengthening of the company's presence in India. The annual report states: "NBS will help drive efficiency, increase standardization, and simplify processes to deliver services at a better price. NBS aims to harmonize six service domains and related services, including human resources services, real estate management and facility services, procurement, information technology, and financial reporting and accounting operations, among others. NBS currently includes approximately 7 500 associates. It is expected to play a key role in accelerating our productivity gains." These jobs will increasingly be located at Hyderabad in India. While Hyderabad makes particular efforts to become a centre of the pharmaceutical industry in India, India in general is strong in providing IT services, as shown above. This locational choice therefore does not come as a surprise.

[308] The tests needed to get product approval for a medicine are R&D, the engineering efforts needed up to the point where to obtain a construction permit are attributable to a single project and are construction costs.

The organisation of R&D within Novartis

It would be premature to conclude that cost pressures are already a major motive for locational decisions within R&D. The activities dislocated by Novartis Business Services to Hyderabad are supportive of R&D but India is e.g. not hosting a Novartis Institute for BioMedical Research (NIBR) but only a Pharmaceutical Development site. To understand this distinction, one has to know that Novartis adheres to what the company calls its development paradigm. It consists of two parts: Exploratory Development and Confirmatory Development. While in practice the distinction may not be as sharp as suggested, within Novartis NIBRs concentrate on activities up to phase II trials while Pharmaceutical Development units concentrate on phase III trials and registration plus post-launch activities.[309]

Research and exploratory development takes place in the Novartis Institutes for BioMedical Research (NIBR) in Basel, Switzerland, Cambridge, Massachusetts, US, East Hanover, New Jersey, US, Emeryville, California, US, and Shanghai, China. Additionally, there is the Novartis Institute for Tropical Diseases (NITD) in Singapore. We see that proximity to headquarters and major universities are the primary locational factors. The NIBR in Shanghai reflects the motive of being close to customers also with more basic R&D, their share in the Asia-Pacific region growing constantly. Since there may be reasons to locate a tropical institute close to the equator, the choice fell again on a major centre, Singapore.

Additionally, Novartis is also engaged to some extent in basic research. The institutional units within Novartis that are closest to academia and effectively do basic R&D to a considerable extent are the Friedrich Miescher Institute for Biomedical Research (FMI), Basel, Switzerland, and the Genomics Institute of the Novartis Research Foundation (GNF), La Jolla, California, US.

Confirmatory development takes place in Basel, Switzerland, in East Hanover, New Jersey, US, in Cambridge, Massachusetts, US, in Changshu, China, situated about 80 km northwest of Shanghai, in Shanghai, China, in Tokyo, Japan and in Hyderabad, India. The importance of the size of the target market is reflected by these locational choices (plus the proximity to NIBRs), Switzerland having the advantage of a central location in Europe.

Geographical considerations do not make up the whole of integration into a world region, much also depends on a country's integration into a world region from an institutional point of view. Thanks to the bilateral agreement Switzerland has concluded with the EU in the area of R&D, Novartis can participate on an equal footing in EU-wide R&D programmes from where its headquarters are.

Swiss R&D statistics reveal some interesting aspects of how product development is done in the pharmaceutical industry. Considering qualifications required, the pharmaceutical industry is the only one in which the proportion of people with tertiary education in R&D is less than 50 per cent. When one considers only researchers, the dominance of pharmaceutical research is even less pronounced (10% of the total). However, if one adds 50% of researchers in the two branches 'R&D' and 'other' to the pharma sector to approximate the user perspective, the pharma share goes up again, to more than a quarter of the total. This is revelatory for how important the service sectors 'R&D' and 'other' (the latter comprising pure engineering companies) have become for what is still considered a manufacturing activity, namely the fabrication of medicines. Such outsourcing also impacts on the size distribution, researchers being more likely employed in smaller units within the latter two branches than in the large R&D units of the main industry which uses their results. Expressed differently, bidding for research results coming out of a distinct, competitive R&D sector gains in relevance for pharmaceutical MNE over in-house R&D at the knowledge frontier. It remains to be seen whether this pattern will generalise to other industries doing R&D.

[309] Phase I/II clinical tests are designed to give early insights into issues such as safety, efficacy and toxicity for a drug in a given indication. Phase III testing, taking place with many more participants, serves in particular to compare the drug to the current standard of care for the disease, in order to evaluate the drug's overall risk/benefit profile.

6 Contentious aspects of pharmaceutical production and research in India

The evolution of patent legislation in India

At the time of Independence, India's patent regime was governed by the Patents and Designs Act of 1911, which had provisions both for product and process patents. It was, however, felt that the way the Act was designed did not help in the promotion of scientific research and industrialization in the country. Shortly after Independence, a committee was therefore constituted which - in regard to patents for chemical substances - examined the history of the law in other countries. It pointed out that Germany had decades ago been the first to adopt the system of confining the patentability of inventions relating to chemical products or substances to process claims. A similar step decided by India when patent protection in Germany had long been extended is considered as having helped India to become the World's Pharmacy. Chaudhuri (2005)[310] claims that at the turn of the century, India accounted for more than 50 per cent of the international trade for more than 25 bulk drugs. With effect from 1 January 2005, the Patents Act of 1970 underwent many changes to make patent legislation in the country compliant with the TRIPS agreement. Transposing the TRIPS requirements was compulsory given India's WTO membership. The single most important change was to open the door to product patents in the pharmaceutical and agricultural sector. In applying the new law, the use of compulsory licensing soon became the most contentious aspect.

The provisions of the TRIPS Agreement were quickly perceived as serving predominantly the interests of the richest nations and concerns were raised regarding the provisioning of poor populations with essential medicines. India was prominently concerned since the country had established itself as the pharmacy of the poor. These discussions led to the Doha Amendment of the TRIPS Agreement which allows poor nations to entrust the production of essential medicines (such as those used against AIDS) to third countries when using the provisions regarding compulsory licensing the TRIPS agreement offers them. Additionally, the World Intellectual Property Organisation WIPO released document-tation on how to use TRIPS flexibilities. In this vein, the Indian Parliament had amended the Patent Act with a provision saying that "the mere discovery of a new form of a known substance which does not result in the enhancement of the known efficacy of that substance or the mere discovery of any new property or new use for a known substance" does not constitute an invention under the act. Novartis therefore lost a case, although the modification of the basic ingredient for which a patent was sought had been considered in the US a sufficient innovation over the already existing drug. Subsequently, the company and some law firms showed difficulties in accepting that patentability standards may differ from those in the US where enhanced efficiency and not improved efficacy as in India is the criterion for granting a renewed pharmaceutical patent.

The US Authorities keep a severe eye on IPR legislation throughout the world, although they are aware of the fact that also in the EU patents are not available on the same broad range as in the US. In 2014, the US Trade Representative reviewed e.g. IPR laws of 72 'partner' countries, of which 37 were put on the 'priority watch list'. To give the new Indian government credit, India's IPR laws were in 2014 no longer subjected to an out-of-cycle review (OCR). However. India was kept on the watch list by the US because of procedural barriers and delays when registering foreign trademarks. Also the fact that India's copyright act is alleged to have three overly broad exceptions, leading to a weakening of the protection of computer software, plays a role. On the other hand, the use of compulsory licenses as a commercial tool appeared to the US to be much diminished. Likewise, recent moves confirming the scope of patentability for computer related inventions was welcomed.[311]

Clinical Testing

In past years, there has been a claim that India was fast emerging as a favourite clinical trial hub for global pharmaceutical companies. Data from 'clinicaltrials.gov', a site maintained by the US government, point in a different direction, however. Data retrieved on 11/03/2015 showed that 1.4% of global clinical trials were carried out in 2014 in India compared with 3.2% in China, 1.5% in the Czech Republic, 1.0% in Turkey, and 0.9% in Thailand. Half of all trials being conducted worldwide were based in North America, while the UK was hosting 5.5% of trials.[312]

[310] Chaudhuri, Sudip (2005): The WTO and India's Pharmaceuticals Industry (Patent Protection, TRIPS, and Developing Countries), Oxford University Press, 2005.

[311] See https://ustr.gov/about-us/policy-offices/press-office/press-releases/2015/april/ustr-releases-annual-special-301

[312] https://www.clinicaltrials.gov/ct2/about-site/results

A boost of clinical trials in India could not be excluded, however.[313] It was 40% cheaper to conduct trials in India than in competing Eastern Europe and there were a vast genetically diverse population, well-equipped hospitals, and highly qualified English-speaking investigators at hand. Simultaneously, clinical trials in India also showed serious problematic aspects. A hesitant attitude of Indian patients to participate led companies to select remote villages and small towns for conducting clinical trials. Accordingly, the number of investigators was too high to secure a sufficient standard of supervision. It was also estimated that that took place informed consent was perfunctory in at least 80 out of 100 trials. The consent papers were e.g. in English, which most patients in rural areas cannot understand. Compensation to study participants suffering from serious adverse effects, or to beneficiaries to those who died, were not paid out in a regular manner. There was also criticism that few trials addressed the specific health problems of the large poor population in India.

Acting upon complaints of NGOs and health practitioners, the Supreme Court stepped in. It was a 2009 US-$ 3.6mio post-licensure observational study, funded by the Bill & Melinda Gates Foundation, which prompted regulatory change. The study, which aimed at evaluating the cost and feasibility of introducing the human papillomavirus (HPV) vaccine into the country's universal immunisation programme, was run by the Programme for Appropriate Technology in Health (PATH), a non-profit organisation based in Seattle in the United States, the Indian Council of Medical Research (ICMR) in New Delhi, and the Indian state governments of Andhra Pradesh and Gujarat. Two multinational companies producing this vaccine were also interested. While the deaths of young girls within this trial were not found to be causally associated with the vaccine, it was established before the court that the guidelines laid down by the Drug Controller General of India (DCGI) had not been adhered to. The Court halted trials until a sufficient mechanism was put in place by the government to monitor trials.

The government reacted by establishing three committees, a subject committee of 10-12 members for each therapeutic area, a technical committee, which has 20 members, and an apex committee. The application can go to the DCGI only when all three approve the trial. An amendment to the Drugs and Cosmetics Bill was also introduced in 2013 in Parliament, which contains penal provisions for violations of clinical trial procedures, and provisions for payment of compensation and ethics committees. The DCGI released detailed guidelines for conducting clinical trials and reporting of data related to deaths and serious adverse effects. Informed consent must now be audio and video recorded, and an independent expert committee examines reported adverse events and makes recommendations to the DCGI which will ultimately take a call on the quantum of compensation. To speed up procedures, technical deliberations with the regulator and experts were allowed before submitting an application.

Due to the legal uncertainties and the delays caused by the new regulations, clinical testing in India faced a slowdown. Conduct of clinical trials in India fell from 480 (with 253 approved) in 2012 to 207 (with 73 approved) in 2013. It is said that Clinical Research Organisations are shifting their attention to Turkey, Indonesia and Malaysia.

The Significance of Globalisation for India

Prima facie, the significance of globalisation for India is not very high. The country shows dependence from the rest of the world neither on the import nor on the export side. For decades, this made politicians inclined to pursue policies within national borders with the result that India remained a country at the lower medium income level. Significant poverty alleviation then occurred in parallel to market oriented reforms which included a cautious opening up of the country. In this process, the knowledge based services showed India's potential as a global player in the Knowledge Based Society.

[313] The information in the following paragraphs was compiled from different articles in the press and contributions to pharmaceuticals journals, namely: Nair, A. (2015): Clinical research: Regulatory uncertainty hits drug trials in India, The Pharmaceutical Journal, 12 March 2015; Dey, Sushmi (2014): 370 die in clinical trials in 2 years, kin of only 21 get compensation, Times of India, 15 December 2014; Limaye, Dnyanesh and Janka Marisa Langer and Tjorben Rühling and Gerhard Fortwengel (2015): A critical appraisal of clinical trials conducted and subsequent drug approvals in India and South Africa, BMJ Open, volume 5, issue 8; Selvarajan, Sandhiya and Melvin George and Suresh S Kumar and Steven Aibor Dkhar (2013): Clinical trials in India: Where do we stand globally? Perspectives of Clinical Research, 2013 Jul-Sep; 4(3): 160–164.

Chapter 15

Switzerland: In Need of Import Competition

CONTENT

Country Fact Sheet			World	Switzerland
GDP per Capita	(at 2011 PPP $)	2013	13,964	54,697
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	1,9
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	23
Agricultural Value Added	(% of GDP)	2014	3,1	0,8
Manufacturing Value Added	(% of GDP)	2014	26,4	26,3
of which Industry	(% of GDP)	2014	15,8	19,0
Services Value Added	(% of GDP)	2014	70,5	73,0
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	23,4
Research and Development Exp.	(% of GDP)	2005–2012	2,0	2,9
Internet users	(% of pop.)	2014	40,5	87,0
International Tourism, Arrivals	(mio people)	2013	1068,0	9,0
Consumer Price Index	(2010 = 100)	2014	..	99,3
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	173,4
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	143,8
Current Account	(% of GDP)	2013	..	11,4
External Debt Stock	(% of GDP)	2014	..	..
Exports plus Imports	(% of GDP)	2013	60,4	132,2
Private capital flows	(% of GDP)	2013	-0,9	12,6
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	-1,2
Official Development Assistance	(% of GNI)	2013	0,4	..
Remittances, inflows	(% of GDP)	2013	0,71	0,46
General Gov. Expenditures	(% of GDP)	2013	..	32,9
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	-0,2
General Gov. Net Debt	(% of GDP)	2013,0	..	25,2
Ease of Doing Business Index	(rank)	2015	95	26
Corruption perception	0-100	2014	..	86
Population	(millions)	2014	7259,7	8,2
Surface	(1'000km^2)	2015	134325	41
Populationb Density	(person/km2)	2014	56	207
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	1,0
Fertility	(births/woman)	2010/2015	**2,5**	1,5
Under-Five Mortality	(% < age 5)	2013,0	45,6	4,2
Life Expectancy at Birth	(years)	2014	71,5	83,0
Child Malnutrition	(% age group)	2008–2013	29,7	..
HIV-Prevalence	(% of pop.)	2013	1,1	0,3
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	..
GINI Index (income concentr.)	0-100	2005–2013	..	32,4
Homicide Rate	(per 100'000)	2008–2012	6,2	0,6
Primary School (enrolm.)	(% age group)	2008–2014	109	103
Secondary School (enrolm.)	(% sge group)	2008–2014	74	96
Tertiary School (enrolm.)	(% age group)	2008–2014	32	56
Genders in 2nd Schooling	(female/male)	most recent	97,1%	97,2%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	..
Employment to Population Ratio	(% aged 15+)	2012	59,7	65,2
Unemployment rate	(% aged $\geq$ 15)	2004-2013	..	3,304
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,83
Children in Employment	(% of age 7-14)	2013	..	..
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	8,0
Rural Population	(% of popul.)	2014	46,6	26,2
Energy use per capita	(kg of oil eq.)	2013	1894,4	3075,0
CO2-Emission	(t per capita)	2011	4,6	4,6
Improved Water Access	(% of popul.)	2014	90,5	100,0
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	8,6
National Resource Rents	(% of GDP)	2014	3,9	0,0
Protected Area	(% of surface)	2014	12,8	9,9
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,930

Chapter 15
Switzerland: In Need of Import Competition

The freedom of contract may be considered as the central ingredient of a competitive order. Here, the freedom of contract will be analysed with regard to retailing for which the acquiring and reselling of goods is core, knowing that the freedom of contract is more comprehensive than the name indicates. It comprises most notably also the freedom to choose one's profession. For the retail sector, evidently, restrictions of the freedom of contract weigh heavily.

Since, of the sixteen chapters, only the present one deals with a country that has figured over decades among the richest nations, namely Switzerland, a substantial part of the chapter will be devoted to the factors conducive to the country's high per capita income. In doing so, some light is shed on the Balassa-Samuelson effect, i.e. the observation that non traded goods and services sell at a much higher price in countries with a high per capita GDP than in those with a low per capita GDP. This effect only partly explains the high price level in the county, however. Forms of not perfectly competitive markets are important in explaining why Switzerland stands out with a particularly high price level. [314] [315]

The business case in this chapter examines recent mergers in the retail sector. They had the effect that despite the arrival of new foreign competitors the number of players in the oligopoly game often played in the distribution sector remained essentially unchanged.

1 Main features of the country and its population

Switzerland has a population of 8.2 million inhabitants and a surface of 41'285km^2, making it a comparatively densely populated country. Situated as a landlocked country in the heart of Western Europe, it realises one of the world's highest per capita incomes, also benefitting from an uninterrupted peace period of more than 150 years. When the country managed to stay out of WWI and WWII, this also occurred thanks to the fact that the country has linguistic ties to all neighbours, forcing it into a neutral position. From the late 19th century on, the country increasingly hosted companies active in global markets and has since then become an important source of global FDI. This role is supported by a considerable net foreign financial wealth and a strong financial place.

The country's neutrality as confirmed at the Congress of Vienna made Switzerland refrain from becoming a member of NATO, but also from EU membership. Having participated in the League of Nations in the inter-war period, hosting the organisation's headquarters in Geneva, Switzerland joined the political branch of the UN, the General Assembly, only in 2002. The country is member of the Council of Europe, the OSCE, the OECD and has concluded alone or as an EFTA member numerous free trade agreements with countries throughout the world.

The Swiss population is made up of the following linguistic groups: German 64.9%, French 22.9%, Italian 8.3%, Romansh 0.5%. While Romansh qualifies as an official language, the English, Portuguese, Albanian, Serbo-Croat, Spanish and Turkish speaking communities are each larger in number, reflecting important immigration. In fact, out of the population of 8 million, close to 2 million do not hold a Swiss passport (nationality is granted upon request and not acquired by way of birth in the country).

Switzerland's interior relations were marked up to the 20th century by the religious divide that resulted with Reformation. Zwingli in Zurich and Calvin in Geneva as the major exponents succeeded in introducing the new belief mainly within

[314] Using the model of monopolistic competition, the theoretical part in this chapter examines first the reasons why price discrimination among markets with similar per capita income occurs. It then takes up the point that the extent of exchange rate variations may have an impact on the leader-follower game often played when we face oligopolistic markets.

[315] In the legal part of the present chapter, we will set out how the freedom of contract was established in the Swiss constitutional order. An intensively discussed aspect of the competitive order is thereby placed centre-stage, namely the question whether competition policy is constitutive of a market economy or whether such a policy is another form of government intervention. The topic is then extended to the question whether there is a need for a competition agreement within the WTO. Merger cases, together with the abuse of a dominant position appear as most exposed to unwarranted government interference causing irritation beyond national borders.

the towns, adding an economic and geographic divide to the religious cleavage. This divide was largely overcome at the turn to the 21th century.

Population growth is at 1% per year due to immigration, a fertility rate of 1.5 children per woman not being sufficient to reproduce the country's population. Life expectancy at birth is a high 83 years.

School attendance is complete at the primary school and close to complete at the secondary school level, but only 56% at the tertiary level. This weighs heavily in the HDI index but is due to the fact that the very popular apprenticeship system is not counted as tertiary education in international statistics, irrespective of the content taught. The benefits of this system accrue in the form of low youth unemployment.

The share of the rural population is down to one quarter. Due to its industry structure, CO_2 emissions within the country are low for an industrialised nation. Water quality has significantly improved since the 60' when production of manure by an excessive live-stock caused locally the so-called shallow-lake phenomenon.[316] Forest surface is slightly increasing and a considerable part of the country is protected area.

While not reaching the values of Scandinavian countries, the income distribution is comparatively well balanced according to the GINI index. Personal safety is high.

2 Main features of the economy

GDP per capita reached US-$ 54'697 when measured at the purchasing power parity of 2011. GDP growth reached an astonishing 1.9% p.a. in the period 2009-2014 but this figure has to be seen against the background of strong immigration (1% of the population size per year), supporting internal demand. Over the decade up to 2014, GDP had progressed one quarter.

The employment to population ratio stands at 65.2% and the ratio of female to male employment is 83%. Hours worked per women are relatively low, however. Unemployment was 4.4% over the period 2004-2013, testifying to a smooth functioning of the labour market.

