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ACRONYMS AND ABBREVIATIONS

AC	Arbitration Council
ADB	Asian Development Bank
AML	Anti-Money Laundering
ASEAN	Association of South-East Asia Nations
ATM	Automatic Teller Machine
BFC	Better Factories Cambodia
CARDI	Cambodia Agricultural Research & Development Institute
CAD	Comparative Advantage Defeating
CAF	Comparative Advantage Following
CDC	Council for the Development of Cambodia
CDCF	Cambodia Development Cooperation Forum
CDHS	Cambodia Demographic & Health Surveys
CDRI	Cambodian Development Resource Institute
CIB	Cambodia Investment Board
CMT	Cut-Make-Trim
CNPA	Cambodian National Petroleum Authority
CSES	Cambodia Socio-Economic Survey
DDD	Digital Data Divide
DTIS	Diagnostic for Trade Integration Strategy
EDC	Electricite du Cambodge
EIA	Environmental Impact Assessment
EIC	Economic Institute of Cambodia
EITI	Extractive Industries Transparency Initiative
ELCs	Economic Land Concessions
EMAF	Export Market Access Fund
EU	European Union
FDI	Foreign Direct Investment
FSAP	Financial Sector Assessment Program
FTC	Free-Standing Technological Cooperation
GDP	Gross Domestic Product
GDMR	General Department of Mining Resources
GMAC	Garment Manufacturers Association of Cambodia
GMS	Greater Mekong Sub-region
G-PSF	Government-Private Sector Forum
HACCP	Hazard Analysis & Critical Control Point
HV	High Voltage
ICA	Investment Climate Assessment
ICT	Information and Communications Technology
IFAPER	Integrated Fiduciary Assessment & Public Expenditure Review
IFC	International Financial Corporation
ILO	International Labor Organization
IMF	International Monetary Fund
LEPNRM	Law on Environmental Protection & Natural Resources Management
MAFF	Ministry of Agriculture, Forestry, and Fishery
MEF	Ministry of Economy and Finance
MFA	Multi-Fiber Arrangement
MFIs	Micro Finance Institutions
MIME	Ministry of Industry, Mines and Energy
MOC	Ministry of Commerce
MOUs	Memorandum of Understandings
MPTC	Ministry of Posts and Telecommunications
MV	Medium Voltage
NAA	National Audit Authority
NBC	National Bank of Cambodia
NOC	National Oil Company
NPAR	National Public Administration Reform
NPLs	Non Performing Loans
NSDP	National Strategic Development Plan
NSW	National Single Window
OCAs	Overlapping Claims Areas
ODA	Official Development Aid
OTC	Over-The-Counter
PFM	Public Financial Management
PFMRP	Public Financial Management Reform Program
PIP	Public Investment Plan
PSA	Production Sharing Agreement
PPWSA	Phnom Penh Water Supply Authority
RCA	Revealed Comparative Advantage
R&D	Research & Development
REEs	Rural Electrification Enterprises
REF	Rural Electrification Fund
RER	Real Exchange Rate
RGC	Royal Government of Cambodia
RS	Rectangular Strategy
SEZ	Special Economic Zone
SME	Small and Medium Enterprise
SNEC	Supreme National Economic Council
SOA	Special Operating Agencies
SPS	Sanitary and Phyto-Sanitary
SRG	Sustaining Rapid Growth
SWAP	Sector Wide Approach
TIR	Transport International Routier
USAID	United States Agency for International Development
WGs	Working Groups
WTO	World Trade Organization

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Acknowledgments

1. The analysis of Cambodia's sources of growth that led to this report was initiated in February 2008, under the guidance of His Excellency Hang Chuon Naron (Permanent Vice-Chairman of the Supreme National Economic Council, SNEC). [final review]

2. The World Bank team was led by Stéphane Guimbert. The team was composed of: Craig Andrews, Caridad Araujo, Natasha Beschorner, Milan Brahmbhatt, Veasna Bun, Mudita Chamroeun, Vandana Chandra, Huot Chea, Tim Conway, Sophal Ear, Tom Easterling, Verena Fritz, Frederico Gil Sander, Mohinder Gulati, Naomi Halewood, James Hanson, Peter Jipp, Kai Kaiser, Sophorn Kith, Masami Kojima, Ashish Lall, Zhi Liu, Samsen Neak, Israel Osorio-Rodarte, Sanjoy Rajan, Ratha Sann, Steven Schonberger, Jamie Seward, Robert Taliercio, Peng Seng Tan. Sophorn Kith ensured the production of the report and Kathryn Bice edited it. Additional background papers were prepared by the Economic Institute of Cambodia (EIC), the International Food Policy Research Institute (IFPRI, with Bingxin Yu, Shenggen Fan, Anuja Saurkar, and Racha Ramadan), and Mitsui Mineral Development Engineering Co., Ltd. Eric Sidgwick (ADB), Wisal Hin and Thierry Noyelle (UNDP), Frederic Mauret and Gilles Vernet (Municipalite de Paris and French Embassy), and Richard Erlebach (DFID) participated in the preparation of the report. The team worked under the guidance of Ian Porter and Annette Dixon (Country Director), Qimiao Fan (Country Manager), and Mathew Verghis (Lead Economist). Peer reviewers – Shadid Yusuf (World Bank) and Sandeep Mahajan (World Bank) – provided extremely valuable comments and feedback. DFID, UNDP, and the World Bank provided financial resources to prepare this analysis.

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4. Consultations were held on the concept paper with Government, civil society, and development partners. Consultations on discussion draft.

5. The concept note for the work program was reviewed in February 2008. This report was reviewed in December 2008 within the World Bank Group. The executive summary was released at the Second Cambodia Development Cooperation Forum, in December 2008, and the final report will be presented at the February 2009 Cambodia Economic Forum organized by the SNEC.

Executive Summary

1. Many countries succeed in generating high economic growth at some point in their history. but only a very few manage to sustain rapid growth for an extended period. Only such a prolonged period of rapid growth can have a significant impact on income per capita, and such an impact often brings with it many other important changes to people's lives..

2. Cambodia has been one of the countries in this select group. It has more than doubled its income per capita over the past decade, from US$285 in 1997 to US$593 in 2007. This doubling has been accompanied by the trappings of a profound structural transformation: integration into the global economy; a shift of jobs from agriculture to manufacturing; a demographic transition; and migration from rural to urban areas. Translating into jobs and better services, these outcomes have led to a significant reduction in poverty, as well as improvements in health and education.

3. Even so, the next episode in this story is very uncertain. The achievements of the past decade are very fragile and leave many Cambodians poor and with few assets. The base for this economic growth appears narrow. And the winds that once served Cambodia well – global trade and investment flows – have lost their strength, at least temporarily.

4. What will it take for Cambodia to continue on this trajectory, to become a middle income country in a decade or so, and lift more of its people out of poverty? This report aims to contribute to policymakers' and citizens' thinking about growth in Cambodia in three ways: (i) it reviews the experience of the past decade and draws the Cambodia-specific lessons of this period; (ii) it sketches the major potential sources of growth with the aim of assessing the barriers to growth; and (iii) it outlines policy options for addressing these barriers.

5. The analysis has three main messages. First, the economic growth of the past decade is a remarkable achievement, but it is unlikely to be sustainable in its current form. That said, the experience has established that growth in some sectors can be stimulated by good policies and governance arrangements. Second, Cambodia has a potential to sustain growth if it increases competitiveness and diversifies. This requires a focused growth strategy. Finally, Cambodia has three important opportunities: harnessing regional integration; managing natural resources in a sustainable way; and investing in its future (through agriculture, infrastructure, education, and higher savings).

6. This analysis builds on recent developments in thinking about growth, in particular the 2008 Report of the Growth Commission. The approach used here is to undertake some detective work on what works and does not work in the Cambodian context, to propose a diagnostic on the key constraints on growth, and to pinpoint the actions that hold most promise for sustaining growth. It readily acknowledges that much remains unknown about the process of growth and development; and thus takes the view that experimentation, monitoring, and evaluation will be key components of a successful strategy.

Understanding a Decade of Rapid Growth

7. **Four features of the rapid growth of this past decade are of particular significance** (Chapter 1). First, over 1997-2007, growth has been driven by *an open economy and a stable macroeconomic environment*. These macroeconomic features are visible in the rapid increases in exports and Foreign Direct Investment (FDI) and the relative stability of inflation (at 4.7 percent on average over the past decade) and the exchange rate. Second, stable macroeconomic

management has been achieved with *very few policy instruments*. Indeed, the economy is largely dollarized, leaving fiscal policy as the main instrument in the policy mix. Third, growth has been *narrowly based*. The four leading sectors have been garments, tourism, construction, and agriculture. Very little diversification has occurred beyond them: garment products account for 88 percent of all exports. Fourth, the levels of *domestic savings and investment are low* (13 and 21 percent of GDP respectively), though increasing. While this was to be expected given the initial conditions of Cambodia in the 1990s, it differs from other experiences of rapid growth, in particular in East Asia. Related to this is the recent and very rapid development of the financial sector, from a very low base, mobilizing well-needed financing but also creating significant risks.

8. **How did this happen?** The dynamic behind this rapid progress can be understood along three dimensions. (Chapter 2). They are not mutually exclusive and each provides useful insights for the future (Table 1):

- Cambodia has benefited from its recent history and its favorable geography. The past decade has seen the end of the multi-decade conflict and the establishment of political stability, the rapid growth of global trade, and a demographic transition. Geographically, it is a coastal country in dynamic South East Asia. In this "history and geography" view, the achievements that underlie Cambodia's sustained growth are its political and macroeconomic stability, and the policies that have allowed it to become integrated within the region. These factors have enabled it to establish a track record of change, including its accession to the World Trade Organization and the approval of a number of significant economic laws. On the other hand, this dimension of the story highlights how vulnerable Cambodia is to the recent global economic turmoil.
- Cambodia has helped to fuel growth by drawing on some of its assets (forests, fisheries, land, Angkor Wat site), but at the cost of a reduction in the level or quality of these assets. A related issue is the low – albeit increasing – level of savings and some misallocation of savings. Evidence for this view can be found in environmental concerns (e.g. on the Angkor Wat site), the disproportionately high returns on some classes of assets (e.g. real estate and land), the increase in inequality, and the short horizon of many investments. This dimension suggests a style of growth that is unsustainable and highlights the importance of sustainable management of assets.
- Cambodia has achieved rapid growth in an environment of poor governance through sector-specific or product-specific arrangements. These are best illustrated by the garments sector. The U.S.-Cambodia Trade Agreement negotiated in 1999 linked progressive increases in quotas to improvements in labor standards, monitored by a "third party" (the International Labour Organization program known as Better Factories Cambodia, or BFC). This has given Cambodia's overall industry an international reputation for being able to meet these standards. The Garment Manufacturers Association of Cambodia (GMAC) has liaised closely with government counterparts, particularly in the Ministry of Commerce (MOC), to continually address constraints on sustained growth in the sector (this happened partly because GMAC chaired one of the working groups of the Government-Private Sector Forum (G-PSF). The BFC arrangements and sectoral collective action and dialogue were crucial in sustaining growth even after the original quota scheme was phased out. Indeed, the absence of development in many other sectors can be explained by the absence of such arrangements. A major question for Cambodia is therefore how to replicate similar arrangements in other sectors.

9. **This period of rapid growth profoundly transformed the economy** (Chapter 3). Poverty incidence was reduced from an estimated 45-50 percent in 1993-94 to 30 percent in 2007. Many other social indicators confirm the improvements in the welfare of the Cambodian people. Key

drivers of these achievements were the labor market changes and the demographic transition. In the labor market, a major development was the creation of jobs outside of agriculture, in industry and services: as these sectors have higher labor productivity than agriculture, this reallocation of labor had a significant impact on growth. Demographic trends reveal two baby booms, in the early 1980s and 1990s, followed by a demographic transition in the late 1990s: the reduction of the dependency ratio over the past decade (fewer non-working age Cambodians for each working-age Cambodian) contributed 1 to 2 percentage points of per capita growth per annum.

Table 1: Understanding A Decade of Rapid Growth

Dimensions		Evidence	Lessons Learned
1. History and geography	Benefits from history (post-conflict, global growth, demographic transition) and geography (East Asia)	Timing of growth and increase in trade and FDI Demographic trends (dependency ratio)	Role of political and macro stability Role of openness and international commitments
2. Unsustainable use of assets	Growth fueled by one-time use of natural resources	High consumption, low savings, rising inequality High returns on some classes of assets Unsustainable management of natural resources	Need for sustainable management of natural resources Need to further increase domestic and/or foreign savings
3. Sector-specific governance	Growth through narrowly focused solutions to generally bad governance	Garment success (extended quotas, monitoring by Better Factories Cambodia, capacity of business association and close relationship with government) Limited diversification Role of Government-Private Sector Forum	Role of third-party monitor (labor standards in garments), external drivers, and signals Active role of government in creating good sectoral business environment

Cf. Chapter 2.

10. **Three conclusions emerge from this review**. First, the current growth dynamic is *unlikely to be self-sustaining*, because (i) the economic base is relatively narrow and diversification has made no progress; (ii) a significant proportion of past growth was driven by events, such as the demographic transition and the establishment of political stability, which were either one-offs or in which the major gains have already been made; (iii) some natural assets, such as forest resources, have been used in an unsustainable way; (iv) governance arrangements are sector-based; and (v) inequalities have increased sharply in recent years. The global financial turmoil of late 2008, to which Cambodia is not directly exposed given its weak financial sector, will significantly weaken the existing drivers of growth. Second, some important *conditions for a fresh wind* have been established: the importance of macroeconomic stability has been institutionalized; the garment sector has demonstrated that adequate governance arrangements (and an adequate investment climate) can deliver growth; the usefulness of an independent third-party monitor (BFC/ILO) has been proven; the efficiency of partnerships between public and private sector (the G-SPF) has been tested; and the role (and limits) of industrial policy have also been proven. Third, Cambodia's *demographics* played a major role in its sustained growth; but a sustained flow of new jobs is required to absorb the 250,000 or so young Cambodians entering the labor market each year, many with high expectations prompted by the recent growth.

Scoping Cambodia's Growth Potential

11. In this context of highly commendable but fragile achievements, and sharp global slowdown, from which quarters will Cambodia's new wind blow? Reviewing Cambodia's growth

potential and options for diversification, the analysis highlights four potential sources of growth (Chapter 4 and 5).

12. **First, Cambodia should make the most of its relatively abundant land, natural assets, and inexpensive labor**. A growth strategy should be built on, rather than run counter to, these comparative advantages. Unfortunately, at the moment, distortions are pushing up the price of land, and lack of planning for areas away from major population centers reduces these areas' potential as a source of growth. The recent sharp appreciation of the Cambodian riel (due to inflation in a context of a stable Cambodian riel against the US dollar) has also increased the cost of labor (a problem compounded by poor industrial relations, leading to a high incidence of strikes). It is important to correct these distortions to enable Cambodia to make the most of its comparative advantages. If this can be achieved, it should continue to perform well in agriculture, tourism, and light manufacturing. Cambodia should in parallel upgrade its endowment – in particular through education, health, and infrastructure – to make possible a transition to a new set of comparative advantages in the medium term.

13. **Agriculture will continue to be important, but needs to be complemented by development in other sectors**. Experience in Cambodia and other countries have shown the central role of agriculture-led growth, in particular in reducing poverty (since more than 9 out of 10 of the poor live in rural areas). Cambodia has the potential to significantly increase yields in rice production and consolidate food security, and this could provide a sizeable growth dividend in the short term. But experience has also shown that agriculture is unlikely to grow beyond 5 percent or so per annum, hence contributing less than 2 percentage points of growth per annum. Manufacturing will remain very important in absorbing new workers. The fact that urbanization has proceeded slowly, while value-added per worker in agriculture is similar to other countries at the same level of development, suggests that Cambodia is not taking full advantage of the agglomeration effects around urban centers. These should not be ignored, as they will contribute greatly to growth.

14. **Second, Cambodia needs to build on its existing capabilities and develop new ones as a step towards diversifying its economy**. Recent cross-country research has shown that countries that export product A tend to then move to export product B, indicating that the capability to export product A are related to the capability to export product B. It is not surprise, given the absence of diversification over the past decade, that there are very few products "similar in capabilities" to those that Cambodia now exports. This leaves Cambodia with few options for diversification. One obvious option would be to develop new products in the garment sector, but other products that Cambodia is already – although marginally – exporting (such as fish and wood products) could also be given priority.

15. **Third, diversification should also be a matter of new markets,** not only new products. From that point of view, Cambodia has underperformed in relation to its regional market (only 13 percent of its trade is intra-regional, against an average of 49 percent). Much more could be done to integrate further into the East Asia region.

16. **Fourth, sustainable management of natural resources, particularly minerals and energy, represents another growth opportunity**. Although the extent of its reserves remains unclear, Cambodia could develop a significant extractive industry in oil, gas, and mining over the next decade. To ensure Cambodia reaps the growth dividends of this sector, there needs to be a significant upgrade of the sector's management which, at the moment, is ineffective and opaque. The three priorities in this area are (i) to clarify the legislative, regulatory, and institutional framework to increase accountability; (ii) to build the staffing to implement the framework, recognizing that the capacity required develops in tandem with the sector itself over time; and

(iii) to manage expectations in relation to subsidies of petroleum and mining products or downstream industries.

17. If these changes are achieved, these opportunities should help Cambodia to sustain growth of around 6 or 7 percent per annum in the medium term, although the short-term outlook is less encouraging given the global environment. It is not possible – and unlikely to be desirable – to pinpoint through such analytical work which product or which market will emerge: a fresh wind may come, but policymakers and entrepreneurs will have to "feel it". A sustained growth rate of 6 to 7 percent per annum would be consistent with: (i) international experience based on the quality of some drivers of growth (such as education and financial sector development); and (ii) continued investments in human and physical capital.

Identifying the Constraints

18. **To realize this potential, it is important to clarify the constraints on growth** (Chapter 6). In a low-income, low-governance country such as Cambodia, it would be easy to make a case that everything is a constraint. However, not only would this be at odds with the experience of rapid growth over the past decade, it would also contribute little to a growth strategy. The methodology for identifying and prioritizing constraints consists of enquiring into why entrepreneurs do not invest more for new capacity or new products, or to improve productivity. The answer could be either that the returns of the potential investments are too low or that the cost of financing them is too high.

19. **Until recently, there was little evidence of finance being a constraint at the aggregate level**. Overall, the financial sector was very liquid (e.g. the loans-to-deposits ratio is 64 percent), it had developed rapidly in response to the increasing demand of the past few years, and real interest rates had recently become negative. Real interest rates and the rate of investment in durable equipment had been moving in parallel, suggesting that investment is constrained by demand rather than supply. Two exceptions still stand out. First, large investments have been difficult to undertake: only a link with a foreign investor makes them possible. Second, access to finance in agriculture remains insufficient and a constraint on farmers' ability to improve productivity. Beyond these two exceptions, there is evidence that a large part of the available financing comes from foreign savings (cf. for example the fact that growth and the current account have parallel trends), highlighting the adverse impact that tighter conditions in international financial markets will have on growth in Cambodia.

20. **Hence the question is why entrepreneurs cannot identify projects with higher returns**. Two hypotheses are possible: either there are simply too few of these high-return projects (because of excessive costs of inputs or coordination issues), or entrepreneurs doubt that they can capture sufficient returns themselves (because of the risks in the environment or because of official or unofficial taxation). It is likely that the issue is not primarily the cost of inputs, but one of coordination and appropriation of returns. Indeed, a striking feature of the Cambodian economy is the productivity of the top performers (in a few cases on par with more advanced countries), with a wide dispersion of performance across firms – in most sectors, firms on average work at 60 percent or less of the productivity of the top performer.

21. **Coordination is a major issue**. Production, especially of new products, requires the coordination of a large number of actors along the value chain and the establishment of a large number of rules or regulations for various transactions. This is in particular important for "self-discovery", i.e. finding out what "Cambodia is good at". Evidence of the difficulties in achieving this coordination includes: (i) the lack of diversification into new products over the past decade; (ii) the simplicity of the value chains of most products made in Cambodia (for instance, the vast majority of garment firms are "Cut-Make-Trim" (CMT), the simplest part of the value chain),

and (iii) the fact that most agricultural products are exported as raw commodities (e.g. paddy rice, unshelled cashew nuts, unprocessed rubber). This highlights deep issues in coordinating more complex value chains. In the past, this has happened in Cambodia mainly through dedicated governance mechanisms (e.g. in garments).

22. **Appropriation issues are pervasive, at the macro and micro levels**. Macroeconomic uncertainty is only a recent concern and should be promptly addressed (other types of instability costs, such as crime or security, are now much less of a concern than they were 10 years ago). Entrepreneurs are unable to appropriate the returns of their investments due to two types of microeconomic issues: (i) disputes (both commercial and labor) have become a major concern given the lack of an effective court system; and (ii) corruption remains widespread, in its many forms. The level of tax itself – as opposed to its administration – is not viewed as a major constraint. It should be noted that, in relation to both issues, many firms have found mitigating strategies (such as pre-paying sales to avoid any dispute; moving toward collective bargaining agreement to reduce the incidence of labor disputes; keeping businesses informal; etc.), but many other firms simply have not been set up because of these appropriation issues, partly explaining the lack of diversification over the past decade.

23. **In relation to input costs, the high costs of electricity and logistics appear to be major constraints**. Their importance is evident in (i) the willingness of firms to produce 36 percent of their electricity from expensive generators; (ii) the lack of investment in electricity-intensive sectors (the garment industry is rather light in that regard); (iii) the efforts by garment firms to reduce the costs of transport and customs (over the past four years, the costs of shipping goods through customs went down for garment firms, but up for rice producers); and (iv) the high inventories that firms maintain (41 days on the main input, against less than 30 in most countries). Logistics services are constrained by poor trade facilitation and complex cross-border processes. Limited rural road coverage constrains Cambodia's agriculture potential in particular. The cost of labor remains low, but, as noted above, the recent sharp appreciation of the Cambodian riel in real terms is weakening this comparative advantage: unaddressed, it will weaken the performance of the garment sector and prevent further diversification.

A New Wind?

24. **The Royal Government of Cambodia has a development strategy, the National Strategic Development Plan (NSDP)**, which elaborates on the goals and policy priorities laid out in its political platform (the Rectangular Strategy, the second phase of which was presented by the newly re-elected Government in September 2008). These strategy documents focus on the key elements of a growth strategy. The foregoing analysis contributes to further understanding the drivers of growth in Cambodia, past and future, with a view to fine-tuning or prioritizing actions to sustain rapid growth and to adjust the strategy to the recent global economic developments.

25. **With this background, what actions in today's context could feasibly help to extend the recent period of rapid growth?** This report focuses on three instruments: macroeconomic policy and financial sector development; fiscal policy; and regulatory, trade, and industrial policy (see Table 2). To get a fresh wind, three key tactics could be prioritized (Chapter 7-9).

26. **The first priority is to deepen Cambodia's integration, in particular in the East Asia region**. The slowdown of global trade gives this objective an added sense of urgency. Obviously, progress in trade facilitation (at the border and behind the border) is important. There are opportunities to make trade within the Greater Mekong Sub region (GMS) much easier, making Cambodia the bridge between Ho Chi Minh and Bangkok, two of the largest cities in South East Asia. But this first priority should focus more deeply on inserting Cambodia's firms into global

supply chains: Thai, Chinese, and possibly Vietnamese firms should increasingly be looking at Cambodia as a place to locate their factories. Cambodia could use Association of South-East Asia Nations (ASEAN) as a vehicle for new initiatives in this area. Three types of action could be considered:

- The most pressing priorities is for Cambodia to address financial sector risks (e.g. by tightening bank entry criteria and by renewing efforts to monitor non-performing loans) and to manage the policy mix (by containing inflationary pressures while supporting growth). At the same time, it is important to manage the exchange rate more actively as Cambodia, being essentially dollarized, is quickly losing its comparative advantage of low costs due to inflation and the appreciation of the dollar. It is important to address this soon, as large revenues from extractive industries would exacerbate the problem in the future.
- In addition, Cambodia should position itself to take advantage of opportunities once trade and investment flows start to rebound. Trade and investment can be further facilitated, most likely with a focus on agri-business. This could be accomplished by creating a dedicated unit to service agri-business investors and by creating an independent monitor of Sanitary and Phyto-Sanitary standards (on the model of BFC for labor standards). Doubling rice yields requires a coordinated approach in order to create the knowledge and incentives for farmers to apply the appropriate combination of seeds and fertilizers. Making the existing tax incentives more active could also generate a significant return.
- Finally, the diagnostic of constraints on growth stresses the importance of coordination issues, especially the need to integrate Cambodia into more complex value chains. As well as the investor servicing unit and the standards monitor (previous point), consideration could be given to support for business associations, more proactive management of Special Economic Zones, and increased access to financial products (including through a well-functioning credit bureau). An important platform for identifying and addressing issues of common concern is the G-PSF (this would require the Forum to prepare more research and analysis). In addition, a number of business associations – such as associations for the hotel and garment industries – could be supported in identifying common issues hurting productivity and in proposing options for diversifying within the sectors (in particular, they would have a role in addressing vocational training issues). Indeed, the government and the private sector need to work hand in hand to prioritize key constraints and opportunities. The role of such coordination in agriculture is particularly important and can take the form of contract farming, farmers' associations or cooperatives, and self-help groups. Such creative solutions to providing public goods will be a critical factor for Cambodia's success in sustaining growth.

27. **Second, management of natural resources must be sustainable**. Cambodia can build upon both good experience (e.g. development of community forests and fisheries) and bad experience (e.g. illegal logging). The possible development of extractive industries provides both an opportunity and a series of major challenges. Priorities in this area include the following:

- A more decisive effort to manage existing resources should be initiated, including the demarcation of forests, community forests and fisheries, and management of state land. Coordination should also be improved in tourism.
- The area of extractive industries is critical as it sets the tone for the overall climate for investors in Cambodia. The legal and fiscal regime for both petroleum and mining should be clarified urgently. The RGC should build its capacity to manage the sector, including through training, computerization, and development of a good cadastre, etc. If and when the revenue base turns out to be large, external monitoring mechanisms comparable to BFC would be useful in reinforcing accountability in the sector (in particular, for revenue

collection, the Extractive Industry Transparency Initiative (EITI) provides a process and label to strengthen accountability and to signal Cambodia's commitment to transparency).

- More broadly, further experimentation with external mechanisms addressing governance constraints in a sector-specific way should be encouraged.

28. **Third, in the medium term, Cambodia should upgrade its endowment to move to the next stages of development**. While it is not desirable to overlook its current comparative advantages, Cambodia should continue to develop its infrastructure and human capacity, and mobilize more savings to prepare for future episodes of growth:

- Priorities are the upgrading of rural roads, agriculture public goods (research and extension), and human capital (continuing to stress primary education to expand the base). In all cases, however, higher spending will not be sufficient: the quality of spending (including addressing institutional issues and electricity pricing, the maintenance of roads, and the quality of teaching) will matter more than the level of expenditures. The limited fiscal space also calls for a strong effort at prioritizing expenditures based on good cost-benefit analyses (e.g. there is evidence that the returns on improvements in rural infrastructure in terms of rice yields vary greatly across regions).
- Mobilizing domestic savings is likely to become increasingly important, including to finance infrastructure and education. Expanding the fiscal space, especially through developing the revenue base, will be important in this regard.
- To manage this medium-term agenda, a number of public sector reforms will take on an increasing importance.

29. **Finally, the report identifies three challenging areas for further analysis** (Chapter 10). Although these areas would not generate an immediate growth dividend, they deserve closer analysis so that they can be fully integrated into the growth strategy. *Urban development* needs to be better managed given the growth potential of cities and the risk of mismanagement (such as congestion, poor services, etc, which would reduce incentives to invest and increase costs for existing firms). Depending on its nature, rapid growth could fuel *inequality*. Various indicators show that inequality has indeed increased significantly over the past four years: such rapid increase in inequality is not only politically and socially undesirable, it also tends to be inimical to sustained rapid growth. As highlighted by the recent spike in food prices and the impact of the global financial turmoil, well managed, well targeted social safety nets will be an important instrument to mitigate the impact of economic shocks on the most vulnerable. Finally, the *environment* is an asset for Cambodia, but rapid growth and global developments such as climate change are putting it under stress.

30. Cambodia has made strong progress with a long episode of rapid growth. The conditions for a new episode of growth, however, remain highly uncertain – because of the nature of past growth and the depressed external environment. The country has the potential for further growth and the foregoing analysis has sketched what this potential could look like. The ongoing financial crisis should also be seen as an opportunity. But it will take resolute actions to achieve this potential. What needs to be done cannot be fully known in advance and the diagnostic of constraints on growth should be an ongoing process of testing new policies, scaling up the successful ones, and learning from failures. This process will require committed leadership and focused attention on growth constraints and opportunities. If such a process is achieved, it is indeed possible for Cambodia to push its development toward new levels, contributing to a number of important welfare and social outcomes.

Table 2: A Summary of Policy Options

Policy Area (*)	Policy Options	Expected Results
Macroeconomic management (7.A-C, 8.B)	*Increase fiscal deficit to respond to weaker growth while developing the growth potential in a framework consistent with low inflation* *Increase revenue-to-gross domestic product (GDP) ratio (enforce property and capital gain taxes; revise tax incentives)* *Improve quality of macroeconomic monitoring (e.g. revise consumer price index) and gradually introduce new policy instruments*	High growth and low inflation Higher revenue-to-GDP ratio
Trade and investment (9.A-C)	*Accelerate trade facilitation reform (e.g. roll out computerized customs system; design and introduce Single Window; deepen coordination with other ASEAN countries) to partly offset the appreciation of the riel in real terms* *Create dedicated unit to serve agri-business investors* Review experience with Special Economic Zone (SEZ) and improve targeting and implementation of SEZ policy Continue efforts for regulatory simplification and transparency (in trade and other areas), including through using rulings for tax administration Introduce commercial dispute resolution mechanisms See below on standards	Continued growth of garment exports Diversification of exports Higher FDI in agri-business Simple, transparent regulatory framework
Financial sector (7.A-C)	*Further increase focus on banking supervision and improve fit and proper tests for new entrants* Improve the credit information system and the payments system Enable new instruments (lower collateral requirements, introduce leasing, develop m-banking) Set a baseline of the sector's performance through a Financial Sector Assessment Program (FSAP)	Continued development of the financial sector with acceptable (and well-monitored) risks
Labor (6.C)	*Facilitate improvements in industry relationships* Facilitate productivity-based pay practices (e.g. pay by the piece)	More collective agreements and fewer strikes
Infrastructure (8.C; 9.B)	*Increase capital and maintenance spending from the budget* Maintain pipeline of power generation projects and accelerate development of integrated grid Develop a focused strategy for rural electrification Improve management of public-private partnership in infrastructure, in particular through disclosure and strong oversight *Improve financial strength of Electricite du Cambodge (EDC) and ensure lower production costs are passed on to consumers* Continue expansion of secondary and tertiary road network Separate policy and regulatory functions in telecom sector and finalize policies / laws	Lower cost of electricity Better logistics Better ICT services Better access to markets in rural areas
Education (8.C)	Focus attention on quality of primary education Gradually increase budget for secondary education Support private sector to deliver targeted vocational education / training	Higher enrollment at all levels Higher literacy rates

Agriculture (6.D; 9.B)	*Adopt a time-bound plan to introduce standards* *Pilot innovative institutional mechanisms to introduce standards for selected products (possibly modeled on BFC)* See above on service for agri-business investors Encourage contract farming / self-help groups Finalize operational plans for the Strategy on Agriculture and Water, with particular attention to irrigation schemes Reform management of Economic Land Concessions (ELCs) to ensure transparency and strategic planning	Continued growth in agriculture, with diversification and higher value adding Higher foreign investment
Extractive industries (5.A-B)	*Adopt and revise Petroleum Law and Mining Law, as well as associated regulations* *Clarify fiscal framework for both sectors* *Significantly increase transparency in allocation of licenses and revenue collection* Increase capacity of agencies in charge of managing the sector	More high-quality investment in the sector Sustainable development of the sector (in terms of contribution to growth, employment, and environment)
Reform management	*Create focal point in Government with focus on private investment, productivity, and growth* Create a capital project appraisal office and build its capacity Improve coordination in key areas (e.g. standards, tourism) as part of the National Public Administration Reform (NPAR) Undertake public expenditure reviews and efficiency reviews Deepen role of G-SPF, by providing it with research capacity, in order to develop its role in identifying constraints on growth	

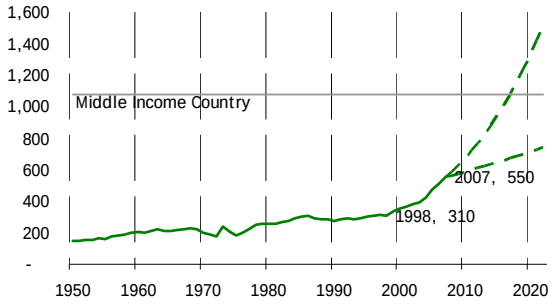
(*) in brackets identifies the section which reviews the options. Note: These policy options are discussed throughout the report. Prioritization will depend on finalizing the diagnostic of what is constraining growth (points in italics suggests 15 initial priorities based on the analysis in the report). The report also includes a number of other options for further analysis.