Agriculture contributes 0.8% to GDP while the manufacturing sector's value added is still 26.3% of GDP, industry accounting for 19%. The relative importance of an internationally oriented service sector deserves mentioning. Beyond the financial sector, merchanting is important. Arrivals of tourists amount to 9 million p.a.

Gross fixed capital formation as a share of GDP is considerable, but more so is the ratio of R&D expenditures to GDP of 2.9%, a large part stemming from the private sector. 87% of the population are internet users. With 132.2%, trade exposure appears as high but is in reality not at the level one might expect from a highly developed country in the heart of Europe. The reason resides in the high share of imports and exports of gold and other valuable assets. Inward FDI is considerable, but the eminent role of holdings in absorbing these flows makes an interpretation of the series difficult.

The current account shows a surplus of 11.4% of GDP. Accounting practices are of some importance in valuing this high figure, however. Earnings of MNEs reinvested abroad add to the surplus while it remains open whether the capital gains on shares made by foreigners on Swiss stocks - likely to go along with the consequent reticent dividend policy of MNEs - are more important than the corresponding capital gains made by Swiss shareholders on foreign stocks. In any case, these valuation changes do not enter current account statistics and have not been favourable to Switzerland over many years, the cumulated current account surplus being higher than the measured increase in net foreign wealth.[317] An appreciating exchange rate has also some importance in this respect. Net foreign wealth reached a very high 127% of GDP in 2014 (assets of SFR 4'243bio and liabilities of SFR 3'427bio[318] resulted in a net wealth of SFR 816bio).

Switzerland pursues an independent monetary policy. The cumulated change in the consumer price index since 2010 is slightly negative, also reflecting the significant appreciation the currency in 2011 and again in 2015. These appreciations, of uncertain duration, have pushed the comparative price level back up to 143.8% of that in the US, explaining the choice of the topic and the title of this chapter. Domestic credit by the banking sector is 173.4% of GDP, a source of concern for the National Bank. Pay-down of mortgages was not common, however, when mortgage debt was under 60% to 80% of the value of the building serving as collateral, so that on a

[316] See Chapter 11.

[317] Jarrett, P. and C. Letremy (2008), "The Significance of Switzerland's Enormous Current-Account Surplus", OECD Economics Department Working Papers, No. 594, OECD Publishing.

[318] The huge leveraging (the gross positions are four and five times the net position) also makes it likely that the change in the net stock is not driven by the net flow but by valuation changes affecting gross assets and liabilities differently.

gross basis households favoured building up assets over debt reduction.

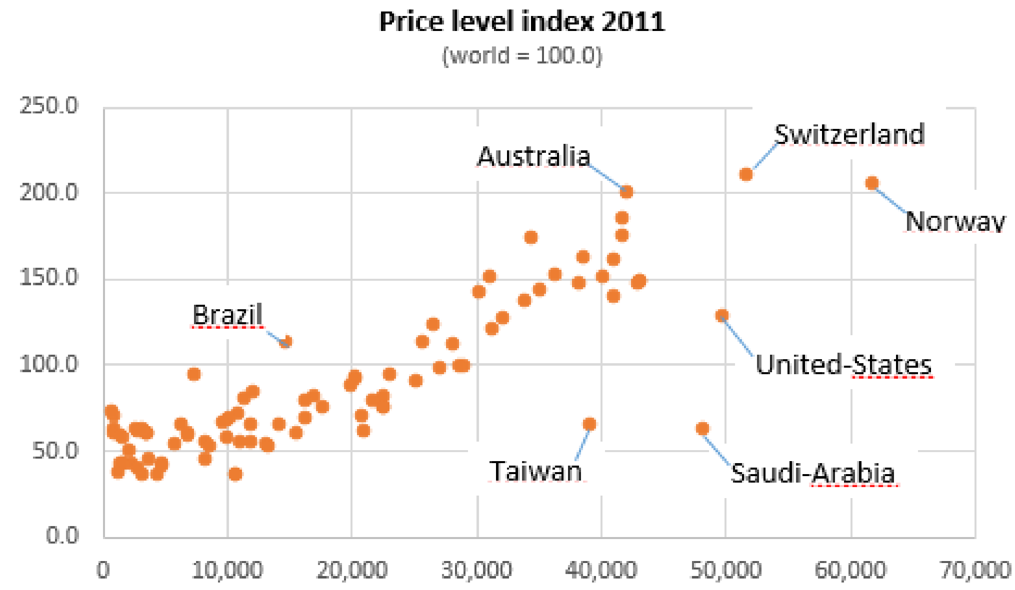
General government spending is 32.9% of GDP, rather low by European standards, but to gain an adequate picture of the tax burden a detailed examination of the important social security sector with funded private pension schemes is necessary. Public indebtedness fell in recent years to 47% of GDP (25.2% on a net basis), enviably low compared to the rest of Europe. Switzerland performs relatively well in the Doing Business indicator, while corruption is not seen as a problem by the business community.

3 Explaining high per capita income in Switzerland

According to the IMF, Switzerland ranks 4th in the world with regard to per capita income, after Luxemburg, Norway and Qatar. However, when per capita GDP is converted into US-$ on a purchasing power parity basis (and not at current exchange rates), Singapore, Brunei and Hong Kong rank before Switzerland and, more relevant, the country does no longer outperform the US.[319] This leaves us with two tasks, to explain the high per capita income on the one hand, and the high price level on the other, but before we have to consider their interaction.

Real income per capita and comparative price levels are interrelated

The comparative price level and per capita incomes in real terms are not independent of each other. There is a well-established positive correlation of the price level in international comparison to real GDP per capita in the country as the figure below indicates. This correlation is mainly explained by the Balassa-Samuelson-Effect (see box below).



The data for the figure are from the International Comparison Programme launched by the Word Bank. They refer to the year 2011, an important aspect for the figure since the comparative price level indicated on the y-axis is obtained by dividing the market exchange rate of the respective year (US-$ per national currency unit) by the PPP-conversion factor. A temporarily overvalued currency (more $ to be paid per domestic currency unit) will therefore push the indicated price level up. The PPP conversion factor considers the size of a basket of consumer goods and services one national currency unit buys in each country and then compares the size of these baskets to the size of the basket one US-$ buys in the USA, the latter showing a comparative price level some 25% above the world average. On the x-axis figures GDP per capita for the countries considered, made comparable by conversion with the PPP conversion factor. The countries considered are those participating in the Eurostat-OECD PPP calculations (excluding Luxemburg) plus all countries with a population size larger than Guatemala (ca. 15 Mio. people). Georgia as one of the 16 countries considered in this book was also retained.

[319] Converted at current exchange rates, per capita GDP in Switzerland (at US-$ 83'854 in 2011) is 68% over the US level (at $ 49'782). If one considers what a Swiss franc can buy in the country, i.e. after correction for differences in purchasing power, the value for Switzerland falls to $ 51'582, only 4% above the US value. That living costs in Switzerland are more than 60% higher than in the US is contested by some observers who, consequently, cast doubt on the PPP calculations. The graph suggests that eventually not the Swiss but the US-value could deserve further explanation.

According to the graph, in 2011, Switzerland was on the imaginative regression line linking the comparative price level to GDP per capita measured at purchasing power parity. The outlier is rather the USA with its low relative price level. However, we also have Norway with a comparable price level to Switzerland but a GDP per capita 20% higher and Luxembourg (not in the figure) with per capita GDP on a PPP basis of US-$ 88'870 but a comparative price level of 162.4 (and not twice the world level). The incentives for cross-border shopping are therefore significantly different in Luxemburg and in Switzerland, making the Swiss price level an interesting case, in spite of the fact that with the market exchange rates of 2011 the dependence of the price level on per capita incomes provided the major explanation for the Swiss price level. We will deepen this aspect below but first comment the GDP per capita values achieved in real terms, i.e. after neutralising price level differences.

The Balassa-Samuelson Effect

The Balassa Samuelson effect makes out of the observation that consumer price levels in richer countries are systematically higher than in poorer ones the starting point. The phenomenon is then explained by the fact that productivity varies more by country in the traded goods' sectors than in the non-traded sectors. If a country shows a high productivity level in traded sectors, the non-traded sectors can only retain resources when they pay higher factor remuneration than the country showing lower productivity in the traded sector, the tradeable commodities – for which it is assumed that the law of one price holds – serving as the numéraire. The Balassa-Samuelson effect is enhanced, but the relevance of productivity differences in explaining the phenomenon simultaneously mitigated by demand effects. Specifically, when with raising income more non-tradeable goods and services are demanded, the price level in the richer country gets a second boost. Often assumed in theoretical work, the law of one price does not need to hold for tradeable goods and services, shedding light on the fact that distinct features of competition in the countries compared also impact on the price level difference, as will be discussed below. Finally, the question whether a country desires to attract investment or has to export a savings surplus has some importance. For these reasons, the assertion that high wages explain high prices, is correct but incomplete. Why should tradeable goods and services not sell at the same price (net of local distribution costs)? Not only in this regard, the reasons indicated for price level differences going beyond the argument of higher labour productivity feeding into high real salaries start to matter, i.e. the deviation of the country's value with regard to the regression line in the graph also seeks an explanation. The intensity of competition – emphasised in this chapter - is one reason, but not the only one.

Explaining high real per capita incomes

The high per capita incomes obtained in Switzerland (and numerous other small and medium sized, open and economically advanced countries in Europe) is in common language ascribed to the high 'competitiveness' of these countries in international comparison. However, in accordance with Paul Krugman,[320] we will refrain below from using the term 'competitiveness' and will instead consider productivity, or, even more focussed, labour productivity as the clue to the high per capita incomes of the industrialised nations (see also box on the Balassa Samuelson effect). When we assert that Swiss economic policy has always been strongly focused on the competitiveness of the foreign economic sector, we therefore mean that this sector found ways to keep labour productivity constantly high in international comparison. This does not come as a surprise, however, since a need to increase productivity results in these sectors quasi automatically, due to the exposure to foreign competitors, particularly when, as at present, a strong national currency triggers rationalizations. The larger share of almost all economies, however, is based on the domestic production of goods and services for the domestic market. Here, without appropriate policies, the risk of an insulated development resulting in delayed structural change exists. In growth policy, therefore, productivity gains must be achieved across all economic sectors. If this is not the case, and the domestic economy is lagging behind in terms of productivity increases, the purchasing power of wages and other incomes earned within the country is abroad higher than domestically, and this also when the comparison

[320] In 1994, Paul Krugman coined in an article in "Foreign Affairs" the often cited proposition that "competitiveness" is a funny way of saying productivity. Conceptually, he admitted that deteriorating terms of trade due to a loss of competitiveness of a country's export business (obtaining less goods in return for one good exported) could be a drag on national incomes in international comparison. However, he then proved empirically the high correlation of nationwide productivity growth and growth of command GDP measured with national data, so that - whenever the question arises - the latter explanation for income levels far outweighs the former.

is made with countries of similar economic development. This situation holds true for Switzerland and with regard to Germany, its northern neighbour, in particular.

The country having experienced a 'lost decade' in terms of per capita income growth in the 90', the Swiss government launched a growth strategy after the turn of the century and has renewed it twice since then. The growth strategies of 2004, 2008 and 2012 comprised a number of significant structural reforms and continued the market oriented reforms decided in the 90', the latter having been decisive – together with improved macroeconomic policies - in coming out of the doldrums. In this text, we do not consider the single elements of reform but draw on the analytical framework underpinning the growth strategy. The latter is centred on six areas of political action: competition, openness, labour market participation, human capital, fiscal conditions and business climate.[321]

Among the six areas, the intensification of competition in the internal market and an increased opening up of the economy appear as those of the six fields of action where clear improvements are still possible in Switzerland:

- The need for an intensified competition in the internal market is corroborated by the price level in Switzerland
- A potential for an enhanced economic opening of the economy appears when a preferred indicator for the interwovenness with other countries is considered, namely the sum of exports and imports expressed as a percentage of GDP. This value[322] is lower for Switzerland than, on average, for a series of advanced small European economies. Austria, e.g., ranks ahead of Switzerland. The fact that Austria overtook Switzerland in this statistic is explained by Austria's EU membership, the latter including the full mutual opening of the agricultural sector. When it is generally considered that the international orientation of Switzerland is far above-average, such an assessment becomes true only once foreign direct investment is also considered. As a direct investor in foreign countries, Switzerland comes close to G7-countries in many regions.

As stated in the growth strategy, economic success is also built on the unimpaired access to factors of production in the required quantity and quality.

- With regard to labour, maintaining a high participation in remunerated work (quantitative aspect) and the strengthening of human capital (qualitative aspect) are essential. Switzerland stands out in Europe with the highest labour participation rate, i.e. the country is only surpassed by the 325'000 Icelanders when one sets persons employed into relation to the population at working age. Also when the endowment with human capital is considered, no deficits are apparent. In the age category of 25-54 years, a comparable number of people have completed studies at tertiary level in Switzerland and in the reference countries.[323] This is all the more remarkable since in a series of apprenticeships, the educational content conveyed is that taught in other countries at the tertiary level.
- Not surprisingly, general bottlenecks in the financing of investment in physical capital are absent in Switzerland, given the wealth of the population and the high propensity to save. Rather, Switzerland constantly builds up a stock of foreign assets. However, it is true that the build-up of foreign assets essentially occurs through the re-investment of the earnings on foreign assets abroad. Since the investment environment in the country is good (see the indications below regarding public finances and the legal framework for doing business) so that no demotivating tax burden nor unnecessary administrative hurdles hamper investment, one may still conclude on an abundance of financial capital, since a low real interest rates supports this view. Under the qualitative aspect, the question is also whether enough suitable capital is avail-

[321] Conseil fédéral (2012): Politique de croissance 2012-2016, décision du 16 juin 2012, rapport soutenant, see https://www.news.admin.ch/message/index.html?lang=fr&msg-id=44969

[322] A figure of 91.1 for Switzerland is obtained when imports and exports of gold and other valuable objects such as emeralds and antiques are excluded. When these flows are included, the value is slightly above the average of the eight reference countries of 127.6. However, when including gold, Hong Kong and India are more important as an export destination than immediate neighbours France and Italy, and Peru e.g. advances on the import side from rank 70 to rank 17 when gold imports are included, showing the importance of proceeding to the exclusion of the turning plate for world trade in gold which Switzerland constitutes. See country ranking on http://www.ezv.admin.ch/themen/04096/index.html?lang=en

[323] http://ec.europa.eu/eurostat/statistics-explained/index.php/Educational_attainment_statistics#Main_statistical_findings

able - for example venture capital for the creation of new firms. While not reaching the level of the US, Switzerland performs quite well regarding the readiness to launch but also to finance a new business although venture capital investments often take place abroad.

The framework conditions for engaging the factors of production are finally a determining factor for economic success. In addition to the contribution policy can make to the intensity of competition and the international orientation of an economy (see above), the tax burden and the legal framework relevant for deploying an entrepreneurial activity are essential. How does Switzerland perform in these regards?

- The favourable situation with regard to public finances (see above the public debt to GDP ratio) also includes a moderate tax burden for companies.
- Switzerland provides a favourable investment climate when considered from the point of view of the business community. The indicator published by the World Bank Group on the 'Ease of Doing Business' shows also a rather favourable score for the country. It is more focused on the legal environment. Here,[324] Switzerland scored 20th over the 2009-2013 period, behind Denmark, Norway, Finland, Sweden and Ireland, and at par with Austria, but before the Netherlands and Belgium.

Overall, there is no miracle with respect to the determinants of high per capita incomes in the case of Switzerland. At the level of single indicators, Switzerland does not systematically outperform the countries in the reference group, usually more than one country is at par. When overlooking the six areas recent Swiss growth policy targeted, an intensification of competition in the domestic market and a further opening up of the country appear as priority areas for change. Second areas are to create a legal environment conducive to entrepreneurial activity and to continue developing human capital. Preservation of the level reached is important with regard to the high labour market participation rate and the favourable fiscal conditions offered for business.

While, up to this point, the emphasis was put on a cross-comparison among countries, in the remaining part of this section we will look at the evolution over time at the level of five subsectors of the economy to explain economic success.[325] The following analysis is split in the period 2000-2008 and the period 2008-2013. The variations in percentage terms in the table below are therefore the cumulated change over 8, resp. 5 years.[326] One also needs to consider that the years 2000 and 2008, limiting the first period, are in a similar situation with regard to the business cycle, and also with respect to the level of the effective exchange rate (see figure in section 5). The year 2013 differs however from 2008 for two reasons: The global financial crisis was not fully overcome in a series of destination markets for Swiss exports, and the real exchange rate knew a considerable appreciation. Both factors impaired the evolution of the export oriented sectors.

Productivity increase (cumulated)	2000-2008	2008-2013
Traditional Industry	11.2	-3.7
High-Tech Industry	35.1	3.5
Domestically-oriented Services	1.3	1.2
Telecommunications	72.1	12.4
Export-oriented Services	11.6	-1.9
Agriculture	10.4	5.6

Both traditional industry and high tech industry are considered as export oriented sectors

[324] http://www.doingbusiness.org/rankings

[325] The analysis is in accordance with what was done for the 2012 release of the government's growth strategy, but employs the NACE 2008 classification of economic activities and this brings along some change. An improvement is that outputs and intermediates into a sector have now been separately deflated.

[326] The way the Federal Office of Statistics releases productivity figures by sector (only indices, the base values can hardly be retrieved) complicated the calculation of our aggregate statistics. For more information see the corresponding chapter in the underlying publication.

Not surprisingly, the results shown in the table above defend our thesis - namely that the domestically oriented service sector should improve its performance in terms of labour productivity increases - better for the first sub-period than for the second where two export oriented sectors were no longer capable of increasing productivity in value terms.

Our assessment regarding a possible improvement of productivity increases in domestically oriented services may be exposed to severe critique. On the one hand, there are the considerations that also support the Balassa-Samuelson effect. The equipment of a men's barber has barely evolved since Roman times – it is essentially constituted of scissors. To stay in business, men's barbers can hardly become more productive, the prices of their output have to increase in relative terms to those of tradeable goods and services. Otherwise, barbers would leave their profession due to insufficient pay. In the calculation of labour productivity, these relative price increases are deflated away when industry specific deflators are applied to industry value added. Secondly, serious measurement problems may affect the calculation of productivities, and the health sector, an import part of domestic services, is particularly exposed to these measurement problems.

Our concern therefore is not that domestic services produce a lower measured increase of labour productivity than the other sectors. We will not start to argue here against the Balassa-Samuelson effect. Our concern is that the rate, expressed on an annual basis, is quasi zero. Labour productivity increases are at the basis of real wage increases, however, and the larger the domestically oriented service sector becomes, the more depressed is the outlook for real incomes also progressing in the future, when this zero rate persists. This would e.g. affect the viability of pay-as-you-go old age pension schemes.

Stress is already felt over shorter horizons. If demand for services and goods produced in the country for the country progresses but demand is satisfied without productivity increases, while there is such progress in the export oriented sector, employment in domestically oriented sectors will increase in relative terms. In an ageing society, where the working age population at best stagnates, if labour demand of a simultaneously expanding export sector is not matched by immigration, demand for the output of the export sector needs to be held back by an exchange rate appreciation in real terms, i.e. corrected for differences in inflation domestically and abroad.[327] It is not certain that selling less abroad at a higher price there generates the same incomes domestically. We find that Swiss politics struggle with an equation having no solution unless the one or the other of the first two premises is disregarded (the internationally exposed sector shrinks or immigration is high) or the production in the country for the needs of the country is made more efficient (i.e. an internal reform agenda is adopted).

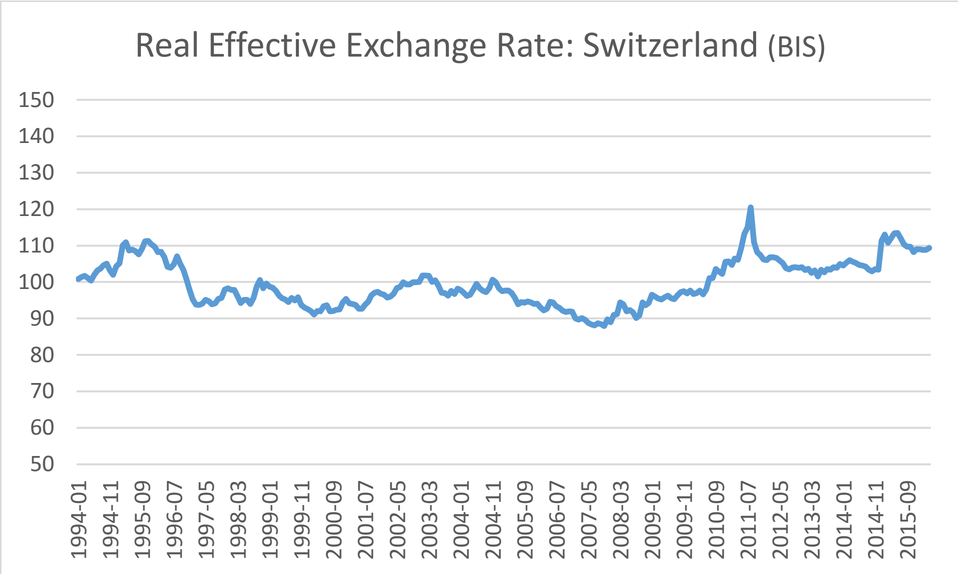
4 A considerable exposure to unwarranted exchange rate movements

The explanation of a high comparative price level- requiring a high exchange rate in nominal and in real terms - by high absorption, i.e. a heavily weighing and insufficiently rationalised production in the country of goods and services for the needs of the country, is at best partial. For the real exchange rate, the balance of domestic savings and domestic investment is also important. This balance is not fully explained by absorption, although there is a large overlap. The propensity to save and the profitability of domestic investments in physical capital are also important. By their orientation towards the future, they play an independent role, additional to the impact of current incomes and prices. They influence on the trend value of private capital exports, resp. imports. If a government sector is singled out, the public deficit is also relevant for the private savings surplus that might otherwise be exported, thus creating demand for foreign currency and depressing one's own. Finally, and most prominent in explaining the short term variations in the exchange rate, there is the reshuffling of financial capital. A considerable part of this reshuffling occurs in reaction to changes adopted in national monetary policies, but the financial sector is capable of adding a component of its own, possibly in the form of a speculative bubble.[328] All these aspects taken together it becomes intelligible that a single explanation may not be found why the Swiss per capita GDP in common currency is US-$ 83'854 when conversion is made at observed exchange rates but only US-$ 51'582 when converted at purchasing power parity . In this section we will focus on the short term deviations of the exchange rate from a trend.

[327] We assume a low own-price elasticity of domestically consumed services and think here first of all at the health sector, one of the branches with the most marked employment increase since 2000.

[328] For further indications, see the Annex in the underlying publication where the possibility of exchange rate movements disconnected from "fundamentals" is discussed.

With regard to short term deviations of the observed to the long term equilibrium exchange rate, which we will here not further define, the graph below gives useful indications. It shows that the Swiss Franc is in the upper range of its long term fluctuation band since 2011, and this even after the National Bank curbed the bubble appearing in early Fall 2011 by fixing a lower bound of what an € may cost in terms of Swiss Francs. The fact that the purchasing power parity rule performs fairly well in its relative form is an argument in favour of postulating such a fluctuation band. Also, the figure suggests that in periods of strong worldwide growth the franc is rather weak and that the opposite holds true when the world economy is stagnating.[329] However, the width of this long term fluctuation band is malleable by different macro-economic policies, and also the base value to which the fluctuation band is added can be modified - domestic reform as postulated might bring this value down.[330] This said, a fluctuation band of +/- 10% around a long term value of 100 for the real effective exchange rate is suggested by the figure below.



Against this background, it becomes intelligible why, in fall 2011, the central bank declared that one Euro should not cost less than a certain amount of Swiss Francs (namely 1.20). This peg might have been loosened earlier, however. In January 2015, monetary easing was decided by the European Central Bank but the ECB was not followed by the Swiss National Bank. The massive inflow of foreign currency already going on along with the decay of the Russian currency led the Swiss central bank to give up the lower floor of what a € may cost in terms of a CHF of 1.20/€.

It is worth noting that when such divergences in monetary policies occur, the consecutive adjustment will not only take place in the monetary

[329] An explanation for the apparent correlation of the Swiss franc with the global GDP swings could reside in the fact that the Swiss franc serves as a store of value and not (only) as a transaction currency (see appendix). Speculation about the determinants and the evolution of exchange rates is a tricky business, however.

[330] The effect is uncertain since income effects may counteract substitution effects. We consider reforms resulting in the fact that now the “law of one price” for tradeable goods and services is imposed by market forces. If domestic prices stay high, domestic producers of tradeables are insufficiently competitive in the new environment and lose turnover while imports start to exceed exports, driving down the exchange rate and thereby reducing the comparative price level. If reform is comprehensive and domestic prices become also more competitive, primarily the PPP conversion factor reacts and not the nominal exchange rate. When domestic production substitutes imports thanks to reform, demand for foreign currency might even decline. More importantly, however, reforms will as a rule generate overall positive income effects. The latter may drive the price level up again provided income elasticities favour domestic demand and only limited productivity improvements are possible in the domestic sectors (the barber). If absorption (production in the country for the country) and the price level were before reform pushed upwards by protective policies they may now be pushed upwards by income effects. The effect on the comparative price level becomes uncertain but the income effects prove the usefulness of the reforms.

sphere. The standard argument is that monetary easing will lead to higher inflation rates in the Eurozone than in Switzerland (or to depressed ev. negative inflation rates in Switzerland). Some quarters later, an unchanged low price of a € will find a justification in the declining size of the basket one € buys in the Eurozone due to inflation there (or an increased basket in Switzerland due to deflation here). Other reactions – already affecting the real economy, although only temporarily - are that the trade balance of Switzerland will turn into deficit and that this will lead to a weakening of the franc. This may be supported by the fact that investments in the production apparatus of the Swiss economy appear as less promising and that in particular corporate savings will be exported to a higher degree. In Switzerland, replacement investments will take place at best. But exactly when the latter really occurs, long-lasting effects of monetary decisions taken based on business cycle considerations, i.e. with a considerably shorter time horizon, start to appear. A possible immediate effect is that productivity increases will be smaller in Switzerland, but this is rather unlikely. While expansion investment will have a difficult stand, rationalisation – also by appropriate replacement investment - will rank high on the agenda. Rather than low productivity increases, a shrinking of the export sector to the best performing parts and reduced immigration will be the longer lasting consequences of an overvalued currency.

An interesting aspect under the aspect of medium to longer term consequences of unwarranted exchange rate shocks is also habit formation. As part of the adjustment, imports will be substituted for domestic sourcing. While theory generally considers such substitution as reversible, the truth may be different due to learning effects. Those can occur in industry as well as in households. If, enticed by the increasing price gap, a customer took the risk of ordering an airline ticket from a German broker and made good experiences, he will often repeat the deal also when the currency situation has normalised ("hysteresis"). There is speculation that the improved exchange rate pass-through after the appreciation of the CHF in January 2015 reflects a fear of firms at the retail stage of permanently losing business by such learning mechanisms. Evidently, such a hypothesis can only be formulated when retailers (and their suppliers) have some discretion in setting prices. The explanation does not apply under perfect competition.

If one believes in hysteresis, and considers the marked price differences for many tradeable goods, the lever for habit formation at the level of households is indeed important in the case of Switzerland.[331] 31% of the population can reach by car a supermarket across the border in less than 30 minutes, 73% in less than one hour.[332] For this reason, not too much of the savings realised by shopping abroad melts away in form of the higher transportation costs engendered. Indeed, for many years by now, the 3ᵈ largest retailer serving the Swiss population are the shops in neighbouring countries. And internet shopping adds an additional dimension, if only by making price comparisons prior to a shopping trip easier, but of course also by direct orders.

In the next section, we will now study how price setting power leads to price discrimination among countries and also to an incomplete exchange rate pass-through and what impacts on such deviations. The form of deviation from perfect competition – i.e. either monopolistic competition or the variety of the game oligopolists play – is important in this regard.

5 Price discrimination

Section 3 has shown that the high per capita income does largely explain the high price level prevailing in the country. Considering Switzerland's geographic location, the extent by which

[331] In a comparison of 156 identical or very similar products in shops in Switzerland and across the border to Germany, a price difference of 17.5% to the detriment of shopping in Switzerland was observed in 2010. Under the impact of the appreciating Swiss Franc, the difference increased to 27.2% and 27.8% in the two consecutive years. For 56 food articles the figures are 28.7%, 30.5% and 36,4%, for 25 non-food articles sold in super-markets 12.9%, 31.7% and 35.8%, for 14 articles in do-it-yourself and garden shops 19.5%, 32.9% and 27.9%, for 11 articles in the area of household equipment 10.4%, 21.7% and 24.5%. For 10 articles in the area of transportation, the difference was initially -9. 6% due to low excise taxes in Switzerland on cars and fuels, but also increased to +8.6% and +8.2%. In consumer electronics, the exchange rate variation can hardly be seen, i.e. the margin of retailers suffered substantially. Already the price differences observed in most sectors in 2010 were for mayn customers reason enough to go shopping abroad. Source: Schluep, Isabelle (2013): Concurrence des prix – tendances observées à la frontière avec l'Allemagne, La vie économique 3/2013, Berne: SECO.

[332] Credit Suisse Economic Research (2013): Retail Outlook 2013 - Fakten und Trends, Zurich: Credit Suisse

the "law of one price" for tradeable goods is infringed surprises, however. A comparison project by the State Secretariat for Economic Affairs[333] showed that in 2012, for 153 more or less identical products in the consumer's basket, the median price difference to Germany was 27.8% (2010: +17.5%). Here we will examine how departures from perfect competition explain why the law of one price does not hold, also for tradable goods. Two departures from perfect competition are considered, monopolistic competition and oligopolistic markets.

Monopolistic competition

When assuming monopolistic competition, the assumption is that firms (retailers) face a falling demand curve, i.e. know that they can sell more by lowering the price. They react to the falling market demand curve as mitigated by the loss of business to competitors of competing varieties which do not modify their price. Market entry secures that the zero profit condition holds. The mark-up applied is a constant percentage of marginal costs and is, under some additional conditions, solely determined by the substitution elasticity among product varieties. Since monopolistic pricing can be applied at the production and at the retail stage, the potential for persistent price differences between countries under conditions of monopolistic competition exists also at the level of import (i.e. wholesale) prices. They are of the number of five: different substitution elasticities, different distribution margins, different productivities in the home and foreign distribution sector, different wage rates, finally, when a comparison is made with the respective price setting equations of a foreign producer offering the same good, differences in the productivity of the tradable goods sector. We see that when acting under conditions of monopolistic competition, firms infringe the law of one price for tradable goods, an assumption on which most of macro-economic model building relies. The precondition is that markets are segmented. A fact to retain is that the conditions prevailing at the retail stage in the destination country feed back on export prices.

The fact that firms practice different wholesale prices according to the destination markets of their products (here home and foreign) evidently has re-distributional effects. Customers in countries where producers are exposed to less intensive competition pay a higher price. The country with e.g. a less efficient competition policy is worse off. A part of the higher prices retailers and final customers pay accrues to foreign providers, indicating a loss in national welfare. When one country is not only occasionally, in certain markets, but systematically the country suffering from price discrimination, a tightening of competition policy may be indicated.

From the point of view of overall national income, a qualification of this recommendation is needed, however. For a competitor, to stay in business, it may be essential to have a superior contribution to the coverage of his fixed costs from certain of the markets he serves. The present digression ignores locational decisions, however (see Chapter 5), and does not model the binary decision whether to enter a foreign market or not. The generally accepted view in these respects is that price discrimination between the domestic and foreign market may be efficient when increasing the total amount of goods put on the market. Price discrimination will by far not regularly find a justification as being efficient along these lines, however.

Since it is optimal from the producer point of view to differentiate prices among markets, it is not at all clear that exchange rate movements should be passed on to foreign retailers 1:1. To preserve optimal pricing in both markets, a price adjustment different from the exchange rate variation may be indicated. The term used to describe the percentage reaction of a domestic price to exchange rate variations is the "exchange rate pass-through". This reasoning also applies at the wholesale level where the differences in the distribution costs incurred in the respective national currencies do not matter.

Macro-economic consequences of only a partial exchange rate pass-through are evident. If a persistent trade balance surplus needs to be corrected by way of an appreciation of one's own currency, then the appreciation needed to re-establish equilibrium will become larger with an incomplete exchange rate pass-through.

The fact that the exchange rate and wages in the countries involved are time series which feed back on each other constitutes an additional challenge for the producer acting under monopolistic competition. He will seldom be in a position to continuously adjust his prices. Rather, he has to figure out when best to adjust prices. A wide variety of evolutions is possible between the two limiting cases, namely a) the exchange rate variation is seen as purely transitory and is ignored, and b) wage movements will neutralise a persistent exchange rate change, so that import prices

[333] See Isabelle Schluep: Entwicklung der preislichen Konkurrenzsituation an der Grenze zu Deutschland, „Die Volkswirtschaft", 3-2013

should be adjusted according to the same determinants as prices for domestically produced goods. Intermediate reactions are empirically of relevance, since it will take years until wage rates have adjusted when the exchange rate change was not transitory but reflects monetary policies yielding different inflation rates in the two regions linked by the exchange rate. Some price reaction to the exchange rate change is then called for. Persistent changes in the exchange rate corrected for inflation differentials may also occur and call for action. It is therefore hardly possible to make a prognosis how on single markets prices differ according to markets and how they react to exchange rate movements.

In a producer perspective, additional factors enter into consideration. A possible strategy in the case of an appreciation of the own currency is betting on the fact that when keeping prices in the domestic and the foreign market unchanged, the losses on the domestic cost component in exports can be compensated for by the benefits on the import component of the output sold domestically, and vice versa in the case of a depreciation. Such cross-subsidisation between the domestic and foreign market may result in a considerable stickiness of prices in the two currency areas although under competitive conditions the situation cannot last forever. Importers with no need to cross-subsidise exports will challenge this strategy, and call for reaction.

Noteworthy when pricing to the market starts to prevail, the exchange rate volatility resulting out of monetary shocks of standardised dimension increases in an impressive manner. Secondly, the importance of pricing to the market has a substantial impact on the way shocks to monetary policy in one country propagate around the world. Instead of having consumption correlation, output correlation across affected countries may appear. The macro-economic consequences of departures from perfect competition therefore weigh heavily. This also holds true in the case of oligopolistic competition which we will consider next.

Oligopolistic competition

In oligopolistic markets there is by definition no market entry, or only market entry at the competitive fringe, i.e. with hardly any impact on the average market price. Price setting of one competitor therefore becomes a function of the pricing policy pursued by the handful of competitors he faces. The prospect of a very small transmission of exchange rate changes into the prices final customers pay is real under such market conditions. Consider a domestic market leader which incurs costs essentially in domestic currency and faces an appreciation of his own currency. He has only to incorporate the enhanced profitability of the domestic market for the foreign competitor into the residual demand function he uses in his optimisation calculus for setting prices. The price reduction induced by the increased sales to the domestic market the foreign competitor deems optimal may remain minor, depending on the demand, supply and substitution elasticities prevailing on the market and the form of the game the oligopolists play among each other.

Very little is known regarding the determinants of the game oligopolists will choose to play. One result due to Chang and Lapan (2003) is that in an environment with high exchange rate variability, neither firm will pre-commit so that there will be a large exchange rate pass-through, as prices respond to actual exchange rate movements. But generally, we have to expect that the degree of exchange rate pass-through will change from one oligopolistic market to the next.

Empirics[334] show an extreme dichotomy in the reaction of prices in function of the currency in which they were fixed. The results clearly indicate that there is almost no reaction to exchange rate movements when the contract was in the currency of the destination country, the US-$, i.e. when local currency pricing (comprising pricing to the market) occurred. When producer currency pricing occurred, the picture known from other empirical investigations and reproduced by many models of exchange rate pass-through tends to emerge. In the very short run, prices hardly react, and pass-through remains incomplete even over the long run. The range where price fixing in the exporters currency is optimal narrows when exporters compete in the destination market with local producers who have by definition a high share of costs in the destination country. As a conclusion, we observe that while the effect of currency choice on the extent of the exchange rate pass-through is enormous, the factors which were identified as determining the choice of the currency appear as tenuous: Differences in the curvatures of the demand and cost curves of producers and retailers were e.g. shown to be important.

The question now is how the open outcome in oligopolistic markets relates to the opening up of markets across national borders and to globalisation. The best that can be said is that foreign firms entering a market are tantamount to adding

[334] Gopinath, Gita and Oleg Itskhoki and Roberto Rigobon (2007): Currency Choice and Exchange Rate Pass-through, National Bureau of Economic Research Working Paper 13432

a new player to the game with different risk attitude, information, size and customer relations. Already the fact that a player is added to the game is essential. Selten (1973)[335] became famous for having published a paper showing why "four are few and six are many". The argument is that coordination among oligopolists breaks down when the number of players increases. Under the conditions of his model the threshold is at five players. The merger of MIGROS and Denner and the acquisition by Coop of a significant part of the activities of Carrefour in Switzerland – these mergers constitute the business case in this chapter - can be understood as an attempt to keep the number of players constant when ALDI and Lidl decided to enter the Swiss market. If the mergers had been prohibited, the established game among the oligopolists might have broken down - but it is also true that attempts to find a foreign buyer for Denner failed, so that the number of competitors may truly be a market outcome.

The conclusion is that the intensity of competition –and therefore also competition policy – matter for how shocks in monetary policy and also in the real sector propagate around the world but, sadly enough, that our prognostic capacity regarding how exactly the shocks will spread from one country to the next remains limited whenever conditions of imperfect competition prevail. While we are largely ignorant about dynamics, we may however be confident that stiffer competition brings comparative price levels down and that corresponding policies usually benefit not only the customer, but regularly the economy as a whole.

6 Competition policy

With the growth of production on a global scale there has been an increased debate on the need for an international agreement on competition. The point made is that globalisation means that markets are global but competition authorities are still largely limited by national jurisdictions."[336] The Singapore Ministerial Conference of the WTO (1996) set up the Working Group on the Interaction between Trade and Competition Policy "to study issues raised by Members relating to the interaction between trade and competition policy, including anti-competitive practices, in order to identify any areas that may merit further consideration in the WTO framework". At the WTO Ministerial Conference in Doha (2001), Ministers "recognized the case for a multilateral framework to enhance the contribution of competition policy to international trade and development, and the need for enhanced technical assistance and capacity-building in this area". They instructed the Working Group to focus, until the WTO Ministerial Conference in Cancún (2001), "on the clarification of: i) core principles, including transparency, non-discrimination and procedural fairness; ii) provisions on hard-core cartels; iii) modalities for voluntary cooperation; and iv) support for progressive reinforcement of competition institutions in developing countries through capacity building". In the "July 2004 package", the WTO General Council decided then that the issue of competition policy "will not form part of the Work Programme set out in that Declaration and therefore no work towards negotiations on any of these issues will take place within the WTO during the Doha Round". Currently, the Working Group is inactive.[337]

Some general considerations are needed to better understand the issues at stake. A first consideration refers to the role of the WTO. As the mnemonics "TRIM" and "TRIPS" indicate, the WTO is in charge of establishing rules at the intersection of trade and investment or trade and intellectual property rights, the TRIPS agreement does not set up an international organisation handing out patents with global validity. It is therefore doubtful whether the WTO would be the appropriate place to establish an authority capable of reviewing mergers relevant for global markets. Business would ev. favour such a one-stop solution, since today, merger projects have to be submitted to the authorities of all countries where the merging companies achieve a turn-over beyond the thresholds as laid down in national law. It would be more in line with the principles of the WTO, however, if a competition agreement would set minimum standards for national competition legislation. The stock of basic regulations competition legislation should comprise is not controversial, the three pillars are to fight hard-core cartels, to oppose the abuse of a dominant position on a market and to establish a control of mergers.