Introduction

1. **Cambodia has gone through an unusual period of rapid growth over the past decade**. It is unusual vis-à-vis both the country's difficult history and the global experience of development (Figure 1). Cambodia is one of the few countries that have achieved sustained rapid growth: of 194 countries with data, 46 have achieved 7 percent annual growth on average for 14 consecutive years. Over the past decade, Cambodia's growth performance ranks 7th across all countries in the world.

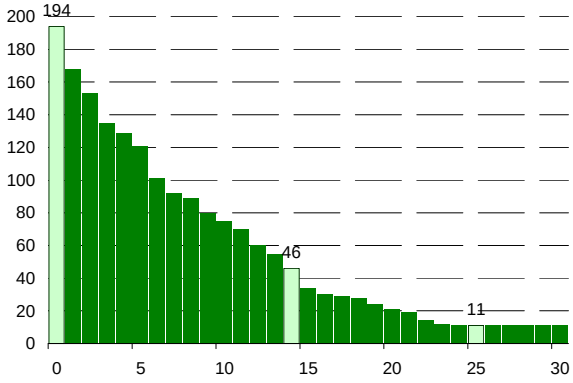
Figure 1: The rapid growth experienced in Cambodia is unusual

a/ Income per Capita (2007 $)



Note: projections made based on recent performance (7.5% p.a. per capita) and lower performance (2% p.a. per capita). Middle income country level is defined as US$1,075 per capita. Source: NIS, national accounts, Madison for pre-1993 estimates.

b/ Growth Performance – 1960-2007



Note: Each bar shows the number of countries that have achieved a rate of growth of 7% p.a. for x consecutive years (calculated with a geometric average). Cambodia is one of 46 countries that have achieved this performance for 14 consecutive years. Source: WDI.

2. **Can Cambodia become a middle income country over the next decade?** Sustaining rapid growth is a "necessary condition for the achievement of a wide range of objectives that people and societies care about" (Growth Commission, 2008). Continuing to create jobs is critical for Cambodia, given the 250,000 or so young people joining the labor market every year, with increasing levels of education and expectations, and, often, with decreasing access to land as an alternative livelihood. In addition, the arithmetic of compounded rates of growth means that sustaining a few additional percentage points of growth rapidly makes a difference. At the rate of growth of the past decade (7 percent per capita per annum), it will take only another ten years to Cambodia to double its income per capita, reaching middle-income status; at 2 percent per annum, it would take three and a half decade.[1]

3. **Yet, the odds of sustaining the rapid growth of the past decade are low**. Only 11 of the 46 countries in Figure 1[2] have sustained 7 percent annual growth for a second decade. As will be discussed in Part 1, the achievements of the past decade are fragile: the base of economic growth has been narrow, institutions to sustain growth remain underdeveloped, and the global environment is less supportive in 2009.

[1] Dividing 72 by the growth rate of X gives the time it takes for X to double in size.

[2] This includes Botswana, China, Hong-Kong, Indonesia, Korea, Malaysia, Malta, Oman, Singapore, Taiwan and Thailand. The Growth Commission (Box 2.1) adds Japan and Brazil (which are not in this list, which is based on data starting in 1960); it also notes that India and Vietnam could join the list soon.

4. **The Royal Government of Cambodia (RGC)has a development strategy, the NSDP**, which elaborates on the goals and policy priorities laid out in the Government's political platform (the Rectangular Strategy (RS), see Figure 2, the second phase of which was presented by the newly re-elected Government in September 2008). This strategy covers many aspects of a growth strategy, with an appropriate focus on governance, private sector development, human development, and agriculture.

Figure 2: The Rectangular Strategy

Source: RGC.

5. **The objective of this report is to contribute to the debate on growth in Cambodia**, by (i) identifying major sources of growth and the feasibility of sustaining and diversifying them and (ii) reflecting on how constraints on realizing this potential could be alleviated. It starts with a review of the past decade of growth to generate lessons learned from this unusual achievement (Part 1). The point of departure of Part 2 is the need to strengthen the growth potential and diversify the economy: this Part therefore analyzes the growth potential, the sources of diversification, and the factors that are hindering investment and diversification. Part 3 discusses some of the policies that the RGC could implement to address these factors, and hence to strengthen Cambodia's growth potential and sustain rapid growth.

6. This report was initiated at the request of, and guided by, the RGC's Supreme National Economic Council (SNEC). It benefited from insights and financial support from several

development partners. It was further discussed with a number of stakeholders, including research institutes, non-governmental institutions, and private sector firms. The main report however cannot do justice to the wealth of information and analysis in the background papers prepared during the process (Table 3). These papers give a more detailed account of the investigation conducted in this report to identify sources of growth and constraints on growth. They provide detailed data sources and methodologies, as well as further references. Some of them also go deeper in outlining policy solutions to alleviate constraints.

Table 3: List of Background Papers

Sources of Growth, 1998-2007, *Huot Chea*
How can Cambodian Farmers Respond to Rising Food Prices*, Bingxin Yu, Shenggen Fan, Anuja Saukar, and Racha Ramadan (IFPRI)*
Foreign Agribusiness Investments in Cambodia, *Tom Easterling*
Cambodia: Structural Transformation and Economic Growth: Options for Catching-Up, *Vandana Chandra, Stephane Guimbert, Israel Osorio-Rodarte*
Cambodia: Source of Growth: Mining, *Mitsui Mineral Development Engineering Co., Ltd.*
Prospects and Challenges for Oil and Gas, *Masami Kojima*
Price Distortion in Cambodia: a Case Study of Paddy, Maize and Soybeans, *Ek Chanboreth (EIC)*
Returns to Education in Cambodia: Results from the 2007 Socio-Economic Survey, *Ashish Lall*
Financial Sector Development in Cambodia, *James Hanson and Jamie Seward*
Cambodia: Fiscal Space, Public Expenditure Policy, and Growth, *Rob Taliercio*
Pour que Phnom Penh Devienne une Nouvelle Source de Croissance, *Frederic Mauret*
Brief on Education and Growth in Cambodia, *Caridad Araujo*
Brief on ICT and Growth in Cambodia, *Natasha Beschorner and Naomi Halewood*
Brief on Cambodia Power Sector, *Veasna Bun and Mohinder Gulati*
Brief on Transport in Cambodia, *Ratha Sann*

All these papers [will be] available on the report's website at www.worldbank.org/kh

Part 1. Lessons from a Decade of Rapid Growth

KEY MESSAGES:

Cambodia's income per capita has been increasing at 7.6 percent for the past decade, more than doubling. This is a significant performance by comparison to the past 50 years of development across countries. How did this happen and what are the lessons for Cambodia on how to sustain rapid growth?

Chapter 1 reviews **Cambodia's growth experience** and highlights:

- The role of four key sectors (garments, tourism, construction, and agriculture) and lack of diversification;
- The openness of the economy, the stable macroeconomic environment (from 1998 to 2006), and the recent rapid growth of the financial sector (since 2005); and
- The low level of domestic savings and investment.

Chapter 2 **analyzes these achievements along three dimensions** – all three suggesting limits to their sustainability:

- A first dimension ("history and geography") is that Cambodia has seized the opportunity of its history (restoring stability) and geography (openness to a dynamic region) to harness growth.
- Another dimension is that Cambodia has fueled its growth by using its assets, such as its forests, lands, and heritage, but somewhat depleting them. The focus on using assets has also distorted incentives in favor of less sustainable sources of growth.
- A third dimension is that, in a challenging governance environment, sector-specific arrangements of governance have emerged to enable specific sectors to flourish (e.g. garments). Good governance in some sectors has translated into growth.

Chapter 3 reviews Cambodia's experience in **translating growth into jobs and poverty reduction**. It highlights:

- Growth has had a profound impact toward a major structural transition (significant poverty reduction; improvement in most social indicators; nascent urbanization).
- A major channel has been the creation of jobs, especially outside agriculture, and changing demographics (with a significant decrease in the dependency ratio – the ratio of non-working age to working age population).

This first part tells a story of remarkable achievements in a challenging environment. However, it questions the sustainability of these achievements, especially at a time of considerable uncertainties in the global economy.

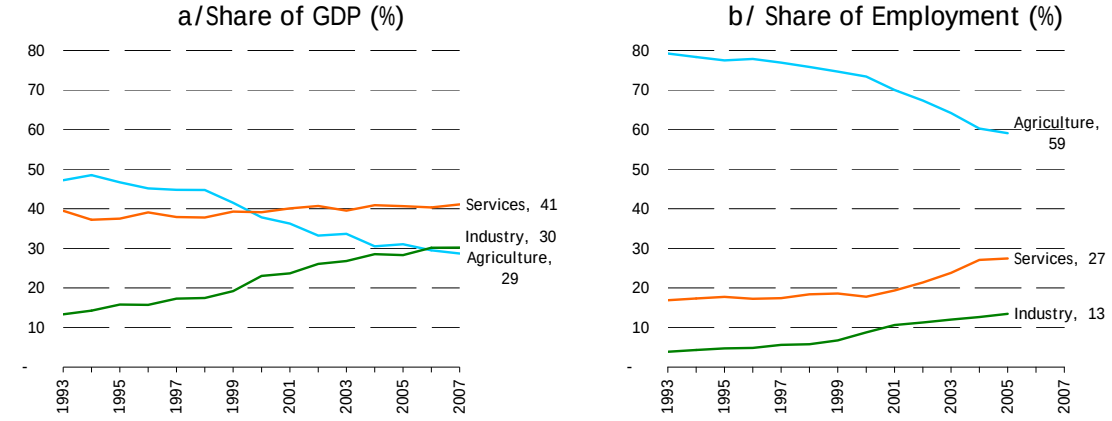
1. Features of Cambodia's Growth Performance

1.1. **Cambodia has established a remarkable track record of growth over the past decade**. Growth has averaged 9.8 percent per annum over the past decade, and was above 10 percent in the four consecutive years from 2004 to 2007. This chapter reviews the features of this performance. Section A reviews the four key sectoral drivers of growth over this decade. Section B focuses on the macroeconomic performance, reviewing national accounts, balance of payments, and fiscal and monetary developments. Section C sums up lessons learned from this review.

A. Four Key Drivers of Growth – and Poor Diversification

1.2. **Most of the growth over the past decade has been driven by four sectors: garments, tourism, construction and agriculture**. The industry and services sectors accounted for 4.5 and 4.8 points of growth per annum respectively (against 2.0 for agriculture, although the contribution of agriculture was above 2 percent over 2003-07).[3] As a result, the economy has undergone a profound transformation, with agriculture by 2007 ranking behind both industry and services in terms of value-added (although still first in terms of employment, Figure 1.1). The pace of this transformation appears consistent with that of countries that experienced Sustained Rapid Growth (SRG) over the past half-century (Box 2.1).

Figure 1.1: Cambodia's economy has started its transformation



Source: NIS, national accounts.

1.3. **Agriculture remains a very crucial part of Cambodia's economy**. Although it accounts for 29 percent of the GDP in 2007, 59 percent of the population relies on this sector for their livelihood. Agriculture has been growing at 4.4 percent over the past decade, against 4.0 percent in Vietnam and 3.9 percent in Lao PDR. Growth in the sector is driven by crops (mainly rice) and, to a lesser extent, livestock and fisheries:

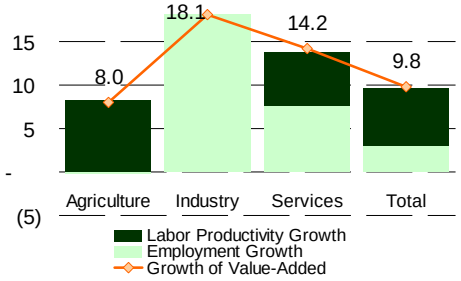
Figure 1.2: Growth was driven by job

[3] The contribution of services includes the growth of tax on products net of subsidies. Cf. national accounts.

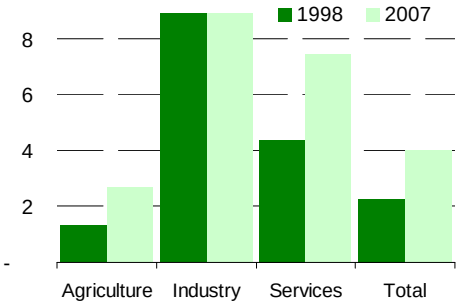
- *Crops*, accounting for 14 percent of 2007 GDP and 1.1 point of GDP growth over 1998-2007, are dominated by rice. Eighty percent of farmers grow rice, 60 percent of them for subsistence. Rice covered 2.6 million ha in 2007 (two thirds of arable land and 90 percent of cultivated land) and production grew from 3.4 to 6.7 million tons between 1997 and 2007. Although data are patchy, this would mean that Cambodia has been an exporter of rice since 2004, with around 2 million tons now exported (around US$300 million) each year. Yields remain however low (at 2.6 tons/ha, against 3.5-4.0 on average in the region). Cassava is a promising crop, with yields recently reaching 23 tons/ha (a level similar to Thailand and Vietnam) – but only 3 percent of cultivated land is used for it. Other crops include cashew nuts, maize, and jathropha. Cambodia has historically produced rubber as well: growth (and exports of around US$175 million in 2006) of rubber have accelerated in recent years and recent significant investment in rubber will generate further growth in the future. Tobacco production has been driven by the presence of a large international investor. Fruits and vegetables are grown only on a small scale, despite a significant potential: as a result, Cambodia cannot meet its demand (fueled by hotels) and imports vegetables.
- *Silk*, now accounting for US$10 million of exports, has also a potential to develop. The domestic market is expanding with tourism, while export could also grow fast.
- *Livestock* (pigs and poultry mainly, to sell meat and eggs), accounting for 5 percent of 2007 GDP and 0.3 point of GDP growth over 1998-2007, remains a crucial part of most farming activities and an important savings device. On the positive side, the stock of livestock has increased at an average of 2 percent per annum over the past decade. On the negative side, many issues of standards and trade prevent the sector from realizing its potential (Box 2.2).

creation and productivity gains

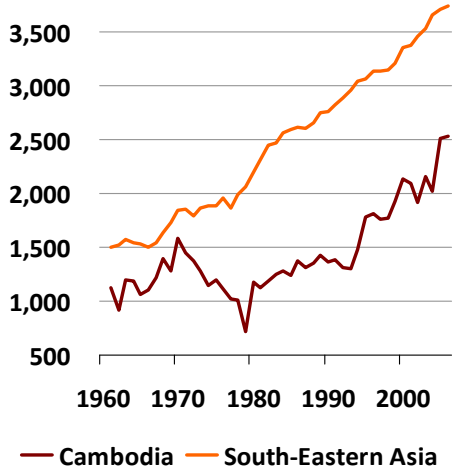
a/ Contributions of Employment and Labor Productivity to Growth (98-07)



b/Labor Productivity (million 2000 riels)



c/ Cereal Yields (kg per ha)



Sources: WDI, NIS, National Accounts.

- *Fisheries*, accounting for 7 percent of 2007 GDP and 0.2 point of GDP growth over 1998-2007, are an important, though declining source of growth. Inland fisheries (in particular around the Tonle Sap, an exceptionally rich freshwater environment) dominate the sector (with fish complementing rice in Cambodian traditional diet), while marine fisheries are largely for export. Reforms since 2000 have attempted to promote better management of the fish stock and the development of community fisheries, but the declining size of the fish

stock remains a concern. Cambodia exports around US$100 million of fish each year, but exports are constrained by the absence of Sanitary and Phyto-Sanitary (SPS) standards.

- *Forestry*, accounting for 2 percent of 2007 GDP and -0.1 point of GDP growth over 1998-2007, played an important role in the 1990s, with significant illegal logging. Since strong regulations were put in place around 2000, massive logging has been curbed and activity in the sector relates more to community-level logging – as forestry continues for many communities to play a supporting role for rural livelihoods. Cambodia's forests are estimated to cover about 11 million ha (or 60 percent of the country), although there is considerable debate about this statistic.

1.4. **Growth in agriculture has been driven by land and productivity gains – even though yields remain low** (Figure 1.2). Employment in the sector has been stable between 1998 and 2007.[4] It has achieved productivity gains of around 2 percent per annum, with yields also starting to increase since the mid-1990s. Regression analysis shows that the yields gains between 2004 and 2007 can be largely explained by changes in the input mix and additional irrigation.

1.5. **Industry is the fastest growing sector**. Its relative size nearly doubled, from 17 to 30 percent between 1998 and 2007. Growing at an average of 16 percent per annum, it contributed 3.4 points of growth per annum over the decade. Growth in the sector is driven by manufacturing (mainly garments and footwear) and construction:

- *Garments (and footwear)*, accounting for 16 percent of 2007 GDP and 2.4 point of GDP growth over 1998-2007, is the country's leading export sector and has been growing at an average of 28 percent per annum: exports went from almost zero in 1994 to US$2.8 billion in 2007 (70 percent to the US market – where Cambodia was the 8th largest supplier in 2007 – and 22 percent to the European Union (EU). Cambodia's exports are mainly low-end garments and some footwear, with no diversification to textile or more complex garments. The majority of firms focuses on "CMT", i.e. the simplest part of the value chain. The story of the garment sector's initial development, survival at the end of the Multi-Fiber Arrangement (MFA) in 2005, and recent challenges is reviewed in Box 2.2.
- *Food manufacturing*, accounting for only 2 percent of 2007 GDP and 0.1 point of GDP growth over 1998-2007, is an area of unmet potential.
- *Other manufacturing* are also underdeveloped, with only a few recent examples of assembly factories (bicycles, cars, motorcycles).
- *Construction*, accounting for 7 percent of 2007 GDP and 0.7 point of GDP growth over 1998-2007, has been booming since 2002. But it has significantly decelerated in 2007 and into 2008, with signs of overheating (rising prices of labor and construction materials) and concerns about a bubble in the real estate sector.
- *Electricity, gas and water*, accounting for 1 percent of GDP and 0.1 point of GDP growth over 1998-2007, has developed very rapidly, but without catching up with demand (Chapter 6).
- *Mining*, accounting for 0.4 percent of 2007 GDP, has been growing fast in recent years but from a very low base. It remains mainly artisanal: its growth potential is explored in Chapter 5.

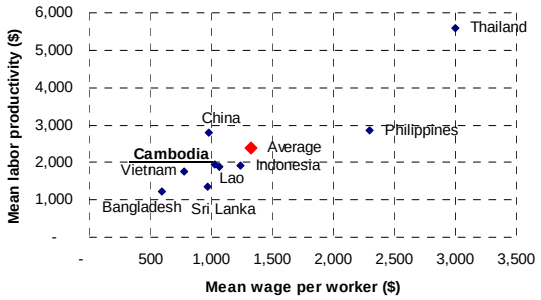
1.6. **Industrial growth has mainly translated into employment growth, with little productivity growth**. Almost 100,000 new jobs were created each year between 1998 and 2007. Over the same period, labor productivity was stable (with a decline first and a rebound then). In

[4] Employment data is weak because of the large informal sector. The data used here is based on census and household surveys. Based on the national accounts, some 80,000 jobs would have been created on average per annum in agriculture.

garments, this translates into a level of labor productivity close to that of Vietnam and Lao PDR, but below China (Figure 1.3).

1.7. **Services have maintained a steady share of Cambodia's economy**, at around 40 percent of GDP. This sector spans a wide range of activities from finance and telecoms, to trade and tourism, real estate and informal services:

Figure 1.3: In the garment industry, wages and productivity are not in the low-range any more



Note: based on investment climate surveys; labor productivity and wages are measured in 2004 US$. Source: World Bank (2008d).

- *Trade*, accounting for 8 percent of 2007 GDP and 0.5 point of GDP growth over 1998-2007, was driven by both domestic and international trade. International trade has been well served by Cambodia's various international commitments (to the ASEAN, to World Trade Organization (WTO)). Domestic trade has benefited from the decade of rapid growth in incomes for most Cambodians. Large parts of the sector remain however informal, in part a response to disincentives (such as red tape and corruption at border posts) to formalizing.
- *Real estate*, accounting for 8 percent of 2007 GDP and 0.8 point of GDP growth over 1998-2007, has been developing with the construction sector (see above).
- *Transport and communication*, accounting for 6 percent of GDP and 0.6 point of GDP growth over 1998-2007, has been driven mainly by tourism and trade. Telecommunication – which accounts for around 10 percent of this sub-sector – has been growing very rapidly with the development of cell phones and internet providers (see Section 4.A). Although Cambodia may not seem to be well-positioned to enter the international IT market, there are organizations such as Digital Data Divide (DDD), located in Phnom Penh and Battambang, which is providing data processing and digitalization services to client such as Harvard Crimson newspaper of Harvard University, Bain Capital, and MobiTel.
- *Hotels and restaurants*,[5] accounting for 4 percent of 2007 GDP and 0.5 point of GDP growth over 1998-2007, is largely driven by tourism. Cambodia was one of the fastest growing tourist destinations in South-East Asia in the 1960s. Although it did not recover until the mid 1990s, tourist arrivals has now risen to more than 2 million in 2007, with two-thirds of visitors coming from East Asia (South Korea in particular). The rapid growth of tourism owes to Cambodia's exceptional cultural heritage and its natural endowment (and its location in a dynamic region), recent stability, and key policies (such as the Open Sky Policy introduced in late 1997).
- *The financial sector*, accounting for 1 percent of 2007 GDP and 0.1 point of GDP growth over 1998-2007, has developed from a very low base and expanded very rapidly (see above and Chapter 6). It remains dominated by the banking sector, with a very small insurance sector starting up and a few investment funds created in 2007-08.
- *Public administration*, accounting for 1 percent of 2007 GDP, is small, poorly paid, and not very effective (Chapter 8).

[5] The classification in the national accounts has no single sector for tourism. The contribution of tourism is mainly reflected in hotel and restaurants, and to a lesser degree in transport services.

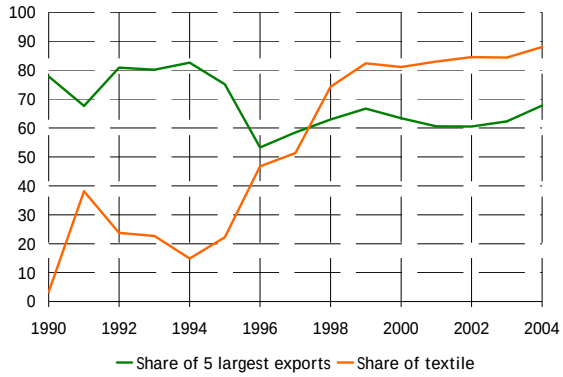
- *"Other services"*, accounting for 9 percent of 2007 GDP and 1.2 point of GDP growth over 1998-2007, include a variety of formal (e.g. education and health) and informal (e.g. "household services") services that have been growing rapidly with the development of the economy.

1.8. **Growth in services has also led to employment creation**, with services absorbing around 100,000 jobs per annum over 1998-2007. As a result, labor productivity has increased by around 6 percent per annum over that period.

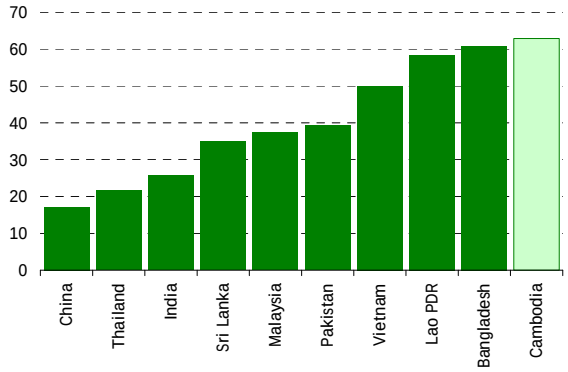
1.9. **Consistent with this pattern, Cambodia's exports are very poorly diversified** (Figure 1.4). Cambodia's five main products account for more than 60 percent of its total exports, a concentration significantly higher than other countries.

Figure 1.4: Cambodia's exports are poorly diversified

a/ Over time in Cambodia (%)



b/ Share of 5 main products in exports across countries in 2000-04 (%)



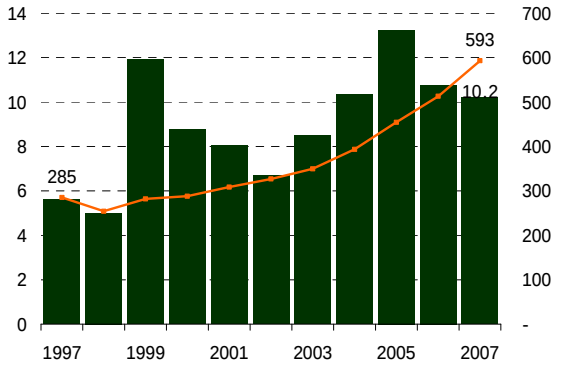
Source: World Bank, based on UN Contrade database.

B. Macroeconomic Stability, Rising Export, Weak Investment

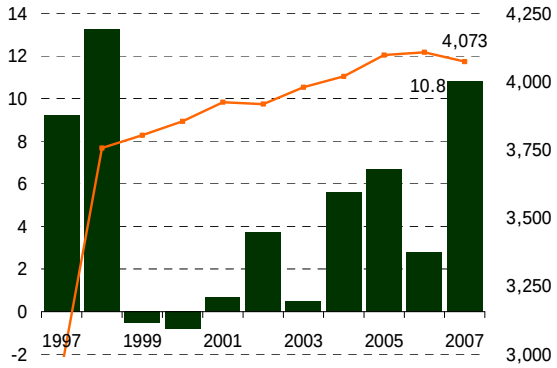
1.10. **Cambodia has established a strong track record of growth and stable macroeconomic conditions** (Figure 1.5). Growth accelerated in 1999 as the domestic political situation became clearer and the external economic situation improved following the 1997 Asian crisis. Growth averaged 9.8 per annum, with inflation largely remaining below 5 percent throughout the period.

Figure 1.5: Growth has been rapid and inflation low

a/ Growth (%, left) and GDP per capita (US$, right)



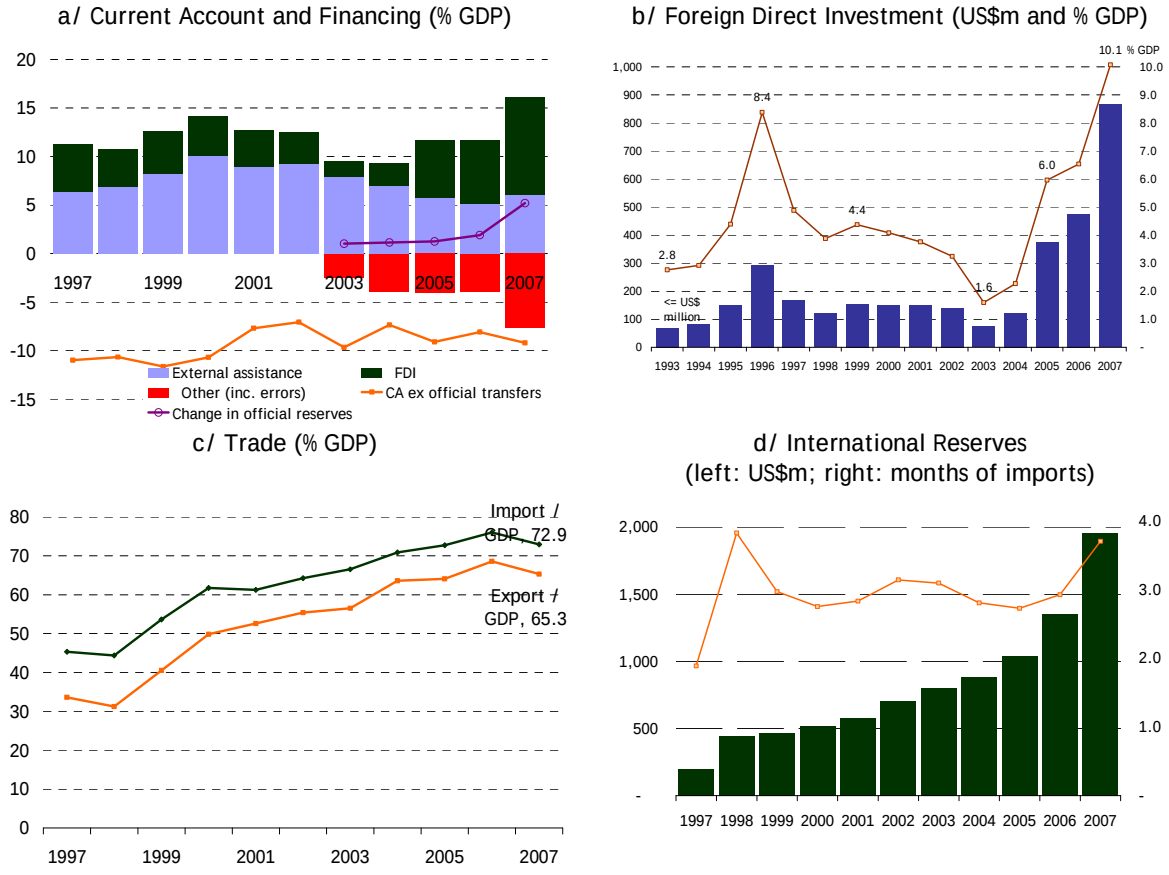
b/ Inflation (%, left) and US$ rate (riels, right)



Source: NBC and NIS. [needs updating with new population numbers]

1.11. **This performance has largely benefited from a very favorable external environment** (Figure 1.6). The external environment generated a strong demand for exports and large capital flows (official and private) to finance the large current account deficit. Until 2007, there were few major terms-of-trade shocks[6]: fluctuations in global prices of petroleum products had been smoothed by a decision to use fixed administered prices for the taxation of these imports and the end of the MFA and its quota system, although much feared (see World Bank, 2004) did not generate any significant shock to the garment sector.