[335] Selten, Reinhard (1973): A simple model of imperfect competition where four are few and six are many, International Journal of Game Theory, Volume 2, Issue 1, pp 141-201, December

[336] See i.a. Ken Heydon, Steve Woolcock: The Evolution of Free Trade Agreements negotiated by the US, EU, EFTA, Japan and Singapore : strategies, content and comparisons, in Peter Balastèr, Chantal Moser: Sur la voie du bilatéralisme – enjeux et consequences, Strukturberichterstattuig 36/1, SECO (Berne) 2008

[337] http://www.wto.org/english/tratop_e/comp_e/history_e.htm

MIGROS: From stirring up pervasive collusion to the challenged incumbent

MIGROS – stirring up the Swiss retail sector in the interwar period

*The name of the largest Swiss retailer, Migros, was simultaneously the company's idea and program. By cutting out the middlemen, namely by concentrating inter**MI**diate and 'en **GROS**' trade under one roof, indeed, even more rigorously, by combining this combined level of wholesale trade and the stage of retail trade in one company, the goods would flow as far as possible directly from the manufacturer to the end customer. Spartan shop fittings marked the outlet when Migros opened the first store after one year. But it was primarily by selling directly from sales wagons that Migros revolutionized the retail sector in Switzerland. The foud of MIGROS; Gottlieb Duttweiler had imported this method for commercialising goods from the United States. Today, the sales wagons are gone and Migros entrusts star architects to build prestigious shopping malls.*

From a historical point of view, Migros distinguishes itself from the consumer cooperatives, which are now merged into Migros' main competitor, Coop. While the consumer cooperatives' concern was to give their members access to branded products, primarily by reimbursement of a part of the retail margin the cartelists conceded (plus by way of quantity discounts), Migros was forced by the latter's sharp boycott to create from the interwar period on own labels and to build up its own industry.

ALDI (Switzerland) and Lidl enter the country

In the last decade, ALDI and Lidl appeared as 'molesters' in the established game on the Swiss retail market. ALDI and Lidl were not the first foreign retailers to enter the Swiss market, however. The German retailer REWE and the French retailer Carrefour had tested the Swiss market before but did not achieve a sufficient turn-over. Only the appearance of ALDI and Lidl obliged the two large Swiss retailers, MIGROS and Coop, to react, first of all by creating their own low-budget product lines. Furthermore, the hard discount retailer 'Denner', then number 3 within the domestic market, but with a turn-over four to five times smaller than that of the two orange giants (both MIGROS and Coop have emblems in orange), was looking for support to face the competition of ALDI and Lidl. Despite the fact that the Swiss Competition Authority helped Denner's management to look out for other foreign discounters interested in entering the Swiss market, finally the merger between MIGROS and Denner had to be accepted. A year later, Coop took over the large format shops of Carrefour when the latter left the country. In the two cases, the allowance was admixed with restrictions and charges.

Controversial decisions in two merger cases

The decisions of the Swiss Competition Commission in the MIGROS-Denner and Coop-Carrefour cases earned the authority some critique saying that it was protecting competitors instead of protecting competition. In detail: MIGROS and Coop were considered as collectively dominating the market. For this reason they were obliged to refrain from the acquisition of any other food retailer and to announce any other acquisition to the competition authority, independent of the turn-over of the acquired company. They had to refrain from stipulating exclusive dealing provisions in any contract with providers, and the suppliers making more than 30% of their turn-over with either Denner or Carrefour saw their sales volume guaranteed for a certain time. MIGROS was obliged to run Denner first as an independent company, meaning with its own provisioning, and was prohibited to enter the market with an own chain of low budget stores, while Coop was obliged to sell off 20'000m² of its sales space in selected regions. These restrictions were to hold up to 2015 but MIGROS and Coop were given the opportunity to ask for a revision of these rulings should market conditions have changed considerably. In this respect, the opening up of more than 250 shops by ALDI and Lidl taken together should serve as an indicator. This figure had been reached in 2012/2013 but the attention and concern of MIGROS and Coop had by this time shifted to cross-border shopping.

Comment

The retail market within Switzerland remains highly concentrated. We indicate here the turn-overs of the different retailers in 2013 as published by GfK, a consultant in the retail business. The figures are presented from the consumer's point of view,[338] cover food and non-food, do not include foreign sales, nor trade in heating fuels and gasoline. While MIGROS and Coop score a turn-over of SFR 14'462mio and

[338] Different from large retailers in other countries, both MIGROS and Coop also own industrial producers of their own and activities like banking figure as well in their portfolio so that their balance sheets need to be worked over before allowing a comparison with firms in foreign markets active there in food and non-food retailing.

SFR 13’930mio respectively, Denner and affiliates reach 3’168mio, Manor 2’787mio, Aldi 1’740mio, Volg 1’402mio, Landi 1’265mio while Lidl is said to make some SFR 750mio. MIGROS and Coop thus continue to control some two thirds of the retail market, and figures estimated by Credit Suisse confirm that cross-border shopping continues to rank third.

We are therefore confronted with an oligopolistic retail market. Regularly, the suspicion is raised that the two dominant companies agreed on playing a game in the form of Cournot competition.[339] The theoretical development showing that forward sales can lead in such a market constellation to results that may come close to those under Bertrand competition[340] can help reconcile the view of critical observes of the retail market and of the companies themselves, the latter pretending that they face stiff competition. Furthermore, while the two genuinely Swiss retailers are huge in the domestic market, they have due to the size of the country only small buying power in markets where global brands predominate, to the detriment of the Swiss customer. This had also to be taken into account when the Competition Commission took its decisions. The increasingly global dimension of consumer goods’ markets thus had also its influence although merger cases in an essentially national market were examined.

Mechanisms to prevent the escalation of controversial decisions of national authorities in antitrust law into trade wars should also be included. Hardly ever mentioned, this appears as relevant if one considers the transatlantic dispute over the Boeing-McDonald Douglas merger.

A second consideration refers to the enforcement mechanisms of competition law. The problem resides in the fact that the notion of “tests” employed by competition authorities has little to do with tests as performed in statistical and econometric work, it is often not much more than a reasoning in words. Correspondingly, the margin of appreciation is large. This may also be used to favour certain competitors over others, e.g. the same merger case may be appreciated differently by the domestic as compared to the foreign authority. It is therefore not for nothing that the effects principle prevails in competition legislation. Mergers are not reviewed by the competition authorities of the countries where the merging companies have their headquarters but by the authorities of where these companies have their markets. Given political aspirations to create national champions dominating world markets, this allocation of decisional power favours pro-competitive rulings but has also the potential of raising disputes over the extra-territorial application of national law. This concern should not be exaggerated, however. Most of the time, unilateral behaviour of large companies and collusive practices on domestic markets can adequately be addressed by the authorities in the affected countries. Only charges in merger cases raise some additional problems. For instance, it might occur that one authority favours a disinvestment by the merging companies of one subsidiary and the other authority requires the selling off of a different subsidiary. The major concern in all disputes remains the fairness (i.e. impartiality) with which national authorities including their governments exercise their power, however. This cannot be guaranteed just by signing an agreement.

The Significance of Globalisation for Switzerland

The significance of globalisation for Switzerland is very high. The country has not only preserved a very competitive manufacturing sector, but concentrates additionally its activity on those parts of global value added chains where the incomes generated are the highest. The country also disposes of a well performing export oriented services sector. The challenge for the country consists in preserving within its boundaries the political preconditions for containing absorption (i.e. the use of domestic resources to service domestic demand). Productivity increases in sectors not exposed to import competition are crucial. They are indispensable when enough resources shall be left for activities by which the country may continue to benefit from the global orientation of large parts of its economy.

[339] Cournot competition means that oligopolists reflect in terms of quantity, i.e. they try to anticipate the volume competitors will put on the market. Bertrand competition is about choosing the price- and means in principle that “the winner takes all”. Bertrand competition becomes relevant when competitors bring differentiated products to the market so that when offering a higher price some customers will remain since they favour the specific product variety in spite of a somewhat higher price. Bertrand competition favours customers more than Cournot competition does.

[340] See part II of chapter 15 in the underlying publication.

Chapter 16

Qatar: A Source of Global Finance

CONTENT

Country Fact Sheet			World	Qatar
GDP per Capita	(at 2011 PPP $)	2013	13,964	127,562
GDP Growth Rate	(real, p.a.)	2009 to 2014	5,5	9,1
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	226
Agricultural Value Added	(% of GDP)	2014	3,1	0,1
Manufacturing Value Added	(% of GDP)	2014	26,4	67,9
of which Industry	(% of GDP)	2014	15,8	10,1
Services Value Added	(% of GDP)	2014	70,5	32,0
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24,3	..
Research and Development Exp.	(% of GDP)	2005–2012	2,0	..
Internet users	(% of pop.)	2014	40,5	91,5
International Tourism, Arrivals	(mio people)	2013	1068,0	2,6
Consumer Price Index	(2010 = 100)	2014	..	110,4
Domestic Credit by Banking Sector	(% of GDP)	2013	164,0	73,9
Price Level (acc. PPP Coefficient)	(US=1)	2014	..	68,8
Current Account	(% of GDP)	2013	..	
External Debt Stock	(% of GDP)	2014	..	..
Exports plus Imports	(% of GDP)	2013	60,4	97,5
Private capital flows	(% of GDP)	2013	-0,9	11,4
Foreign Direct Investm. Inflows	(% of GDP)	2013	2,3	-0,4
Official Development Assistance	(% of GNI)	2013	0,4	..
Remittances, inflows	(% of GDP)	2013	0,71	0,28
General Gov. Expenditures	(% of GDP)	2013	..	33,1
General Gov. Net Lending-Borr.	(% of GDP)	2013	..	10,3
General Gov. Net Debt	(% of GDP)	2013,0	..	-114,7
Ease of Doing Business Index	(rank)	2015	95	68
Corruption perception	0-100	2014	..	71
Population	(millions)	2014	7259,7	2,2
Surface	(1'000km^2)	2015	134325	12
Populationb Density	(person/km2)	2014	56	187
Pop. Growth Rate	(% p.a.)	2010/2015	**1,1**	5,9
Fertility	(births/woman)	2010/2015	**2,5**	2,1
Under-Five Mortality	(% < age 5)	2013,0	45,6	8,2
Life Expectancy at Birth	(years)	2014	71,5	78,2
Child Malnutrition	(% age group)	2008–2013	29,7	11,6
HIV-Prevalence	(% of pop.)	2013	1,1	..
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	..
GINI Index (income concentr.)	0-100	2005–2013	..	..
Homicide Rate	(per 100'000)	2008–2012	6,2	1,1
Primary School (enrolm.)	(% age group)	2008–2014	109	103
Secondary School (enrolm.)	(% sge group)	2008–2014	74	112
Tertiary School (enrolm.)	(% age group)	2008–2014	32	14
Genders in 2nd Schooling	(female/male)	most recent	97,1%	88,9%
Adult Literacy Rate	(% aged >15)	2005–2013	81,2	96,7
Employment to Population Ratio	(% aged 15+)	2012	59,7	86,4
Unemployment rate	(% aged $\geq$ 15)	2004-2013	..	
Ratio Female/Male Labour Force	(percent)	2013	0,66	0,53
Children in Employment	(% of age 7-14)	2013	..	..
Net Migration Rate	(pers. /1'000)	2010/2015	0,0	48,8
Rural Population	(% of popul.)	2014	46,6	0,8
Energy use per capita	(kg of oil eq.)	2013	1894,4	19120,3
CO2-Emission	(t per capita)	2011	4,6	43,9
Improved Water Access	(% of popul.)	2014	90,5	100,0
Forest Area, Change	(% 2005 value)	1990 to 2012	-3,7	—
National Resource Rents	(% of GDP)	2014	3,9	28,2
Protected Area	(% of surface)	2014	12,8	1,2
Human Development Index (HDI)	(0<Value<1)	2014	0,711	0,850

Chapter 16
Qatar: A Source of Global Finance

Trans-border financial flows ease the financing of growth in the case of debtor nations and contribute to national income by corresponding interest and dividend revenue in the case of surplus countries. But trans-border financial flows also go along with enhanced risks of causing or contributing to disturbances at the macro-economic level - unwarranted exchange rate movements is but one keyword. Additionally, deficiencies within the financial sector may by themselves destabilise an economy. Even before the financial crisis of 2008 emerged, there was an ongoing debate whether the opening up of a country to foreign capital flows is a benefit or too often jeopardises a steady economic evolution.

In the present chapter these questions will be addressed from the point of view of a surplus country. Particularly since the boom in natural resource prices in the last decade, oil-rich Qatar has registered very high current account surpluses. This raised the question whether the national wealth taken out of the soil of the country can be invested within the country to create an economy where high per capita incomes are generated. Besides investing in downstream industries to oil drilling, Qatar has started to build up a globally oriented service sector (e.g. banks, airlines, news companies). Part I reviews the growth strategy the country has adopted with the approbation of a member of the ruling family. [341] [342]

The business case in this chapter then studies a joint venture of Qatar's Sovereign Wealth Funds with one of the two big Swiss banks in the area of asset management. This company should help in establishing Qatar as a major financial place.

1 Main features of the country and its population

The State of Qatar has a population of 2.2 million inhabitants and a surface of 11'610km^2, resulting in a considerable population density. Qatar is an absolute monarchy which has been ruled by the Al Thani family since the mid-19th century. Following Ottoman rule, the peninsula became a British protectorate in the early 20th century until gaining independence in 1971. Qatar's semi-elected Majlis al Shura has very limited legislative authority to draft and approve laws; the Emir has final say on all matters. Qatar has the world's third largest natural gas reserves and oil reserves, which have fuelled Qatar to become the world's richest country per capita. Having the most conservative society in the Gulf Cooperation Council (GCC) after Saudi Arabia, Qatar's support for the Muslim Brotherhood and allied groups have led to increasing tensions with other Gulf States. Qatar is a member of OPEC, the Gulf Cooperation Council, the Council of Arab Economic Unity and the Organisation of Islamic Cooperation.

As of 2013, the four largest ethnic groups are Arab 40%, Indian 18%, Pakistani 18%, and Iranian 10%. Of the remaining 14%, the most prevalent ethnicities are Nepali, Filipino, and Sri Lankan. However, exact percentages are unavailable. The composition of guest workers is thus rather heterogeneous. In fact, out of Qatar's population of around 2 million people, only 280'000 are Qatari citizens. The majority of the population are foreigners who work and live in the country. This boosts the labour participation right to a record level and helps explain a low female

[341] Part II then concentrates on the question where the current account surplus of oil-rich and other countries was invested over the last two decades. In this respect, much depends on the form capital flows take on. For emerging economies, foreign direct investment turns out as a reliable, also possibly costly source of foreign financing. Portfolio investments are a fair-weather affair. And bank credit, if extended on a short term basis, is rather an alarm signal, indicating that the destination country will possibly have to devaluate its currency and/or adopt an austerity package. Disappointingly, however, most of the funds of surplus countries ended in countries where capital deepening was already high, but where public indebtedness also reached unprecedented levels in the last years.

[342] These observations consequently lead to the question of the supervision of global capital flows. It turns out that only weak instruments are available to enforce macro-economic policy coordination among the major world economies. Stemming an unwarranted inflow of portfolio capital in emerging economies by regulatory means has therefore recently been declared as politically admissible by the IMF under certain provisos. At the same time, financial supervision needs to be strengthened throughout the world, i.e. also in the industrialised nations. This part of the chapter presents the institutions in charge.

to male participation rate. All foreign workers need to be sponsored by local employers; sponsors have the unilateral power to cancel workers' residency permits, deny workers' ability to change employers, report a worker as "absconded" to police authorities, and deny permission to leave the country. Not surprisingly, many cases of ill-treatment of immigrant workers have been observed.

Most Qataris belong to the strict Wahhabi sect of Islam. Consequently, Qatar's legal system is a mixture of civil law and Islamic law. While Sharia courts were abolished in 2003 and a codified family law was introduced in 2006, the Sharia serves as one of the sources of Qatari legislation, and is applied to aspects of family law, inheritance, and certain criminal acts.

The life expectancy at birth was 78.2 years in 2014, slightly higher for males than for females. Qatar hosts excellent health service providers, reflected in low under-five mortality. But Qatar also has some of the highest rates in the world concerning obesity and diabetes. The homicide rate is low.

The illiteracy rate in Qatar was 3.1% for males and 4.2% for females in 2012, the lowest in the Arab-speaking world. Citizens are required to attend government-provided education from kindergarten through high school. Both sexes attend secondary school in equal proportion. Reported school attendance falls significantly at the tertiary level. In 2012, Qatar still ranked near the bottom of the OECD countries participating in the PISA test of math, reading and skills for 15 to 16 year olds, at levels comparable to Colombia or Albania. Consequently, Qatar has hired RAND to reform its compulsory education system.

In parallel, growing numbers of foreign-educated Qataris, including many educated in the U.S., are returning home to assume key positions formerly occupied by expatriates. Capabilities needed by key personnel are also developed within the country. Through the Qatar Foundation, the country has built an “Education City”, hosting local branches of the Weill Cornell Medical College, Georgetown University School of Foreign Service, Northwestern's Medill School of Journalism, Texas A&M's School of Engineering, and other Western institutions. Furthermore, in 2008, Qatar established the Qatar Science & Technology Park at Education City to link these universities with industry.

Qatar has hosted academic, religious, political, and economic conferences. The launching of the Doha Development Round in 2001 needs to be mentioned in the present context.

2 Main features of Qatar’s economy

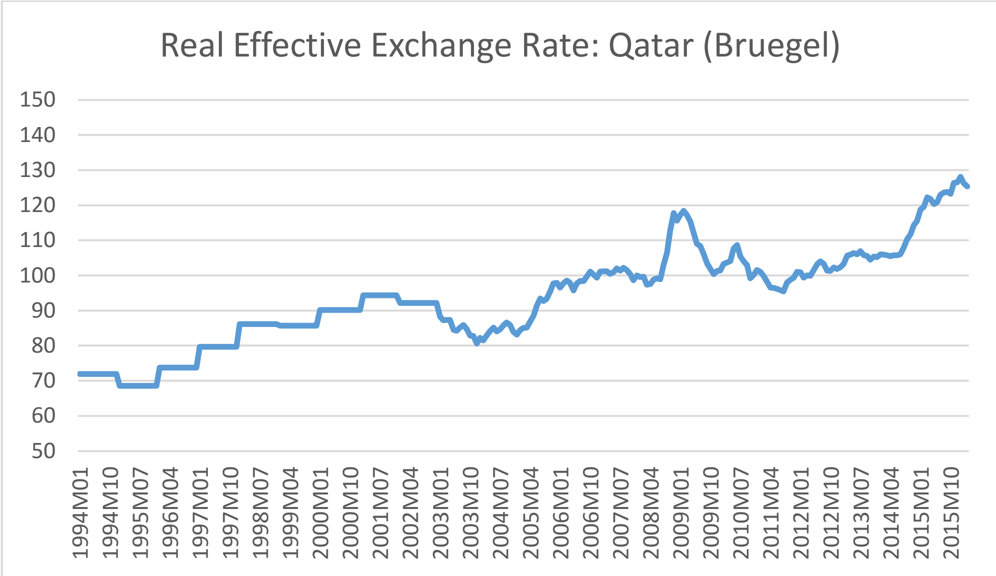
GDP per capita reached an outstanding US-$ 127’562 in 2013 on the basis of PPPs of 2011. The growth rate rocketed up to 9.1% p.a. over the 2009-2014 period, and GDP in 2014 was 2.3 times the level of 2004. Due to immigration, population growth tended to be even higher than GDP growth.

Oil drilling remains the backbone of economic activity in the country. While the desert and water shortage in general severely constrain agricultural activity (no forest surface is reported), the mining and drilling activities accounted for 51.1% of GDP in 2014.[343] Recently, the Qatargas project began exporting liquefied natural gas (LNG) to Japan. Further phases of North Field gas development costing billions of dollars are in various stages of planning and development. Gross fixed capital formation accounts for 1/3 of GDP and is concentrated in mining and downstream industries. The latter mark manufacturing: Qatar's heavy industrial projects, all based in Umm Said, include a refinery with a 50,000 barrels (8,000 m³) per day capacity, a fertilizer plant for urea and ammonia, a steel plant, and a petrochemical plant. Industry accounts for 10.1% of GDP while the construction sector adds 6.1%.

Services: In order to expand its function as a hub for commercial activities and for tourism, Qatar has invested billions into improving infrastructure. 2.6 million tourists have chosen Qatar as their destination in 2013. Banking may still be developed, domestic credit by the banking sector amounting to 73.9% of GDP. Value added of trade, hotels and restaurants in 2014 was 6.8% of GDP, transportation and communication added 3.3% while banking, insurance, real estate and business services contributed 13.2%. The rest of value added in services is essentially made up of government services (9.6% of GDP).

Inflation is contained, a cumulated 10.4% from 2010-2014. Large swings along an upward sloping trend characterise the evolution of the effective exchange rate (see graph below). The price

[343] http://www.gsdp.gov.qa/portal/page/portal/gsdp_en/statistics_en/latest_statistics_en/statistical_updates_detail_en?item_id=2151180



Remark: Up to 2008, only annual averages are available

level is 68.8% the one of the US. The current account surplus critically hinges on the oil price (see below section 4).

In 2014, general government spending amounted to 33.1% of GDP. Fiscal revenues were still so buoyant that a surplus of 10.3% resulted in this year. Therefore, it should also be possible to uphold this spending level at lower oil prices. Qatar ranks 68th in the Ease of doing business index and obtains a fair score in the Transparency International corruption index.

3 Challenges the economy of Qatar faces

Under the presidency of the Heir Apparent, in March 2011, a Qatar National Development Strategy 2011~2016 was released,[344] based on 14 sector strategies and back-ground reports. The fact-oriented document should set a path towards achieving the goals of the Qatar National Vision 2030. The document starts off with pointing to Qatar's achievements in the recent past and with presenting an economic outlook for the period 2011-2016. The Strategy itself centres around four pillars: i) sustaining economic prosperity, ii) promoting human development, iii) an integrated approach to sound social development, and iv) sustaining the environment for future generations. A final part is consecrated to institutions and implementation. We subdivide the following selection of assertions figuring in the executive summary of the document under these seven headings, proceeding to some rearrangements in the otherwise well-argued document. Admittedly, the sharp emphases resulting from selecting three pages out of a text ten times as long will not necessarily do justice to the report.

Achievements

"Qatar's tremendous progress is clear in all fields. However, the stresses that accompany rapid progress are also visible", an introductory remark states. The report then underpins progress achieved by the following observations: A supply of cheap hydrocarbon feedstock and energy has helped prime the development of downstream industries in the petrochemical and metallurgy sectors, with some subsectors, such as fertilizers, growing at a fast clip. A foothold has also been established in new areas, including air transportation and media services. The Qatar Science and Technology Park now tenants more than 30 ventures in such areas as life sciences, oil and chemicals, environment, electronics and software engineering. Qatar's financial sector has also seen rapid development, serving the needs of a larger and more complex economy. Bottlenecks in infrastructure, which have contributed to high project costs and inefficiencies, are being tackled across a broad front. Education and training investments have also been significant, recognising deficits in its education system (e.g. a lack of integration and alignment) and in broader capabilities within the country. But it is also admitted that some measures have taken place

[344] Qatar Ministry of Development Planning and Statistics (2011): Qatar National Development Strategy 2011-2016, Qatar. To be retrieved under: http://www.gsdp.gov.qa/portal/page/portal/gsdp_en/nds

only on paper or suffer from lags in implementation.

Economic outlook 2011-2016

The report had to recognise that growth of gross domestic income (GDI) will continue to depend heavily on the trajectory of hydro-carbon prices, which have a decisive influence on Qatar's terms of trade. The baseline assumed some modest gains over average prices in 2010. It expected hydrocarbon income to tail off in 2012–2013 after culmination in Qatar's highly successful 20-year investment programme in hydrocarbons. The report then stated that further significant investment in hydrocarbons has to await expiration of the moratorium on production in the North Field, which was not expected before the end of 2015. Transport and communications, along with business and financial services, would grow vigorously. While construction should grow steadily, manufacturing performance should improve. The government's fiscal position was expected to remain strong and adequate to support future capital investments and the initiatives under the National Development Strategy 2011–2016. The report did not expect the rapid population growth of the recent past to continue but proved wrong in this respect. The expectation was a structural shift to higher valued economic activity, presupposing steady advances in the skill content of the labour force and further capital deepening. The risks to this scenario were seen to stem from hydrocarbon prices. The report observed that more than oil prices, gas prices could be a significant swing factor, since, in spot markets, gas and oil prices have uncoupled. This exposure was exemplified by a scenario where gas prices were assumed to fall by 30%, causing a 9% reduction from the baseline level of cumulative GDP results. Not surprisingly, the section concludes that a conjunction of far-sighted depletion policies, sound fiscal management and wise investment will be needed to support financial sustainability.

Sustaining economic prosperity

In the future, as in the past, the government will ensure that the structures governing hydrocarbon-linked investments, upstream and downstream, provide adequate flexibility to deal with project specifics and changing cost or market conditions. Equitable risk-sharing arrangements will also be implemented.

After this statement referring to the dominant industry, the report goes on: Having achieved enormous gains by developing the hydrocarbon sector, the government is poised to take on another significant challenge—diversification. A more diversified economy is inherently more stable, more capable of creating jobs and opportunities for the next generation and less vulnerable to the boom and bust cycles of oil and natural gas prices. Qatar's investment in foreign currency assets is an important part of its broader strategy to diversify its future income base. Investing hydrocarbon income in foreign currency assets would not address Qatar's ambition to become an inquiring, innovative and creative society, however. The development of a more diversified domestic economic base, with knowledge-intensive activities, generating productive and remunerative jobs, is considered necessary to support wider societal objectives. Several opportunities exist. Industries that gain advantage by eliminating transport and distribution costs and relocating closer to sources of energy and feedstock provide one avenue for investment. Another long-term opportunity would be to integrate along the energy supply chain.

Also under this heading, challenges are not left unmentioned: The fact that other countries are pursuing diversification strategies creates opportunities for cross-country learning. But there are also risks. Many of the Gulf Cooperation Council countries are focusing on diversification in the same areas, including petrochemicals, air transport, logistics, real estate, knowledge services, finance, life sciences and telecommunications. The very general conclusions read that entrepreneurship and innovation need to be learned, embedded in the education system and in the surrounding culture and supported through business friendly policies and regulations. Qatar's private sector will need strengthening, with support and incentives that encourage the acquisition of relevant capabilities and active participation in a wider range of economic activities.

Promoting human development

Some assessments regarding the functioning of the labour market and human capital formation are very critical: Low demand for skills amid surplus labour; a weak private sector and low levels of entrepreneurship; limited capabilities of discovery and innovation; and weak regional integration and connectivity will require fundamental policy shifts that alter the incentives facing Qatar's citizens. To expand opportunities for citizens and build local capabilities, Qatar must start the process of transforming itself into a high-wage private sector economy.

Matching the size and quality of the expatriate labour force to the selected path of development is part of the challenge: Current provisions in the labour market provide an incentive to recruit low-cost expatriate workers and a disincentive to Qatari employment and to automation. The high levels of immigration do not only support a low-wage, labour-intensive, low-productivity economy, the cost of importing low-skilled expatriate workers is also heavily subsidised. Furthermore, sponsorship constrains the mobility of expatriates and thus their ability to respond to labour market signals. A rigid labour market hampers the development of a workforce commensurate with aspirations for a knowledge economy. Qatar should therefore attract qualified expatriate workers in all fields, with a growing emphasis on the higher skilled. A critical question raised by the report is how much the wage gaps should narrow between Qataris and expatriates and between public sector and private sector workers. To this end, wage, salary and social allowance packages, including pension schemes, in the public sector (public administration, government companies and the mixed sectors) shall be reviewed. Also, Qatar's labour laws shall be revised, as necessary, to further protect the rights and safety standards of all expatriate workers within a comprehensive social protection framework and in accordance with international norms and standards.

An integrated approach to sound social development

Under this heading, policies in five interrelated areas are addressed: family cohesion and women's empowerment, social protection, public safety and security, and sports and culture. Since the report has to stay in line with the conservative societal attitude of the ruling family, but simultaneously needs to look forward up to the year 2030, not surprisingly, rather contorted assertions result: "Integrating the policies of these interrelated sectors within one strategy will benefit Qatar in many ways as it pursues a progressive and modern social agenda while upholding traditional family and cultural values. This approach will ensure careful consideration and proper respect of traditional Qatari culture and Arab identity, even as necessary advances are made in social equality, protection and justice. Qatar's families must remain strong and cohesive and provide a supportive environment for all. At the same time, women must be given more opportunity to contribute to the economic and cultural world without diminishing their role in the family structure." It will be seen to what extent the government will support, as announced, programmes that increase the number of women in leadership and decision-making positions while reducing the stereotyping of women's roles and responsibilities.

Sustaining the environment for future generations

Water is clearly the most critical natural resource and needs to be better conserved and protected from degradation. The report sees varying challenges water-saving initiatives face. Stemming losses in the distribution system involves essentially technological fixes. Introducing water-saving devices in households is fairly straight-forward, as Abu Dhabi and Canada have shown. Encouraging the use of water-saving appliances will require effective communication, but might also need supporting incentives. An independent regulator shall help accelerate reforms of the water sector. Preventing water degradation could be more demanding. Changing water consumption patterns in agriculture – although the sector is of marginal GDP relevance - is vital to an integrated approach to water management, but it will require a fundamental and prolonged reorientation of farming, involving a range of factors including government subsidies. Recharging the aquifers with treated sewage effluent (if shown to be technically feasible) would ease the looming water scarcity. But without changes in irrigation methods and crop mixes, farming would continue to make heavy demands on Qatar's precious water resources. The government is committed to addressing this challenge and finding solutions within a wider programme of agricultural reform and the development of an agro-food industry.

The CO_2–problem is also addressed: By burning less natural gas, Qatar would support the national goal of lowering carbon dioxide emissions, thereby reducing the country's contribution to global climate change. Beyond the CO_2 topic, expanded recycling will greatly improve solid waste management. Careful monitoring and regulation will protect vulnerable species and broadly preserve Qatar's natural heritage. Urban spaces, subject to intense construction over the past decade, will be healthier and more liveable as green spaces are added. To this end, a culture of evidence-based policy-making will be needed, backed by information systems that ensure both informed decisions at the outset and continuous monitoring to guarantee compliance and, over time, measure impact.

Institutions and implementation

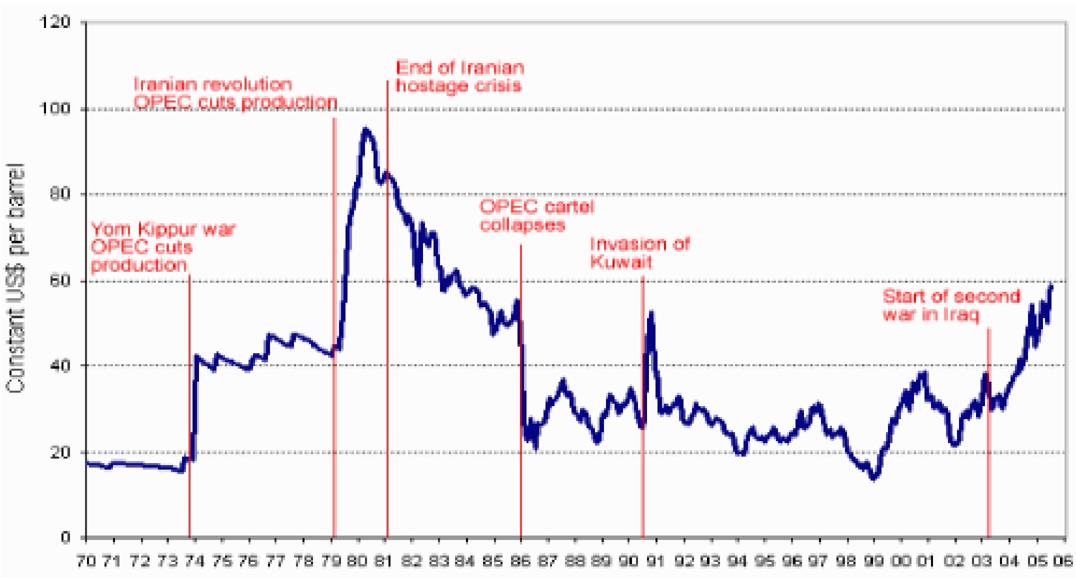
The need for a macro-fiscal framework that helps decision-makers analyse the fiscal and macroeconomic implications of commitments they are considering is recognized. The awareness that energy price shifts hit the fiscal revenue stream directly, creating ripple effects throughout the economy, is, of course, also present. Conclusions remain somewhat hesitant, however. The text states that meeting these commitments over the next six years will require institutional adjustments and concerted capacity strengthening, as well as the recruitment of technical experts in the Ministry of Economy and Finance and in line ministries and agencies. Partly because of limited expertise in Qatar in macro-fiscal policy and strategic and operational planning, the five-step programme will be rolled out gradually, at a pace the Ministry of Economy and Finance and other arms of government can manage. The possibility of establishing a new financial mechanism to support fiscal stabilization objectives will also be considered but cannot substitute for sound fiscal policy. Finally, the government will ensure that public-private partnerships fit within the larger investment plan and provide a pathway for the transfer of skills to the country.

The update of the strategy, which was conceived to cover the years 2011-2016, will now have to address the drastic fall in oil prices in 2014/15.

4 The recycling of petrodollars

The notion of the recycling of petrodollars originates in the oil price hike of the 70'. A considerable share of world income then newly accrue to the oil exporting nations. In order to stem the short-fall in demand consequently affecting western economies, the dollars earned in petroleum should flow back to western countries, with the idea that they are invested or spent there and do not only remain on bank accounts, depressing the money multiplier. In reality, and after netting positions of economic agent categories as creditors and debtors, increasing public debt in oil importing countries due to the recession in the mid-70' has absorbed a large share of oil revenues.

Real Oil Price
(WTI in constant USD of July 2005)



The figure below[345] indicates the evolution of the oil price over a longer horizon, linking it to political events and the constitution of a cartel in the oil market, the OPEC, i.e. the organisation of the Oil Producing and Exporting Countries.

The figure shows the oil price in constant US-$ so that inflation and exchange rate movements which also played a role in shaping the evolution of the oil price, have to be added to the figure. In particular, it needs emphasising that the US experienced high inflation in the early 1970 and European Countries (which had pegged their currency to the dollar) even more so, and that the Bretton Woods System collapsed in 1973, accompanied by a fall of the US-$ in terms of the Deutsche Mark from some DM 4.- in 1970 to some DM 2.- in 1978. This needs consideration when the figure shows a price of a barrel of oil in US-$ of some US-$ 20 after correction for US inflation recurrently after 1986, a value comparable to the early70'. Due to this real depreciation of the US-$ against other currencies these US-$ 20 meant a lower purchasing power of OPEC countries in e.g. European markets.

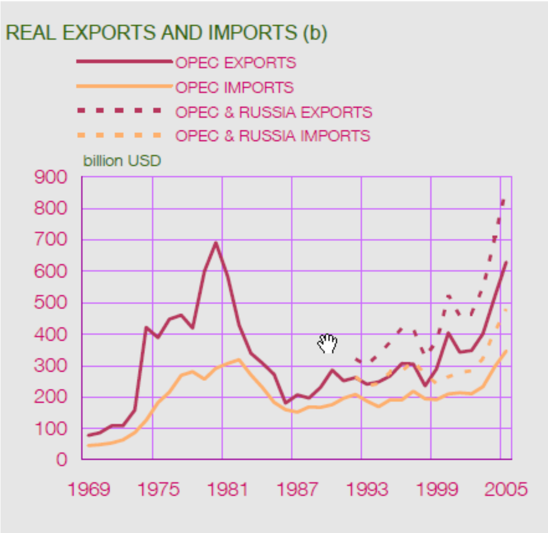
In an initial stage, the global banking system played an important role in recycling the petrodollars. With some delay, imports by oil exporting countries also surged. Combined with the return of the oil price in real terms to levels not much

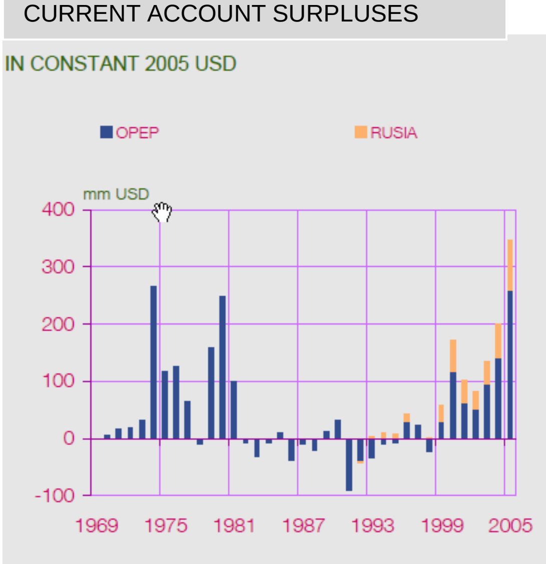
[345] Copied from http://www.grips.ac.jp/teacher/oono/hp/lecture_F/lec10.htm

above those before the first oil price shock, current account surpluses of OPEC countries virtually disappeared up until the turn of the century.

The evolution for Qatar is more or less in line with what the figures show for the OPEC as a whole.

Real Exports and Imports and Current Account Surpluses 1969-2006 of OPEC Countries (and Russia)





Source: Juan Luiz and Josep Vilarrubia: International Recycling of Petrodollars, Documento Occasional No. 0605, Banco de España, April 2006.

The topic of recycling the petrodollars reappeared after 2002 when the oil price surged again, but differently from 1973 and 1979 in a more continuous way, probably due to the fact that this time demand, namely a fast growth in the world economy, was more important than high inflation leading to price distortions and exchange rate tensions, supply shortages and conflict in the region.

For Qatar, the oil-price increase after the turn of the century meant that it started to register annual current account surpluses again. While they gradually exceeded the level of US-$ 10bio reached in the preceding decade, after the transitory fall in 2010, they rose to more than US-$ 50bio in 2012 and 2013. It was not meaningful to use these revenues wholly to increase currency reserves. To fuel the money through the global banking system, while important, was not a definite solution, either. By setting up a Sovereign Wealth Fund, direct investments in foreign assets – not the usual business of Central Banks and Ministries of Finance - was made possible. In the business case presented below, we will indicate where Qatar's sovereign wealth fund, the Qatar Investment Authority established in 2005, placed the country's fortune.

5 Underestimated precursor signs of the financial crisis of 2008?

It is worthwile considering what the global banking system made out of the funds received from oil exporting countries in the past decade, although it is not easy to link changes on the debt side of banks' balance sheets to changes on their asset side. Admittedly, the idea of putting money into a bank is to acquire a stake in all the assets a bank holds. With this reservation in mind, one may still question where the banks went in the last decade with the money stemming from surging raw material prices. In December 2006, Matthew Higgins, Thomas Klitgaard, and Robert Lerman in the leaflet "Current Issues in Economics and Finance" of the Federal Reserve Bank of New York[346] examined the way petrodollars had been recycled this time. They found that exporter's revenues had been about evenly split,

[346] Higgins, Matthew and Thomas Klitgaard and Robert Lerman (2006): Recycling Petrodollars, Current Issues in Economics and Finance, Federal Reserve Bank of New York, December.

with half going into purchases of goods and services and half going into purchases of foreign assets. However, notable differences were found in how petro-dollars had been recycled among major oil-importing countries. While Europe and China had seen a large fraction of the increase in payments to oil exporters return to their region in form of purchases of locally produced goods, the United States and Japan had seen only a small fraction return for this purpose. The authors then continue: “On the financial side, China and Japan are running large current account surpluses, and thus do not need to borrow to pay their higher oil-import bills. Europe’s current account remains close to being balanced, so it too has not engaged in net borrowing from abroad. Among the major economies, only the United States has been willing to increase its net borrowing in recent years. As a result, whether directly or indirectly, the bulk of the oil exporters’ windfall has gone to finance the large and growing U.S. current account deficit.”

Somewhat later, in an IMF Working Paper dating July 2008, Johannes Wiegand examined “Bank Recycling of Petro Dollars to Emerging Market Economies during the Current Oil Price Boom”.[347] The abstract reads: “Bank recycling of petro dollars to emerging market economies is found to be almost as important as in the 1970s and 1980s, even though during the current boom, petro dollar bank flows tend to originate in countries like Russia, Libya, or Nigeria rather than in the Middle East. As one consequence, a fall in oil prices could yet again disrupt financing flows to emerging economies. Especially at risk could be countries that rely heavily on bank loans to finance external deficits, many of them in Emerging Europe.” He motivates his apprehension further down in the text by observing: “When the oil boom subsided in the early 1980s, bank flows to emerging markets reversed sharply, triggering the Latin American debt crisis.”