Figure 1.6: External developments were favorable until mid-2008



Source: *NBC and NIS.*

1.12. **However, performance has deteriorated significantly in 2008**. Although the limited development of the financial sector is shielding Cambodia from direct impact of the financial turmoil in the global economy, this highly uncertain environment will exacerbate four pre-existing vulnerabilities:

- First, the *four drivers of growth* (Section A) are subject to the uncertain environment. Garments and tourism will directly suffer from the global slowdown, especially in the US for garments and in South Korea for tourism. Construction was also weakening and will further slow down as foreign investment in real estate slows down. On the other hand, agriculture could respond positively to higher prices of rice, although the supply response remains uncertain, a question further reviewed in Part 2.

[6] Annual variations of terms of trade (measured by the implicit deflators of imports and exports in the national accounts) were less than 3 percent since 1999.

- Second, the *large current account deficit* was more than financed by inflows of private and official capital flows. International reserves have increased sharply in 2006-07, to more than three months of imports. Although private flows are not short term (mainly FDI) and Cambodia has limited debt obligations, the financing of the current account is a significant vulnerability.
- Third, the *rapid development of the financial sector* has created risks that could materialize if the slow down in the economy, in real estate in particular, is marked (see below).
- Finally, concerns about *rising inflation* have made the policy response complex. Although this risk might be already addressed in late 2008 – as the original drivers (higher prices of food and oil; depreciation of the dollar; and rapid growth of credit to the private sector) are all being reversed – it requires constant monitoring, especially given its impact on the real effective exchange rate and competitiveness (Chapter 6).

1.13. **Although it has limited policy instruments available to it, the RGC appropriately managed the policy mix and structural reforms**. In a largely dollarized economy, the policy mix relies mainly on fiscal policy, which has been relatively conservative in recent years, preventing inflationary pressures from emerging until recently. The budget has generated an increasing current surplus in recent years, leading to negative domestic financing – mainly through a reduction in arrears (Figure 1.7). Monetary policy has allowed a deepening of the financial sector, although – until mid-2007 – at a pace consistent with macroeconomic stability. Current and capital accounts are open and there is no restriction on the exchange rate. Most sectors of the economy are liberalized (see also Box 1.1).

Box 1.1: The State of the Economy in 1992

A report from development partners in 1992 concluded that "with insufficient resources to generate productive income, and isolated from the mainstream of world trade, Cambodia has run its physical capital down and has severely stretched its meager human resources". Transport infrastructure was dramatically lacking; only 20 percent of the Phnom Penh population had access to piped water; the delivery of social services, although supplemented by NGOs, was poor. The economy was subject to weather uncertainties and unreliable access to raw materials and spare parts. Only resilience in agriculture was maintaining some income and food supply.

The report noted positive reforms, but stressed that these reforms had been undertaken as a partial and ad hoc response to difficulties, hence with uneven results. Starting 1989, agricultural land had been returned to the tiller. Some autonomy had been given to state-owned enterprises in 1989, but with weak results.

Growth had responded positively, but with significant variations (16, 2, 0 and 14 percent respectively for GDP growth in 1988-1991). The budget, even after almost stopping all public investment and maintenance expenditures, and reducing public employment, had a financing gap equivalent to 40 percent of expenditures. This was due to a decline in revenues, down to 4 percent of GDP in 1992, in part because of the liberalization of the economy. This translated into a major deficit, while Cambodia had lost its access to a credit facility from the Soviet Union and not yet gained access to development aid. In turns, this had fed into inflation (70, 157 and 121 percent in 1989-91).

The focus of the strategy at that time was twofold: (i) absorb the returning refugees and settle the internally displaced persons and demobilized troops; and (ii) stabilize the economy, strengthen institutions, and prevent a further degradation of basic public services.

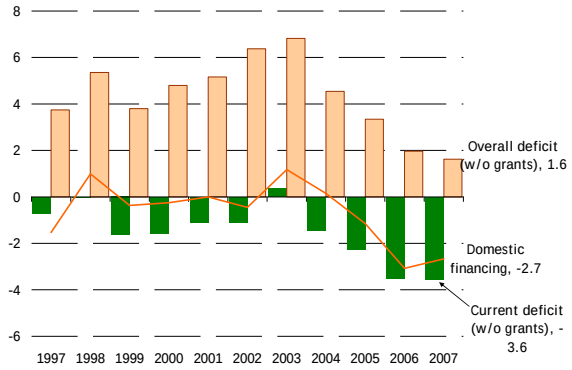
Source: World Bank and others, 1993.

1.14. **Cambodia is still largely a dollarized, cash-based economy** (see Im, Dabadie, and Sokha, 2007). The local currency – Cambodian Riels (CR) – in circulation represents only about 6 percent of GDP and is mainly used in the interior of the country and for small transactions. In the banking system, cash (almost all US dollars) represents an unusually large share of assets (about 5 percent). Total currency holdings, including dollars, can be assumed at about 60 percent

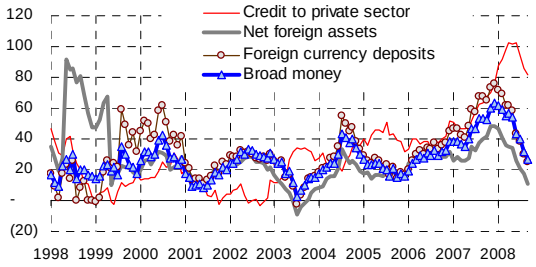
of bank deposits.[7] Over 90 percent of deposits (and loans) are denominated in dollars. The main exception is the public sector: riels must be used to pay taxes and other public sector bills and the public sector pays in riels. The dollar is also used as a store of value throughout the country. This feature implies that (i) the fluctuations of the real exchange rate measured in riels have a diffused impact on the economy (see also Chapter 6 and 7) and (ii) monetary and exchange rate policies have limited effectiveness.

Figure 1.7: Macroeconomic policies have been conducive to stability

a/Fiscal Policy (% GDP)



b/ Monetary Framework (%, year-on-year)



Sources: MEF, NBC, NIS, Staff

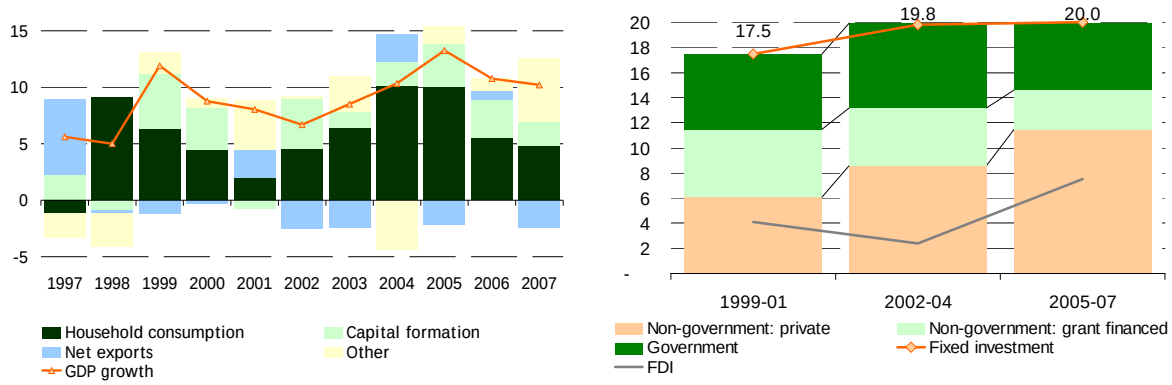
1.15. **Other important features of growth in Cambodia are the strong growth in consumption, the weak level of investment, and the small size of the public sector**. Consumption has been one of the main drivers of growth, contributing 5.7 points of growth per annum (Figure 1.8). Exports have increased fast, but the contribution of net exports to growth has been very small (0.1 percentage point on average). On the investment side, it is a major achievement that the investment-to-GDP ratio has increased from 15 percent in 1997 to 21 percent in 2007, contributing 2.4 points of growth per annum on average. However, this level is below what other countries with rapid growth have typically achieved (Table 2.1) and, in a growth accounting framework, the contribution of physical capital accumulation to growth has been limited. The composition of investment is also problematic: public investment is low and the rapid increase in FDI (see next paragraph) suggests that domestic investment has been particularly limited, possibly averaging only around 5 percent of GDP per annum (Figure 1.8). Finally the public sector is unusually small (Chapter 8).

1.16. **FDI has increased significantly since 2004**. FDI was very low throughout the 1990s and into the 2000s. Since 2004, it has increased significantly, growing 10 times between its low level of 2003 and its highest in 2007. Asian investors – from ASEAN, China, Hong Kong, Taiwan, South Korea – continue to dominate inflows. Some recent interest from Middle Eastern investors, especially in agribusiness, was noted in 2007. The level of FDI in 2007 was significant by the size of the economy (10 percent of GDP); low in absolute terms (US$867 million, against, for instance, US$6.7 billion in Vietnam); and very significant relative to investment (equivalent to 52 percent of gross fixed capital formation). FDI continues to be focused mainly on garments, tourism, and real estate.

Figure 1.8: Growth has been driven largely by consumption and investment by FDI

a/Contributions to growth (%) b/Investment (% GDP)

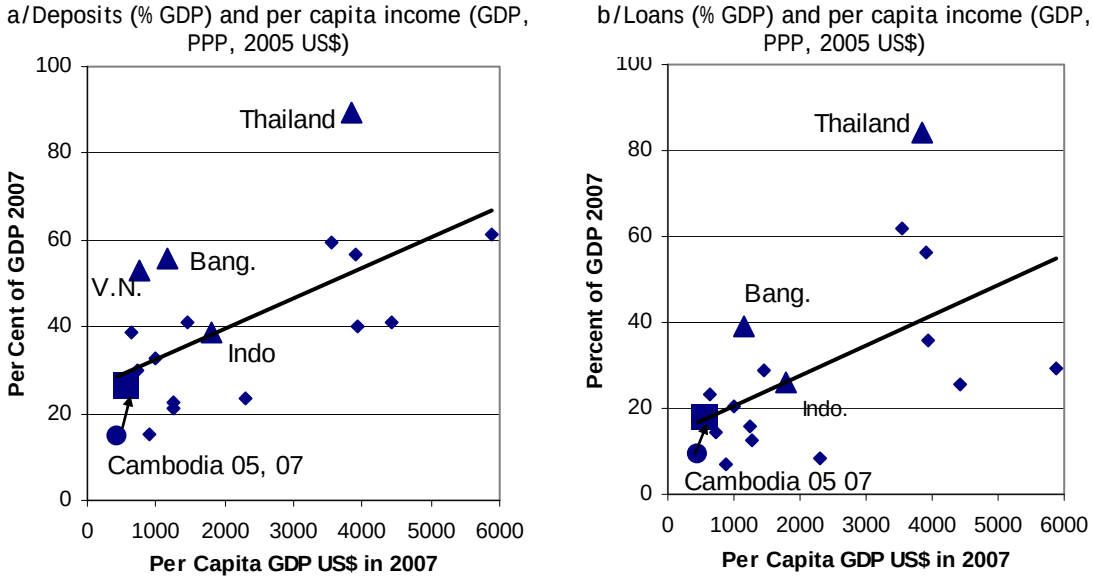
[7] Assuming conservatively that dollars in the hands of the public are merely twice as large as riel holdings (not the 9:1 ratio for deposits).



Source: World Bank, WDI.

1.17. **Finally, a critical development has been the rapid growth of the financial sector since 2005**. As recently as 2005, Cambodia's financial system was less developed in terms of loans and deposits than those of countries with similar per capita incomes. The commercial banking system is now about what can be expected given Cambodia's per capita income, though it remains small in absolute terms (Figure 1.9). There appears to be a growing confidence in the banking system as evidenced by an extraordinary increase in deposits. Lending of bank and Micro-Finance Institutions (MFIs) has risen even faster. Access to credit has increased and a few banks have increased branches, Automatic Teller Machine (ATMs), and consumer credits substantially. A somewhat larger number of banks have increased real estate development and construction lending very rapidly.

Figure 1.9: The financial system is catching up with countries at similar levels of development



Source: World Bank, WDI, IMF, International Financial Statistics.

1.18. **However, the banking sector remains small and most of the growth to date was achieved without bank finance**. The loans-to-GDP ratio reached 18 percent in 2007, while new credit issued in 2007 (around US$700 million) was less than the amount of net FDI. Also growth in credit has been largely directed at consumption, working capital, and real estate, but less at fixed investment.

1.19. **The commercial banking system dominates Cambodia's financial system and is concentrated**. This structure is similar to that in most low income developing countries. At the end of 2007, there were 17 commercial banks, of which 11 were either branches of foreign banks or majority foreign-owned. In addition, there were 7 specialized banks, which were much smaller, with total assets equal to less than 2 percent of commercial bank assets. They cannot take deposits and have much lower capital requirements than commercial banks. Finally, in 2007, there were 17 MFI with a total of 6 percent of the assets of banks and 10 percent of the loans. However, MFIs have the vast majority of total loan customers – 76 percent of the 821,426 borrowers by end-2007. MFIs are very limited in their ability to take deposits. The commercial bank industry is concentrated and growing more so. At the end of 2007, the "big five" banks had 72 percent of total assets in the market with about 80 percent of the loans and 72 percent of deposits. The growth in concentration reflects three of the largest banks' use of modern techniques and the problems and slower growth of the other two, which share some ownership. MFIs are important in the market for small loans outside Phnom Penh; for example, their total lending for agriculture is more than that of commercial banks. Two MFIs have more loans than many smaller banks. The non-bank financial sector is basically non-existent in Cambodia, although a stock market is under consideration. A few private equity funds emerged in 2007, but the recent global financial turmoil has delayed their plans.

1.20. **The overall reported performance of the banking system appears to be in line with or better than most banking systems – but this might be misleading**. Against standard metrics, the sector appears to be very profitable, efficient, and stable when compared to East Asia and developed countries (Table 1.1). However, this is difficult to square with the poor performance of the banking system in the past, the state of the domestic economy and business environment, the limited transparency and quality of auditing and accounting, and the realities on the ground within the banks and the supervisory authority. In fact, the underlying reasons for these performance indicators often lie in structural inefficiencies. For instance, there are concerns about the quality of reporting on Non Performing Loans (NPLs) and on classification. The concentration of NPLs in two banks is also a major concern.

Table 1.1: Performance Indicators of the Banking System

Financial Performance Ratios	Cambodia 2007	East Asia and Pacific Region 2006	Developed Countries 2006
Profitability			
Net Interest Income / Average Assets	4.2%	3.2%	1.6%
Return on Assets (Net Income / Average Assets)	2.8%	1.2%	0.9%
Return on Equity (Net Income / Average Equity)	16.3%	16.6%	15.9%
Efficiency			
Operating Expenses / Average Assets	2.5%	2.7%	1.9%
Operating Expenses / Operating Income	43.6%	47.0%	53.4%
Capital Adequacy			
Capital Adequacy Ratio	24.0%	11.2%	8.7%
Equity / Total Assets	17.0%	7.8%	8.7%
Asset Quality			
Total Loans / Total Assets	47.1%	54.3%	47.4%
Non-Performing Loans / Total Loans	3.4%	5.7%	1.8%
Loan to Deposit Ratio			
Total Loans / Total Deposits	63.8%	65.3%	78.3%

Sources: The East Asia and Pacific and Developed Country ratios were calculated by the IFC, Global Financial Markets Department based on data from Bankscope on several top banks in major countries. The data on Cambodia is from staff based on the average of 17 banks from the National Bank of Cambodia, "Annual Report 2007," Banking Supervision Department, http://www.nbc.org.kh/sup_reports/en/Supervision_Report_%202007_EN.pdf. The data for Cambodia is not on average assets or equity as it was not available in all cases, but instead total assets and total equity for 2007. It should be noted that by using the average assets or equity, the ratios would rise significantly as the assets and equity were at much lower levels in 2006 than 2007.

A downturn in the economy, especially in real estate, could quickly erode returns, increase NPL ratios, and weaken capital adequacy ratios.

1.21. **The increase in financial sector risks must be monitored and managed**. With deposits growing over 2005-07 by about 33 percent per annum relative to GDP, and loans by 50 percent (mainly driven by an increase in the size of loans), a number of risks have emerged:

- Rapid growth of lending has contributed to *inflation*. Although inflation does not reflect the typical case of monetary growth to finance government spending, monetary expansion is driven by rising capital inflows, the run-down of "under the mattress" dollar holdings, and the rapid growth in credit. The National Bank of Cambodia (NBC) tried to limit the overall growth of credit by raising reserve requirements in July 2008.
- A potential risk is the rapid growth of *consumer credit*, a new area for the banks. But the risk is mitigated by the fact that much of this growth has come in banks with reasonable systems for handling it. The same holds true for the rapid growth of bank lending to *agriculture* although the credit for the sector still remains small. The risks in both types of lending are the lack of good information on borrowers and possible increases in consumer lending by banks in the face of weak information and without good systems to manage these credits, as well as the risk of a macroeconomic slowdown that could affect these credits.
- The rapid growth of credit for *real estate development and construction* represents even more risks. Lending in this area has contributed to the property boom and inflation; a fall in property prices could create problems for the involved banks, some of which already have high NPLs. These problems could spill over into a loss of confidence and problems in the banking system generally and ultimately into the economy.

C. Summing Up

1.22. This review of 10 years of rapid growth outlines an economy that has:

- Been growing fast, fueled by exports and domestic consumption;
- Initiated its structural transformation (at a pace consistent with experience of other SRG countries at that stage of development);
- Not diversified significantly beyond exports already produced at the beginning of the past decade;
- Maintained macro-economic stability, largely thanks to a favorable environment (also thanks to appropriate policies, although the authorities' instruments to manage the policy mix are limited).

1.23. The next two chapters ask (i) how this happened and (ii) what the impact has been on the Cambodian people.

2. Explaining Cambodia's Growth Performance

2.1. **There are important lessons from Cambodia's achievements over the past decade**. Chapter 2 outlines a number of key drivers and dimensions of growth to date. They set the background for understanding potential ingredients for growth looking forward. These lessons are put in the context of other countries' experience with development, in particular those summarized by the Growth Commission (Box 2.1).

Box 2.1: The Growth Commission Report: Habits of Successful Economies

The Growth Commission's report (http://www.growthcommission.org) argues that "growth is not an end in itself. But it makes it possible to achieve other important objectives of individuals and societies. It can spare people en masse from poverty and drudgery. Nothing else ever has. It also creates the resources to support health care, education, and the other Millennium Development Goals to which the world has committed itself. [In short, the report takes the view] that growth is a necessary, if not sufficient, condition for broader development, enlarging the scope for individuals to be productive and creative."

The report identifies some of the distinctive ingredients involved in successful growth in 13 countries that have sustained 7 percent growth for 25 years and other countries that have been less successful:

- Involvement with the **world economy**. The world economy offers developing countries a deep, elastic market for their exports and allows countries to specialize in new export lines and improve their productivity in manifold ways. It also provides opportunities for inward technology transfer and foreign direct investment.
- High rates of **investment**, perhaps 25 percent of GDP or more, predominantly financed domestically and including infrastructure investment of perhaps 5 percent of GDP or more.
- Investment in **education, training, and health**, with private and public spending in these areas as high as 7-8 percent of GDP.
- Increasingly **capable, credible, and committed governments** that are supported by the public and wedded to the goal of high inclusive growth, but pragmatic in their pursuit of it and which ensure equality of opportunity and reasonable social safety nets.
- A **policy** environment favoring high levels of investment, job creation, competition, mobility of resources, and efficient urbanization. This environment should include a reasonable degree of macroeconomic stability.
- **Equality of opportunity** and reasonable amounts of equity and social protection, particularly in economic transitions, in terms of income and access to basic services and training.

In addition, the Commission advises that the cost of pollution should be considered from the outset, even if the toughest environmental standards of the rich countries are not adopted. The report also calls on developing countries to wean themselves off fuel subsidies, which impose a mounting fiscal burden as energy prices rise, diverting money that would be better spent on neglected public infrastructure.

While these elements are important for sustained high growth, the Report recognizes that it "does not provide a formula for policy makers to apply—no generic formula exists. Each country has specific characteristics and historical experiences that must be reflected in its growth strategy. But the report does offer a framework that should help policy makers create a growth strategy of their own. It will not give them a full set of answers, but it should at least help them ask the right questions."

The Commission's report was the product of two years of inquiry and debate by 19 experienced policy makers, academics, and business people, mostly from developing countries, and two Nobel Laureates, including Michael Spence, who chaired the commission.

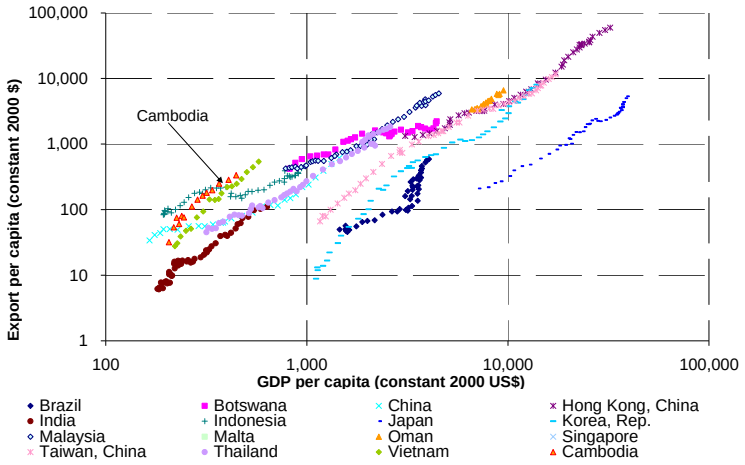
Source: Growth Commission Report (2008).

A. History and Geography

2.2. **The first dimension of Cambodia's growth to date has been its favorable geography and its recovery from conflict and instability**. Cambodia sits in a dynamic region, with access to international markets and dynamic neighbors such as Vietnam and Thailand. Cambodia managed its historical transitions to end the three-decade long conflict and shift from a command-and-control economy to a market-oriented economy (Hughes, 2003). At the same time, Cambodia seized the opportunity presented by a rapid growth in global demand and by its location as a coastal country in a dynamic region.

2.3. **First, Cambodia has generated a growth peace dividend by establishing a track record of political and macroeconomic stability**. This stability was achieved in the late 1990s and maintained in the early 2000s, at a historical period of rapid world growth, in particular in East Asia. Political stability has been a foundation of sustained growth. Another implication of history was the return of part of Cambodia's Diaspora, bringing funds, knowhow, and ideas. Cambodia also achieved significant inflows of external assistance following the 1991 Paris Agreement.

Figure 2.1: Cambodia has higher exports per capita than other SRG countries at its level of development



Source: World Bank, WDI.

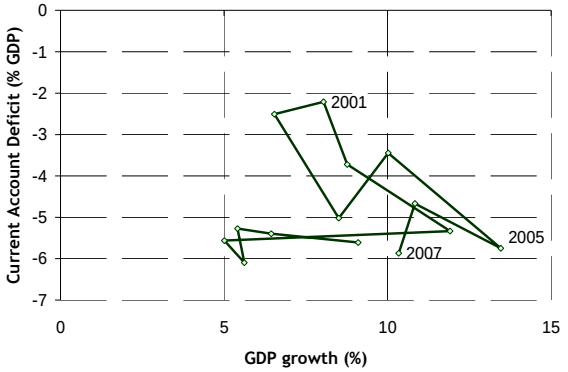
2.4. **Second, Cambodia seized this historical moment through opportunistic trade and investment policies**. First, with its nascent *garment* sector growing very rapidly and concerns about such growth in the US, it agreed with the US extended quotas in exchange for strict enforcement of labor standards (Box 2.2). Second, this approach was complemented by a favorable *investment regime* (equal treatment for domestic and foreign investors; tax holidays for a large range of "qualified investment projects"). Third, the *trade regime* is also very open, with the applied tariff rate at 14.2 percent and import duties at only 2.7 percent of imports. Cambodia joined ASEAN in 1999 and the WTO in 2004. Although trade with regional partners is below potential (Section 4.C), these international commitments were useful to create confidence among investors. Fourth, Cambodia managed well the policy reforms around 1990 to liberalize its economy (Box 1.1) and began to establish a track record of legal reforms. All of this enabled it to harness the historically high global demand and take advantage of its low cost structure. Cambodia's level of exports per capita is higher than other SRG countries at Cambodia's level of development (Figure 2.1), although this is owed partly to exports of tourism services. Cambodia also achieved a high level of foreign investment, dominated by investors from Asia.

2.5. **Third, growth also benefited from Cambodia's demographic transition** (Chapter 3). With fertility rates decreasing, demographic growth slowed down and the dependency ratio (ratio of the young and elderly to those working) started to decline. This contributed around 2 points of GDP per capita growth. This is unusual in the sense that most other SRG countries saw this transition happen only after they had reached US$1,000 in GDP per capita.

2.6. **This first dimension highlights the key role of openness and macroeconomic stability** (also two of the key ingredients highlighted by the Growth Commission, Box 2.1). For today's growth agenda, it underscores the importance of managing recent inflation pressures and financial sector risks (Chapter 7). It also emphasizes the role of logistics and trade facilitation in allowing a small open economy to seize regional and global opportunities.

2.7. **On the other hand, this dimension stresses the vulnerability of Cambodia's achievements**. In a global environment characterized by considerable uncertainties, this narrative reveals that growth is very fragile and dependent on the global environment. Growth outcomes have been largely dependent on the availability of foreign savings (see the negative correlation between growth and the current account deficit, Figure 2.2). This highlights the importance of diversification for sustaining growth and reducing these vulnerabilities. Even rapid achievements in the area of regulations and institutions are not always anchored in a long tradition of business in Cambodia, but rather often imported from other countries: this explains why several of these achievements are only *de jure*, not *de facto*. Finally, this dimension highlights that Cambodia went through a unique window of opportunity with the establishment of peace coinciding with a favorable external environment.

Figure 2.2: Growth tends to accelerate when more foreign savings are available



Source: World Bank, WDI. Data for 1994-2007.

B. Use of Natural Assets and Domestic Savings

2.8. **The second dimension is that Cambodia's rapid growth has been driven by the exploitation of its natural assets**.[8] The forestry sector, which generated significant income in the 1990s (and, by many accounts, fed into subsequent waves of investment in real estate), is a clear example. Concerns have also been raised about the depletion of the fish stock. Together the forestry and fishery sectors accounted for 19 percent of GDP growth in 1993-98, but only 2 percent in 2003-08. Forest products accounted for 43 percent of exports in 1994 and less than 1 percent in 2006. In fact, the Government, out of concerns for these issues, banned logging in 2000, reformed large commercial fishing lots in 2002, and has been promoting community approaches to forestry and fishery management since then. The historical site of Angkor has also driven a very rapid growth in tourism (with the number of tourists increasing from 200,000 in the early 1990s to 2 million now), amid concerns about its sustainability.

2.9. **Despite this rapid use of natural assets, savings have been low** (Figure 2.3). There could possibly be some dis-savings, with a rapid depreciation of existing assets.[9] The low level of savings was also evident in the public sector, where public savings have been historically low (Chapter 8), but this is offset by domestic assistance (from private donors) and external assistance. The situation has changed somewhat since 2003 in the public sector. This low level of savings would be consistent with the short time horizon frequently noted in Cambodia (in part

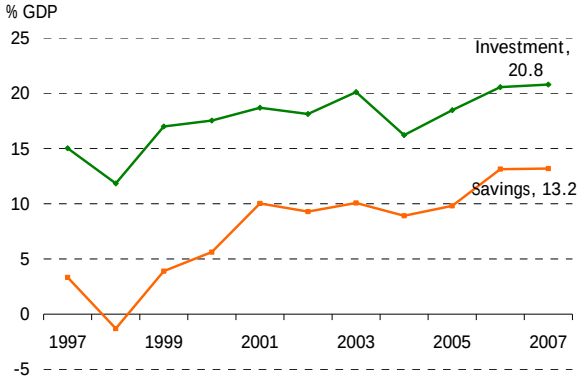
[8] See for instance Sloth, Sreng, and Bottra (2005).

[9] It might be useful to undertake some analysis of a broader definition of savings, including natural assets, to guide policy-making, especially if mineral resources are present in Cambodia. Data on forestry (cover and quality) are scant and controversial. Data on fish stocks are largely inexistent. Data on underground resources are undisclosed or inexistent.

the result of its level of development, limited financial sector, and post-conflict situation), although this might change as the proportion of working-age Cambodian increases (this age group has a higher propensity to save).

2.10. **The unsustainable use of assets is compounded by a questionable allocation of investment**. There are high returns on some classes of assets, with capital inflows in 2007-08 driving some of the increases in asset prices. Forestry generated significant returns in the 1990s. Land speculation and a real estate boom have created significant returns: prices in Cambodia are at levels suggesting that investors plan to recoup their investment not only from using or renting their asset, but also through capital gains.[10] As a result of these high returns, banks are looking at rates of returns well above 40 percent, which the manufacturing sector is unlikely to generate. The weak quality of investment is also shown by poor utilization rate (including in garments and tourism) and, in some sectors, low mark-ups (low profits over wages), possibly signaling a low cost of financing.

Figure 2.3: Investment and savings have been increasing, but remain low



Source: NIS, national accounts

2.11. **This dimension is consistent with the recent increase in inequality**. As discussed in Chapter 3, inequality rose sharply in 2004-07 at a time of rapid growth. Inequality in assets (land in particular) is large (World Bank, 2007). This contrasts with the experience of SRG countries, many of which have avoided sharp increases in inequality.

Table 2.1: Savings and Investment in Sustained Rapid Growth Countries

	Timing		Gross Capital Formation (% GDP)		Gross Savings (% GDP)	
	First ten years	Next ten years	First ten years	Next ten years	First ten years	Next ten years
Botswana	1960-70	1970-80	19.9	42.6	(2.7)	21.6
Brazil	1950-60	1960-70	n/a	19.7	n/a	19.9
Cambodia	**1998-2007**	**n/a**	**18.5**	**n/a**	**8.6**	**n/a**
China	1961-71	1971-81	21.1	31.4	29.1	31.3
Hong Kong	1960-70	1970-80	25.6	26.1	24.6	31.1
India	1988-98	1998-2007	23.4	27.7	22.4	26.0
Indonesia	1966-76	1976-86	16.6	26.4	16.1	30.3
Japan	1950-60	1960-70	n/a	35.6	n/a	36.2
Korea	1960-70	1970-80	19.5	28.6	9.2	22.3
Malaysia	1967-77	1977-87	21.0	27.2	24.9	29.9
Malta	1963-73	1973-83	27.7	26.2	6.4	13.0
Oman	1960-70	1970-80	16.7	28.0	62.6	50.2
Singapore	1967-77	1977-87	36.2	43.2	24.2	39.8
Taiwan	1965-75	1975-85	26.5	27.3	26.1	31.8
Thailand	1960-70	1970-80	21.0	26.1	18.9	22.3
Vietnam	1988-98	1998-2007	21.1	32.5	12.5	27.8
Average fast growing			*22.8*	*30.3*	*21.1*	*29.0*

Source: World Bank, WDI, Staff estimates.

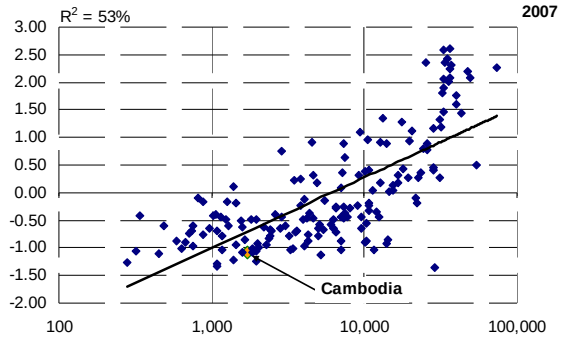
2.12. **This second dimension is also highly unsustainable**. There is first the obvious risk of exhausting assets. The distortions introduced by a focus on natural resources are also a constraint on diversification (e.g. the financial sector and entrepreneurship are directed to further use of natural resources, as opposed to investment in manufacturing or innovation). The experience in SRG countries also highlights the importance of increasing savings and investment to 25 percent of GDP or more (Table 2.1). Most of these countries also show a marked increase in these two rates between the first and second decades of sustained rapid growth. It should finally be noted that this dimension has important implications for the management of extractive industries in a way that supports sustainable growth (Chapter 5).

[10] The ratio of house prices (per square meter) to income (GDP per capita) is above 4 in Cambodia, against 2.6 in Vietnam and less than 1 in almost all other Asian countries (even though the yield on the rental of properties is not particularly high).

C. Sector-Specific Governance

2.13. **Cambodia has achieved rapid growth even while firms complain about poor governance**. In surveys such as the Investment Climate Assessment (ICA), firms report high levels of corruption, and register complaints about the quality of the public services that usually underpin growth. Cambodia rates low on most international governance scores, even compared to countries at the same level of development (Figure 2.4).[11] [12] A more specific question for understanding this growth paradox is this: "*Why have successful sectors been able to thrive even with such apparently poor governance conditions?*" Beyond the role of governance arrangements that ensured political and macroeconomic stability (Section A), there must be arrangements that are specific to the sectors that are growing.

Figure 2.4: The perception of corruption is high, even compared to countries at the same level of development



Source: WDI for GDP per capita (2005 PPP US$ per capita); World Bank Institute for Control of Corruption (index on a -2.5+2.5 range, higher means less corruption).

2.14. **The garment industry, the leading growth sector, offers useful lessons** (Box 2.2). It is an example of hand-in-hand governance, where the Government (in particular the MOC) and the firms (coordinated by the GMAC) worked together to create an environment that generated growth. The strategic vision developed by the RGC, with the US Government, helped align expectations for investors. The link to export quotas and the supervision by the International Labor Organization (ILO) helped establish the credibility of these higher expectations. The rents for Government from managing quotas (which ended in 2005 as the MFA was dismantled) increased incentives. Subsequently, the existence of a strong and capable business association, GMAC, helped sustain support to the industry and create a sense of security given GMAC's capacity to get things done with the RGC. This, for instance, is evidenced by the reduction in trade costs in this sector, at a time when these costs were still increasing for other industries (Figure 2.5).

2.15. **The roles of international drivers, foreign investors, domestic collective action mechanisms, and high stakes seem to have been critical in these achievements**. External pressure was instrumental in creating the opportunity for growth in the sector. The Government's response was probably driven by the high stakes, with a very labor-intensive sector (now employing 300,000 workers) and significant rents from the quotas. Coordination within Government (which is often challenging given its fragmented nature) was ensured through the dialog being monopolized by the MOC. Foreign investors helped sustain the Government's focus on the sector. The business association created the vehicle to solve collective action problems and maintain the necessary close relationship with the Government.

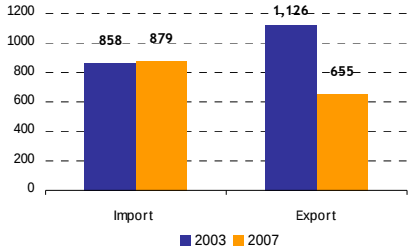
[11] In the most recent versions, Cambodia ranks in the 20-30th lowest percentiles for four dimensions of the World Bank Institute governance indicators, and 14th lowest for rule of law and 8th for control of corruption; it ranks 166th out of 181 countries in the Transparency International Corruption Perception Index; it ranks 135th out of 181 in the World Bank's Doing Business indicators and 110th out of 131 in the World Competitiveness Indicators.

[12] There is ample evidence that governance and development are tightly linked (although the link between growth – as opposed to the *level* of development – and governance continues to be debated).

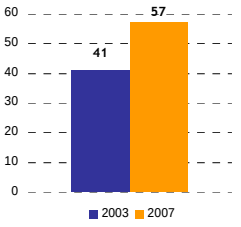
Its role was facilitated by the clustering of many factories, the homogeneity of the sector (most factories facing similar issues), and the strong pressure from global buyers (Box 2.1).

Figure 2.5: The garments industry was able to make trade cheaper and faster, but the rice industry was not

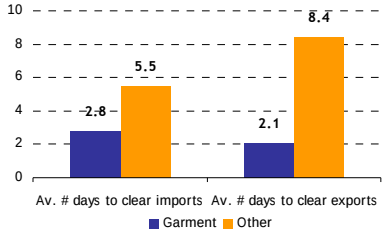
a/ Cost for a 40' container of garments ($/container)



b/ Cost to export a 20' container of rice ($/ton)



c/ Time to clear at border (days)

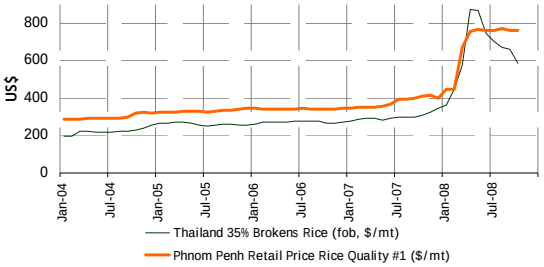


Source: JDI, 2007b and World Bank (2008d).

2.16. **Another example of collective action arrangement is the G-PSF**. This Forum, established in 1999, has been instrumental in giving the private sector a sense of security regarding Government responsiveness. The Forum, which meets twice a year under the chairmanship of the Prime Minister and has eight working groups meeting regularly, provides a vehicle for the private sector to raise its concerns and for the RGC to be held accountable for its decisions by the private sector (it has also been used for consultation on legislation). This – and more broadly the capacity for investors to approach the Government – is viewed by investors as an important device for creating a sense of security for their investments.

2.17. **By contrast, many other sectors lack these arrangements**. In livestock, returns are potentially high and there was significant interest among otherwise successful Cambodian investors and foreign investors. Even so, the sector remains stunted, incapable in particular of dealing with intractable issues of sanitary standards. Rice, as well, has been limited to small amounts of milled exports, despite the significant quantities of paddy exports, as evidenced by huge surplus production in recent years. The recent dramatic increase in rice prices might provide the incentive to develop a hand-in-hand relationship between a champion in Government and a domestic industry, possibly – based on lessons from the garment sector – with a role for third-party monitoring and foreign investors. But the rice sector seems to lack the external discipline of the garment sector, as shown by recent developments in price (Figure 2.6). In part, this reflects coordination issues among small rice producers and traders, giving more market power to traders downstream in the value chain.

Figure 2.6: The price of rice in Phnom Penh is driven by international prices, but only when they rise



Data in riels per kg. Note: The import parity price is calculated by adding to the cost of rice in Thailand the cost of transport and the duties to import rice to Cambodia. Source: NIS, Staff estimates.

2.18. **This approach helps show that poor governance has a differentiated impact across sectors**. Poor governance acts a barrier to entry: it takes an active hand-in-hand relationship to break through this barrier and provide comfort to investors. Hence returns must be high to motivate this relationship. Alternatively, the nature of a sector may make it less vulnerable to poor governance: for instance, in tourism, small-scale operations have worked well (even though

possibly not as well as if governance had been better) because they are often too small to be exposed to bad governance and the direct contact with tourists implies significant competitive pressures. Yet, in the same sector, very few more complex operations have worked (large operations, such as the management of large hotels or the site of Angkor Wat, exist but do not require complex value chains). More generally, most productive activities in Cambodia are focused on value chains with very few steps, a constraint on diversification further reviewed in Chapter 6.

Box 2.2: A Tale of Three Sectors

Garments, rice, and livestock are three sectors that have considerable promise in Cambodia. Yet, one is vibrant (garments); one might be emerging (rice); and one is stunted (livestock). Comparing these three sectors highlights the importance of governance for growth and illustrates how governance can improve and support growth in some sectors but not others. This helps explain the paradox of double-digit growth with relatively poor governance.

Evidence suggests that two factors may help explain garment's success: (a) the presence of a private sector organization - the GMAC - which produced collective action to lobby authorities for negotiated industry-wide rent-seeking rates and (b) international drivers/incentives such as an overwhelmingly foreign presence in garments (more than 95 percent of garment factories are foreign owned) along with quota exports to the United States linked with minimum labor standards that produced enough rents for all parties involved. The GMAC - MOC relationship is exceptional. Establishing a garment sector in Cambodia proved a win-win proposition both for foreign investors and local stakeholders.

By contrast, the rice and livestock sectors compare unfavorably to garments. No credible private sector organization for collective action exists in either sector, although rice has competing rice milling associations whose membership is diffuse both geographically and politically. Livestock does not enjoy even that modicum of organization, in part because of a lack of social capital, which was destroyed during the Khmer Rouge period. Indeed, even the word cooperative/collective is frowned upon for its socialist roots. Moreover, in both rice and livestock, foreign involvement is minimal compared to garments. Livestock had foreign involvement in the export of cattle through a joint venture with a Malaysian partner, but that partnership ended in 2005, allegedly because of onerous unofficial payments. Rice may have an opening in exports to the EU through its zero tariff for Least Developed Countries initiative "Everything But Arms". However, this will require stringent Sanitary and Phytosanitary Standards to be met, and the overall demand for Cambodian rice is unlikely to be significant given Thailand and Vietnam's dominance in the sector.

In summary, what is clearly different among garments, rice, and livestock is the involvement of international players, the creation of new opportunities (as opposed to the division or displacement of pre-existing rents), and the generation of social capital to fight long ingrained patron-client networks.

"Good enough governance" itself is not a permanent condition; it can go either way, and the key to policy is tipping it in the right direction. Potential factors for promoting growth include tackling the constraints observed in each of the sectors that reach far beyond those sectors alone. Of course, there are too many constraints for each to be binding per se. Garments, rice, and livestock all require transportation and electricity and face similar unofficial payments. However, garments clearly has achieved good enough governance through collective action and negotiation, while livestock has hardly developed beyond smuggling activities. Rice could enjoy good enough governance in the future, but it is unclear whether the two entities (Green Trade and the National Cambodian Rice Millers Association) now allowed to export in excess of 100 tons without permits will reinvest rents into capital that will create the needed market makers in the industry or merely engage in rent-seeking.

Source: based on research by Ear (forthcoming).

2.19. **This approach is not without risk**. There is first the risk of the Government or the private sector seeking to extract too much out of this hand-in-hand relationship, squeezing the golden goose. In the case of garments, this could mean the Government imposing too high informal taxes on the exports, or the private sector receiving unreasonably high tax exemptions. There is also the risk of this relationship disserving public interests – as opposed to generating growth (in the vein of what is known as crony capitalism). Non-competitive allocation of public contracts, abuse of land rights, or restriction of competition would fall in that category.

2.20. **This analysis of the rapid growth – poor governance paradox points towards two directions for the future**. One option is to continue this approach, with sectors being picked

depending on the incentives for elements of government and entrepreneurs to develop this kind of hand-in-hand relationship. It is likely that quite a few sectors could develop that way and external pressure would help break some of the barriers (such as on standards). There is certainly still potential for growth through that mechanism. There would be various ways to support these arrangements (e.g. supporting business associations in their coordination / advocacy / knowledge-sharing role), while recognizing the inherent decentralized nature of these relationships. Yet, such an approach is inherently limited and raises questions at least about diversification, if not about growth sustainability. Hence, over time, a second option, based on broader improvements in governance, will have to be developed. This will require a forum to identify key governance constraints, develop solutions, and hold the government accountable for enforcing them. One option is to use a G-PSF strengthened with capacity for research or with improved linkages with the SNEC in order to "cause private interests to take an interest in the accomplishment of socially desirable objectives".[13]

D. Summing Up

2.21. Although they have mainly to do with how to *ignite* – as opposed to sustain – growth, there are important lessons from these three dimensions:

- Each dimension suggests, for distinct reasons, a sense of the un-sustainability of growth. This could be because past growth was a one-off event, based on historical opportunities, or based on running down pre-existing assets. Alternatively, it could be because the nature of the growth, through sector-specific arrangements, makes it difficult to scale up.
- In particular, especially given the experience of other SRG countries, it seems that Cambodia will not be able to sustain growth without higher rates of investment (domestic in particular).
- On the other hand, each dimension highlights some elements of a sustained growth strategy that are in place. For instance, a few connections to global markets have been made and the importance of macroeconomic stability is now adequately factored in by policymakers. Stakeholders have established a track record of problem-solving, which enabled the growth of sectors like garments and tourism.
- No single dimension can by itself explain Cambodia's growth experience. The view that growth has been entirely the result of laissez-faire and the liberalization of the 1990s is not credible: otherwise, growth would have been much more broad-based. The view that governance constraints across the board prevented growth is at odds with the growth performance. Yet, the overall weak governance – beyond its impact on service delivery and citizens' daily life – can in part explain the lack of diversification, hence the fragility of growth.

[13] Cf. the notion of "focal monopoly of governance" (Meisel and Ould Aoudia, 2008). Such focal monopoly helps the state to produce the confidence necessary for investment, coordinate actions of various stakeholders, and align individuals' private returns with social returns: this reduces transaction costs and provides security for stakeholders' expectations. Meisel and Ould Aoudia illustrates the concept with the case of France in the 30 post-war boom years and the French Planning Office; Taiwan from 1949 on with the Industrial Development Commission and numerous associations set up under the Kuomintang; Singapore under Lee Kuan Yew from 1959 on with the Economic Development Board and the National Wage Council; and South Korea under Park Chong Hee from 1961 on with the Economic Planning Board. These offices fostered "dialogue and coordination among public and private elites in which confidence is inextricably created on a basis that is simultaneously interpersonal, process-based, and institutionalized".

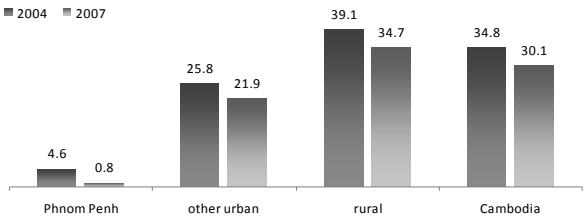
3. Translating Growth into Jobs and Poverty Reduction

3.1. **Growth is a means to an end:** it enables a society to achieve key national development outcomes in terms of poverty reduction, improved livelihoods, higher education levels, and better health. Sustained growth profoundly transforms countries. This chapter examines the connections between economic growth and poverty reduction through the lenses of demographic change and employment. Understanding the dynamic of the labor market, the types of jobs that Cambodian choose, and the extent to which growth has been shared is critical for assessing the economy's potential and the constraints it faces (Part 2). While this chapter focuses on the experience so far, Chapter 10 will review the challenges of managing the transformation of growth into positive social outcomes. Section A summarizes trends and patterns in living standards, the incidence of poverty, and inequality. Section B describes Cambodia's ongoing demographic transition and the implications of this for the dependency ratio. After a broad outline of trends in employment over the same period (Section C), Section D decomposes growth in per capita GDP into demographic change, productivity gains and structural transformation. Section E summarizes the chapter.

A. Poverty Reduction in the Market Economy

3.2. **Poverty has been steadily reduced**. Until 2004, it was widely believed that economic growth in Cambodia had occurred with minimal effect upon poverty levels. Analysis of the 2004 Cambodia Socio-Economic Survey (CSES) disproved this, finding that living standards (as measured by real per capita consumption) had risen in both urban and rural areas. Comparisons between the 1993-94 and 2004 surveys found that the poverty headcount had declined by 10-15 percentage points over the first decade following the Paris Peace Settlement, falling from 45-50 percent to 35 percent (World Bank 2006). This amount to a rate of poverty reduction of between 1 and 1.5 percentage points per annum.

Figure 3.1: Poverty incidence has been decreasing



Note: poverty incidence as a % of population measured using the national poverty line. Source: CSES 2004 and 2007, analyzed by Knowles 2008.

3.3. **With double-digit growth in the past few years, poverty reduction has accelerated**. The most recent available statistics, from the 2007 CSES, suggest that over the three years from 2004 to 2007 poverty fell further to 30.1 percent (at a rate of 1.6 percentage points per annum, Figure 3.1). The vast majority (over 90 percent) of the poor are found in rural areas.

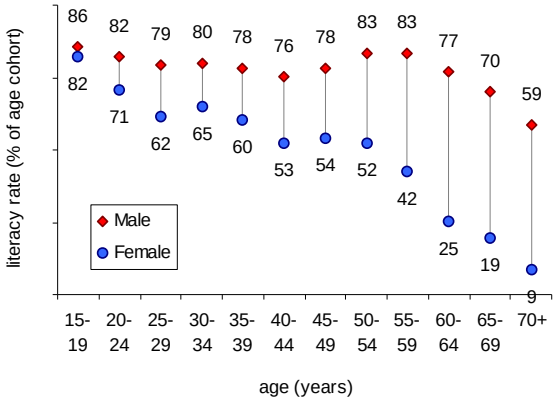
3.4. **The conclusion that poverty has declined is supported by other, non-consumption, indicators of wellbeing**. The food share of total household expenditure has fallen significantly

across all consumption quintiles, while the quality of housing and ownership of key assets have risen. The poverty gap – the average distance by which the consumption of poor households falls below the consumption poverty line – has also declined throughout the country, indicating that those who remained below the line experienced less severe poverty in 2007 than in 1993-94 or 2004. Broadly speaking, women as well as men have benefited from economic expansion and rising average consumption, as significant numbers of young rural women have found employment in the new garment industry.

3.5. **In terms of human development, most health indicators have shown marked improvement**. Comparison of the Cambodia Demographic and Health Surveys (CDHS) of 2000 and 2005 suggests that child survival rates improved dramatically (infant and under-five mortality rates both fell by about a third), reflecting gains in antenatal care, immunization coverage and child nutrition. Access to and use of public health services increased markedly, and the average cost of treatment fell by a quarter, while the frequency of treatments rose.[14] One outcome which has not shown improvement is the maternal mortality ratio, which remained (at 472 per 100,000 live births) in statistical terms unchanged since 2000.

3.6. **Education, too, has shown remarkable progress**. As with health, status is still extremely low, but showing rapid improvement. Between 1997 and 2007, net enrollment increased by 27 percentage points for primary level, 16 points for lower secondary level, and 11 for upper secondary level (Figure 4.3). Years of schooling and literacy rates have risen fastest amongst groups who were previously disadvantaged in education, resulting in closing gaps in outcomes between men and women, urban and rural populations, and rich and poor. Key issues in the education sector now are to retain children in school and improve the quality of education (Section 4.C). Over-age enrollment is a significant structural problem and school dropout accelerates rapidly after primary level: only half of enrolled children finish grade 5, while only a third finish grade 9.

Figure 3.2: Literacy rates are improving and the gender gap is closing



Source: CSES 2004.

3.7. **These trends suggest that the relationship between growth and poverty reduction has been positive and in line with international averages, but not exceptional, reflecting increasing inequalities**. The benefits of the very high rates of growth have accrued primarily to the upper ends of the income distribution, with more modest gains in the living standards of the poor (Table 3.1). While per capita consumption has risen and poverty has fallen for all groups and throughout the country, they have improved faster for the richest quintile and for people in urban centers than for the poorest quintile and those in rural areas. Combined with indicators that suggest growing inequalities in access to opportunities (e.g. higher inequality in land ownership), these trends suggest the need for continued monitoring of inequality, and for active policies to improve access for the poor to productive resources, capital and affordable services,

[14] The CDHS 2005 also found HIV incidence to be considerably lower than routine sentinel survey estimates had suggested: a reconciled estimate places HIV incidence at just under 1 percent. This reflects a remarkably effective response (by Government, NGOs and donors) to the emergence of HIV in Cambodia in the early 1990s.

to ensure that they can benefit from – and contribute to – national economic growth (World Bank 2007).

Table 3.1: Growth, Inequality, and Poverty (2004-07)

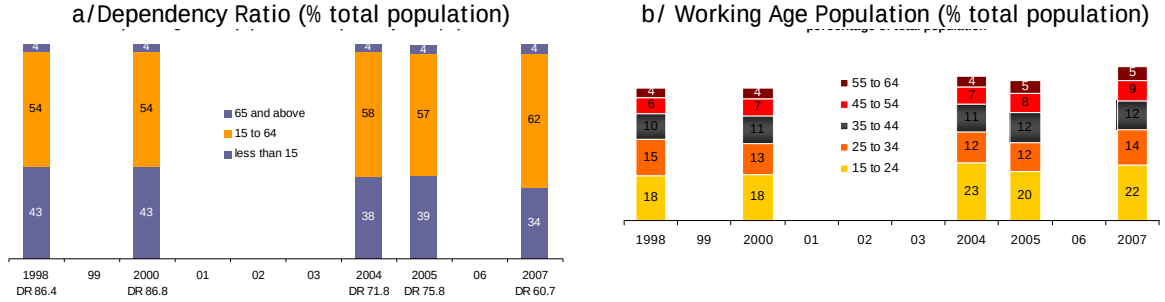
	mean p.c. consumption (riels per day, constant 2004 Phnom Penh prices)			poverty headcount (% below national poverty line)			Gini coefficient (0 = perfect equality, 1 = perfect inequality)		
	2004	2007	change	2004	2007	change	2004	2007	change
rural	3,081	3,649	*18%*	39.1	34.7	-4.4	0.33	0.36	0.03
other urban	4,929	6,275	27%	25.8	21.9	-3.9	0.43	0.47	0.04
Phnom Penh	8,067	10,952	36%	4.6	0.8	-3.8	0.37	0.34	-0.03
Cambodia	3,692	4,616	25%	34.8	30.1	-4.6	0.39	0.43	0.04

Source: CSES 2004 and 2007, analyzed by Jim Knowles 2008.

B. Cambodia's Demographic Transition

3.8. **Cambodia's demography is driven by its history**. During the 1970s, civil war followed by revolutionary violence and economic mismanagement under the Khmer Rouge resulted in profound and traumatic demographic transformation. The best estimates suggest that about 250,000 people died during the civil war (1970-75) and a further 2 million during the Democratic Kampuchea period (April 1975-January 1979).[15] With the fall of the Khmer Rouge and the return to a semblance of normality, Cambodia experienced the first of its two post-war baby booms, with a spike in the number of births over the years 1980-81. The second such baby boom occurred at the start of the 1990s, as the country moved towards a peace settlement, free market economics and multiparty politics. These periods of very high fertility have had a number of consequences.

Figure 3.3: Cambodia has a young population and a decreasing dependency ratio



Source: 1998 Census, 2000 and 2005 CDHS, 2004 and 2007 CSES.

3.9. **These baby booms have given rise to a generation now working its way through Cambodia's population structure in the form of a "youth bulge"**. Combined with a quite rapid drop in fertility rates observed since 2000, the population structure of Cambodia has been characterized since the late 1990s by a steady decline in the dependency ratio, as a very large number of Cambodians have entered the economically active age range (15 to 64 years), relative to those in the dependent age groups (taken here to be those under 15, of whom there are still many, and those over 65, of whom there are few). Of these economically active adults, a third are between 15 and 24 years. This bulge is sufficiently large that it is resulting in quite large

[15] For a review of the wildly varying estimates, see Sharp 2008. Of the c. 2 million estimated excess fatalities during the DK period, it is thought that approximately a third were due to execution or torture and the remainder due to a fatal combination of overwork, starvation and lack of medical care under DK collectivization policies.

changes in dependency ratios, even over a period as short as the three years between the 2004 and 2007 surveys (Figure 3.3).

C. Employment Trends

3.10. **Labor force participation in Cambodia, as in most low income countries, is high (87 percent in 2007)**. In developing countries, almost all of the working age population are employed, in the sense of having at least one job (rather than being left without any earnings, as unemployment benefit schemes do not exist). This results in extremely low numbers of people who report in surveys that they do not have a job. In Cambodia, "the unemployed" are officially defined as those in the labor force who did not work but were available for work and were seeking work during the past reference week. Using this definition, the percentage of the total labor force unemployed (i.e. the unemployment rate) was estimated at 3.5 percent in 2007.

3.11. **There is a pattern of employment shift from agriculture to industrial and services sectors over the past decade** (Figure 1.1). Labor migrated from rural areas where job opportunities are insufficient to cities where labor-intensive manufacturing and tourism-related services have been growing rapidly. The share of employment in agriculture gradually declined from 75 percent in 1993-94 to 70 percent in 2001 and 58 percent in 2007. The share of industry employment, on the other hand, went up from 5 percent in 1993-94 to 15 percent in 2007, while the share of service employment gradually rose during the same period.

3.12. **Employment in Cambodia is characterized by a large proportion of the labor force that works in informal economic activities (either self-employed or work for non-registered enterprises)**. Formal sector employment – despite strong growth – remains small: only 25 percents of the workforce are paid employees, while the remainders are split roughly equally between self-employment and unpaid family labor. There has not yet been an official consensus on how many workers are engaged in informal economic activities, but the Cambodian Development Resource Institute (CDRI) estimated 95 percent were employed by the informal sector in 2000-2001, while the Economic Institute of Cambodia (EIC) estimated 85 percent (ILO, 2006).

3.13. **However, the unemployment rate does not adequately reflect level of labor absorption by economic growth in developing countries.** Workers who usually do not earn much from one job desire to have additional jobs. The majority of those in the working age population have two jobs throughout the year. Typically, the rural labor force primarily engage in crop farming activities and secondarily – during the off-farm season – in collecting forest and fish resources, working as wage laborers or running small businesses and trade activities. The urban labor force, on the other hand, is primarily employed as paid employees in public or private sectors, with secondary jobs as self-employed workers.[16]

3.14. **The quality of jobs created in Cambodia is still relatively low**. This is not surprising, given the level of educational attainment and the structure of employment in the country at present. Agriculture requires the least formal education, and pays the lowest hourly wages; amongst waged employees, levels of education are higher in the public sector, but wages are higher in the private sector (Table 3.2). The impact of education on earnings can be disaggregated by sex and level of education: annualized returns to primary education (i.e. the effect that an extra year of primary schooling makes to average earnings) appear greatest for

[16] "Underemployed" is officially defined as employed persons who expressed the desire to have additional hours in their present job or in an additional job or to have a new job longer working hours. The latest available figure for underemployment rate is for 2001 when the rate was estimated at 38 percent. The rate is likely to still be high given that there are substantial number of new jobs seekers and many workers have primary and secondary jobs.

those over 30; for university education, annualized returns appear highest for young males (22 to 30 years) and older females (those over 30), suggesting a relative shortage in the labor market of young better-educated male graduates.

3.15. **While wages have increased across the board over the last three years, the increase has been uneven**. The rise in earnings has been greatest (90 percent) for households in the top 10 percent of the wealth distribution, but only 40 percent for those in the bottom 10 percent. This helps explain the rapid rise in inequality in living standards observed between 2004 and 2007 (see also Chapter 10). Within any given wealth band, the returns to education appear relatively limited for the population as a whole, though they do appear significant – and increasingly important – for the wealthiest group (Figure 3.4).

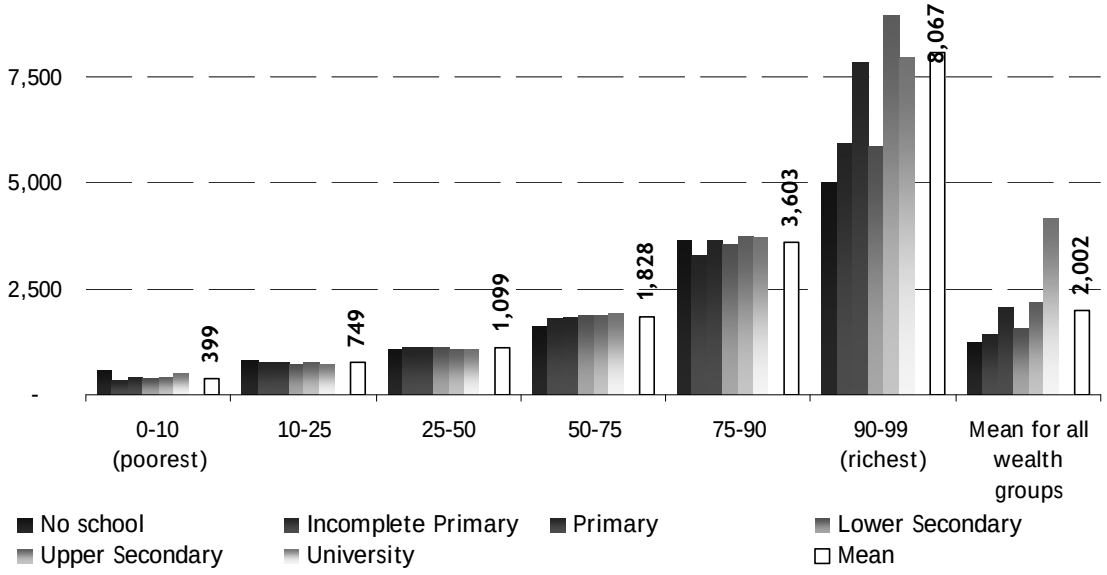
Table 3.2: Educational Attainment and Earnings (Ages 15-65, by Sector, 2007)

	education (years)	wages (riels / hour)
For wages - Public	9.5	1,298
For wages - Private	6.8	2,035
Agriculture	3.3	1,051
Non-agriculture	6.7	1,696
Manufacturing	5.6	1,380
Public administration and defense	9.0	1,077

Source: CSES 2007, see background paper on returns to education.

3.16. **The segmentation of the labor market does not seem to be driven by labor market institutions**. This segmentation is apparent from the large informal sector, the uneven quality of jobs, and the disparate rates of return. However, labor market policies do not appear to drive this (Box 3.1). Firms' surveys (Figure 6.4) and the Doing Business indicators confirm that labor market policies are not the primary driver of this segmentation, which has more to do with other regulatory and governance constraints (Chapter 6).

Figure 3.4: Education makes little difference to earnings, except for the richest group



Source: CSES, analyzed by Lall 2008.

Box 3.1: Labor Market Policies and Institutions

A framework for labor market policies was established in the 1993 Constitution and later elaborated by the 1997 Cambodian Labor Law, which provides a legal framework for the protection of employees and employers. However, the Labor Law has yet to be fully and effectively enforced for all businesses. Garment factories and larger registered companies - despite some implementation shortfalls - abide by provisions in the code, with the garment industry setting the monthly minimum wage at US$50. There is a high level of freedom to form unions, the most numerous and active of which are trade unions in the garment industry (such that employers often complain that there are too many unions) and to a lesser extent in the hotel industry and other registered businesses.

The Cambodian government has ratified all eight ILO core International Labor Conventions through which labor protection programs, in particular against child labor, have been mainstreamed and advocated. These include the Conventions on Forced Labor and Abolition of Forced Labor; Freedom of Association and Protection of the Right to Organize; the Right to Organize and Collective Bargaining; Equal Remuneration; Discrimination (Employment and Occupation); Minimum Age; and the Abolition of the Worst Forms of Child Labor.