Precursor signs for a crisis starting in the US and later affecting countries in Europe’s South and East were thus available in the fairly well-known form of short-term bank financed current account deficits. A distinct feature this time was that asset inflation replaced the marked consumer price inflation of the early 70’. Asset inflation was a prerequisite for the delicate lending policies leading into the subprime crisis in the US and into an unprecedented housing boom which affected e.g. Spain, another hot spot in the crisis emerging in 2008.

6 Global capital flows – a mixed blessing

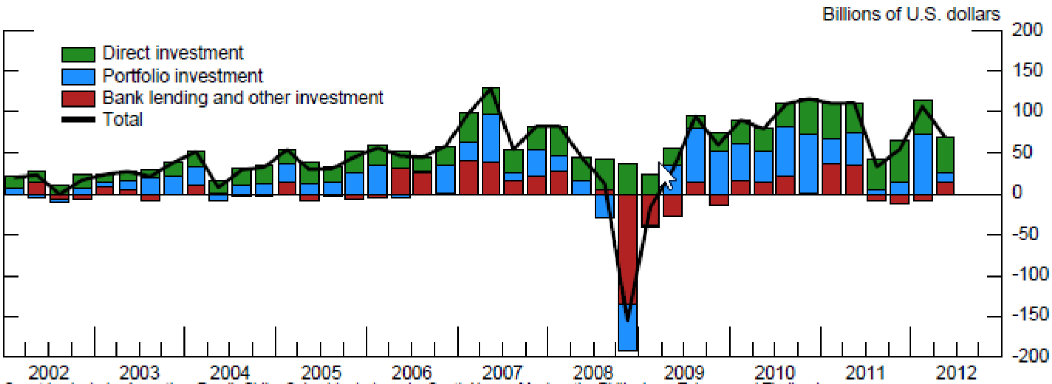
The experience of the global financial and economic crisis starting in 2008 corroborated a critical view on global capital flows. These had already increasingly been exposed to tarnished assessments in the preceding decade. A first aspect to consider is the importance of bank lending as such, a second aspect are cross-border financial investments once capital markets are liberalized. With regard to bank lending, a rule of thumb appears to be that a financial sector with a balance sheet total over 100% of GDP starts to become a drag on the future growth of an economy while below this threshold financial sector development is on average supportive of growth. Considering the levels of financial development reached, most of the developing nations will therefore gain from improved financial intermediation, while mainly the countries hosting global financial centres fall into the first category. They apparently suffer from the volatility of the business linked to cross border capital flows. The following figure shows the problems linked with the different forms capital flows can take on. The figure is taken from a publication by the US FED.[348]

In the figure, the gross inflows of three classes of financial assets to the major emerging economies are represented on a quarterly basis. Foreign Direct Investment (top segment of the columns) appears as the primordial and reliable, since constantly positive source of foreign finance for the emerging market economies considered. Bank lending (bottom segment of the columns) was far less important on a cumulated basis. Over the decade considered, it contributed only one third of what FDI did, and there was the period of 2008 where the net position of banks shrank by half within a few quarters although the industrial world was at the origin of the turmoil, justifying a claim that these credits are a fair weather affair. The third component, portfolio investment (bonds etc.) provided a net contribution of zero up to 2008. Since then these flows have experienced a boom. The zero net position up to 2008 is also an expression of “capital flight”, but not only. Wealthy people in

[347] Wiegand, Johannes (2008): Bank Recycling of Petro Dollars to Emerging Market Economies during the Current Oil Price Boom, IMF Working Paper WP/08/180, July 2008

[348] Ahmed, Shagil and Andrej Zlate (2013): Capital flows to emerging markets: A brave new world? International Finance Discussion Papers No. 1081, Board of Governors of the Federal Reserve System, June 2013.

(b) Gross inflows



Countries include: Argentina, Brazil, Chile, Colombia, Indonesia, South Korea, Mexico, the Philippines, Taiwan, and Thailand

developing countries have also a legitimate interest for portfolio diversification, and this includes the acquisition of fixed interest assets from developed nations.

The massive inflows of portfolio capital since 2008 raise the question of the absorption capacity of the emerging economies newly targeted by these flows. It needs emphasizing that the figure shows the quantity effect. Not shown are the price effects these flows had. They favoured an appreciation of the targeted countries' currency, and the low interest rates resulting there from the inflow comprised the risk of price bubbles in asset markets (e.g. real estate booms).

Overall, while FDI is likely to pass the test of supporting emerging economies in their development, the figure sheds some doubts on the usefulness of portfolio investments and bank loans. They can constitute a source of growth, substituting for low domestic savings, and be less costly than FDI, but such financing comes at the price of vexing spill-overs, since financial markets will re-apprehend the risk of a whole category of countries based on unfavourable evolutions made in a single one of them. It is also an open question whether the interest modifications caused by these volatile flows were in line with the needs of the economy absorbing them. A narrow path may exist where the appreciation of the currency and the lowering of the interest going along with capital inflows may be balanced with respect to their impact on the GDP. Steering an economy along this path is difficult and, even if successful, comes at considerable costs, however. If the impact exercised on the aggregate, i.e. on GDP, may be adequate, it also holds true that neither the impact on the exposed sector (typically industry) nor the impact on the domestic or sheltered sector (typically construction) will be appropriate. Factors of production do not float freely from one sector to the other. No wonder given such distortions that countries confronted with strong inflows of portfolio capital had recourse to unpopular discretionary measures, namely controls of capital flows. To have recourse to such discretionary measures finds some excuse in the fact that the industrialised countries also implemented 'un-orthodox' monetary policies. The latter may have been in the interest of the emerging economies as well, since more depressed growth prospects in the industrialised world would have driven down their own growth rates. But their position was not considered when decisions were taken in the industrialised world. So, when confronted with the collateral of monetary easing, they could also claim to be entitled to pursue their own interest to the best of their knowledge by imposing capital controls.

Against the background of the experiences of the last decade, there is an interest that countries with a structural account surplus make foreign investments in a longer term perspective. One institutional vehicle to manage such investments is to constituite Sovereign Wealth Funds. These we will consider next.

A Joint Venture of the Qatar Investment Authority and Credit Suisse

The Qatar Investment Authority

The Qatar Investment Authority (QIA) is Qatar's sovereign wealth fund, specializing in domestic and foreign investment. The QIA was founded by the State of Qatar in 2005 to manage the oil and natural gas surpluses by the government of Qatar with the objective of strengthening the country's economy by diversifying into new asset classes. The fund predominantly invests in international markets (United States, Europe and Asia-Pacific) and within Qatar outside the energy sector. Prior to establishment of the Qatar Investment Authority (QIA) in 2005, Qatar's Ministry of Finance had a small in-house team to invest revenue from budget surpluses. Qatar Holding is the international investment arm of QIA. Since 2009, Qatar Holding has received US-$ 30-40bio a year from the state.

Unfotunately, the QIA does not publish its holdings to the market but the following investments became known: Qatar Holding's stake in Barclays rose to 12.7% following Barclays' capital raising in October 2008. Qatar Investment Authority holds a small stake in Fisker Automotive. It also holds a stake of about 17% in the Volkswagen Group. On 8 May 2010, Qatar Holding purchased the Harrods Group including the Knightsbridge department store. QIA is also the largest shareholder in the UK supermarket chain Sainsbury's. On 3 December 2010, Qatar Investment Authority was part of an investment group known as Filmyard Holdings which purchased Miramax from Disney. In February 2012, it completed the acquisition of Credit Suisse's headquarters in London. QIA holds a 6% stake in Credit Suisse and owns shares in Apeldoorn, the majority owner of Canary Wharf Group. Qatari Diar, a property arm of the fund, won a £300mio deal to redevelop the Shell Centre in London that houses the Royal Dutch Shell's London headquarters. Having acquired almost $4 billion of property, the French government offered tax exemptions for Qatari real estate investments in the country. In May 2012, QIA acquired a stake below 3% in Royal Dutch Shell. It has announced a plan to raise its stake to 7%. In late 2012, Qatar Sports Investments (QSI) completed a buyout of the French football club Paris Saint-Germain F.C. (P.S.G.), which valued the club at $130 million. QSI invested a further $340 million in the club. The Qatari president of P.S.G., Nasser Al-Khelaifi is also the director of Qatari owned television network Al Jazeera Sports, which launched French television channels beIN Sport. In January 2013, Qatar Holding said it would invest $5 billion into petrochemical projects in Malaysia in the three to four coming years to help Malaysia become the region's top petrochemical hub. The QIA was planning to invest $200 million in residential property in India through Kotak Realty Fund in late December 2013. In October 2014, Qatar Investment Authority signed an agreement with CITIC Group Corp to launch a $10 billion fund that will invest in the China region. By 2011 Qatari Diar, the real estate company established by the Qatar Investment Authority, had stakes in Vinci, a construction and real estate company of French origin employing 183'000 persons in 100 countries; in the utility Suez Environment and in Veolia Environnement. That same year, Qatari Diar bought the Port Tarraco Marina in Tarragona, Spain.

Challenges in launching Qatar as a financial centre

For the Financial Times, the launching of the Aventicum Capital Management Ltd. (see next sub-section) offered the opportunity to report extensively on the ambitions and difficulties Qatar has in launching the country as a global financial centre. [349]

The Financial Times first refers to the ambitions of the gas-rich emirate to develop its domestic capital markets and to build a world-class asset management industry serving the entire Middle East. Estimates suggest that a US-$ 1.5 trillion wealth pool is held across the six states of the Gulf Co-operation Council by institutions (excluding sovereign wealth funds) via banks, insurance companies, private corporates and wealthy individuals. That pool jumps to US-$ 3 trillion once the GCC's richest families are included. Today, most of these funds are managed outside the region but Qatar is seeking to change this as do the other Gulf Countries. The chief executive of the Qatar Financial Centre Authority acknowledges that the emirate faces considerable challenges in creating a truly modern asset management sector, however, but is quick to point out that the government has the money, determination and patience to achieve its vision.

[349] Edition of 23 June 2013, see http://www.ft.com/intl/cms/s/0/736bdfb0-c3b1-11e2-8c30-00144feab7de.html#axzz3b37uyc9U

Fund managers need a suitable variety and range of investable assets to use. To develop a local capital market, the Qatar Financial Centre QFC is working to support government agencies, which are identifying opportunities for private sector involvement in publicly funded projects. The hope is that this will lead to the issuance of infrastructure funds and bonds, which can then be listed and traded. A pot of seed finance is also available to develop partnerships with boutique managers and eventually niche players and start-ups. Additionally, the QFC is considering talks with a partner that can provide shared back- and middle-office services (compliance, fund administration and distribution) to keep costs down and to allow smaller managers to concentrate on their core investment functions. To help this evolution, Qatar has created a parallel system for financial services companies based on English common law. It is an "all-encompassing environment" for civil and commercial matters that allows the QFC to determine tax, immigration and employment laws and financial regulations.

The Aventicum Capital Management Ltd.

With the idea of accelerating the development of its asset management capabilities, in November 2012, Qatar Holding announced a partnership with Credit Suisse to form Aventicum Capital Management, an asset management joint venture. Formally a Swiss based holding company with approximately US-$ 3mio capital, Aventicum Capital Management Ltd. claims on its homepage that it brings together the advantages of an entrepreneurial, unconstrained multi-boutique investment approach with the institutional strength and governance of Credit Suisse and the long-term capital support of Qatar Holding. As CEO, Aladdin Hangari, chief executive of Credit Suisse Qatar, holds the responsibility for the joint venture.

In the past three years, Aventicum has evolved significantly in organisational dimensions. The financial management company is now present in Qatar, Zurich, Geneva and London. In each of these places, a financial intermediary was placed under local legislation[350] and holds investment autonomy, focusing on a different activity:

- *Aventicum MENA & Frontier Markets (Doha): pursues long-only and absolute return equity strategies offering exposure to MENA, Turkey and select frontier markets. The investment process is bottom-up, fundamentally driven with a focus on long-term value creation.*
- *Aventicum Alternative Equities (Geneva): pursues a European Long / Short Equity strategy. The investment process is described as a diligent contrarian' approach, utilising the team's stock-picking skills.*
- *Aventicum Private Equity Real Estate (Zurich): seeks stakes in non-core real estate and real estate related investments. A disciplined underwriting due diligence investment process shall identify investments that will generate superior risk-adjusted returns through active asset management.*
- *Aventicum Emerging Markets Credit (London): invests in global emerging markets corporate debt in both the public and private segments of the asset class. A disciplined, fundamentally driven investment process with opportunistic trading and deal sourcing shall identify attractive investment opportunities across countries, industries and corporate capital structure.*

By the end of 2013, Aventicum managed an estimated US-$ 300mio in assets.[351]

Comment

While investments appear as less concentrated in industrial countries than those of the QIA itself, the contribution the company will make to establish Doha alongside major financial places such as London, Zurich and Geneva remains uncertain. There was rather a different orientation of the organisational evolution, and the reasons may be those indicated above in the section on launching Qatar as a global financial centre.

[350] The following indications were copied from the homepage of Aventicum.

[351] http://www.swfinstitute.org/swf-news/qatar-sovereign-wealth-backed-aventicum-capital-launches-ls-fund/

7 Sovereign Wealth Funds in general[352]

A Sovereign Wealth Fund (SWF) is a state-owned investment fund investing in real and financial assets such as stocks, bonds, real estate, precious metals, or in alternative investments such as private equity funds or hedge funds. Sovereign wealth funds invest globally. Most SWFs are funded by revenues from commodity exports or from foreign-exchange reserves held by the central bank. SWFs are typically created when governments have budgetary surpluses and have little or no international debt. It is not always possible nor desirable to hold this excess liquidity as foreign exchange reserves nor to channel it into immediate consumption, and this for the following reasons:

- Foreign exchange reserves are subject to the legislation of the Central Bank and should be invested in pursuit of macroeconomic policy goals. This will usually only result in a small yield and macro-economic policy coordination imposes some restraint on central banks in reshuffling their long positions in near-money assets, in using futures markets or in going short.
- Immediate consumption is not indicated, even in poor countries, due to the properties of natural resource revenues since an unstable spending stream has the potential to disturb growth domestically. The lack of stability in these revenues is rooted in the high volatility of resource prices, in the unpredictability of extraction (also in the form of spillovers from other world regions), and in the exhaustibility of resources;

Accordingly, there are two types of funds: saving funds and stabilization funds:

- Stabilization SWFs are created to reduce the volatility of government revenues, i.e. to counter the adverse effect on government spending and the national economy the boom-bust cycles' on commodity markets generate.
- Savings SWFs build up savings for future generations, using more profitable, longer term investments in particular which commonly do not belong in a portfolio of a central bank. One such fund is the Government Pension Fund of Norway

As these asset pools continue to expand in size, so does their potential impact on various asset markets. A considerable number of countries, not least the US,[353] worry that investment by foreign SWFs might compromise national security, arguing that the purpose of the investment might be to secure control of strategically important industries for political rather than financial gain. The problem arose that when one country started to limit investment by SWFs, other countries feared that they would now have to absorb more of the SWF's money, affecting ownership structures in their economy in a non-desirable way from a political point of view. Also to stem this problem of narrowing investment opportunities, the SWFs adopted guiding principles for their behaviour, the Santiago Principles (see box), and established an organisation, the International Forum of Sovereign Wealth Funds, which discloses information on these funds and monitors them to a certain extent.[354]

In 2013, assets under management of SWFs reached US-$ 5.78 trillion. There was an additional US-$ 7.2 trillion held in other sovereign investment vehicles, such as pension reserve funds, development funds and state-owned corporations' funds and US-$ 8.1 trillion in official foreign exchange reserves. Taken together, governments of SWFs, largely those in emerging economies, have access to a pool of funds totalling US-$ 20 trillion (the annual GDP of the US reached US-$ 17.4 trillion in 2014).

[352] The text follows the indications in http://en.wikipedia.org/wiki/Sovereign_wealth_fund as of 22 May 2015. The Sovereign Wealth Fund Institute, a private consulting firm based in Las Vegas, provides also useful information.

[353] In the US, the Exon-Florio provision of 1988 (strengthened 2008) grants the President the authority to block proposed or pending foreign acquisitions of "persons engaged in interstate commerce in the United States" that threaten to impair the national security. This provision came under intense scrutiny with the proposed acquisitions in 2006 of major operations in six major U.S. ports by Dubai Ports World and of Unocal by the China National Offshore Oil Corporation (CNOOC). For more information see e.g. Congressional Research Services (author James K. Jackson): The Exon-Florio National Security Test for Foreign Investment March 29, 2013.

[354] See International Forum of Sovereign Wealth Funds (IFSWF): The Santiago Principles: 15 case studies - How IFSWF Member's implement the Santiago Principles, published at the 6th meeting of the IFSWF's Members at Doha, November 2014. See www.ifswf.org/pst/SantiagoP15CaseStudies1.pdf

The Santiago Principles[355]

In September 2008, at a summit in Chile, the International Working Group of Sovereign Wealth Funds—consisting of the world's main SWFs and the precursor of the IFSWF—agreed to a voluntary code of conduct first drafted by the IMF and then forwarded to a committee of the IMF-Board for information. It is made up of 24 principles. The principles call for a sound and effective legal framework (1), stating clearly and officially the policy purpose of the fund (2). Domestic activities shall be closely coordinated with the domestic fiscal and monetary authorities (3) and the SWF's general approach to funding, withdrawal, and spending should be clear and publicly disclosed (4). Data pertaining to the SWF should be reported on a timely basis to the owner and statistical authorities (5). The governance framework should establish a clear and effective division of roles and responsibilities (6) and members of its governing body(ies) appointed in accordance with clearly defined procedures (7). The governing body(ies) should act in the best interests of the SWF (8), and the operational management of the SWF should implement the SWF's strategies in an independent manner (9) and in accordance with an established accountability framework (10). Recognized accounting standards shall be used in a consistent manner (11) and financial statements audited annually (12). Professional and ethical standards should be clearly defined (13) and the SWF's operational management should be based on economic and financial grounds (14) and in compliance with all applicable regulatory and disclosure requirements of the countries in which they operate (15). The governance framework and objectives, the operational independence of the SWF's management and relevant financial information regarding the SWF should be publicly disclosed to demonstrate its economic and financial orientation, so as to contribute to stability in international financial markets and enhance trust in recipient countries (16) (17). Sound portfolio management principles with the aim of maximising risk-adjusted financial returns should be applied to attain defined objectives (18) (19). The SWF should not seek or take advantage of privileged information (20) and the SWFs shall view shareholder ownership rights as a fundamental element of their equity investments' value and to this end disclose the key factors guiding its exercise of ownership rights (21). Risk assessment should be in place (22) and performance reported to the owner according to clearly defined principles or standards (23). Finally, a process of regular review of the implementation of the principles should be engaged in, by or on behalf of the SWF (24).

Countries with SWFs funded primarily by oil and gas exports totalled US-$ 4.29 trillion as of the end of 2014. Non-oil and gas SWFs totalled US-$ 2.82 trillion. Non-commodity SWFs are typically funded by a transfer of assets from foreign exchange reserves, and in some cases from government budget surpluses and privatisation revenue. Asian countries account for the bulk of such funds.

An important point to note is the SWF-to-Foreign Reserve Exchange Ratio, which shows the proportion a government has invested in investments relative to currency reserves. According to the SWF Institute, most oil-producing nations in the Persian Gulf have a higher SWF-to-Foreign Exchange Ratio — for example, the Qatar Investment Authority (5.89 times) compared to the China Investment Corporation (0.12 times) — reflecting a more aggressive stance to seek higher returns.[356] Evidently, some of these funds could in future be channelled towards funding the development of infrastructures where there is a global demand.

The Significance of Globalisation for Qatar

The significance of globalisation for Qatar has become enormous. Based on oil revenues, the country has attracted a labour force that exceeds the endogenous population by far. The process is barely reversible given that private real estate investments and infrastructures are scaled to the GDP level the country has reached. While the revenues from fossil fuels will not disappear, the country should consolidate its income level by an economic transition towards high value added services. This poses considerable economic and social challenges and it will be interesting to see which countries in the Gulf Region will best respond to these.