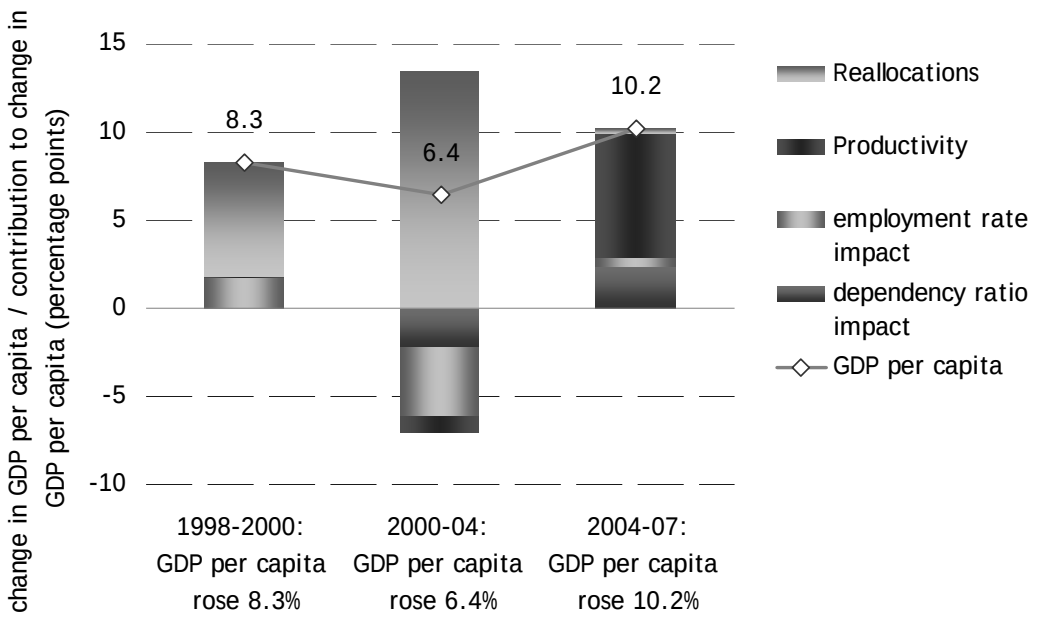
D. Productivity, Employment, and Poverty Reduction

3.17. **This section decomposes growth in per capita GDP** into demographic change (falling dependency ratio), productivity gains (increasing productivity per worker within each sector), and structural shift (the importance of proportional change of employment in different sectors, focusing on the shift out of low-productivity sectors into ones with higher per-worker productivity). With the data available, it is possible to perform this decomposition for three sub-periods within the last decade (1998 to 2000, 2000 to 2004, and 2004 to 2007). With important caveats regarding the coverage and reliability of data, this helps estimate the relative importance of demographic evolution, structural change and productivity in explaining, first, growth and, second, the distribution of that growth and the consequences of that distribution for poverty reduction trends. One key finding is that this balance between these factors has changed over that past 14 years, and is continuing to change (Figure 3.5).

3.18. **Improvement in living standards over the first part of the decade (1998 to 2004) was driven primarily by structural transformation**. Between 1998 and 2000, this reallocation of employment share from low-productivity agriculture to higher productivity industry contributed 6.5 percentage points of the 8.3 percent annual growth rate in GDP per capita; between 2000 and 2004, this continued inter-sectoral shift in employment (with industry and, now, services both gaining share from agriculture) contributed 13.5 percentage points (offset by the negative effects of other factors which brought net growth in per capita GDP down to 6.4 percentage points per annum). Over this period, productivity declined in industry and first rose and then fell in services (Figure 1.2). At the same time, demographics – through a decrease in the dependency ratio, somewhat offset by a slightly higher unemployment rate – contributed 0.8 percentage points per year.

3.19. **In recent years, a significant acceleration in productivity gains has driven the improvements in GDP per capita**. Between 2004 and 2007, productivity gains in the three sectors contributed 6.9 percentage points to the overall 10.2 percent of annual growth. At the same time, reallocations played a minor role. Demographics continued to play a positive role, contributing 2.9 points per annum through the combination of the lower dependency ratio and the higher employment rate.

Figure 3.5: Demographics, structural transformation, and productivity have contributed to growth in different periods



Source: CSES, Census, National Accounts, Staff estimates.

3.20. **This highlights the role of the considerable improvements in productivity observed between 2004 and 2007**. The improvements have been most pronounced in agriculture, where after bad harvests in 2000, values for labor productivity have risen rapidly since 2004. More recently, between 2004 and 2007 per-worker output in services and (more modestly) industry have contributed significantly to growth in per capita GDP. In the case of industry, however, these recent improvements appear only to have restored productivity to around its 1998 level.

3.21. If structural shift was the main source of gains up until 2004, and productivity gains have become important since then, **changing demographic structure has also emerged as a significant factor since 2000**, and has continued to play a very important role. Between 2000 and 2007 the dependency ratio dropped by over a quarter: whereas in 1998 every 100 working age adults had to support 86 dependents, by 2007 the ratio was down to 61:100.

E. Summing Up

3.22. **The foregoing analysis suggests the critical role of demographics and structural transformation in Cambodia's growth performance and, more recently, the role of productivity improvements**. The evolution of the population structure has been a major driver of rising output and living standards (see also, for example, Lundström and Ronnås 2006). This could imply a less sustainable growth model than if growth and poverty reduction had been driven primarily by productivity gains. The reallocation of labor from agriculture to services and, even more, industry, has also driven growth, confirming the key role of this structural transformation.

3.23. **Looking forward, the beneficial role of the demographic transition in terms of a stable, low dependency ratio will continue to be felt for several decades to come**. Demographic projections will not be possible until the detailed analysis of the 2008 census data has been completed in late 2009.[17] At this stage, however, it seems that dependency ratios will

[17] Earlier population projections, while technically strong, did not anticipate the speed with which fertility rates have fallen (see NIS 2005). For this reason, they significantly over-estimated what the population would be in

continue to be broadly favorable, as the large bulge in the 15-30 age range will continue to work its way up through the working-age population. If fertility rates continue to fall, this should keep the proportion of children in check, even as the baby boom generation, now in the young adult age range, themselves start having children (creating a minor "echo" of the original baby boom).

3.24. **However, demographics will not now deliver a new *gain* in productivity of the kind that contributed to rising per capita GDP over the last ten years**. The future is likely to be one of a broad stabilization in the population structure, at least in the crude terms of the ratio between working age and dependent age groups. Since the dramatic expansion of the labor force that occurred as the baby boomers came of age has now finished, there do not seem to be strong prospects of a further stepwise improvement in the dependency ratio of the kind that has helped drive improvements in per capita GDP between 2000 and 2007.

3.25. **This implies that, in the future, growth (rising real per capita GDP) will have to be driven by a combination of structural transformation (a movement of workers out of low-productivity agriculture into higher-productivity industry and services) and sustained productivity improvements (improving value-added per worker within each sector)**. Sustaining productivity improvements in industry and services – which has not been the case for most of the last decade in Cambodia – is important also for keeping productivity in these sectors higher, so that they attract labor from agriculture and lead Cambodia to continue its structural transformation.

2008, forecasting a population of 14.56 million, compared to the value of 13.39 million recorded in the 2008 census. This makes it hard to use these existing forecasts to make detailed predications about the evolution of the working age population and the dependency ratio.

Part 2. Scoping Cambodia's Growth Potential

KEY MESSAGES:

This second part seeks to describe Cambodia's potential sources of growth in order to then analyze the binding constraints on reaching this potential.

Chapter 4 outlines **Cambodia's growth potential**:

- Cambodia continues to have a comparative advantage with its abundant arable land and low-skill labor. This signals a potential for diversification, in particular in agriculture and agro-processing. This also stresses the importance of sustainable management of natural resources. The role of a vibrant urban sector should however not be underestimated.
- Cambodia should have a multi-pronged approach to diversification. Within the leading sectors (garments and tourism), more diversification could be achieved. Several products that are emerging today have a significant export potential and could lead to further diversification. Finally, diversification in markets – in particular to seize the opportunity of Cambodia's location in East Asia – will be as critical as diversification in products, if not more so.

Chapter 5 reviews specifically **the extractive industry sectors**:

- Cambodia has a significant potential in mining, oil and gas. But it will take long to realize – and longer if management of the sectors does not improve. In addition, the current approach generates additional risks, in terms of macroeconomic stability, governance, and the environment.
- A clear policy framework must be put in place, especially for mining. The legal and fiscal regime urgently needs to be clarified. Capacity for managing the sectors must be built. Key principles of transparency and accountability must be implemented. Supporting actions will include the development of infrastructure.

Chapter 6 assesses the **binding constraints on realizing this growth potential**:

- It first finds that many entrepreneurs already have access to finance. However (i) many others – in particular those who want to diversify – do not; and (ii) savings mobilization has to increase drastically to sustain growth in the medium term.
- Much should be done to reduce costs associated with poor infrastructure (electricity in particular) and logistics. Keeping Cambodia attractive for its comparative advantage in labor requires addressing industrial relations issues, continuing to develop basic education, and drastically scaling up vocational training.
- Finally, three binding constraints emerge very strongly: (i) the need to restore macroeconomic stability; (ii) the impact of corruption and poor governance on the cost of doing business; and (iii) the lack of collective action and self-discovery mechanisms.
- In agriculture, growth is constrained by the poor use of fertilizers, weak irrigation systems and rural roads, limited access to credit, and poor research and extension. It is also clear that foreign investment will play a critical role in connecting the Cambodian farmers to global food value chains.

4. Outlining Cambodia's Comparative Advantage

4.1. **Given the odds of sustaining rapid growth (Figure 1) and the risks to recent achievements (Chapter 2), Cambodia has to enlarge its growth potential**. Recognizing that discovering a country's growth potential – what a country is good at – is a learning process best conducted by a multitude of entrepreneurs, this chapter uses three lenses to outline Cambodia's growth potential. Section A gets back to the concept of comparative advantage, assessing Cambodia's endowments in land, human capital, and physical capital. Section B looks at exports, taking the view that what Cambodia already exports and where other countries with similar exports have diversified generates insights about Cambodia's potential for diversification. Section C reviews the potential for a different kind of diversification, through regional integration. Section D sums up the findings.

A. Comparative Advantage

4.2. **Like most developing countries, Cambodia's endowment structure is characterized by a relative abundance of natural resources and unskilled labor and a scarcity of human and physical capital**. Understanding this structure is important for designing a growth strategy that is Comparative Advantage Following (CAF, see Lin, 2008), that is, a growth strategy that aims at upgrading the structure, not at going against it. This is opposed to a Comparative Advantage Defeating (CAD) strategy, which supports unviable firms and often leads to failure.

Land

4.3. **Compared to other SRG countries, Cambodia has a relative abundance of land** (more than 0.25 ha of land per capita).[18] This suggests the potential role of land-intensive production. In addition, Cambodia is a coastal country with an extraordinary biodiversity: 24 percent of its territory is classified as protected areas, against 16 percent in Lao PDR and Thailand, 4 percent in Vietnam, and an average of 13 percent in East Asian countries (World Bank, 2008h).

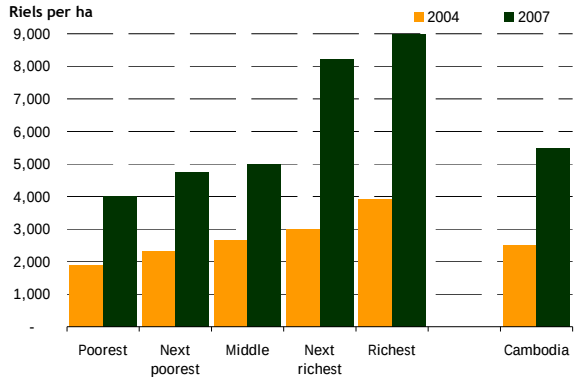
4.4. **In addition there are new opportunities for land**. First landmine clearance over the years is bringing territories back to agriculture. Second, the population (and agriculture) is concentrated in the center of the country (see maps in Annex A): 89 percent of the population lives in the central part of Cambodia, with a density above 200 inhabitants per km^2 and 55 percent of that area used for agriculture, while the remaining 11 percent live at the periphery, with less than 15 inhabitants per km^2 and only 5 percent of the area used for agriculture (Boulakia et al., 2008). In other words, after subtracting from Cambodia's land (18 million ha)

[18] It is noted however that the soil is generally infertile due to centuries of continuous cultivation without adequate replenishment of lost nutrients: 50 percent of the area under rice cultivation has low soil fertility (Nesbitt, 1997). Only 30 percent of cultivated areas is considered to have high potential for yield improvement. Dry season flood recession areas tend to be more fertile than rain-fed lowland areas. The rain-fed lowland ecosystem, the most important system in Cambodia, is affected the most by the decline in soil fertility.

the surface cultivated (3 million ha), protected areas (3.5 million ha), and the Tonle Sap Lake (1.5 million ha), there are 10 million ha that need proper management.

4.5. **However, the price of land has been increasing rapidly** (by 30 percent on average each year over the last three years, Figure 4.1). While relative land abundance might have been declining, the recent sharp increase in land prices seems to go beyond this increasing scarcity, a problem that might distort allocation of resources (Lin, 2008).

Figure 4.1: Land prices are increasing for all



Note: "Median value of land operated or owned". Source: CSES, 2004 and 2007, NIS, Staff.

4.6. **A long standing debate about Cambodia has centered on the most appropriate agrarian structure for the country** (see World Bank, 2008c). Cambodia's land distribution ranks amongst the most unequal in East Asia.[19] Household survey data (CSES) and case studies (World Bank, 2008c) suggest that smallholders are more productive for many crops, confirming the experience in other countries including in East Asia (World Bank, 2007c).

4.7. **There is certainly a role for larger farms, but so far the ELC approach has not lived up to its promises**. Some 50 or 60 ELCs have been granted (mainly for tree crops), but only a small fraction of these are active. Additionally, foreign investors (or countries) have recently invested in large concessions. The ELC process has been described as full of confusion and allocated land often turned out not to be properly identified (often with conflicts with indigenous communities, which have a traditional use of land and forest and, by law, a right to this use). Few foreign investors have had the will to be involved in these difficult land issues. To attract foreign investors – which can bring, as they did in the garment sector, access to global value chains, technology, and finance – the RGC has two options: (i) drastically improve the ELC process to make it transparent and less risky for foreign investors; and (ii) encourage contract farming, as in the successful case of the tobacco industry over the past decade.

Labor

4.8. **Labor in Cambodia is also abundant, but education remains low**. As noted in Chapter 3, the demographic transition of Cambodia has played in important role in growth over the past decade. Labor supply will continue to increase, with some 250,000 new entrants every year (Chapter 3). However, Cambodia's historical conflicts depleted the country of its most skilled people – intellectuals, craftsmen, artists, engineers, etc; even today, the "stock of education" – measured by the mean schooling grade of adults (5.9 years) or adult literacy rates (71 percent) – is low. Secondary enrollment is significantly below what other SRG countries had achieved at the same level of development (Figure 4.2).

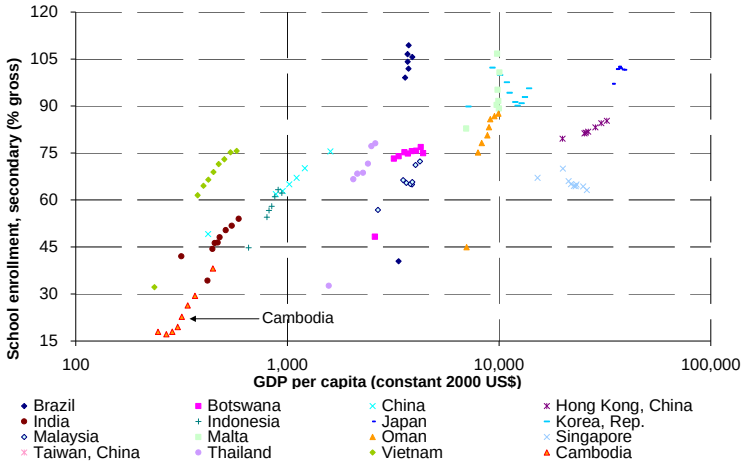
4.9. **Significant progress has been made over the past decade, from an extremely low base**. Enrollment ratios have consistently increased, to 81 percent in 2007 in primary education and 24 percent for lower secondary education; but are still as low as 16 percent for upper

[19] The Gini coefficient is estimated at 0.65 (this is based on household data, i.e. not including the additional impact of Economic Land Concessions). This coefficient is 0.50 in Vietnam, 0.47 in Thailand, 0.41 in Lao PDR, and 0.51 on average across East Asia (World Bank, 2008c). The incidence of landlessness among the poorest, however, was reduced between 2004 and 2007 (Knowles, 2008).

secondary education and 3 percent for tertiary education (Figure 4.3).[20] Only 0.6 percent of adults have completed some sort of technical or vocational training program (and, worryingly, this proportion is not increasing over time). Rural / urban and gender gaps have also been somewhat reduced. Nevertheless, the quality of education has not increased as rapidly, with large cohorts of over-aged children, drop-outs, and repetition rates.

4.10. **Wages are increasing, possibly weakening this comparative advantage**. In a formal sector like the garments industry, wages are not notably low any more, compared to other low-income countries (Figure 1.3). Incomes in other sectors, however, remain rather low, with further erosion in real terms as inflation picked up in 2007-08. Returns to education remain low and have even decreased in the private sector (Figure 4.3).[21]

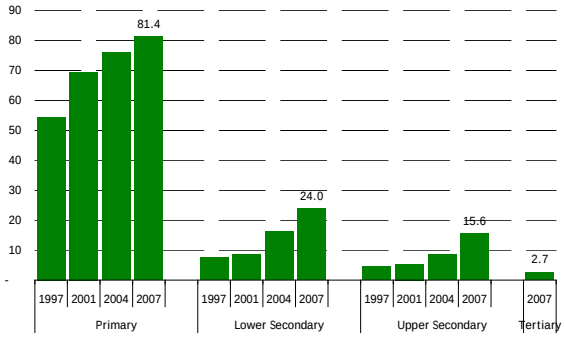
Figure 4.2: Gross secondary enrollment is extremely low compared to other SRG countries



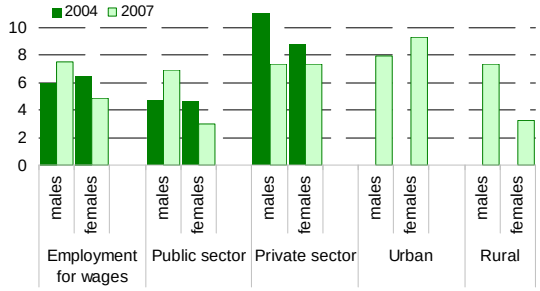
Source: World Bank, WDI.

Figure 4.3: Education levels are increasing from a very low base and the rates of returns to education have decreased

a/ Net Enrollment Ratio (%)



b/ Returns to education



Note: Returns to education are calculated as the coefficient of the number of years of schooling in a regression of wage salaries (with control variables).

Source: 1997, 2001 and 2004 figures are based on the 1997 and 2004 CSES and in the 2001 Child Labor Survey, NIS, Staff.

Physical Capital and Infrastructure

4.11. **The level of physical capital in Cambodia is very low**. National accounts data do not provide a very good measure, but seem to suggest that the capital stock is barely increasing (since investment levels are hardly above depreciation of existing capital). Evidence from existing firms

[20] Gross enrollment rates in tertiary are 4 percent, against 7 percent in low income countries and 20 percent in East Asia Pacific.

[21] The calculation and interpretation of returns to education is complex. Sakellariou (forthcoming) provides cross-country analysis suggesting that, compared to Indonesia, the Philippines, Thailand, and Vietnam, returns to education remain low and have stagnated in recent years.

(in the garment sector) suggests that capital per worker is low (World Bank, 2008d) compared with four other garment exporters in the region: at US$1,036 in 2004 terms, Cambodia is below Sri Lanka (US$1,656), the Philippines (US$3,543), and Thailand (US$8,844), and above only Indonesia (US$627). In agriculture, mechanization is low, with less than 10 tractors per 100 km^2 of arable land (against, for instance, more than 250 in Vietnam and 70 in China).

4.12. **Beyond private physical capital, and despite recent progress, infrastructure is particularly poor**. Electricity, transport (roads, railways, water, and air), water supply, and information and communication technologies are by and large deficient.

4.13. **Electricity is expensive and in short supply**. Although Cambodia has begun to rehabilitate its electrical supply and distribution systems, there is still a huge shortfall. Supply amounts to some 350 MW of installed generation capacity (with more than 95 percent of electric power generation from diesel power plant), including 115 MW of imported power. The current supply shortage is around 80-100 MW (of which 40-50 MW is in Phnom Penh), but demand is increasing fast and would increase even faster if electricity were affordable. Per capita consumption in 2007 was about 101 kWh per annum and about 16.4 percent of households had access to electricity, with the ratio as low as 3 percent in rural areas. Due to the small, fragmented generating capacity (no national grid and many independent power providers), the high cost of imported oil, the lack of a high voltage transmission system and large losses in transmission and distribution (and despite a commendable reduction in these losses from 13.5 to 11 percent over the past decade for EDC), the cost of electricity ranges from around US$0.18 in urban areas to US$0.30-0.90 in rural areas, way above the price in neighboring countries (in all of which it is below US$0.10).

4.14. **There is however some light at the end of the tunnel**. Three hydro-power projects with a total of 536 MW are currently under construction. A contract has been signed for a coal-fired plant of 200 MW. The first high voltage (HV) power lines from Vietnam will provide 200 MW in 2009 and the second HV power lines from Vietnam and Laos will provide an additional 50 MW, or up to 107 GWh to the CBD system by 2012. In parallel, the power grid is being upgraded. Under the plan, by 2014, there will be an installed capacity of 1,100 MW with a domestic energy production of 3,500 GWh. This will address the needs for growth if: (i) these projects are managed properly, in particular from an environmental point of view; and (ii) grid and power utility management are improved to ensure lower generation prices are passed to end-users (Section 8.C). In the meanwhile, users will often continue to need to generate their own power.

4.15. **The road network has been significantly upgraded**. Roads account for two-thirds of passenger and cargo transport. The national highway system is now nearly complete and the paving of secondary roads should be completed by 2010 or 2011. But road density and the proportion of paved road remains low (Table 6.2). Priorities will therefore shift to maintenance and tertiary (and farm-to-market) roads.

4.16. **Railways and domestic water transportation are poorly developed**. There are two railways in Cambodia. The trains from Sihanoukville to Phnom Penh mainly transport heavy oil for power generation, cement and rice, and the trains from Phnom Penh to Sihanoukville transport timber and stones. The connection to Thailand is being rebuilt through an Asian Development Bank (ADB) project, which will also bring average speed up from 20 to 50 km/h. Inland waterways consist of the Mekong, Tonle Sap and Bassac rivers, whose total navigable distance is about 1,750 km in the rainy season and 580 km in the dry season. Upstream areas of the Mekong and Tonle Sap rivers are not suitable for navigation due to the decreased water level in the dry season. Cambodian inland water transport has limitations, because differences in river levels between the dry and rainy seasons can sometimes reach 10 meters. However, Phnom Penh

receives petroleum products mostly through river transport, which indicates that the river is an important means for transporting supplies.

4.17. **International sea and air transport is more modern**. The Port of Sihanoukville is the only deep-water port. It has conventional wharfs and container and petroleum terminals, but there are few foreign ships that visit the port in comparison with its scale (see also Chapter 6 on logistics). The number of airline companies flying into Cambodia has increased steadily owing to the "Open Skies Policy". Non-stop international flights are offered between Phnom Penh International Airport and nine cities in eight countries. International airlines also fly into and out of Siem Reap Airport. Sihanoukville and Koh Kong international airports have limited activity.

4.18. **Water supply has improved much in Phnom Penh, but is weak otherwise**. In Phnom Penh, the Phnom Penh Water Supply Authority (PPWSA) has managed the water supply since 1996. In other cities, the Ministry of Water Resources and Meteorology is responsible for water supply, and it gives private companies permission to provide water supply in most cities.

4.19. **Information and Communications Technologies (ICT) are characterized by a mix of very high and limited growth depending on the market segment**. Private investment in the mobile phone segment has resulted in almost 2.6 million Cambodians having access to a mobile phone today, and mobile network coverage is available in all major population centers. Although at least seven mobile phone operator licenses have been awarded, three of the operators hold almost all the market share. Wireless technology has therefore been especially advantageous to rapidly expand the network, replacing a fixed network badly damaged during the war (there are only about 33,000 fixed line phones). The extension of "backbone" or high-speed data transmission infrastructure is at its nascent stages in Cambodia with limited introduction of broadband services namely via satellite in the urban centers serving just over 8,000 subscribers. However, network capacity and affordability are not meeting the growing demands, especially in Phnom Penh, Siem Reap, and Sihanoukville: the average monthly subscription cost for an entry-plan Internet service at the speed of 256Kbps is about US$89 per month, while it is US$45 in Bangladesh and US$17 in Vietnam. There are two ongoing backbone infrastructure projects in Cambodia: one from Kampong Cham to the Lao PDR border and a 400 km optic fiber connecting Kompong Cham, Phnom Penh, and Sihanoukville. These projects would increase capacity for provision of future high-speed services and subsequently expand the ICT market in Cambodia.

Summing Up

4.20. **This review of Cambodia's comparative advantage confirms the role of existing production, provided natural resources are managed in a sustainable fashion**. This suggests the need, for those existing sectors, to continue absorb labor and improve productivity. Similarly the garment sector could continue offer solutions for growth (Box 4.1). There will also be the option of deepening this comparative advantage if land and agriculture planning is done in a sustainable way for the periphery of Cambodia. In the medium term, with investments in infrastructure and skills, Cambodia could upgrade its endowment.

B. Export Diversification

Identifying Products

4.21. **The Government has identified priority products**. In 2007, with support from its development partners (led by the UNDP), the RGC finalized its Diagnostic Trade Integration Strategy (DTIS) and identified 19 products with good export potential. The selection was based on factors such as actual and potential export performance, world markets, domestic supplies,

Box 4.1: The Role of the Garment Industry

Historically, the clothing and footwear sectors have been key sectors for countries taking their first steps toward industrialization (in the UK, US, Germany, Japan, and then, Hong Kong, Singapore, Taiwan, South Korea, and Malaysia, and more recently China, Indonesia, Srik Lanka, Thailand, and Vietnam). It is the major sector in Cambodia (Chapter 1). The sector attracts large numbers of unskilled labor (typically drawing from the rural areas). Despite relatively low start-up investment costs, it has proven a good base upon which to build capital for more technologically demanding activities. And its growth allowed imports of more advanced technologies to be financed through exports.

The environment for such development path is changing, however. First, two countries, China and India, have now developed a supply capacity in the sector and are largely free from restrictions imposed by developed countries. Nevertheless, gloomy predictions (for Cambodia and other countries) when the quota system was dismantled in 2004 proved incorrect. In part, this was because wages in China have increased as the global demand for its manufactured products increased (wages in interior provinces are lower, but logistics costs remain high). Second, despite the removal of quotas, the global market remains significantly distorted, through remaining tariffs and trade facilitation costs. The EU, US, and Japan offer preferential access to many low-income countries, but with tight rules of origin (e.g. EU) and uneven treatment (African exports benefit from the Africa Growth Opportunity Act, AGOA, in the US). Third, the expanding role of global buyers have increased barriers to entry for new exporters, probably reducing the "footloose" nature of the industry as buyers seek to develop sustained relationships, and put additional pressures on margins and profits. Finally, the role of logistics and timeliness of deliveries has further increased, underscoring the role of national logistics systems and connections to global supply chains.

Empirical evidence further suggests that the clothing sector still provides an opportunity for export diversification and the expansion of manufactured exports for low-income countries.

Source: Brenton and Hoppe, 2007.

and human development impact (e.g. impact on employment and rural poverty). These products are in agriculture (beer, cashew nuts, cassava, maize, fish, livestock, rice, rubber, silk, soybeans, fruit and vegetables – including organic, mango, palm, pepper – and wood products), industry (footwear, garment, and light manufacturing assembly) and services (tourism, labor services such construction and domestic services, transport, business services including IT). It appears that other ministries (industry as well as agriculture) have or are developing their own lists. In addition, development partners have invested massively in a myriad of value chain analysis and interventions (USAID, 2007).

4.22. **It would be easy to further expand the list**. For instance, just focusing on agribusinesses, three areas could lead to other ideas:

- *Crops grown in Cambodia with little or no export history, but exported by nearby countries*: (i) plantations linked to private growers to produce fresh fruits for Asian markets (bananas in the Philippines and pineapples in Thailand); (ii) cashew nut (Vietnam) and palm oil (Malaysia) production for processing and export; (iii) marine culture of seaweed in shallow areas, and the fattening of mud crabs in captivity as export crops by small-scale coastal farmers engaged as contract farmers (Indonesia); (iv) organic vanilla produced by small-scale contract growers (a highly labor intensive process, with production technology similar to that of black pepper; Madagascar dominates the market, but vanilla is grown in tropical regions throughout the world); or (v) by capitalizing on the influx of tourists visiting Phnom Penh and the national treasure of Angkor Wat, it would be relatively easy to develop ancillary tourist products such as agro-tourism.
- *Mutually reinforcing clusters of agricultural products*. The production of two or more related agricultural products that are mutually reinforcing makes them both economically viable. The production of animal feed is a good example. Cambodia produces almost all of the elements needed for the production of animal and fish feed, such as maize, soybeans, rice bran, and fish meal. The only missing ingredients are additives such as vitamins and micro-nutrients. If, for example, a feed mill produces cattle feed that is sold to cattle farmers who also produce maize, then the feed mill provides a market for the farmers' maize output, and

the cattle farmers provide a market for the feed mill. Numerous variations are possible. Aquaculture could be linked to the production of fish feed. Cambodia's export potential as a producer of pond-reared fish such as catfish and tilapia is estimated at between 500,000 and 1,000,000 tons annually. All the main components needed to manufacture fish feed are readily available in Cambodia. What would be required to capitalize on this opportunity are market linkages for fish products, fish processing technology and investment, and the ability to produce international certificates for food safety. Other examples include linking production of livestock and livestock feed, or beer production and local grain crops.

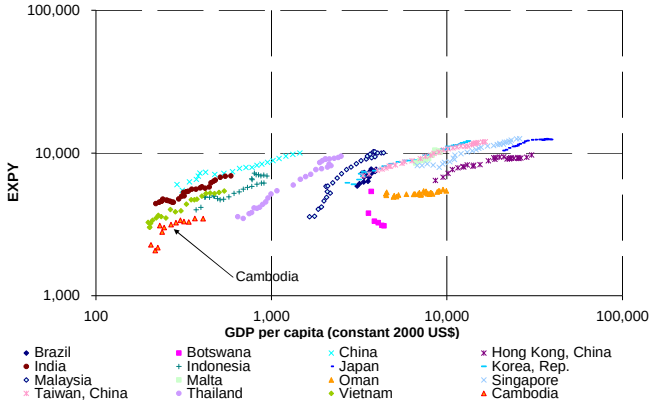
- *Crops for import substitution.* With a viable animal feed industry, Cambodia would be able to develop additional livestock and poultry production for local markets, such as such as the production of chickens, eggs, and small ruminants. Bio-energy crops, such as jathropha, show great promise for Cambodia. Bio-diesel fuel made from jathropha could become an important substitute for imported diesel fuel.

4.23. **Another opportunity for diversification is to use the tourism sector as a test case**. Tourists represent a within-the-border test of international demand, helping Cambodia discover "what it is good at". Examples of tourism-related "discoveries" in other countries include macadamia nuts from Hawaii, butterfly chrysalises from Costa Rica, and traditional spices from Jamaica (Brenton et al., 2007).

Targeting Export Diversification

4.24. **A striking feature of Cambodia's export portfolio is its low level of sophistication**.[22] The sophistication of exports (measured by a variable EXPY defined in Box 4.2) is lower than other SRG countries at the same level of development as Cambodia and has not been increasing significantly in recent years (Figure 4.4).

Figure 4.4: The sophistication of Cambodia's exports is relatively low and stagnant



Note: EXPY is defined in Box 4.2. Source: World Bank, WDI.

4.25. **Given the way diversification works, Cambodia is poorly positioned to diversify** (Box 4.2 and Annex B). Most of its products are too dissimilar from other potential exports. In particular, the garments and footwear cluster is very different from most of the sophisticated products exported by richer countries.

4.26. **Cambodia's exports can be grouped in four categories** (Annex B):

- "*Classics*" include products where Cambodia has maintained a "Revealed Comparative Advantage (RCA)"[23] over 1990-2006. These are Cambodia's traditional exports, but their

[22] Another dimension generally missing in the discussion on export diversification is a review of price trends. However, Cambodia, given its size, will almost always be a price taker (as it is in garments, with 3 percent of the US market only, and in rice, with only 1 percent of global exports) and many prices, especially those related to natural resources (such as rubber), are highly volatile. Hence a review of price trends would not generate any definitive conclusion.

[23] This standard measure is calculated as the share of export of product x in country y divided by the share of the same product in world exports. A country has a "Revealed Comparative Advantage" when this measure is greater than 1.

joint share fell from over 38 to 11 percent of exports. With an average PRODY of 3,379, this group is comprised of trousers and breeches of textile fabrics, natural rubber latex, men's shirts of textile fabrics, wood of non-coniferous species, and vegetable materials.

- "*Disappearances*" are products whose RCA was greater than 1 in the past but which have now disappeared. The average PRODY of these two products (saw logs and veneer log of non-coniferous species; and plants, seeds, or fruit used in perfume) is less than 3,000 and their share fell from 33 to 0.1 percent between 1990 and 2006.
- "*Emerging Champions*" are products on which RCA was developed only recently. There are 22 such products, of which 18 are in the garments cluster and four comprise non-traditional exports including nuts, castor oil seeds, and plywood products. The export share of this group increased to 81 percent from less than 10 in the mid 1990s and their average PRODY is 5,562. This makes them more attractive than the classics or disappearances.
- "*Marginals*" are products on which RCA has not been developed yet. Some of these products have been exported in very small quantities and in sporadic episodes. The group comprises 30 products. Although their average PRODY of 7,364 makes them most attractive, it is not clear that any of them can push Cambodia towards middle income status unless it develops a RCA in them and they attain a sufficiently large export share. Examples of those with high PRODYs include fish frozen and fillet, crustaceans, hides and animal products, and wood and wood panels. There are a large number of very high PRODY and medium tech fabrics (knitted and woven).

4.27. **Based on this, an export strategy should target products that pull the level of sophistication upward and offer opportunities for further diversification**. Beyond traditional criteria – such as the strength of RCA or global growth – an export strategy would target products with a high PRODY and a high density (see Box 4.2 and table in Annex B).

4.28. **In this respect, the priority remains to diversify and scale up selectively some "emerging champions"**, focusing on products with a high PRODY and density. One attractive option is to prioritize those that can go to new destinations. For instance, the United States was the main destination for corsets and undergarments but in recent years post MFA, exports to the UK, Germany, and Canada have been increasing. Similarly, footwear is being exported to Germany and Japan and overcoats to Mexico or Argentina. The policy challenge is to identify the constraints to such export market diversification. A second attractive option is to develop products with a relatively high PRODY and high density, but whose export share collapsed from 11 percent in 2002 to half in 2006 after the MFA expired. As products like suits and customs dresses were concentrated in the U.S. market, the loss of market share was a major shock. This as well would require further investigation.

4.29. **There are other possibilities to nudge Cambodia onto a higher income path**:

- A first option is to re-examine why Cambodia has not scaled up its "classics" based on food and agricultural raw materials when it has a comparative advantage in them. While they are low PRODY, combining them with related "marginals" offers the country an opportunity to diversify from the low-value garments cluster. As an example, consider a wood industry cluster which exports non-coniferous sawn wood (PRODY of 3,667) and plywood (PRODY of 7,267). As it already has an RCA in these, the policy challenge is to identify the constraints on scaling up. Further, fostering this cluster with policies that can bolster Cambodia's technological capabilities in these activities will build the vertical linkages needed to move from sawn wood up the product ladder to high PRODY plywood. In due time, these will spawn the skills needed to develop an RCA in products like wood panels which have an extremely high PRODY but which are marginals currently. Importantly, such a strategy should be mindful of environmental and social concerns. The goal is to select a

non-garment cluster or product in which the country already has an RCA and foster its movement up the product ladder. In the medium to longer term, a cluster like wood products is likely to seed ancillary industries that nurture the capabilities to diversify into more sophisticated wood product exports. The development of most industrial economies was marked by stages of diversification from raw materials to processed ones.

- A second option is to scale up the food products cluster. In this case, the fish and crustaceans cluster and the animal products cluster (hides and skins, live animals) would provide diversification into industries with fast growing global demand. Policies to foster their development up the product ladder, i.e a move from raw material to processed ones such as from frozen fish to fillet, will naturally spawn the linkages to move from agricultural activities to manufacturing activities outside the garments cluster.
- A final – but not advisable – option would be to foster and scale up "marginals" in which Cambodia does not have an RCA, but which have PRODYs in excess of 7,000. This would be a high risk strategy as these products fall into the textiles cluster whose "distance" is great, i.e., the inputs required to produce them, including technological skills, are vastly different from what Cambodia presently uses to manufacture garments. Its density is low. Further, developing an RCA in this cluster is challenging given that China has the largest comparative advantage in this cluster in the world.

C. Regional Integration

4.30. **A final approach is to look at the potential for regional integration**. In essence, this is about diversification in markets, as opposed to products (or intensive diversification as opposed to extensive diversification in the terminology of Box 4.2). As discussed in the 2009 World Development Report, geography is a major driver of development and Cambodia has the opportunity to further harness the dynamism of neighboring countries and cities (World Bank, 2008e). Experience from other integrated regions (the EU in particular) shows the power of convergence through integration for the lower income countries. Regional integration can also

Box 4.2: The Process of Diversification

Recent developments in economic analysis have generated two important findings on the process of diversification.

First, as countries develops, (i) they first diversify (they start to specialize only at rather advanced stages of developments); and (ii) they export more complex products. The first fact is easily measured by indicators of concentration of exports (Figure 1.4 for Cambodia). The second fact can be measured by assigning to each product the value (called PRODY) of GDP per capita of countries exporting this product and then creating an indicator (EXPY) for each country as the weighted average of PRODYs for its export basket. PRODY therefore describes the level of complexity of a product. EXPY is a good predictor of income per capita.

Second, changes in the revealed comparative advantage of nations are governed by the pattern of relatedness of products at the global level. Hausmann and Klinger (2007) use the metaphor of a forest representing the product space (see figures in Annex B): each tree is a product and firms are monkeys that can climb higher on a tree (*intensive diversification*) or jump to another tree with higher value (*extensive diversification*). Low-income countries typically find it easier to grow through intensive diversification initially. As they develop, moving to new, higher value-added products become more important. As countries change their export mix, there is a strong tendency to move towards products that are "close" in the "forest" of the product space rather than to products that are farther away. The pattern of relatedness of products is only very partially explained by similarity in broad technological or factor intensities, suggesting that the relevant determinants of diversification are very product-specific.

Moreover, the pattern of relatedness of products exhibits very strong heterogeneity: there are parts of this "product space" that are dense while others are sparse. This implies that countries that are specialized in a dense part of the product space have an easier time at changing their Revealed Comparative Advantage than countries that are specialized in more disconnected products. "Density" can be measured by the average distance of other products in the "product space" from a given product.

Sources: Hausmann, Hwang, and Rodrik (2005), Hausmann and Klinger (2007), World Bank (2008e).

help generate economies of scale for supply chain and help Cambodia in its discovery of what it can produce.

Table 4.1: Cambodia and Intra-Regional Trade

	1998				2007				1998-2007 annual growth	
	Total exports (US$ b)	% to Asia (*)	% regional exports	% intra-reg exports	Total exports (US$ b)	% to Asia (*)	% regional exports	% intra-reg exports	Total exports	Intra-reg exports
Cambodia	0.9	52.9	0.1	0.1	4.1	13.1	0.1	0.0	17.8	0.8
China	183.7	49.0	13.9	15.9	1,218.1	38.0	32.4	25.0	23.4	19.9
Hong Kong, China	173.7	48.9	13.1	15.0	344.7	63.2	9.2	11.8	7.9	11.0
Indonesia	48.9	54.1	3.7	4.7	114.1	59.2	3.0	3.7	9.9	11.0
Japan	388.0	33.7	29.4	23.0	714.3	46.9	19.0	18.1	7.0	11.0
Korea, Dem. Rep.	0.9	35.9	0.1	0.1	1.6	41.0	0.0	0.0	6.9	8.6
Korea, Rep.	132.8	40.7	10.0	9.5	371.4	48.2	9.9	9.7	12.1	14.2
Lao PDR	0.4	48.4	0.0	0.0	1.3	63.1	0.0	0.0	15.2	18.6
Malaysia	73.5	48.3	5.6	6.3	176.2	54.6	4.7	5.2	10.2	11.7
Mongolia	0.3	47.6	0.0	0.0	1.7	74.2	0.0	0.1	19.2	25.2
Myanmar	1.1	35.2	0.1	0.1	4.8	67.0	0.1	0.2	17.2	25.9
Papua New Guinea	2.4	27.4	0.2	0.1	7.4	20.7	0.2	0.1	13.6	10.1
Philippines	29.5	40.6	2.2	2.1	50.5	60.8	1.3	1.7	6.1	11.0
Singapore	109.9	48.8	8.3	9.5	299.2	63.2	8.0	10.2	11.8	15.0
Taiwan, China	110.8	43.7	8.4	8.5	244.1	65.7	6.5	8.7	9.2	14.2
Thailand	55.4	43.2	4.2	4.2	152.5	52.9	4.1	4.4	11.9	14.4
Vietnam	9.3	55.8	0.7	0.9	48.6	41.6	1.3	1.1	20.1	16.3
Total Asia (*)	**1,322**	**42.9**	**100.0**	**100.0**	**3,754**	**49.2**	**100.0**	**100.0**	**12.3**	**14.0**

Note: (*) refers to the 17 countries listed above. % of regional exports is the structure of total exports within the region. % of intra-regional exports is the structure of exports between countries within the region. Source: IMF (Directions of Trade Statistics), Staff estimates.

4.31. **Cambodia has not achieved much in terms of intra-regional trade** (Table 4.1). Cambodia has joined regional groups, in particular ASEAN (Chapter 1) as well the GMS group and the "CLV" discussions (Cambodia – Lao PDR – Vietnam). But it is largely absent from the numerous production networks that have developed in East Asia (Haddad, 2007). There is much trade diversion from Cambodia to Thailand and Vietnam (fish, cashews, etc.): however, China is putting pressure on Thailand and Vietnam to close their supply chains.

4.32. **Nevertheless, on balance, Cambodia's position in South-East Asia is a major asset**. Cambodia should be able to get into global value chains: this has been done in the garment sector in no small part through investments from investors from the region. Opportunities include the country's location between Ho Chi Minh City and Bangkok, two vibrant economic poles. Cross-border migration can also offer opportunities for job creation. Cambodia might also further its trade in services, currently strong in tourism only. Further out, China has become a major market and Japan also offers opportunities (currently being explored, for instance, for garments). Plummer and Yue (forthcoming) review the significant benefits of further ASEAN integration and Alavi et al. (2008) suggests, that while Cambodia has largely been disconnected from regional trade networks, the potential welfare impact of various trade proposals could be significant.

4.33. **Hence the quality of Cambodia's relationships with its regional partners and the growth of the region will be critical to Cambodia**. This was felt in 2008 during border tensions with Thailand around Preah Vihear, or when political developments in Thailand led to the closure of its airport, with implications on tourists arrivals in Cambodia.

4.34. **Cambodia's engagement in the ASEAN provides the opportunity to launch bold initiatives**. Options include:

- *Use ASEAN to outsource functions.* ASEAN's certification mechanisms are already in use, for instance in the tourism sector. Broader certification functions could be used. For instance, Cambodia does not have its basic Sanitary and Phyto-Sanitary management system in place

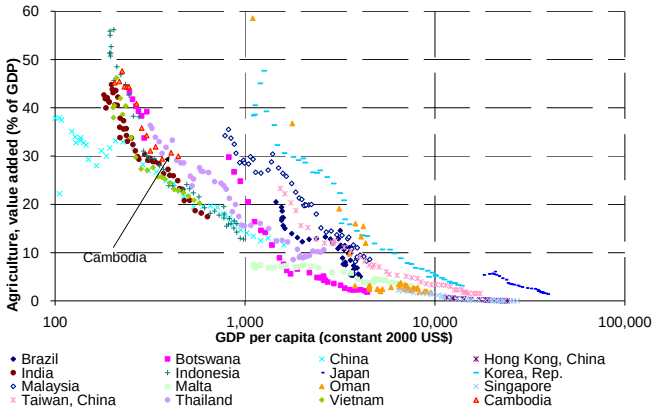
and, at the moment, it cannot get export permits for new products to China, because it cannot provide the data required by China. The SPS function could in part be outsourced to (or monitored by) ASEAN. In the financial sector as well, some resources could be shared or partnerships be deepened (e.g. for the stock market, Chapter 7).

- *Use ASEAN to accelerate national and transnational reforms.* An example is the ASEAN Single Window, which is expected to connect trade-related Single Windows: this provides a driver for Cambodia to proceed with its own Single Window. Other examples include a peer review process for the National Audit Authority (NAA) or peer pressure from accreditation bodies in the region to improve higher education accreditation in Cambodia. The ASEAN Secretariat is preparing a scorecard about country implementation of the integration agenda, which provides guidance for prioritization.
- *Increase linkages with the region.* Efforts are under way to better connect Cambodia with its neighbors (e.g. through recognizing visas in ACMECS). At the physical level, there are three international highway plans (Asia/ASEAN Highway, ASEAN Highway and GMS Road) that will pass through Cambodia and power transmission lines are being built. Further infrastructure efforts as well as policies to favor labor movement would be useful to develop trade and migration (the latter in particular useful given the number of young people entering the labor market in Cambodia). A number of regulatory issues need to be addressed to facilitate cross-border trade.

D. Summing Up

4.35. **Cambodia continues to be characterized by a relative abundance of natural resources and unskilled labor and a scarcity of human and physical capital**. Agricultural production, low-skilled manufacturing, and possibly other natural resource activities (see Chapter 5) will remain the drivers of growth through productivity gains, diversification, and job creation.

Figure 4.5: The share of agriculture in GDP is rapidly falling, as has been experienced by other SRG countries



Source: World Bank, WDI.

4.36. **Nevertheless, agriculture will not be sufficient to drive growth and employment** (see also the experience of Thailand, Box 4.3). It will grow, but not by absorbing all labor. While agriculture will remain important for poverty reduction[24] and, in the short-term, to mitigate the impact of the global financial turmoil, based on experience from other SRG countries (as Cambodia is following the path of Vietnam, China, Botswana, India, Indonesia, Figure 4.5), agriculture is likely to account for only 20 percent of GDP by the time Cambodia reaches US$1,000 per capita (in 2000 US$) – although South Korea and Malaysia maintained a higher share of agriculture (30 years ago). Also agriculture per worker tends to increase at a much lower pace than GDP per capita. Hence manufacturing and services, as well as urbanization (Section 10.A) will play a critical role in sustaining growth.

[24] In 2004, 84-89 percent of the population in the poorest consumption quintile was in households owning or operating agricultural land, against 50 percent in the richest quintile (Knowles, 2006).

4.37. **In the medium term, Cambodia could sustain growth in the order of 6 to 7 percent per annum** (Table 4.2).[25] Although short-term growth is likely to be slower given the external environment, growth could resume based on a diversification of the economy. As in the past, the contribution of net exports is likely to remain marginal given the growing demand for imports. Private consumption would slow down from its current catch-up pace, making space for some domestic savings. The key determinant is to sustain a high investment rate – itself driven by the investment climate and loosening constraints on growth (Chapter 6). As noted in Chapter 3, the demographics would continue by and large to support growth. In terms of sectors, agriculture would continue to contribute 1 to 2 percentage points of growth, with the balance from industry and services.

Table 4.2: Illustrative Medium-Term Growth Prospects

	SRG		Cambodia	
	First 10 years	Next 10 years	1997-2007	Med-Term Projection
Growth	**9.0**	**7.9**	**9.7**	**6-7**
Population growth impact	2.4	2.4	1.9	~2
Growth per capita	6.6	5.5	7.8	4-5
Dependency ratio	n/a	n/a	1.5	~1.5
Growth per employed	n/a	n/a	6.3	3-4
Contributions of				
Agriculture	1.4	0.6	1.4	1-2
Industry	2.9	3.4	3.6	2-3
Services and others	4.7	3.9	4.7	2-3
Contributions of				
Private consumption	4.3	4.0	6.7	3-4
Capital formation	2.2	2.3	2.6	2-3
Net exports	3.1	(0.3)	(0.3)	~0
Other	(0.6)	1.9	0.7	0-1

Note: SRG countries refer to countries that sustained rapid growth for a sustained period, see Box 2.1. Source: WDI, Staff estimates.

4.38. **To achieve this growth target, this chapter has suggested a three-step strategy**: first, for the short term, seize opportunities such as rice and regional (ASEAN and other developing country) markets, and revive the garment sector; second, for the immediate medium term, diversify based on existing comparative advantages, such as a broader range of garment and tourism products, and a few other natural products (e.g. wood, fish); and third, in the medium to long term, expand the range of options by upgrading endowments (infrastructure and skills). The next chapter focuses on the potential contribution of extractive industries, while Chapter 6 comes back to the constraints that need to be alleviated for this three-step strategy to be implemented.

[25] A simple cross-country regression model developed by PRMED at the World Bank also suggests growth of around 6 percent, provided there is progress in school enrollment and infrastructure, continued macroeconomic stability (including avoiding a severe appreciation of the exchange rate), and no banking crisis. This and other medium- to long-term projection exercises are merely illustrative.

Box 4.3: The Economic Transformation of Thailand

Thailand shares a number of geographical characteristics with Cambodia and is one of its neighbors. Its modernization process started in the late 1950s when the pursuit of growth became one of the primary objectives of the government. During the period of development, from a per capita income of US$100 in 1960 to US$3,000 in recent years, manufacturing played a critical role, with its share in GDP tripling between the 1960s and now. Export-oriented manufacturing was favored with, in particular, the labor intensive textile sector creating employment opportunities and stimulating rural-urban migration. Linkage effects from increased income growth (especially in urban areas) and consumer demand accelerated the transformation. This expanding demand led to increasing domestic investment, and large private investments were really the driver of growth. This labor-intensive growth, led by low-technology manufacturing with strong linkages to agriculture and external markets, has become the characteristic of Thai industrialization.

Agriculture development was fueled by intensification, with improved varieties, increased use of fertilizers, expansion of credit to rural areas, and accelerated mechanization (even though Thailand did not implement major government programs in the 1970-80s to explicitly develop high-yielding varieties). Agriculture development was also characterized by diversification (even though Thailand remained the world's top exporter of rice).

Breisinger and Diao (2008) conclude that, in this transformation, the main role of the government was to provide infrastructure (including rural infrastructure to facilitate access to unused land suitable for cultivation), to create a secure and attractive private investment climate, and to establish conservative monetary and fiscal policies to maintain stability.

Source: Breisinger and Diao (2008).

5. Prospects in Extractive Industries

5.1. **If managed well, hydrocarbon and mining production could bring many benefits to Cambodia**. If not, international experience shows that there can be many downsides. Fortunately for Cambodia, there are regional models which offer useful lessons. Malaysia, Thailand, and Vietnam have shown that capacity building in the various segments of a domestic petroleum industry is best aligned with the growth of the sector; Lao PDR has recently experienced rapid development of the copper sector. Section A focuses on oil and gas and Section B on mining. Section C summarizes key lessons.

A. Oil and Gas

A Potential Upstream Industry

5.2. **Cambodia expects to produce oil and gas in the next decade, but no commercial discovery of hydrocarbons (a discovery of oil and gas deemed to be economically recoverable) has been announced to date**. Exploration began in the 1950s and a number of contracts have been signed since the 1970s but blocks contracted through the first half of the 1990s have now all been relinquished. Prospects for hydrocarbon production changed when a consortium including Chevron – which had signed a Production Sharing Agreement (PSA) in 2002 for offshore Block A – announced that they had struck oil in 2004-05. This was the first significant discovery (not yet confirmed) of hydrocarbons in the country. The size and quality of hydrocarbon reserves in block A are not yet publicly known. Chevron has since indicated that Block A contains small dispersed fields rather than one core field – potentially making it more costly and technically challenging – and has made no official announcement about a project schedule. The first exploration well drilled in Block B found no recoverable oil by July 2008.

5.3. **Licenses for most blocks have been issued, although little information is publicly available**. As of late 2008, PSAs have reportedly been signed for all six offshore blocks, A–F. In addition, Cambodia has divided its onshore exploration tracts into 19 blocks, VIII-XXVI. A PSA was signed in November 2007 for Block XII with an Indonesian firm, and four more onshore blocks in the Tonle Sap Lake region are said to have been awarded to a Chinese company.

5.4. **Other potential reserves lie in the Overlapping Claims Areas (OCA) in the Gulf of Thailand**. These other offshore areas are potentially rich in hydrocarbons (especially natural gas), but disagreement between Cambodia and Thailand over these OCAs has kept both countries from pursuing exploration and production since they started negotiations in 1995. The RGC signed conditional petroleum agreements with major companies in 1997, subject to resolution of the claims. A 2001 memorandum of understanding sets a joint development regime over the southern two-thirds of the OCA, while the northern third could be developed once the maritime border is delineated. The issue remains unresolved to date.

5.5. **Given a number of varying reports of reserves estimates, it is difficult to offer a robust estimate of the initial impact of oil on the economy**, although revenue potential in

the short to medium term may be considerably smaller than initially forecast, not least due to current market conditions.

Managing the Sector[26]

5.6. **The first priority is to clarify the legal and institutional framework**. Key features of the legal framework for the upstream sector are clarity, transparency, and stability. Table 5.1 highlights significant gaps against this objective.

Table 5.1: Legal Framework in Oil and Gas

Elements	Objectives	Status in Cambodia
Petroleum Laws	Set out basic principles, typically that petroleum resources are the property of the state; establish the regime(s) under which petroleum companies may be granted the right to conduct petroleum operations; designate the state authorities and agencies to administer the law, authorize them to issue regulations, and negotiate and enter into contracts; and set out the basic rights and obligations of petroleum companies (including national oil companies), permit investment protection guarantees, and identify the main principles of the fiscal regime to which petroleum companies are subject. To ensure consistent information and understanding of the sector, a number of countries have found it helpful to disclose key contract terms. Such a disclosure policy would be difficult to implement retroactively and should be given serious consideration in the early days of sector development.	No petroleum law. Royal Decree ChorSor / RorTorkor 0198/020 dated 22 January 1998: "The Royal Decree on the Formation of the CNPA" (Cambodian National Petroleum Authority) • Established a permanent institution governed directly by the prime minister (CNPA) and put it in charge of the entire petroleum sector, from upstream exploration to retail activities.
Other Laws	Providing taxation rules of the petroleum sector in the general income tax law is considered good practice. More generally, consolidating all matters related to taxation in the tax law, all matters related to environment in an environmental law, and so on minimizes proliferation of rules in a number of sector-specific laws which could lead to inconsistencies.	Draft Petroleum Tax Law
Petroleum Regulations	Issued by the agency in charge of the sector to provide implementation details for the petroleum law: organization and roles of the public authorities in the administration of the law and in the conduct of petroleum operations; rules for granting petroleum rights; rules on operational and technical matters; requirements for submission of reports and accounts on petroleum operations; environment, health, and safety standards; and such financial obligations as surface rental fees (which are fees paid annually based on the size of the area covered by the contract), other fees, and fines	The 1991 Petroleum Regulations contain clauses at variance with the provisions of the Law on Taxation of 1997 (e.g., allowing for an income tax rate of 25–50 percent, whereas the Law on Taxation sets a tax rate of 30 percent)
Petroleum Contracts between state and investor	Normally negotiated by the ministry/agency in charge of the sector and executed by the minister on behalf of the state	Undisclosed and with inconsistencies among documents issued by government (e.g. on tax issues)

[26] The hydrocarbon sector is normally divided into upstream (exploration, development, and production) and downstream (refining, international trade of refined products, pipeline transport, storage, distribution, and retail) segments. Sometimes midstream is used to refer to refining, pipeline transport, and large-scale storage. This section focuses on the legal and contractual framework for the upstream petroleum sector.

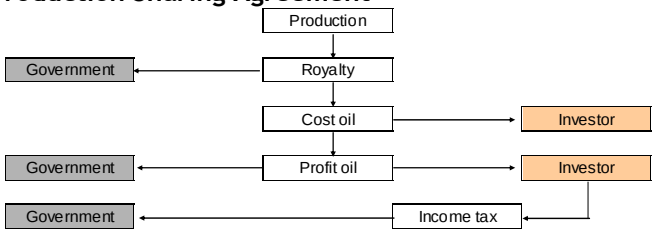
5.7. **The formulation of a Petroleum Law is an opportunity to address some of these issues**. Two lessons from international experience should be considered:

- Government responsibilities for administering the petroleum sector should be separated from commercial operations of petroleum companies. This includes clearly defining the role of the National Oil Company (NOC) if one is established or exists de facto. The NOC should focus on core productive and commercial activities and ideally not get involved in regulating the sector, in order to avoid conflicts of interest. At the moment, the CNPA effectively plays the role of a ministry in charge of the petroleum sector.[27] However, the CNPA's participation in onshore Block XII and potentially in other blocks makes it a participant and more like an NOC. This means that the CNPA will be regulating and monitoring itself in this respect.
- A sector ministry or a specialized agency – not involved in commercial operations – should set sector policies, prepare legislation, be in charge of monitoring and enforcement, organize licensing rounds, pre-qualify bidders, evaluate bids, negotiate and sign contracts and licenses on behalf of the state, and supervise petroleum operations. A split between policy formulation and the legislation/licensing process is not advisable given the shortage of qualified government officials.

5.8. **Second, the fiscal framework for the sector needs clarification**. It should (i) provide a fair return to RGC and the investors; (ii) encourage long-term sustainable investment and allow for substantial changes in circumstances to be taken into account without damaging the sector's development; (iii) limit any undue administrative burden on RGC and industry; and (iv) create healthy competition among actual and prospective participants.

Box 5.1: Typical Revenue Streams in a Production Sharing Agreement

The revenue streams include the following.



- *Royalties*, which could be paid in cash or in kind, are based on the volume or value of petroleum extracted. Royalties are paid as soon as commercial production commences, thereby providing early revenue to government. They also ensure that contractors make a minimal payment. Royalties are regressive.
- *Cost oil* refers to the oil retained by the contractor to recover the costs of exploration, development, and production.
- *Profit oil* is the share of production remaining after the royalty is paid and cost oil has been retained by the contractor. The government's share of profit oil can be designed to be progressive or regressive.
- *Income tax* is based on taxable income and, in the figure above, paid after production is shared.
- *Bonuses* are the most regressive fiscal parameters and give early revenue to the government. Signature bonuses are paid when the contract becomes effective, and can be considerable in highly prospective areas such as Angola. Production bonuses are paid at the start of commercial production and when production reaches specified levels.
- *Surface rental and other fees* are also paid by contractors.
- *Other taxes* include withholding tax, foreign national and sub-contractor income tax, value added tax, and customs duties, although some contracts exempt investors from some of these taxes and duties.
- *Other payments in kind* include training of government officials. Other in-kind contributions, such as social programs (for building schools and clinics) and infrastructure development (such as building roads) are usually voluntary (that is, not mandated in the contract).

5.9. **In particular, the fiscal framework should aim to be progressive**. Fiscal terms that provide increasing rates of revenue to the government with rising net-of-cost income are called

[27] The Tonle Sap Basin Authority was also formed in 2007 to coordinate the management, conservation, and development of the Tonle Sap Lake basin, including petroleum operations.

progressive; those in which the rates fall are called regressive. With Production Sharing Agreements (PSA, see Box 5.1) as in Cambodia, what matters is the combined impact of all the parameters (i.e., the total "government take"), and not whether the government's share of profit oil or the income tax level or surface fees are high or low. Oil price volatility, cost of production varying with the geology and accessibility of the field, cost escalation, and varying volume of production affect the net-of-cost income, which will be shared between the government and the contractor. Regressive fiscal terms do not adjust well to large variations in prices and costs, and some countries with regressive terms have had to modify fiscal terms more than once in response to these variations, introducing an element of instability and unpredictability. Progressive fiscal systems are better at adapting to changing circumstances. Fiscal terms also affect the success of exploration efforts, because they determine how much exploration can be commercially justified.

5.10. **Third, the RGC needs to develop its capacity to manage the sector**. Cambodia needs to create a cadre of government officials with skills to manage contracting and supervision of petroleum operations. In the early days, when there are few, if any, people with the requisite skills, it make sense to concentrate them in one government agency; this argues for postponing the establishment of an NOC (see below). Cambodia also needs to build its capacity to assess and collect the various payments.

A Role for a Domestic Petroleum Industry?

5.11. **The RGC has expressed interest in developing a local petroleum industry**. It has recognized that the petroleum industry is capital intensive and employs little labor: aside from the workforce used during plant construction, the labor required in the industry is generally specialized and highly skilled. Nevertheless, as part of a drive towards value-added industries (Chapter 4), the RGC is considering various options.

5.12. **It is unlikely that a refinery would bring benefits to Cambodia at this stage of the sector's development**. Annual oil consumption in Cambodia is around 30,000 barrels per day (bpd). Even if oil demand grows annually at 6 to 7 percent, it will take 20 years for the country's oil consumption to reach 100,000 bpd (the standard threshold to make a modern refinery competitive). Therefore, any refinery built in the country in the next few years will have to be either small to serve primarily the domestic market, or else be built to economic scale and export the bulk of its products. A small refinery may not be able to compete with product imports from the numerous large, efficiently run refineries in the region. A world-scale export refinery can take advantage of economies of scale, but will face full international competition.

5.13. **Cambodia might be able to progressively develop oilfield services**, as Thailand and Vietnam have done over time. Oilfield services cover a broad range of activities for upstream operations. Oilfield service companies do not invest in hydrocarbon production themselves, but supply goods and services to field operators. However, there are economies of scale in many parts of this industry, and establishing indigenous oilfield service companies would generally require considerable petroleum operations in the country. There are also differences across services: for instance, provided minimum international safety and operational standards are met, it is easier to provide local inputs to the provision of boats and helicopters than to provide drilling services. One way of developing the local oilfield service industry is to establish partnerships with international firms to build capacity. Over the past two decades, Vietnam has developed the capacity to provide oilfield services in a number of domains, including drilling and seismic activities. The development of the domestic oilfield service industry has been enabled in part through partnerships with foreign companies and the growth of oil and gas production.