[355] Compiled by the author from http://www.iwg-swf.org/pubs/eng/santiagoprinciples.pdf

[356] This close connection to foreign exchange reserves is an explanation for the involvement of the IMF in the elaboration of the Santiago principles.

The Significance of Globalisation for the Selected Countries – Overview

In this section, we reproduce the conclusions drawn at the end of the single chapters on the significance of globalisation for the country selected. These assertions indicate that the challenges accruing out of globalisation are far from uniform across the countries considered. Often, the countries have also considerable scope for formulating adequate domestic policies in response to arising challenges. Globalisation is therefore far from a fatum falling upon nations, least developed countries with very scant domestic resources such as Burkina Faso perhaps constituting the exception with respect to possibilities to address adverse evolutions.

The Significance of Globalisation for Burkina Faso

Apparently, the country has only a limited growth potential. While not ideal, the internal conditions in the country do not constitute a serious impediment to overcome the very low level of development that is still prevailing. This process will be time consuming, however. Relevant in the present context, the cotton sector has been adequately reformed. It is the protection of farmers in the industrialised world that deprives the country of essential revenues it might earn on world markets as an agricultural exporter, money the country could put domestically at profit. The significance of globalisation for the country's economic success is therefore considerable, particular importance accruing to the worldwide agricultural trade regime. A dispute procedure in the WTO proved successful in repressing measures directly affecting trade while it remains difficult to come to grips with domestic support schemes decided by Parliament in rich producer nations. As a result, the burden of adjustment to changing world market conditions remains unevenly distributed between North and South.

The Significance of Globalisation for Guatemala

The country suffers from the cleavage in its society. Globalisation in the sense of allowing the trans-border flow of goods and capital may have exacerbated the situation in the case of this specific country. The single features globalisation takes on are in the case of Guatemala at best of medium importance for the future development of the country, however. Primordial is the seriousness of the internal problems.

The Significance of Globalisation for Ghana

The country is exposed to the dynamics and the volatility of markets for natural resources. The significance of globalisation for Ghana is therefore high. Buoyant markets for natural resources have allowed Ghana to advance in the category of countries with middle human development since the turn of the century. Aberrant national policies continue to act as multipliers of swings in global commodity prices, however. Internal policies should be improved to better achieve macro-economic stability in the face of non-curable price swings in world raw material markets. Suggestions are fiscal rules and central bank independence.

The Significance of Globalisation for Portugal

The significance of globalisation for Portugal is peculiar. Formerly a globally oriented colonial power, Portugal adopted an EU focus starting in the 70' and benefitted in these markets first from a wage cost advantage and supportive EU policies. A significant part of the structures built up proved to be short-lived however, when a new wave of countries occupied within the EU the position Portugal formerly held. Portugal's upgrading in the value added chains was insufficient and also retained by the macro-economic evolution. With an industry structure relying still on rather price-sensitive productions, not disposing of the sovereignty to devalue its currency engendered high costs. They accrue in the form of an unwarranted process of de-industrialisation. Therefore, not necessarily globalisation but rather the aspects of regional integration proved crucial for Portugal's development in the recent past.

The Significance of Globalisation for China

Within its borders China disposes of all the essential resources necessary for a successful growth process. The Wall of China is symbolic of the fact that the country evolved in relative isolation for centuries, missing developments in the Western hemisphere. The Cultural Revolution may be considered as a last expression of favouring an inward oriented societal evolution. A cautious economic opening then unleashed an unprecedented growth of GDP, allowing a large share of the world's population to leave the status of living below the lowest defined level of poverty. China's large internal market was conducive to foreign direct investment, carrying along technical and organisational knowledge so that the country now has good prospects of progressing also beyond a middle income level. An open question is whether a congruence of economic and democratic developments needs to be established to this end.

The Significance of Globalisation for the Czech Republic

The significance of globalisation for the Czech Republic is not overwhelming if globalisation means worldwide business relations. The country evolves predominantly in a European context. A deeper integration in worldwide value added chains will become of increasing importance for the country in reaching the income levels of the countries from where FDI into the Czech Republic today originates. Service sector development and enhanced R&D activities will be key in this process.

The Significance of Globalisation for Morocco

Morocco illustrates the case of a country that has got stuck in the middle income range. A pronounced population increase has slowed capital deepening as a driver of growth. The feudal structures may also inhibit development in what is prima facie a market economy. The potential of a location at the fringe of the industrialised world was barely used over decades and export dynamics out of the AsiaPacific region further withheld progress. Morocco can build on raw material exports only to a limited extent so that it has to establish itself primarily downstream in the value added chains. This is taken up in industrial policy initiatives. The major problems in reaping the benefits of global trade reside in the human capital stock, however. Education is not sufficiently oriented towards offering young people a sufficient share of knowledge more or less directly applicable on the job. Furthermore, school drop-outs form a basis for child labour which is encountered in domestic work and in the small business units in the artisanal and agricultural sectors. Leaving the bottom range in the group of middle income countries would attenuate this problem.

The Significance of Globalisation for the Philippines

In the case of the Philippines, globalisation takes on a particular form. While worker remittances are an important source of foreign income for numerous developing countries, in the case of the Philippines, emigration occurred on a large scale mainly after the country had reached – by the standards of the world region - a considerable level of development. The question whether the country can enter global value added chains with domestic production is crucial for further development.[357] There are a few footholds on which to build now that after decades of neglect domestic policies have improved.

The Significance of Globalisation for Colombia

The significance of globalisation for Colombia is middle to high. Colombia is primarily dependent on world markets as an exporter of natural resources. Some of them – like coffee – are also labour intensive so that not only government revenues are dependent on world market prices. On the other hand, Colombia has only started to establish itself as a producer of intermediates and final goods and services for export, the establishment of export capacity also going along with improved domestic efficiency. Continuing on this path is reflected by an ambitious strategy to conclude free trade agreements. These will make more parts of the global framework for trade relevant for the country - as was exemplified here by the government procurement provisions established internationally on a plurilateral basis. Openness and adherence to international standards spurs competition and enhances knowledge. The presence of MNEs as tenderers is of particular importance in those sectors where critical company size is high as this is the case in infrastructures

The Significance of Globalisation for Georgia

The significance of globalisation for Georgia is high but this constitutes rather a mixed blessing for the country since, after the end of central planning, Georgia also experienced a reverse side of globalisation, namely the geo-strategic tensions to which transit countries in world trade may be exposed. Since fuels will continue to be

[357] One is tempted to ask whether the influence exercised over the Pacific (first as a Spanish colony attached to the vice-royalty of Mexico and then as a US dominion) proved less conducive to growth in recent times than the strong influences one would expect but actually does not observe over the much narrower China Sea.

shipped from the Caspian to the Mediterranean Sea for a long time, exposing the country to such tensions, Georgia needs to develop the inherent strengths location and topography provide to the country. This is a prerequisite for strengthening its political sovereignty and for deriving larger economic benefits from its location. On the positive side of globalisation for the country figures worldwide tourism. Extending from the sea to mountain ranges with permanent ice, Georgia may offer a wide variety of distractions.

The Significance of Globalisation for Bulgaria

The significance of globalisation for Bulgaria is indirect in nature. For the time being, the focus of the country is on regional integration. Due to the low wage level the opportunities may presently dominate and help Bulgaria become an export-oriented manufacturer of intermediates and final goods and services. As an EU member, Bulgaria is affected by the trade rules that govern global exchange and also the decisions taken with regard to global challenges such as the limitation of CO_2 emissions. These are heavily shaped by the position the EU adopts, knowing that they affect member countries differently. Whether these fit Bulgaria is open to debate but mechanisms internal to the EU can attenuate problems which may emerge

The Significance of Globalisation for Peru

The significance of globalisation for Peru is simultaneously big and limited. Peru harbours numerous minerals in its soil so that the extracting industries are of considerable importance for the country. Exports continue to be heavily concentrated in commodities (89% of the total), however. Their contribution to employment is limited and offers to micro, small, and medium-sized enterprises only scant opportunities for participation. Moreover, the sustained economic growth has not been reflected in greater investment in research and development (R&D). Consequently, Peru functions as a provider of primary inputs to production processes taking place abroad but still has a long way to go to establish itself also as a producer downstream in global value added chains.

The Significance of Globalisation for Kenya

The significance of globalisation for Kenya is considerable. According to per capita income, the country is one of the underperformers in the Sub-Saharan region; it exhibits also a pronounced centrum-periphery gradient. The capital Nairobi has the potential to become a hub for high end services in Western Africa, however, building on banking and information & communication technology. This evolution may then trickle down to the other regions, some of them having considerable potential of their own, primarily by servicing foreign tourists. The more a country relies on these sectors, the more important political stability becomes, however. For a long time, internal politics held back development but currently tensions and the lack of personal safety at the periphery of the Islamic World constitute the predominant threat to the country’s economic success.

The Significance of Globalisation for India

Prima facie, the significance of globalisation for India is not very high. The country shows dependence from the rest of the world neither on the import nor on the export side. For decades, this made politicians inclined to pursue policies within national borders with the result that India remained a country at the lower medium income level. Significant poverty alleviation then occurred in parallel to market oriented reforms which included a cautious opening up of the country. In this process, the knowledge based services showed India’s potential as a global player in the Knowledge Based Society.

The Significance of Globalisation for Switzerland

The significance of globalisation for Switzerland is very high. The country has not only preserved a very competitive manufacturing sector, but concentrates additionally its activity on those parts of global value added chains where the incomes generated are the highest. The country also disposes of a well performing export oriented services sector. The challenge for the country consists in preserving within its boundaries the political preconditions for containing absorption (i.e. the use of domestic re sources to service domestic demand). Productivity increases in sectors not exposed to import competition are crucial. They are indispensable when enough resources shall be left for activities by which the country may continue to benefit from the global orientation of large parts of its economy.

The Significance of Globalisation for Qatar

The significance of globalisation for Qatar has become enormous. Based on oil revenues, the country has attracted a labour force that exceeds the endogenous population by far. The process is barely reversible given that private real estate investments and infrastructures are scaled to the GDP level the country has reached. While the revenues from fossil fuels will not disappear, the country should consolidate its income level by an economic transition towards high value added services. This poses considerable economic and social challenges and it will be interesting to see which countries in the Gulf Region will best respond to these.

The Author's Proposal for a Synthesis

Building on parts I of the full text - which constitute the body of the present excerpt - we attempt in the basic text to provide a synthesis on the significance of globalisation for economic success. Here, we reproduce this text in the sense of a summary of the present book. Some of the following considerations build on elements of the full text that cannot be found in the present excerpt, however.

Leaving subsistence farming and exporting cash-crops brings countries and their populations an immediate economic advantage in the form of a level effect. Additionally, these countries have a chance to start a consecutive growth process from a higher level. Nevertheless, the risk that the deadlock, having formerly blocked the countries' evolution, will become more deeply entrenched with a more pronounced international opening exists. The production of agricultural commodities may also lead to an adverse specialisation of the country in products for which the terms of trade decline in a secular manner. These risks need consideration. To shift land ownership to those working the fields in a process extending over time may be a response to the former challenge. The second challenge is more difficult to address. The relative prices of manufactured goods and agricultural commodities are exposed to reversal and an unfavourable situation on the markets for the crops in which a country is specialised can last, making it impossible to insure income losses of the producers and the State, at least in developing nations. A diversification of export crops may therefore be part of the solution. Sound economic policies that help to make the best of the still predominant production in the country for the needs of the country are presumably more important. Evidently, such policies are indicated independently of the question of improving or deteriorating terms of trade for its exports.

Also when pursuing sound economic policies domestically, the benefits accruing from the export of commodities to public finances remain a challenge. The insulation of farmers from the evolution of world prices by budgetary means is as detrimental as a policy where the public budget is preserved from a fall of world commodity prices by shifting the whole burden of adjustment onto the producers. Both policies come to a disruptive end. Prices to farmers can only be granted over a limited time horizon of a few quarters and, sadly enough, the protection obtained by the producers in the developed countries may have the consequence that the income loss and the burden of adjustment falls first on the weakest. Against this backdrop, what is essential are budgetary rules putting the operating expenses in the countries for years on a steady growth path. The latter needs to undergo revision when the adverse evolution of incomes lasts. The need for good budgetary rules is enhanced since, interestingly, in a number of countries which were known as exporters of agricultural commodities, the export of fossil fuels and minerals has replaced cash crops as the main source of export revenue. Such diversification is favourable for the country and its public budget but adds to the volatility of foreign revenues and consequently the need for appropriate fiscal policies.

The question may still be asked whether there are no means to limit the volatility in the prices of the commodities relevant for developing countries. In the 60', to this end raw material funds were constituted but with the presence of future's markets these are now outdated. The markets for futures and derivatives are often blamed for destabilising economies, but for the author, such a view is not appropriate. The future's markets function rather as bearer of bad news, and bearer of bad news are often the object of unwarranted criticism. What holds true is that commodities can serve as a store of value. Markets for futures, by lowering transaction costs, may expose the underlying commodity to an increased influence from financial markets, and this puzzles established agents in the sector while neither being clearly positive nor negative for the functioning of these markets. Of course, there is an interest in containing volatility of financial markets. Since the turn of the century, the core of the world economy has undergone two crisis and the US, in particular, has decided to jump-start the economy by injecting liquidity. Thus, a potential for asset bubbles was created, commodity markets not being exempted. To jump-start an economy may have been useful but occurred after years of neglect of global imbalances.

If there is reason to criticise the IMF, the country adjustment programmes are not the primordial problem. The organisation is willing to learn on past experiences. When country adjustment programs are only accepted with difficulty, the problem is the illusion that a country can be helped out of the costly restructuring of its economy once it had lost in international competitiveness and corresponding foreign revenues. Nevertheless, such restructuring is needed independently of the question whether the loss of competitiveness is of domestic origin or caused by adverse global evolutions. The reason is that the trading partners pursue their national interests. The temporary relief IMF programs are providing is the support to be realistically expected from other nations. While useful to the countries calling for help, such programs of course also serve the creditors' interest but this is a limited problem in the sense that we are not confronted with a zero-sum game (the gain of the creditor is not the loss of the debtor). Pro poor features of adjustment programs are important, however, and should eventually be imposed if not proposed by the country under consideration. What one has to deplore as non-curable is the incapacity of international financial institutions to impose corrective actions on mighty member states, responsible for serious global imbalances. Since an improvement in their behaviour is not likely, periods of global financial turmoil will continue to recur periodically. "This time will be the last time" is a wrong assertion regarding financial markets since the remedial measures taken in the last crisis, while useful, will not be in the right place to serve as the patch in the next crisis.

While, against this background, a point can possibly be made in favour of some insulation from volatile global portfolio capital flows, insulation per se is not beneficial. The world has seen impressive poverty reduction in Asia over the last one or two decades. This reduction occurred in countries that dared to open up their economies. Import substitution policies, the opposite policy pursued in many world regions in former decades, are certainly the worst to adopt. The reason resides in the rents such policies provide to established interests within the country, a colossal impediment for future structural change. Industrial policies, even if turned to the export sector, are also exposed to this risk and for this reason doubtful although it cannot be denied that in a series of successful emerging economies, such policies have been pursued. If there was some initial success at all that may directly be ascribed to such policies, a considerable price is likely to be due over time. China's current problems with and within currently and formerly state owned companies are indicative in this respect. In the authors view, public policy needs to pay attention to the development of factors of production (education, national savings) – an alternative explanation to industrial policies for the economic success a number of emerging economies achieved - and add reliable framework conditions for businesses of all size to this. Furthermore, the functioning of the labour markets needs constant improvement.

The decrease in the number of countries leaving self-sufficiency means there is now an increasing interest in understanding why some formerly poor countries have quickly passed the stage of a middle income country towards being capable of generating per capita incomes approaching those of industrialised nations while other countries have remained for decades in this middle income group. There is considerable evidence that educational efforts by themselves are not sufficient to catch up with the income of countries at the knowledge frontier. An educated but jobless youth is a phenomenon in a series of middle-income countries and a possible source of political instability, the latter then negatively feeding back on prosperity. One explanation for unexploited human capital as a source of growth is that the content of formal schooling does not conform to the needs of the economy. For this reason, interest in vocational training is increasing and will hopefully replace rent seeking often apparent in those countries where jobless academics queue up for government jobs. The theory of growth provides a reassuring result in the sense that the levels of education reached in most countries in the world are sufficient to benefit from knowledge spill-overs so that most countries should be in a position to at least maintain their relative income level when expressed in percentage terms.

Clearly, ambitions run higher. Possibly, in approaching the countries at the technological frontier, the size of a country may start to matter, a delicate question. What is sure is that R&D spending in Latin America is under-developed by any standard and leaves doubts concerning the success this continent will have in the upcoming knowledge society. On the opposite side, the large countries in Asia already dispose of a sophisticated industrial core on which to build. It will be interesting to see whether the smaller nations in East Asia can create buoyant domestic markets of sufficient size in sophisticated goods and services thanks to regional integration to compete with India and China. Beyond economics, politics may also become important to be successful in catching up with the industrialised countries. Authoritarian regimes appear as being neither superior nor inferior in reaching a middle income level but there are some statistical indications suggesting that in order to move further on, political reform is also needed, the latter being constituted in the replacement of oligarchs by democratisation. As in growth theory in general, the direction of causality is an open questions in this respect. How to leave the status of a middle-income country therefore remains a field for research and it is not clear whether some generally valid assertions will emerge or whether the idiosyncrasies of each country will remain dominant in explaining its economic success. As an example, Greece had already been thrown out of the Latin Currency Union in 1908 and a major reason for the disruptive economic evolution was the incapacity of the government to tax the oligarchy, which is for many also the diagnostic of the country's problems appearing a century later.

This leaves us with the topic of globalisation and the industrialised world. The preceding paragraphs already contain a compilation of sins the richest countries commit to the detriment of developing nations. We recall agricultural protectionism, capital flight for tax reasons, global financial imbalances due to an inappropriate absorption of global savings, possibly also unchecked MNE behaviour. Disciplines are gradually put in place, but less so with respect to global financial imbalances. Additionally, globalisation represents a genuine challenge for the industrialised world. M&A activity can provoke a situation where the sphere for operations of companies extends well over the borders of national legislations. The saying that big banks operate globally but die nationally which became popular during the financial crisis of 2008 is indicative in this regard. The issue goes beyond the question of how to fence in financial risk. Competition legislation is also at stake although the 'effects principle' solves a lot of problems. Still, in large merger cases, industrial policy considerations may intermingle in a not very helpful way with decisions to be taken by competition authorities. Extra-territorial effects may e.g. stem from the imposition of charges administered along with admitted mergers. Third, the potential for political tensions is even more pronounced with regard to the taxation of corporate income earned abroad. While there are conceptual problems present in this area, standards once established will need to be honoured.

It is a sign pointing towards a disintegration of global markets when leaflets with information on financial investment opportunities can only be sent to U.S. citizens by European banks after modification of the text. Assuming an equivalence of national legislations once a minimal standard is respected is core for the further development of global exchange. Small and medium sized countries have an immense interest in basic rules for global business being elaborated in a way that serves the common interest and agreed upon in due time. Exploiting the presence of regulatory incongruences and deficiencies is seldom a lasting business model, except when the latter figure on the hidden agenda of the leading circles in the other nations and this situation persists Such opportunistic policies can hardly qualify as an expression of national sovereignty, however. In a globalised world, getting involved in the elaboration of international standards creating a level playing field for global business activities will give national traditions and achievements a bigger lever.

The argument in this analysis was that globalisation produces overwhelmingly positive effects on the countries and their populations. Also, where the benefits of globalisation are uncertain, the nations have often adopted agreements turned against possible negative outcomes for communities. By responsible politics, these agreements may also be amended in order to respond to changed or enhanced requirements. Nevertheless, for the single economic agent, openness to change may be a prerequisite to preserve his or her income level when exchange is liberalised. This creates insecurity. Also, complexity of global interactions may constitute mental stress difficult to withstand for larger segments of the population. The risk is real that in reaction policies will be adopted overemphasising the pursuit of the apparent and immediate national interest. This will only apparently confine the complexity of the world, however. Rather, such policies are prone to lead into conflicts and consecutive setbacks in incomes. Personal and collective safety is also at stake as the interwar period exemplifies.[358].