5.14. **There have already been some suggestions in Cambodia that serious consideration be given to establishing a NOC**, and Petronas has been cited as a good model. The experience of Petronas and other NOCs highlights a few lessons:

- *State of the petroleum sector*. Malaysia's oil sector had a long history before Petronas was established. Oil was first discovered in Malaysia in the 19th century, and an oil concession was granted to the predecessor of Shell in 1909. Malaysia's first offshore oil field came on stream in 1968. By the time Petronas was founded, oil production was close to 100,000 bpd. Given all this, Petronas was being set up in an already well-established industry. In contrast, a country that was a new producer would have virtually no domestic expertise. It also helped that some of Malaysia's geology made for relatively easy exploration and production (in contrast to Cambodia's dispersed oil deposits) and that Malaysia was a diversified economy before its NOC was created.
- *Objective*. An important objective of forming Petronas was to gain greater Malay control over the management of the country's hydrocarbon resources. Globally, NOCs are generally established to ensure greater state control, as a means of acquiring in-house expertise in the sector, and to have greater chances of sharing in oil windfalls. That said, it is important to weigh the possibility of participating in the upside in the petroleum market against the greater commercial risks that such a step entails: certain forms of contracts may yield the same results but without the government having to take greater commercial risks.
- *Fiscal framework*. Some NOCs do not have full financial autonomy and rely on the government budget for some of their funding requirements. This weakens the NOC's investment capacity (by making it subject to annual, political, budget cycles) and complicates any assessment of its commercial performance and efficiency. Even operating as a joint venture with a competent foreign oil company could become difficult, as demonstrated by the financial difficulties of the Nigerian National Petroleum Corporation, which has failed to meet its cash payment requirements to the joint venture partners, jeopardizing petroleum projects. At the opposite end of the spectrum is the fiscal framework whereby a significant share or even all of petroleum income flows through the NOC. This creates considerable scope for corruption.
- *Conflicts of interest*. One potential concern arises when an operator is also a regulator, effectively regulating itself (as in the case of Petronas).

Managing Petroleum Revenues

5.15. **Petroleum revenues have several unique characteristics that call for special attention**: they are unpredictable, volatile, and in due course decline to zero as petroleum reserves are depleted. Large revenue flows also tend to invite political interference and attempts to divert them for private gain or to launch unproductive projects. Properly accounting for revenues due and collected and ensuring prudent management of petroleum income are both essential if Cambodia is to benefit from its natural resource endowments.

5.16. **General Public Financial Management (PFM) principles should apply to petroleum revenues**. First, all revenues should flow to one account, e.g., the treasury single account. All transactions should be clearly traceable. Clear policies are necessary to determine the share of revenue that is directed to support the operation of the NOC, if the decision to establish one is taken. Second, the government should carry out and publish audits to ensure that it is paid according to the contracts. Any other fiscal activity, including the provision of resources or services by a public or private company to the government or related parties, should be accounted in a transparent manner and included in the budget. Fiscal reporting, audits, and reconciliation of the treasury's accounts and the companies' financial statements should be

performed regularly. One option for the RGC to build its credibility with this reporting is to join the EITI, a tripartite process of monitoring and reconciliation that involves the government, the extractive industry companies, and civil society organizations. Although the RGC has decided to postpone joining the EITI until it achieves more clarity about its potential petroleum and mining revenues, this option should continue to be explored.

5.17. **Some countries have set up petroleum funds to smooth government spending**. These funds can range from separate independent institutions to little more than a line item in the budget. These revenue funds are designed to save petroleum income, often with accumulation and withdrawal rules that vary with the fund objective, so that not all income is spent in the year it is received. International experience with petroleum revenue funds has been mixed. Although a petroleum fund is not essential to smooth spending of large and volatile oil revenues (Chapter 7), a fund can help create greater transparency and build public awareness and support for prudent and long-term management of petroleum wealth.

5.18. **Successful petroleum funds follow standard PFM principles – and are not a substitute for good fiscal policy**. Those governments that have established successful funds – Alaska, Alberta, and Norway, to name a few – have clear, transparent rules that are strictly enforced; public disclosure of fund activities and accounts; full integration of the fund's operations into the state budget that is based on multiyear expenditure planning; independent professional management of fund assets including appointment of fund managers based only on merit; a clear investment strategy; and independent audits of transactions and activities that are regularly published. Undertaking wide public consultation and publicly debating whether to establish a fund, and, if so what type, as Timor-Leste has done, would also be beneficial and can contribute to nation-wide commitment to prudent use of petroleum income.

5.19. **Finally, an often-raised policy question is whether oil production should be used to make oil cheaper in Cambodia**. This of course comes at the cost of direct or implicit (through forgone revenues) subsidies, similar to the way Cambodia currently uses (low) fixed administrative prices to tax petroleum products, making the effective rate of taxation lower with rising world oil prices. Net oil exporters are much more likely to subsidize refined products than net oil importers. Oil price increases since 2004 have had very high fiscal costs for these countries, including two of Cambodia's neighbors, Indonesia and Malaysia, which are each spending more than US$10 billion a year on fuel price subsidies (more than 2.5 percent of GDP in Indonesia and more than 6 percent in Malaysia as of July 2008). The current implicit subsidy in Cambodia was estimated at 2 percent of GDP in the spring of 2008 (or 16 percent of revenues).

5.20. **Beyond its unsustainable financial cost, subsidized oil has a negative distributional impact and other negative economic impacts, hence not making it a wise use of petroleum income**. Universal price subsidies almost always benefit high-income households more than the poor, because richer households consume more energy. Take gasoline as an example: the very poor do not own vehicles, and hence do not buy gasoline. Other adverse consequences of fuel price subsidies include rampant abuses in fuel markets – fuel adulteration, mislabeling, and out-smuggling – and an inefficient downstream petroleum sector languishing for need of reform as subsidies deter new entrants and necessary competition and investment. Vietnam has historically had serious problems with out-smuggling of fuels to Cambodia and Lao, as have Malaysia and Indonesia. But once fuel subsidies are granted, they become entrenched and politically extremely difficult to phase out, especially given that the primary beneficiaries are the better-off (who are also politically powerful) and that, all too often, many actors are gaining financially from the corruption that ensues. A policy of keeping petroleum product prices artificially low also encourages inefficient or nonessential consumption of oil.

B. Mining

Possibly Significant, but Unknown Potential

5.21. **Like its neighbors, Cambodia has growth potential in the mining sector**. The country's geology is favorable to the same types of deposits which exist in Thailand, Lao and Vietnam: gold, porphyry copper-gold, polymetallics (Zn, Pb, Au, Cu, Mo), and bauxite. There is also geological evidence for other kinds of non-metallic raw materials, including industrial minerals, gemstones, and fuel resources, some of which are being exploited by small scale and artisanal miners.

5.22. **At this stage, the mining sector is composed of (i) small scale, artisanal mining; and (ii) larger-scale operations at the exploration stage**. Exploitation of minerals currently comprises about 0.4 percent of GDP and is dominated by traditional, small-scale mining activities: gemstones (sapphire and ruby) have a long history, and mining for gold and silica sand for glass material has recently started. Gold artisanal mines are located mainly north-east of Phnom Penh, but there are 19 known gold deposits in Cambodia. Gold mining is becoming an increasingly important occupation and it is conservatively estimated that the sector currently employs between 5,000 and 6,000 miners during the peak mining season. In addition, artisans produce limestone and other industrial minerals. Since 2005-06, a large number of exploration licenses have been granted to Australian, Korean, Vietnamese, Chinese and other companies. Nearly 100 exploration licenses have so far been granted and it is likely that these licenses could cover half of the surface area of eastern Cambodia. The presence of these private companies is indicative of the prospective geology base and the presumption by the companies of high potential for aluminum, copper, gold, molybdenum, silver, and zinc. However, this interest is based on preliminary data and some license holders may be more interested in speculating in hot minerals market of the past few years than in conducting serious exploration.

5.23. **It will take significant efforts to fully understand the geological potential**. Geological surveys were started in the late 19th century during the French Indochina period and have continued to the present through various programs (Vietnam, France, UN ESCAP, and others). The geological mapping conducted has identified many prospective areas, but this potential will be fully understood only after full-scale reconnaissance and exploration work, to be conducted primarily by private companies. A number of firms with licenses are undertaking various surveys (including air-borne, drilling), but the quality of their reporting to the Ministry of Industry, Mines and Energy (MIME) is uneven. It should also be noted that MIME is not forthcoming with information and data on exploration areas or results.

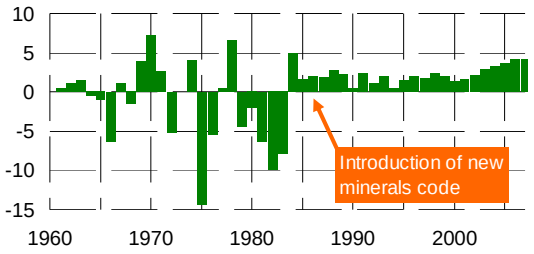
5.24. **Developing mining operations could have a significant impact**. In many countries, development of mining operations has had the effect of "jump-starting" economic development. Recent studies[28] by the International Council for Mining and Metals have postulated the ability of the mining sector to jump-start the process of economic development. The case of Ghana is illustrative (Figure 5.1). The passage in that country of new minerals legislation in the late 1980s enabled private sector investment in the mining sector. The production of mineral products in Ghana, particularly gold, expanded rapidly in the mid-1990s and was an important stimulus to improved GDP per capita growth in comparison to previous periods. However, translating the growth of minerals production and the revenue streams into measurable improvements in the wellbeing of the population is the ultimate challenge for governments. In the case of Ghana,

[28] See, for example, ICMM (2006). It is noted that there is considerable variance in the ability of countries to harness their mineral wealth for economic development. Ghana and Botswana are noted as success stories, but there are other countries which have had greater difficulty in using their mineral wealth. The key seems to be a genuine will and commitment to reform on the part of the Government.

improvements in the health and wellbeing of the population in the mining areas are measurable, but these improvements have taken time and a critical mass of multiple mining operations.[29]

5.25. **The recently opened Sepon mine, in Lao, highlights the potential development impact of mining on Cambodia**. This mine is producing US$600 million in copper-gold per year, pays over US$120 million in taxes and royalties, and employs several thousand persons. Moreover, for the Savannakhet province, where the mine is located, numerous communities have seen their wellbeing improved through provision of social services as well as jobs. Similar mines could be developed in Cambodia given the like geological setting. However, the development impacts are not immediate, they take five to six years to make themselves felt. In addition to direct jobs and community benefits, spin-off businesses such as transportation, food supply, civil engineering projects, material supply, etc., could be developed over time.[30]

Figure 5.1: Growth in Ghana became stronger and less volatile after the adoption of a minerals code



Note: growth rates in per capita income (PPP terms).
Source: WDI, Staff.

Major Sector Management Bottlenecks

5.26. **Realizing this potential requires much improvement in the way the sector is managed**. Many exploration companies working in Cambodia have pointed out issues with insufficient infrastructure, shortage of manpower, inconsistent management by the mining authorities, incomplete mining law, insufficient information, and the inadequate tax system, among other things.

5.27. **First, the mining policy must be defined and the regulatory framework improved**. Cambodia still has little experience with or history of mining, and there is no national mining policy. However in 2006, the Strategy for the Mining Sector was launched to enforce mining laws, strengthen agreements for exploration and development, improve assessments of exploration surveys conducted in concession areas, and attract private sector investment, among other purposes. Currently, the mining regulatory framework and government institutional set-up

[29] Another example is the case of the Selebe Phikwe nickel mine in Botswana. This mine has been in continuous operation for 40 years, and the wellbeing indicators for the community and surrounding areas are superior to those of the nation as a whole. See Issaksen (2006).

[30] The objective of "beneficiation" (moving from exporting raw natural resources to capturing more of the value-added and engaging in greater downstream processing) is often mentioned in Cambodia. Beneficiation seems to be a logical and natural progression for development. However, both theory and practice provide reasons to question the presumption that downstream processing is an appropriate development path (Hausmann, Klinger, and Lawrence, 2008). The skills and other inputs required to process raw materials and market finished products could be very different from those required to mine or grow them. The key input for producing aluminum, for example, is cheap energy, not local bauxite deposits, and that is why South Africa could develop aluminum exports, even though it had no bauxite, and why Jamaica produces bauxite but does not process it. To be sure, there are cases – most famously England's midlands during the industrial revolution - when coal and iron ore endowments favored a local steel industry, but there are other examples, most obviously Japan, where industrial prowess was attained despite poor natural resources. Moreover, there are strong reasons to believe that whatever was true in the past, as transportation costs have declined, and global markets have become more integrated, the advantage of proximity to raw materials production has diminished. An empirical study of the past 25 years confirms these doubts about whether beneficiation works.

does not lend itself to promotion of new sustainable investment in the mining sector. Steps to improve the climate for a vibrant mining sector include:

- *Revise the Mining Law*. The development of mineral resources, mining operation, reconnaissance for exploration and related activities are governed by the 2001 Mining Law. However, there are still many unclear aspects such as the acquisition and assignment of mining rights (see below). Also, Memorandum Of Understandings (MOUs) between the government and concessionaire are required for applications for exploration and mining rights. It takes several months to over a year to acquire exploration rights, because an exploration contract must be signed for an exploration right. The period, cost, amount and methods of exploration are regulated in detail by MOUs. Therefore, this works to discourage foreign investment in exploration and development.
- *Simplify and make transparent the process for obtaining a MOU for approving exploration and mining concessions*. Periods and conditions are determined for each company on a case-by-case basis and are based on negotiations. Although MOUs cover the usual basic items such as concession boundaries, period, type and volume of exploration, etc., there are no transparent objective standards for approval. Mining concession maps are hand-drawn on 1:100,000 scale topographic maps compiled by the Vietnamese government in 1969, and no new concession maps have been compiled for the entire country. There is thus a very high possibility that concession areas will overlap. Some fees and taxes must be paid to the government to receive a mining concession, which also requires the MIME minister's permission. To promote mining activities, it is indispensable to facilitate the acquisition of mining rights. In addition, for proper concession management it will be necessary to establish regulations to reduce the size of concessions, which should be managed so that no single company will have a monopoly of concessions in the exploration stage. Moreover, concession acquisition must be monitored, concessions granted on a "first-come, first-served" basis, and procedures must be kept fair and transparent.
- *Clarify the fiscal regime*. Although some of the specifics differ, the mining sector like the oil and gas sector requires special considerations from a taxation point of view, given the risks, heavy capital investments, and delayed returns. At present, the system for levying and collecting taxes is unclear because mining activity is mainly at the exploration stage. The RGC has to create a suitable, transparent tax system, with appropriate incentives to encourage environmentally clean exploration, landmine clearance, support to local communities and infrastructure, etc. Predictability of the tax regime is a major investment driver in the sector.

5.28. **Second, the management of the sector needs significant improvements**. It is very difficult for investors (local or foreign) to understand the current governing organization and administrative methods of MIME. This includes:

- *Clarify institutional set-up and roles and responsibilities*. The management of both metal and nonmetal mining is carried out by the General Department of Mining Resources (GDMR) of MIME. GDMR, which is responsible for managing the mining sector, including mining policies, collection of data related to mining activities, and permission of mining activities, has a total of approximately 100 staff working in three departments: (i) geology (responsible for maintaining and managing of database and materials for geology and mining as well as chemical analyses); (ii) mineral resources (in charge of accepting applications for and granting mining rights); and (iii) mineral development (manages and inspects activities of concessionaires). A central policy department is also needed.
- *Create technical capacity*. The organizations that had been training geological and mining technicians and engineers ceased operations in the 1990s and have not been restarted. At

present, "human resources" are geologists who are needed for exploration work and who are being brought in from countries such as Thailand, Lao, Indonesia, and the Philippines. In addition, while there are mining sector organizations in the Cambodian government, they suffer from a lack of personnel, technology and funding, and are not able to provide modernized management of the sector. Even at GDMR, there is still no one who has specialized knowledge of geology. For that purpose, a long-term plan for human resources must be formulated, after reviewing the current situation. Capacity should be expanded to build capable domestic consulting companies for geological surveys and exploration.

- *Improve communication between RGC and mining companies*. Sector governance must be transparent and easy to understand. Much could be learned from the Government-Private Sector Forum, for instance, Box 9.2).

5.29. **In addition, information on geological deposits must be gathered**. To promote exploration that leads to development and production, it is necessary to systematically conduct geological surveys, enter the data obtained into a GIS (Geographic Information System) database, and update existing digitized 1:1,000,000 and 1:2,000,000 geological maps. Furthermore, when necessary, private sector survey data should also be entered into the database and systematically developed, and geological and deposit databases (showing types, amounts, and grades of ores, geological conditions, characteristics and types of mineralization, etc.) should be improved and disclosed to companies that are interested in applying for exploration rights. Five or six geologists have started digitization using four computers at MIME's Department of Geology, but this effort is not on a scale that is adequate to address the issue.

5.30. **Realizing the mining potential will require dedicated investment in infrastructure** (Chapter 4). The infrastructure – roads, power – in areas with many licenses is poorly developed. This already creates difficulties at the exploration stage, and those difficulties will further increase with exploitation. It is necessary to pave main rural roads in the mining areas just like the main national roads as soon as possible. Other means of transportation such as inland waterways may be utilized if the mining sites meet certain geographical conditions. Prioritization in the power master plan might also need to factor in mining sites. A related issue concerns the removal of landmines and unexploded bombs, which adds to costs for mining firms.

5.31. **Finally, realizing Cambodia's mining potential raises a number of social and environmental questions**. First, social and environmental aspects are already a concern in existing small scale gold mines, which use chemical extraction techniques that can recover lower concentrations of gold (mercury amalgamation and heap leaching using cyanide). Both mercury and cyanide are highly toxic chemicals known to seriously affect human health and severely damage ecosystems if released into the environment. Massive releases of mercury can poison drinking water resources and contaminate the food chain. Serious environmental consequences from heap leaching have also been observed, particularly surface and ground water pollution, resulting from the poor operation of heap leaching tanks, accidental toxic chemical spills and the inappropriate disposal of tailings containing toxic chemicals. Second, large-scale mining will further challenge the environment (already a number of exploration licenses have been granted in protected areas).

5.32. **The regulatory framework for environmental management is largely in place, but implementation is lagging**. The 1996 Law on Environmental Protection and Natural Resources Management (LEPNRM) and its sub-decrees (on solid waster, water pollution, air pollution, and noise disturbance) set environmental standards that are somewhat more severe than in neighboring countries. The 1999 Sub-Decree on the Environmental Impact Assessment (EIA) Process defines the requirement for EIAs. And the 2008 Protected Area Law will serve to protect national parks, wildlife sanctuaries, protected landscapes, and multiple use areas. This

framework must be made more transparent to investors. And capacity must be built – with clear responsibilities between MIME and the Ministry of Environment – to implement this framework. Finally, the government needs to respect its own laws and not issue mining concessions in protected areas.

5.33. **These conclusions are preliminary and call for further consultation and analysis**. Although the foregoing analysis shows the potential critical importance of the sector for Cambodia, it is only a preliminary general investigation of the current state of the Cambodian mining industry and is based on scant information. With key stakeholders alerted about the challenge of the sector, a more detailed study should be conducted to derive a clear mining policy and a roadmap to realize Cambodia's mining potential.

C. Summing Up

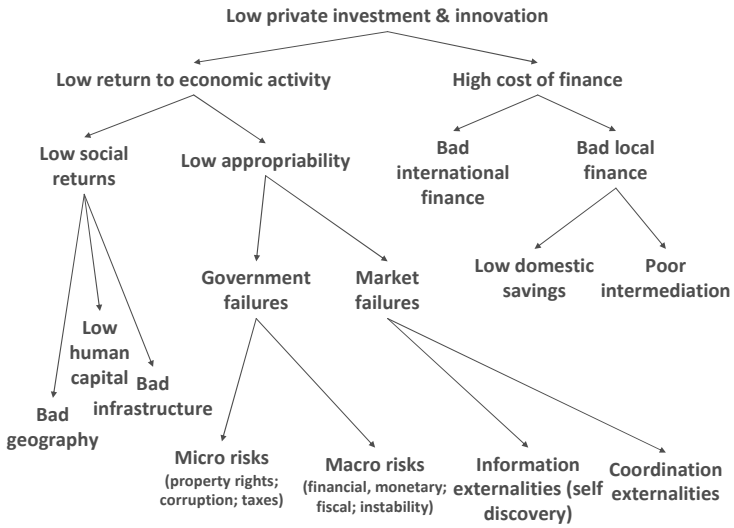
5.34. **The petroleum and mining industries have several distinct issues across the value chain that a government needs to consider**. The key steps include awarding contracts, regulating and monitoring operations, assessing and collecting revenues, managing revenues, and implementing sustainable policies for managing the sector and, for oil and gas, pricing of hydrocarbons for end-use. Every country is involved in downstream petroleum, but new hydrocarbon and mining producers face the additional challenge of managing the upstream sector and the potentially volatile and unpredictable revenues associated with it.

5.35. **Both the mining sector and the upstream petroleum sector in Cambodia are in their infancy: realizing the sectors' potential involves major challenges**. The first priority is to establish a legal and institutional framework that is consistent with other laws of the country and with internationally recognized standards in the sector. More consideration could be given to the awarding of contracts, and more specifically whether to award competitively or through direct negotiation, which is how contracts have been handled to date in Cambodia. Of particular importance are the fiscal framework and a clear separation of the regulatory and operational functions. The second priority for getting to the production stage is to build the Government's capacity to manage the sector, collect revenues, and assess environmental implications. Finally, preparatory steps should be taken for a number of issues that will then arise, in terms of infrastructure, revenue management (e.g. oil funds), development of a domestic industry. In particular, great caution should be exerted regarding the idea of using domestic resources to subsidize local consumption (of petroleum or mining products) given the potential fiscal costs and efficiency implications.

6. Constraints on Growth

6.1. **In Cambodia, a low-income country, everything might be seen as a constraint on growth – yet, as a low-capacity country, prioritization is key**. This chapter follows a framework of "growth diagnostics" developed by Haussman and Rodrik (2005, Figure 6.1) to identify constraints that explain the characteristics of Cambodia's economy (Chapter 1), in particular its low levels of investment and low diversification. Section A asks whether entrepreneurs can get access to the finance that they need to invest. Section B, assuming that finance is available, asks whether entrepreneurs can develop projects with high enough returns – i.e. is the cost of factors conducive to good projects. Section C, assuming that such high-return projects exist and can be financed in Cambodia, asks whether entrepreneurs would actually make these investments given that they face uncertainty over whether they will capture these returns (which could instead be captured by corruption or erased by macroeconomic instability). The specific priorities are, summarized in Section E, while Section D covers agriculture and Chapter 5 the extractive industries.

Figure 6.1: A decision tree can help identify the most severe constraints on growth



Source: Haussman and Rodrik (2005).

A. Access to Finance

6.2. **Although Cambodia's financial sector is under-developed, it has responded to growth since 2005** (Section 1.A). After GDP growth accelerated in the early 2000s, the financial sector responded, including through innovations brought by foreign banks. The financial sector is now at a level of development commensurate with the country's income (Figure 1.9). Liquidity (measured for instance by the loans to deposits ratio, Table 1.1) remained high until late 2008. Real interest rates are now negative (Table 6.1), although this is a recent development (with nominal rate somewhat high and stable, and inflation increasing since 2007). If anything, the

limited supply of credit has constrained investment in construction (with investment and the real interest rate showing a negative correlation, suggesting that the equilibrium was moving along the demand curve, i.e. being constrained by the supply of credit, Figure 6.2), but not in equipment. A very small minority of firms rate the access to, and the cost of, finance as a severe constraint in the business environment (World Bank, 2008d).

Table 6.1: Bank Loan and Deposit Rates (%)

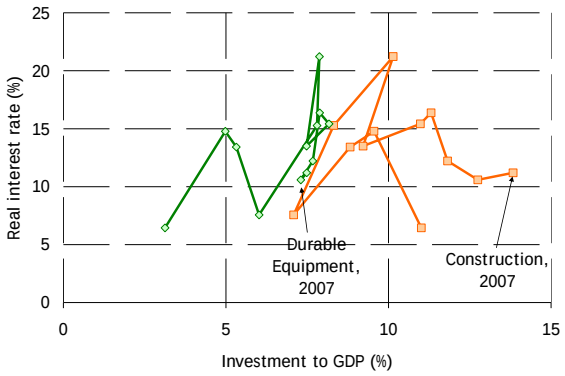
	Cambodia	Comparator countries **	Indonesia	Thailand	Vietnam	Bangladesh
1 Ave. Loan Rate	16.2 *	16.4	13.9	7.1	11.2	16.0
2 Ave. Dep. Rate	1.9	8.2	8.0	2.9	7.5	9.3
3 Spread=1-2	14.3	8.2	5.9	4.17	3.7	6.7
4 Inflation 2007 Dec.-Dec.	10.8	10.1	6.6	3.0	14.4	11.6
5 Real Dep. Rate=2-4	-8.9	-1.9	1.4	-0.2	-6.9	-2.3

Note: (*) foreign currency rate; (**) refers to 12 countries (Albania, Angola, Bolivia, Ethiopia, Honduras, Kenya, Mongolia, Mozambique, Tanzania, Uganda, Zambia, and Yemen). Source: IMF (International Financial Statistics).

6.3. **Although this suggests that the financial sector is not constraining growth, savings will have to increase in the medium term** (Chapter 2). In particular, the strong negative correlation between GDP growth and the size of the current account deficit (Figure 2.2) suggests a strong dependency on foreign savings (which are at risk in the current international financial environment). Policies to achieve this medium-term objective are discussed in Part 3 (Section 7.A in particular). In addition, even in the short-term, the financial sector is probably constraining two types of investments, suggesting intermediation issues.

6.4. **First, access to finance is likely to be a constraint for medium-size greenfield investments** (and possibly more generally for innovation). Large loans of US$5 million or more are reportedly very difficult to mobilize in Cambodia. It can also be observed that almost all large investments are cofinanced by foreign investors, a source that might be less forthcoming in 2009. Anecdotal evidence indicates that credit rationing has been an element preventing diversification from garments to textiles.[31] Given the many constraints on such capital investments (see below), it is difficult to conclude to what extent the financial sector is the constraint – rather than other business environment issues.

Figure 6.2: Investment in construction is negatively correlated with real interest rates, but investment in durable equipment is not



Source: NIS, WDI, Staff (data for 1995-2007).

6.5. **Second, access to finance is a stronger constraint for agriculture** (Section D). Only 5 percent of the loan portfolio is for agriculture (NBC, 2008). With lack of access to formal credits, many farmers rely on informal sources of financing with very high interest rates. Lack of credit is also viewed as a major reason for rice millers' lack of working capital and outdated technology. Many financial instruments, such as factoring, warehouse receipts, and inventory credit, are missing. In addition, banks only do collateral-based lending with steep coverage requirements, amounting to two or three times the value of the loan: given the structural

[31] This is also consistent with an analysis of the "external dependence across sectors" (the amount of capital expenditures that a typical firm needs to finance from external finance as opposed to retained earnings, cf. Rajan and Zingales, 1998). All sectors that Cambodia is specialized in (garments, but also tobacco and beverages) have a low level of external dependence, suggesting some constraint from the financial sector.

problems related to land titling in Cambodia, most farmers cannot produce a clear title to their land and, consequently, cannot qualify for bank loans. Banks in Cambodia simply will not lend against unsecured future cash flows, or against a signed sales agreement. Finally, loan repayment terms are not sufficiently flexible for some longer term agriculture crops, agro-forestry in particular. In the recent past, the maximum credit repayment term was extended to five years, but this repayment period is still insufficient for some crops.

6.6. To sum up:

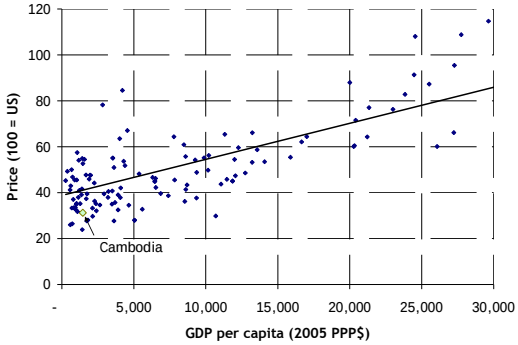
- The financial sector was until mid 2008 unlikely to constrain growth immediately at an aggregate level;
- However, even then, it was constraining some types of investments that are important in some growth strategies; and
- It will become a constraint if savings are not better mobilized in the medium term.

B. Costs of Factors

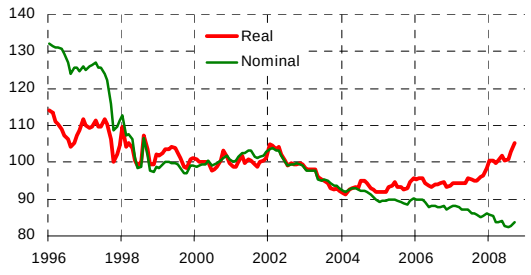
6.7. **A recent appreciation of the Cambodian riel in real terms has increased all dollar-based costs of factors**. Based on a simple analysis[32] (comparing the level of prices to the level of development, Figure 6.3), Cambodia did not seem to present any major overvaluation. If anything, there was in 2005 a small undervaluation, a feature which has been shown to be important for growth (Rodrik, 2008). Since then, good macroeconomic management and the appreciation of many currencies against the US dollar had led to a relative depreciation up until mid-2007 (Figure 7.1). However, the sharp appreciation of the riel in real terms since then (driven by strong inflows of capital in 2007-08, on top of a steady stream of external assistance, together with a major terms-of-trade shock) has changed this. This appreciation is most likely poised to become a major binding constraint on growth (and diversification as this is going to defeat Cambodia's comparative advantage, see Chapter 4).