[358]Considering the length of this text, the present analysis also falls short of what is needed, namely to break down the complexity of globalisation so that this transition and its consequences become intelligible for the average citizen. A stronger focus on certain aspects of globalisation might have avoided this problem. However, the omissions necessarily created by this approach comprise a risk of their own. They may generate a worry that the author has deliberately carved out essential aspects. From the point of view of communication, in such complex situations it is often better not to explain but to work on a consensus on what needs to be done. The sixteen considerations figuring in the 'Executive Summary' at the beginning of the text are formulated in a way which suggests actions needed.

Annex
Synopsis of Country Fact Sheets

In preparing the country fact sheets, we gave preference to the data used for the Human Development Report 2015. This report is released annually by the United Nations Development Programme. It builds on a restrained number of indices to provide an impression of a country's economy and state of development. This selection comes conceptually closest to the one-pager we intended to produce on each country. In the table below indicating the source of the data 'HDI15' in the fourth column means that an indicator from table 15 of the Human Development Index (HDI) was used. More comprehensive than the HDI are the World Development Indicators (mnemonic WDI). This databank is released by the World Bank (we used the update of April 2016). It provides in particular more indications on a country's industry structure. Finally, we used the tables prepared for the World Economic Outlook by the IMF of Spring 2016 in order to have the most recent data on the business cycle situation in a country before going into print. The indicator on corruption is directly taken from Transparency International's homepage.

Below we reproduce the first three columns of the country fact sheets and indicate the source. We indicate the year or period commonly used. In the last column we indicate missing data or when we had to draw on data for different years or to use data from a third source for a specific country.

Indicator name	Dimension	Year/Period	Source	Remark
GDP per Capita	(at 2011 PPP $)	2013	HDI1	
GDP Growth Rate	(real, p.a.)	2009 to 2014	IMF	Burkina estimate 2013/14
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	IMF	Burkina estimate 2013/14
Agricultural Value Added	(% of GDP)	2014	WDI	Peru 2012 USA+World 2013
Manufacturing Value Added	(% of GDP)	2014	WDI	Peru 2012 USA+World 2013
of which Industry	(% of GDP)	2014	WDI	Bulgaria missing, Peru 2012 USA+World 2013
Services Value Added	(% of GDP)	2014	WDI	Peru 2012 USA+World 2013
Gross Fixed Capital Formation	(% of GDP)	2005–2013	HDI11	Qatar missing
Research and Development Exp.	(% of GDP)	2005–2012	HDI11	Qatar and Peru missing
Internet users	(% of population)	2014	HDI15	
International Tourism, Arrivals	(mio people)	2013	HDI15	
Consumer Price Index	(2010 = 100)	2014	WDI	World not applicable
Domestic Credit by Banks	(% of GDP)	2013	HDI11	
Price Level (acc. PPP Coefficient)	(US=1)	2014	WDI	World not applicable
Current Account	(% of GDP)	2014 or 2015	IMF	Burkina Faso 2012
External Debt Stock	(% of GDP)	2014	WDI	Not available for rich countries
Exports plus Imports	(% of GDP)	2013	HDI15	World not applicable
Private capital flows	(% of GDP)	2013	HDI15	World not applicable
Foreign Direct Investm. Inflows	(% of GDP)	2013	HDI15	World not applicable
Official Development Assistance	(% of GNI)	2013	HDI15	Not applicable for rich nations and world
Remittances, inflows	(% of GDP)	2013	HDI15	World not applicable
General Gov. Expenditures	(% of GDP)	2014	IMF	Switzerland 2013
General Gov. Net Lending-Borr.	(% of GDP)	2014	IMF	Switzerland 2013
General Gov. Net Debt	(% of GDP)	2014	IMF	Switzerland 2013
Ease of Doing Business Index	(rank)	2015	WDI	

Corruption perception index	0-100	2015	TI	Denmark (best) scores 91, Somalia (worst) scores 8
Population	(millions)	2014	WDI	
Surface	(1'000km2)	2015	WDI	
Population density	(person/km2)	2014	WDI	>100 = considerable density
Pop. Growth Rate	(% p.a.)	2010/2015	HDI8	
Fertility	(births/woman)	2010/2015	HDI8	
Under-Five Mortality	(% < age 5)	2013	HDI9	
Life Expectancy at Birth	(years)	2014	HDI1	
Child Malnutrition	(% age group)	2008–2013	HDI9	stunting (mod. or severe)
HIV-Prevalence	(% of pop.)	2013	HDI9	
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	HDI6	
GINI Index (income concentr.)	0-100%	2005–2013	WDI	
Homicide Rate	(per 100,000)	2008–2012	HDI14	
Primary School (enrolm.)	(% age group)	2008–2014	HDI10	gross; Colombia missing
Secondary School (enrolm.)	(% sge group)	2008–2014	HDI10	gross
Tertiary School (enrolm.)	(% age group)	2008–2014	HDI10	gross
Genders in 2nd Schooling	(female/male)	most recent	WDI	
Adult Literacy Rate	(% aged >15)	2005–2013	HDI10	Not available for industrialised nations
Employment to Population Ratio	(% aged 15+)	2012	WDI	
Unemployment rate	(% aged > 15)	2004-2013	WDI	
Ratio Female/Male Labour Force	(percent)	2013	HDI5	
Children in Employment	(% of age 7-14)	2013	WDI	For selected countries only, last available year
Net Migration Rate	(pers. /1'000)	2010/2015	HDI15	
Rural Population	(% of popul.)	2014	WDI	
Energy use per capita	(kg of oil eq.)	2013	WDI	China missing
CO2-Emission	(t per capita)	2011	HDI12	
Improved Water Access	(% of popul.)	2014	WDI	
Forest Area, Change	(% 2005 value)	1990 to 2012	HDI12	Qatar not applicable
National Resource Rents	(% of GDP)	2014	WDI	
Protected Area	(% of sureface)	2014	WDI	
Human Development Index HDI	(0<Value<1)	2014	HDI1	

In the synoptic table that follows, the countries appear in the order determined by the rank the country reached according to the UNDP Report 2015 in the Human Development Index in 2015.

Country			**World**	Norway	Switzerl.	United States	Czech Republic	Qatar	Portugal	Bulgaria	Georgia
HDI-Rank				1	3	8	28	32	43	59	76
Indicator name	dimension	usual year/period									
GDP per Capita	(at 2011 PPP $)	2013	13,964	62,448	54,697	51,340	27,959	127,562	25,596	15,695	6,946
GDP Growth Rate	(real, p.a.)	2009 to 2014	5.5	1.5	1.9	2.1	1.0	9.1	-0.9	0.9	5.6
GDP Level Change in a Decade	(+Δ%)	2004 to 2014	75	15	23	16	23	226	-2	31	75
Agricultural Value Added	(% of GDP)	2014	3.1	1.7	0.8	1.4	2.7	0.1	2.3	5.3	9.2
Manufacturing Value Added	(% of GDP)	2014	26.4	38.2	26.3	20.5	38.0	67.9	21.5	27.2	24.4
of which Industry	(% of GDP)	2014	15.8	7.8	19.0	12.4	26.6	10.1	13.3	..	13.4
Services Value Added	(% of GDP)	2014	70.5	60.1	73.0	78.1	59.3	32.0	76.1	67.6	66.4
Gross Fixed Capital Formation	(% of GDP)	2005–2013	24.3	22.6	23.4	19.3	24.9	..	15.1	21.3	21.9
Research & Development Exp.	(% of GDP)	2005–2012	2.0	1.7	2.9	2.8	1.9	..	1.5	0.6	0.2
Internet users	(% of popul.)	2014	40.5	96.3	87.0	87.4	79.7	91.5	64.6	55.5	48.9
International Tourism, Arrivals	(mio people)	2013	1068.0	5.0	9.0	69.8	9.0	2.6	8.1	6.9	5.4
Consumer Price Index	(2010 = 100)	2014	..	106.3	99.3	108.6	107.2	110.4	106.5	106.7	110.3
Domestic Credit by Banks	(% of GDP)	2013	164.0	87.0	173.4	240.5	67.0	73.9	183.3	71.1	42.9
Price Level (acc. PPP Coeff.)	(US=1)	2014	..	148.3	143.8	100	62.5	68.8	76.9	45.6	48.4
Current Account	(% of GDP)	2013	..	9.0	11.4	-2.7	0.9		0.5	1.2	-10.6
External Debt Stock	(% of GDP)	2014	..	..	..	..	..	..	..	90.1	85.0
Exports plus Imports	(% of GDP)	2013	60.4	67.0	132.2	30.0	148.6	97.5	77.5	137.4	102.3
Private capital flows	(% of GDP)	2013	-0.9	11.5	12.6	0.7	-3.1	11.4	-0.2	-2.0	-4.9
Foreign Direct Investm. Inflows	(% of GDP)	2013	2.3	0.5	-1.2	1.8	2.4	-0.4	3.5	3.5	5.9
Official Development Assist.	(% of GNI)	2013	0.4	..	..	..	..	..	..	..	4.1
Remittances, inflows	(% of GDP)	2013	0.71	0.15	0.46	0.04	1.09	0.28	1.92	3.06	12.05
General Gov. Expenditures	(% of GDP)	2013	..	44.9	32.9	35.6	42.9	33.1	51.7	37.3	29.8
General Gov. Net Lend.-Borr.	(% of GDP)	2013	..	8.4	-0.2	-4.1	-1.9	10.3	-7.2	-3.6	-1.8
General Gov. Net Debt	(% of GDP)	2013.0	..	-244.0	25.2	80.6	..	-114.7	120.0	-2.3	..
Ease of Doing Business Index	(rank)	2015	95	9	26	7	36	68	23	38	24
Corruption perception	0-XXX	2014	..	87	86	76	56	71	63	41	52

Population	(millions)	2014	7259.7	5.1	8.2	318.9	10.5	2.2	10.4	7.2	3.7
Surface	(1'000km^2)	2015	134325	385	41	9832	79	12	92	111	70
Populationb Density	(person/km2)	2014	56	14	207	35	136	187	114	67	79
Pop. Growth Rate	(% p.a.)	2010/2015	**1.1**	1.0	1.0	0.8	0.4	5.9	0.0	-0.8	-0.4
Fertility	(births/woman)	2010/2015	**2.5**	1.9	1.5	2.0	1.6	2.1	1.3	1.5	1.8
Under-Five Mortality	(% < age 5)	2013.0	45.6	2.8	4.2	6.9	3.6	8.2	3.8	11.6	13.1
Life Expectancy at Birth	(years)	2014	71.5	81.6	83.0	79.1	78.6	78.2	80.9	74.2	74.9
Child Malnutrition (mod.+ sev.)	(% age group)	2008–2013	29.7	..	..	2.1	2.6	11.6	..	8.8	11.3
HIV-Prevalence	(% of pop.)	2013	1.1	..	0.3	..	0.1	..	..	..	0.3
Poverty at $1.25 a Day	(at 2005 prices)	2002–2012	..	..	..	..	..	..	..	..	14.1
GINI Index (income concentr.)	0-100%	2005–2013	..	26.8	32.4	41.1	26.4	..	..	34.3	41.4
Homicide Rate	(per 100,000)	2008–2012	6.2	2.2	0.6	4.7	1.0	1.1	1.2	1.9	4.3
Primary School (enrolm.)	(% age group)	2008–2014	109	99	103	98	100	103	106	100	103
Secondary School (enrolm.)	(% sge group)	2008–2014	74	111	96	94	97	112	113	93	101
Tertiary School (enrolm.)	(% age group)	2008–2014	32	74	56	94	64	14	69	63	33
Genders in 2nd Schooling	(female/male)	most recent	97.1%	97.0%	97.2%	100.9%	100.7%	88.9%	98.5%	96.5%	100.3%
Adult Literacy Rate	(% aged >15)	2005–2013	81.2	..	..	..	..	96.7	94.5	98.4	99.7
Employment/Population Ratio	(% aged 15+)	2012	59.7	62.2	65.2	58.5	55.9	86.4	51.7	47.2	56.6
Unemployment rate	(% aged ≥ 15)	2004-2013	..	4.374	3.304	5.283	5.045		13.894	11.524	14.563
Female/Male Labour Force	(percent)	2013	0.66	0.89	0.83	0.82	0.75	0.53	0.83	0.81	0.75
Children in Employment	(% of age 7-14)	2013	..	..	..	..	..	..	..	..	..
Net Migration Rate	(pers. /1'000)	2010/2015	0.0	6.0	8.0	3.1	3.8	48.8	1.9	-1.4	-5.8
Rural Population	(% of popul.)	2014	46.6	19.8	26.2	18.6	27.0	0.8	37.1	26.4	46.5
Energy use per capita	(kg of oil eq.)	2013	1894.4	5854.4	3075.0	6918.5	3945.3	19120.3	2028.1	2327.4	1032.1
CO2-Emission	(t per capita)	2011	4.6	9.2	4.6	17.0	10.4	43.9	4.7	6.7	1.8
Improved Water Access	(% of popul.)	2014	90.5	100.0	100.0	99.2	100.0	100.0	100.0	99.4	99.6
Forest Area, Change	(% 2005 value)	1990 to 2012	-3.7	11.9	8.6	3.0	1.3	—	4.0	23.7	-1.5
National Resource Rents	(% of GDP)	2014	3.9	9.1	0.0	1.1	0.4	28.2	0.6	1.9	1.3
Protected Area	(% of sureface)	2014	12.8	9.1	9.9	14.8	21.1	1.2	1.9	31.5	6.5
Human Development Index	(0<Value<1)	2014	0.711	0.944	0.930	0.915	0.870	0.850	0.830	0.782	0.754

Peru	China	Colombia	Philippines	Morocco	Guatemala	India	Ghana	Kenya	Burkina Faso	
84	90	97	115	126	128	130	140	145	183	
11,396	11,525	12,025	6,326	6,967	7,063	5,238	3,864	2,705	1,582	GDP per Capita
5.8	8.5	4.8	6.2	3.8	3.6	7.3	8.5	6.0	6.4	GDP Growth Rate
81	158	59	68	53	43	110	102	66	79	GDP Level Change in a Decade
7.4	9.2	6.3	11.3	13.0	11.5	17.8	22.4	30.3	34.2	Agricultural Value Added
36.8	42.7	36.0	31.4	29.3	29.0	30.1	27.7	19.4	23.1	Manufacturing Value Added
14.9	30.1	12.2	20.6	18.2	19.9	17.1	5.1	11.1	6.4	of which Industry
55.8	48.1	57.7	57.3	57.7	59.5	52.1	49.9	50.4	42.7	Services Value Added
26.6	47.3	24.5	20.5	30.2	14.3	28.3	22.7	20.4	17.6	Gross Fixed Capital Formation
..	2.0	0.2	0.1	0.7	0.0	0.8	0.4	1.0	0.2	Research & Development Exp.
40.2	49.3	52.6	39.7	56.8	23.4	18.0	18.9	43.4	9.4	Internet users
3.2	55.7	2.3	4.7	10.0	1.3	7.0	0.9	1.4	0.2	International Tourism, Arrivals
113.7	113.2	112.0	115.8	104.6	119.0	140.4	153.0	140.9	107.0	Consumer Price Index
22.0	163.0	70.1	51.9	115.5	40.6	77.1	34.8	42.8	25.4	Domestic Credit by Banks
54.6	57.5	59.2	41.2	42.6	49.3	27.7	35.3	45.8	44	Price Level (acc. PPP Coeff.)
-4.4	2.7	-5.2	2.9	-5.7	-2.1	-1.3	-9.6	-10.4	-7.2	Current Account
34.3	9.3	28.0	22.7	41.1	33.1	22.7	47.7	26.7	20.5	External Debt Stock
48.4	50.3	38.0	59.9	80.5	58.6	53.3	89.4	50.9	57.1	Exports plus Imports
-7.1	-2.7	-4.1	-0.3	-3.0	-3.2	-1.8	-8.1	-0.5	1.8	Private capital flows
4.6	3.8	4.3	1.3	3.2	2.5	1.5	6.7	0.9	2.9	Foreign Direct Investm. Inflows
0.2	0.0	0.2	0.1	1.9	0.9	0.1	2.8	5.9	8.1	Official Development Assist.
1.34	0.42	1.09	9.81	6.63	9.98	3.73	0.25	2.41	1.34	Remittances, inflows
22.6	31.9	29.5	19.4	33.0	13.4	26.7	30.8	27.4	23.4	General Gov. Expenditures
-2.2	-2.7	-1.8	0.0	-4.9	-1.9	-7.0	-12.4	-7.5	-1.9	General Gov. Net Lend.-Borr.
5.6		33.8		62.9			66.1	43.3		General Gov. Net Debt
50	84	54	97	75	81	134	112	108	149	Ease of Doing Business Index
36	37	37	35	36	28	38	47	25	38	Corruption perception

31.0	1364.3	47.8	99.1	33.9	16.0	1295.3	26.8	44.9	17.6	Population
1285	9563	1142	300	447	109	3287	239	580	274	Surface
24	145	43	332	76	149	436	118	79	64	Populationb Density
1.3	0.6	1.3	1.7	1.4	2.5	1.2	2.1	2.7	2.8	Pop. Growth Rate
2.4	1.7	2.3	3.1	2.8	3.8	2.5	3.9	4.4	5.7	Fertility
16.7	12.7	16.9	29.9	30.4	31.0	52.7	78.4	70.7	97.6	Under-Five Mortality
74.6	75.8	74.0	68.2	74.0	71.8	68.0	61.4	61.6	58.7	Life Expectancy at Birth
18.4	9.4	12.7	30.3	14.9	48.0	47.9	22.7	35.2	32.9	Child Malnutrition (mod.+ sev.)
0.3	..	0.5	..	0.2	0.6	0.3	1.3	6.0	0.9	HIV-Prevalence
2.9	6.3	5.6	19	2.6	14	23.6	28.8	43.4	44.5	Poverty at $1.25 a Day
45.3	37.0	53.5	43.0	40.9	52.4	33.6	42.8	47.7	39.8	GINI Index (income concentr.)
9.6	1.0	30.8	8.8	2.2	39.9	3.5	6.1	6.4	8.0	Homicide Rate
102	128	115	106	118	108	113	107	114	87	Primary School (enrolm.)
94	89	93	85	69	65	69	67	67	28	Secondary School (enrolm.)
41	27	48	28	16	19	25	12	4	5	Tertiary School (enrolm.)
99.8%	101.8%		109.8%	85.4%	93.9%	100.9%	93.8%	93.0%	87.2%	Genders in 2nd Schooling
93.8	95.1	93.6	95.4	67.1	78.3	62.8	71.5	72.2	28.7	Adult Literacy Rate
73.1	68	60.7	60.6	45.4	65.9	52.2	67.8	61.2	80.7	Employment/Population Ratio
6	4.05	9.117	6.3	9.879	..	..	..	..	..	Unemployment rate
0.81	0.82	0.70	0.64	0.35	0.56	0.34	0.94	0.86	0.86	Female/Male Labour Force
26.1	..	6.6	9.0	..	10.6	1.7	28.8	..	50.3	Children in Employment
-2.0	-0.2	-0.5	-1.4	-2.7	-1.0	-0.4	-0.8	-0.2	-1.5	Net Migration Rate
21.7	45.6	23.8	55.5	40.3	48.9	67.6	46.6	74.8	71.0	Rural Population
708.3	..	668.5	457.1	564.4	767.6	606.1	343.6	491.7	..	Energy use per capita
1.8	6.7	1.5	0.9	1.8	0.8	1.7	0.4	0.3	0.1	CO2-Emission
86.3	94.8	91.4	91.5	85.3	92.7	94.1	87.6	63.1	82.3	Improved Water Access
-3.5	35.2	-3.6	18.3	2.0	-25.3	7.5	-36.8	-7.1	-19.2	Forest Area, Change
8.7	4.0	8.4	2.9	2.7	4.8	4.9	21.1	2.9	15.9	National Resource Rents
19.4	15.6	17.4	2.4	20.1	15.7	3.1	7.8	10.6	15.5	Protected Area
0.734	0.727	0.720	0.668	0.628	0.627	0.609	0.579	0.548	0.402	Human Development Index

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