Figure 6.3: Some undervaluation in 2005 is likely to have morphed into overvaluation in 2008

a/ Undervaluation in 2005



b/ Trend in Effective Exchange Rate (increase = appreciation; base 100 = 2000)



*Note: In panel a/, the exchange rate was assumed to be undervalued in 2005 if the price level measured in the International Price Comparison Project is **below** the regression line for a given income per capita (in 2005 PPP $). In panel b/, an increase means that the riel is appreciating. Source: WDI and IMF for exchange rate.*

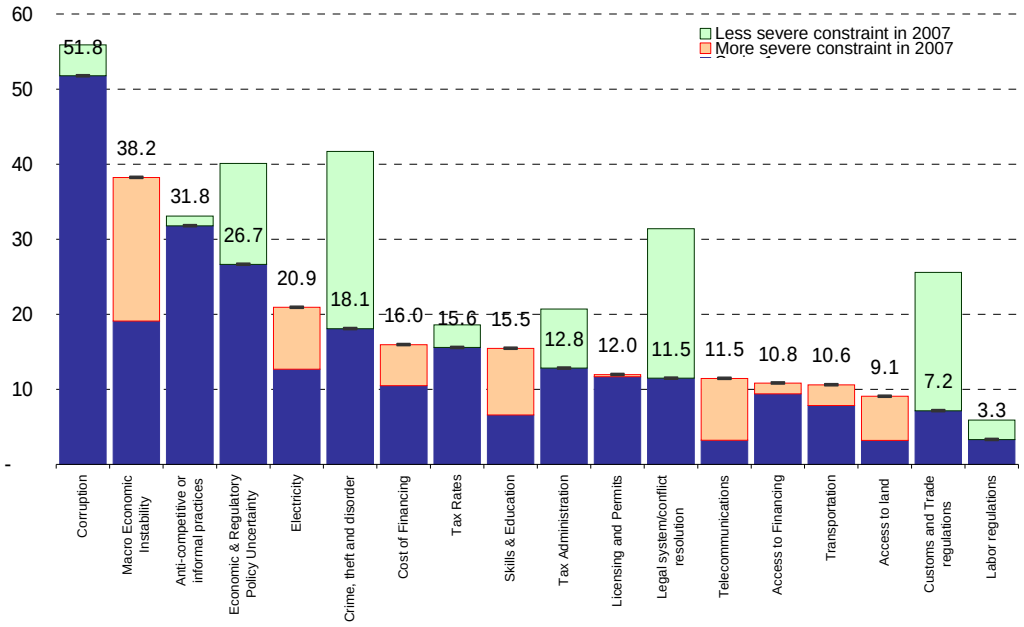
6.8. **As noted in Chapters 3 and 4, labor remains abundant and at low wages**. There is no sign of firms complaining about regulations (occasional questions raised about the compliance costs of the labor standard program in garments are offset by a sense of the returns to this program). Firms also appreciate the openness to foreign labor (although recognizing that they

[32] The IMF is mandated to undertake more in-depth analysis, which is typically published as part of its Article IV consultations.

would prefer hiring Cambodian, in particular for mid-level management, to save the cost of expatriates). The main issue raised relates to labor disputes (see below).

6.9. **There is no evidence of aggregate skill constraints, although some mismatches have appeared**. Despite the low level of education, returns to education remain low (Figure 4.3). The only exception is probably the mismatch of skills for those that pursue upper secondary and tertiary education, which now trains a lot of "managers" and insufficient numbers of more specific skills (such as accounting, IT). This is also evident in the high turnover, which weakens the incentives for firms to train their staff (World Bank, 2008d). Hence general education – which has a noteworthy impact on yields – should remain the policy priority, with a gradual preparation of the secondary and tertiary sectors. If skills are not a major constraint (yet), vocational training is probably an exception given the possibility of addressing immediate needs of existing firms: but here the issue is more one of coordination (see below).

Figure 6.4: Constraints on the business environment have changed between 2003 and 2007, with corruption remaining firms' main concern[33]



Note: Share of firms that respond "severe or very severe" to the question: "How problematic are the following issues to the operation and growth of your business?" Source: 2003 and 2007 Cambodia Investment Climate Surveys.

6.10. **Electricity appears to be a binding constraint as evidenced by the high incidence of generator use and the high price of electricity** (Figure 6.5). The fact that almost no electricity-intensive industries are in place also supports that conclusion.

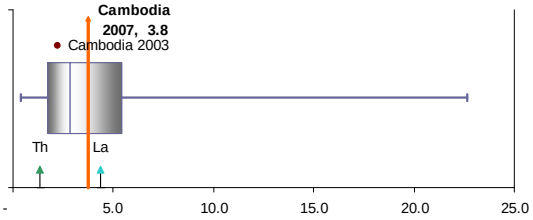
6.11. **Transport and logistics capabilities are limited in Cambodia**, particularly for refrigerated cargo such as fresh fruit and vegetables. The costs of domestic and international shipping are high, despite some recent progress in trade facilitation. For example, transporting a loaded container from Kompong Cham to Sihanoukville is reported to cost US$50 per ton, or US$1,000 per container (for transportation and a fixed, standard informal payment of US$220

[33] While very revealing, two caveats must be noted for this type of data. First, the various potential constraints are not equally narrowly focused: "corruption", for instance, can cover a wide range of issues (as discussed in para. 6.23), while "tax rates" are much narrower. Second, the data is based on a survey from *existing* firms: as noted in Chapter 2, a key issue is the lack of diversification, making this data uninformative about what prevents *other* firms from entering the market.

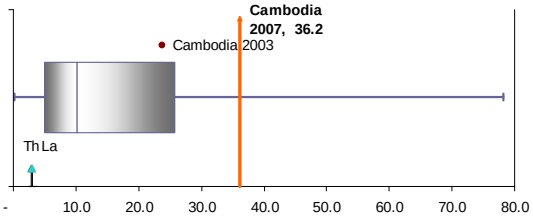
per container); while the distance to Ho Chi Minh City from Kampong Cham is shorter than the distance to Sihanoukville, the cost of transporting containers through Vietnam is reported to be higher, at US$1,300 per container (with crossing fees on both sides of the border and the ban on Cambodian trucks driving in Vietnam). Shipping a dry, 40-foot container from Ho Chi Minh City to Singapore would cost approximately US$220, whereas the rate for a similar container from Sihanoukville to Singapore is around US$600. Food transport and exports are constrained by the low number of trucks with the necessary cooling equipment, the weak handling capacity for refrigerated containers at the Port of Sihanoukville, and even higher costs of shipping refrigerated containers. The cost of transport for agricultural products is US$15 per ton per 100 km, against US$7.50 in Vietnam and US$4 in Thailand (see background paper by EIC). The efforts deployed by the garment industry to improve logistics and trade facilitation (see Chapter 2) also demonstrate that this is an important constraint.

Figure 6.5: Poor access to electricity is a serious constraint on businesses

a/Value Lost to Power Outages (% sales)



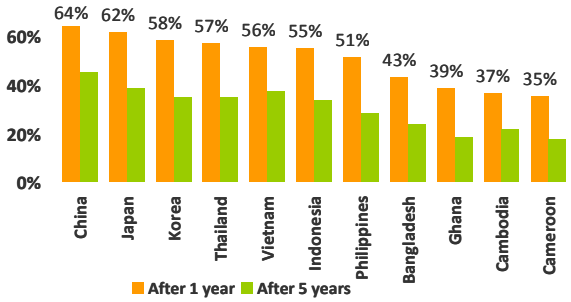
b/ Electricity from Generators (%, manufacturing sector)



Note: The box represents the 25th and 75th percentiles of the distribution and the middle line the median. The extreme ends of the bar represent the minimum and maximum of the distribution. Cambodia's performance in 2003 and 2007, and those of Lao and Thailand, are displayed.
Source: World Bank (2008d).

6.12. **Finally, there is strong evidence of a lack of self-discovery and coordination**. Self-discovery is the process by which a country finds out "what it is good at". It is a delicate process as it involves entrepreneurs taking risks, and potentially not being able to reap all the rewards of their investment (once they have found that something works in the context of Cambodia, it is likely to be replicated by others). Investing in new areas also requires the coordination of many inputs and policies, which is difficult to engineer, or is simply impossible when some inputs are missing.

Figure 6.6: Cambodia tends not to sustain its new flows of exports



Note: the survival rate of exports measured the proportion of new export flows that are still positive after one or five years. Source: ComTrade, Staff, based on data from Paul Brenton.

6.13. **The lack of diversification and the nature of the products exported by Cambodia highlight the issue**. Most value chains in Cambodia are simple, reflecting the risk that a complex value chain, with coordination among many elements of the value chain, would represent. This is evident in the garment sector, where Cambodia remains focused on "CMT", i.e. the part of the value chain that is easiest to coordinate. Even in tourism, the type of tourism in Cambodia involves very simple value chains. Most farm products are exported as raw commodities (e.g. rice paddy, unshelled cashew nuts). The survival rate of new exports – the proportion of new exports that are still exported after one or five years – is also low, reflecting either (i) that Cambodian exporters might be able to do one-

time innovation (a positive sign), but are unable to sustain such innovation as they lacking the capability to deliver on time, logistics, etc.; or (ii) that foreign importers are willing to try to source from Cambodia, but after one or few attempts realize the cost of doing business (Figure 6.6). The sophistication of exports has not improved much despite rapid growth (Figure 4.4). The lack of "nearby products" (Chapter 4) also suggests that Cambodia is exposed to problems of self-discovery and coordination.

Box 6.1: The Role of Foreign Investment in Cambodia

Foreign Direct Investment (FDI) plays a major role across countries. In particular in developing countries, it can bring a package of technologies, knowhow, connection to supply chains, finance, etc. This is evidently true in Cambodia, where the fastest growing industry (garments) is essentially foreign-owned and where innovation in many other sectors is at least partially related to FDI (banking, can factory, assembly factories, telecoms, tourism). In the case of Cambodia, FDI brings finance (given the low domestic savings), helps address the poor image that the country still has on international markets (although, evidently, this factor still weakens inflows of FDI), and helps address Cambodia's shortage of skilled labor (in part thanks to a very open policy by the RGC).

Overall, attitudes and regulations are favorable to foreign investors, giving guarantees against discriminatory treatment of foreign investors and easy conditions for visas (the only exception is that foreigners cannot own land, but they can lease land for up to 99 years).

Agribusiness (tobacco for instance) provides an example where foreign investment can bring a package of ingredients for successful growth: access to international markets for exports; technology and financial capacity to organize its own production, but also for its contract farmers; managerial capacity to organize contract farming. Agribusiness serves also as a reminder of the role of medium-scale foreign investments. While high-profile, high-impact investments are extremely desirable, they are difficult to achieve in all but the most ideal investment situations. Medium-scale foreign investments could bring the financing that local entrepreneurs miss (and some managerial or technical capacity as well). A review of Cambodia's agribusiness highlights the lack of a clearing house to link potential investors with viable local partners (or to link entrepreneurs with an idea with foreign investors, see Chapter 9).

6.14. **Factors behind the lack of coordination are numerous**. Cambodia's short history as an open, integrated economy and the destruction of its elites in the 1970s have led to a very low capital of market experience (knowledge, marketing contacts, etc.). This also translates into many *de jure* legal reforms not leading to *de facto* changes. Coordination issues are also evident in the lack of support services, such as packaging, standard certification, logistics, accounting (although in most domains a few firms are emerging). Conversely, the role of the GMAC and the "hand-in-hand relationship" of firms with the RGC in the garment sector show the successes that good coordination can generate (Section 2.C).

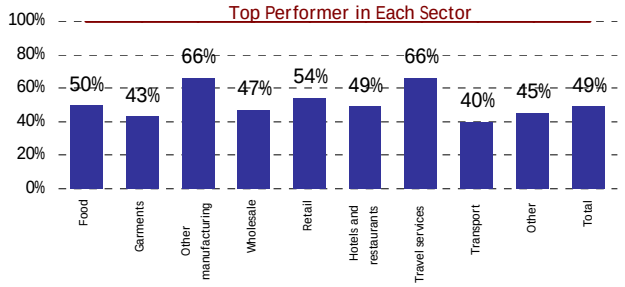
6.15. **Obviously, major uncertainties make coordination issues difficult**. Most of the top six factors that firms cite as severe problems for their operations could be interpreted as relating to uncertainties in the business environment (Figure 6.4): corruption (see next Section), macroeconomic instability, anti-competitive and informal practices, economic and regulatory policy uncertainty, and crime, theft, disorder. This linkage between coordination issues and these uncertainties make the growth diagnostic more tentative (are the uncertainties the source of the coordination problems, or are coordination problems the core of the constraint?).

6.16. **There are a number of other market failures that weaken incentives for investment and productivity**. For instance, farmers, being perpetually cash-strapped, cannot negotiate prices and are forced to sell at depressed prices after the harvest: this undermines incentives to improve productivity (Section D). Another important market failure that undermines these incentives is smuggling, as local producers (especially in agro-processing) must compete against smuggled ("duty free") goods. Evidence of these weak incentives is shown by the disparity between the best performers and the average performance in each sector, particularly in sectors that should be highly competitive such as garments or tourism (Figure 6.7). Lack of competition is also documented, for instance, for the air connection between Bangkok and Siem Reap, an

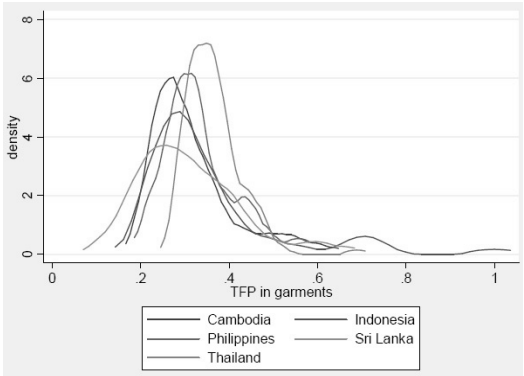
important constraint on the development of tourism in Cambodia (the monopoly on this connection results in a yield per passenger 27 percent higher than other flights, FIAS, 2007).

Figure 6.7: There is great variation of performance within each sector, with top-performing firms in garments comparable to top performers in competitor countries

a/ Productivity Gap between Mean and Top Performer across Sectors



b/ Density Function of Productivity in the Garment Sector in five Countries



The left panel displays mean firm-level TFP across sectors, as % of TFP in best performing firm in the sector. The right panel shows the density function of the TFP in garments across five countries. Source: World Bank (2008d).

6.17. To sum up:

- Among factor costs in local currency, the main issue in the short term seems to be the cost of electricity and the cost of trade. On top of this, the appreciation of the riel in real terms has recently weakened overall competitiveness.
- More important as a factor preventing investors from making plans for high-returns projects is the issue of coordination (and to a certain degree weak incentives for investment and productivity).
- As noted in Chapter 4, although skills and infrastructure are not major binding constraints at the moment, they will need upgrading for Cambodia to develop.

C. Appropriability

6.18. A final potential constraint on investment is that, even though investors find projects that they expect will generate high returns and would be able to finance them, they are reluctant to undertake them because they doubt they can actually appropriate the returns. The reasons for this reluctance can be macroeconomic instability, heavy taxation or regulation, poor dispute resolution mechanism, or corruption. This section reviews these factors.

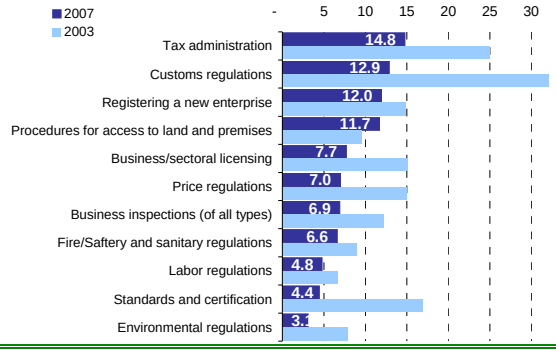
6.19. **While macroeconomic stability has been a key achievement of the RGC over the past decade, risks have recently** increased sharply (Chapter 1). This has become a key concern for firms (Figure 6.4).

6.20. **The level of taxation is not seen as a major constraint**. This is confirmed both through surveys (Figure 6.4) and case studies, such as the Doing Business indicators (World Bank, 2008f).

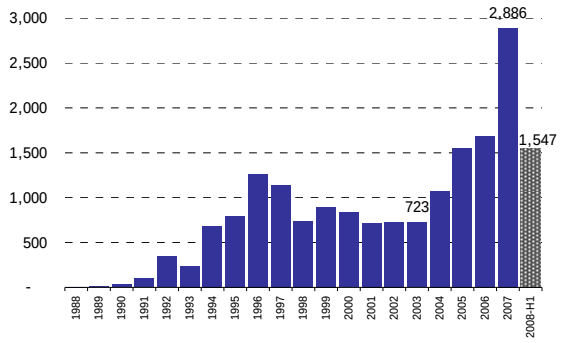
6.21. **However, the complexity of regulations and the poor administration of tax and regulatory requirements are an important burden on firms**. Senior management spends a high 9 percent of its time dealing with government regulation requirements (World Bank, 2008d). Despite some improvements over the past few years, tax, customs, and business registration continue to have overly complex regulations and processes. The impact of the regulatory burden was evidenced by the major acceleration in company registration generated by the simplification of business registration processes in 2005-06 (World Bank, 2008d, Figure 6.8). It is also evidenced by the large informal sector (World Bank, 2008d).

Figure 6.8: Despite some progress between 2003 and 2007, regulatory processes remain burdensome; improvements have translated into more company registrations

a/ Procedures and regulations viewed as severe constraints (%)



b/ Company registrations

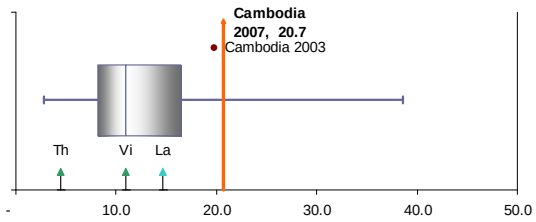


Source: World Bank (2008d).

6.22. **The absence of credible dispute resolution mechanisms is also a constraint**. Even established firms complain about it and have developed several ways around it: a very high share of pre-paid sales and very large inventories (Figure 6.9) to protect themselves from the uncertainty of dispute resolution (and logistics in the case of inventories). Between 2003 and 2007, losses due to labor disputes have increased from 2.6 to 6.0 days of production per annum and per establishment (World Bank, 2008f). More generally, the poor legal environment is evident from the high degree of self-enforcement of contracts, which is a particular constraint for foreign investors.

Figure 6.9: Firms have strategies to avoid using courts for commercial disputes

a/ Share of Sales that are Pre-Paid (%)



b/ Days of Inventory of Most Important Input

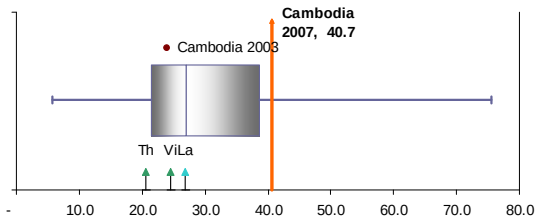
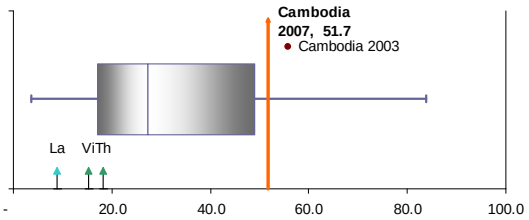
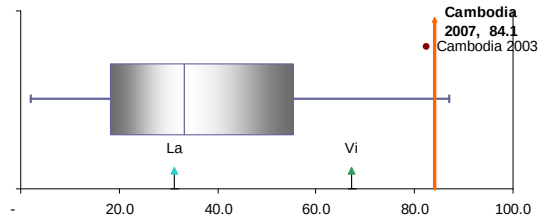


Figure 6.10: Corruption remains a major concern for firms

a/ Firms Identifying Corruption as a Severe Constraint (%)



b/ % of Firms Expected to Make Informal Payments to Public Officials (to "Get Things Done")



Note: The box represents the 25th and 75th percentiles of the distribution and the middle line the median. The extremes of the bar represent the minimum and maximum of the distribution. Cambodia's performance in 2003 and 2007, as well as Lao, Thailand, and Vietnam are displayed. Source: World Bank (2008d).

6.23. **Established firms report "corruption" as their main concern** (Figure 6.4 and Figure 6.10). There are multiple facets of corruption: (i) at the service delivery level (with bribes for registration, licenses, utility connections, customs, courts, taxation; etc.); (ii) in public procurement (both small and large contracts); and (iii) in gaining favor for policy decisions. As discussed in Chapter 2, sector-specific governance arrangements and various mitigating strategies

have enabled firms to develop – and some sectors to prosper – but at a cost, in terms of sustainability and diversification.

6.24. **The impact of corruption is felt through direct and indirect channels**. The direct channel is evident from survey data such as Figure 6.10: high incidence of informal payments for various licenses and inspections (more than 80 percent of established firms are expected to make payments to "get things done"), weak reporting of income for tax purposes (only 59 percent of revenues is reported to the tax authority), etc (World Bank, 2008d). The indirect channel is through corruption's effect in deterring firms from entering the market: hence, as noted in Chapter 2, poor governance has a direct link with poor diversification.

6.25. To sum up:

- Regulatory complexity and uncertainty, lack of dispute resolution mechanisms, and corruption are important barriers to diversification, although ad-hoc mechanisms enable certain firms to operate in this environment.
- The uncertain macroeconomic environment is becoming an important constraint on growth.

D. The Case of Agriculture[34]

6.26. Given the continued strong comparative advantage and potential for diversification and productivity gains in agriculture and agro-business, this section focuses on agriculture. It sets out five symptoms of the problem, before proposing a prioritization. The constraints are by and large consistent with the rest of the economy, with the exception of rural infrastructure.

Five Symptoms

6.27. **The first symptom is the inadequate fertilizer usage**. Poor soil fertility (see above, para. 4.2) is identified as a major production constraint in most lowland areas, and could be addressed by suitable soil and fertilizer management technologies, such as siltation. Farmers do not use fertilizer at either the appropriate time or in the right amount. Adulteration is another problem that occurs leading to a mismatch between nutrient content and the label. Even when good quality fertilizers are imported from Thailand, these are diluted by middlemen before reaching the farmers. The presence of low quality fertilizer has made many farmers suspicious of the market. Fertilizer usage in Cambodia is significantly lower than in neighboring countries at about 5-6 kg/ha, much lower than the average in the region (Table 6.2). Only 27 percent of rain-fed farms use inorganic fertilizers, compared to 70 percent of dry season farmers who have access to irrigation.

6.28. **This is so despite significant positive rice yield responses to fertilizer usage**. A 1 percent increase in fertilizer application increases paddy yields by 0.22 percent for dry season rice and 0.27 percent for wet season rice. Estimates show that this response has been increasing in recent years and that it is higher in the coastal zone and lower in the Tonle Sap zone. Returns to fertilizer application are large, way above 1 (i.e. a 1,000-riel investment in fertilizer will have increase output by much more than 1,000 riels in a variety of price scenarios). This significant response suggests that there are deeper issues behind this symptom.

[34] See references and detailed regression analysis in the background paper on the supply response to food price increases, prepared by the International Food Policy Research Institute (IFPRI). The objective of this section is to suggest a prioritization among the many constraints in agriculture. More detailed reviews of all the constraints have been done by various stakeholders, in particular in the context of the preparation of the RGC's Strategy on Agriculture and Water.

Table 6.2: Rice Yields, Technology Usage, and Infrastructure in Cambodia and the Region

Year	Cambodia	China	Indonesia	Laos	Malaysia	Myanmar	Philippines	Thailand	Vietnam
Rice yields (ton / ha)									
in 2000	2.1	6.3	4.4	3.1	3.3	3.1	3.1	2.6	4.1
in 2008	2.6	6.3	4.7	3.5	3.5	2.5	3.8	2.8	4.9
Average	2.3	6.2	4.6	3.3	3.3	2.7	3.5	2.7	4.6
Growth rate %	3.6	0.2	0.7	1.9	0.8	-2.5	2.7	0.8	2.3
Modern technology									
Tractor (per ha)	0.6	6.5	4.4	1.2	23.9	1.0	2.0	14.2	24.9
Fertilizer (kg/ha)	5	319	145		806	1	150	133	324
Irrigation (% of arable land)	7	39	23	19	20	20	27	31	45
Infrastructure									
Roads paved (% total roads)	6.3	81.6	55.3	14.4	81.3	11.9	9.9	98.0	25.0
Telephone mainlines (per 100 people)	0.2	28.0	6.6	1.3	16.6	1.1	4.2	11.1	19.1
Electric power consumption (kWh per capita)	15	1781	509	179	3262	82	588	1988	573

Source: Based on USDA Production, Supply and Distribution online (2008b) and FAOSTAT (2008), WDI (2008), see background paper on rice by IFPRI.

6.29. **The second symptom is the lack of irrigation facilities**. Approximately 7 percent of crop land is irrigated, the lowest in all of South-East Asia (Table 6.2). The dependence of the agriculture sector on rainfall subjects the sector to weather vulnerability. As a result, actual year-to-year growth rates in the sector are marked by peaks and troughs, reflecting excessive exposure of producers to production uncertainties. A lack of irrigation facilities also restricts the majority of producers to a single, rain-fed rice crop per year, discouraging diversification of local farming systems. Potential irrigation area could reach 1 million hectares in Cambodia (around a quarter of arable land), according to Ministry of Water Resources and Meteorology (2003) estimation. However, most irrigation schemes were built in the 1960s and 1970s, and are not functioning well due to poor design and serious deterioration due to lack of maintenance and financial and technical supports.

6.30. **Again, the returns to irrigation are very high**. The returns to irrigation investment are also significant: the cost benefit ratio – the additional revenue per hectare from irrigated area divided by the unit cost of irrigation – ranges from 1.5 in the Tonle Sap zone to 1.9 in the Plain zone in 2004, and is above 2 in 2007.

6.31. **The third symptom is the weak system of research and extension**. Technology transfer plays a crucial role in increasing agricultural productivity, as exemplified by the Green Revolution in other Asian countries. Cambodia has no national research system and only a few focused research institutions. While the Cambodian Agricultural Research and Development Institute (CARDI) is a world-class organization that serves Cambodia's agricultural sector well, there is a disconnect between the information and technology that is available at the institute, and that used by small holders because (i) farmers may simply not be aware of the technology, given the limited extension services; and (ii) even if they are aware of the technology, farmers may not have the financial capacity to buy the materials and equipment needed to apply the technology. Consequently, farmers use unimproved seed for their crops or use weak seed from too many crop generations; too little fertilizer; too small (or occasionally too large) applications of farm chemicals. In general, they may use a set of farming practices that fall short of providing optimal crop yields. Limitations also exist in both the availability of technology and the capability to identify, test, and adopt promising technology, which is mainly rooted in a lack of funding of research and development (R&D) activities. Among the various independent organizations within the country that are conducting limited R&D activities, there is a lack of coherent planning and coordination, and the research rarely reflects actual farming conditions. Intended end users (farmers) have very little input into the R&D and extension delivery process. Linkages between research and extension are very weak and technology demonstrations are often commodity-oriented, instead of being geared towards a diversification of farming systems.

6.32. **In addition, the absence of standards (and other trade instruments, such as geographical indication) weakens incentives for diversification**. With increasing worldwide concerns over food safety, importing counties are placing more and more stringent requirements on imported agricultural and food products that Cambodia is ill equipped to meet.[35] For example, Cambodian fish and fish products are not allowed into EU markets, since exporters are unable to meet EU import requirements. These include compliance with EC legislation, minimum conditions for sanitation and hygiene in production areas and in product handling, physical inspection and control, the application of Hazard Analysis and Critical Control Point (HACCP) systems, and laboratory checks carried out by competent authorities. For Cambodia, these conditions require that legislation be implemented according to EC requirements, and that laboratories and testing procedures be upgraded to comply with EU regulations.

6.33. **The fourth symptom is the poor rural infrastructure** (Table 6.2). Because rural farmers are not well informed about market conditions (and prices can vary on a daily basis), Cambodian rice farmers are not in position to negotiate a better farm gate price for their paddy. They tend to settle for a fixed price even if the market price has increased. Efficient and adequate rural infrastructure reduces agriculture production costs and increases farm gate prices by bringing people closer to market and opportunities. Rural infrastructure in Cambodia is characterized by inadequate rural roads and poor road maintenance; one of the lowest electrification rate outside of sub-Saharan Africa (hence reliance on generators and high energy costs); and still low penetration of telecommunication services (and also high telecoms charges). The cost of poor infrastructure is compounded by informal charges paid during transportation.

6.34. **Again, access to market and telecommunications has a significant impact on yields**. For instance, if the distance to a permanent market is reduced by 1 percent, the wet season paddy yield could be increased by 0.01 percent.

6.35. **The fifth symptom is the rudimentary credit system**. Apart from the ACLEDA Bank, the formal banking sector lacks capacity and is reluctant to lend in rural areas given the higher costs of reaching dispersed and small-scale clients, the difficulty of assessing credit risks, and the absence of reliable collateral (see Section A). For most farmers, a need for cash during an emergency tends to leave them with only one option: to sell their produce stocks at a low price. Hence, access to financial services is an important factor in enabling households to cope with variability of incomes and vulnerability, and to respond to existing economic opportunities.

Constraints on Agricultural Growth

6.36. **The potential for growth in agriculture is significant**. For instance, it is possible to raise Cambodia's rice yields to the levels of its neighboring countries, if proper technology (fertilizer, irrigation) and infrastructure (market, road, electricity, telecommunications, education, and health) are provided. Given the high responsiveness to fertilizer, farmers could considerably increase their yield and revenue from more market sales. CDRI (2008a) concluded that if the

[35] There are three types of requirements. (i) *Conformity assessments* for Cambodia to prove that its exports are compliant with importers' standards. Hence importers would need to have full confidence that test data and inspections from Cambodia were reliable and that certifications of food safety made in Cambodia could be trusted. (ii) *Sanitary and Phyto-Sanitary measures,* sanitary – human and animal health – and phytosanitary – plant health – measures ensure food safety and prevent the spread of pests and diseases. Imported products must come from disease-free areas, be inspected, and undergo specific treatments to set maximum allowable levels of pesticide residues or additives in foods). (iii) *International product standards* for safety and quality such as those that limit market access for Cambodian rubber: without a certification by an internationally recognized, accredited laboratory, Cambodia cannot sell directly to end users and depends on Vietnam as its export market).

mid-2008 high prices stay after the next harvest, farmers will see 50-80 percent higher net margins, despite the higher input costs they are incurring now.

6.37. **To realize this potential, going back to the framework used in Sections A-C, the constraints for agriculture appear to be as follows**:

- *Coordination (and public goods) issues*. There are four different gaps. First, the lack of research and extension translates into poor information on price, technology, and marketing. Second, the absence of a mechanism to develop and enforce standards both distorts the input market (e.g. quality of fertilizers) and reduces the incentives to move toward higher value chains. Third, coordination among private actors is difficult, even for simple value chains like rice, while it is known that food value chains can be complex (World Bank, 2008c). The fourth gap is the lack of land titles and proper land planning for new areas (Section 4.A). Low usage of modern technologies, poor quality of fertilizers, high positive impact of education on yields[36] are all symptoms of these four gaps.
- *Appropriation*. Like all sectors, agriculture suffers from the difficulty farmers face in getting the returns out of their investment (in turn, this gives them an incentive not to invest). Although they are probably less faced with bribes around regulatory processes (since they are mainly informal activities), they face costs while transporting their output. Finally, coordination issues (previous point) put the farmers in a weak position to get the best information on technology and price. These concerns most likely explain a great part of the credit rationing that agriculture faces (see also para. 6.5).
- *Risks*. Another important factor is the risks associated with the weather, which are compounded by the lack of irrigation coverage. Combined with poor land titling, this contributes to credit rationing. Recently inflation in the prices of inputs has also considerably increased risks, possibly creating the case for some well-targeted subsidies.
- *Rural infrastructure*. While only electricity seems to be truly a binding constraint across the economy, rural roads and irrigation seem also to constrain agriculture.

6.38. **This analysis also suggests the potential role of FDI in the area of agribusiness** (Box 6.1). Indeed, FDI can help address coordination issues (by bringing the investors own technology, access to market's, and information on prices) and finance. Through a scale effect (either through a large plantation or through contracting farmers, as is done in the tobacco sector), FDI might also be in a good position to locally address some of the rural infrastructure constraints.

E. Summing Up

6.39. **A number of priorities emerge from this review**. While progress would be important in most areas, certain issues should be made priorities to help realize the potential discussed in Chapter 4 along the three-step approach. In the short term, macroeconomic stability, trade facilitation, and reducing labor disputes appear to be important tactics for maintaining the garment industry and seizing the opportunity of regional trade and integration. Some coordination devices to enable a supply response to higher prices of rice could pay a rapid dividend, especially as agriculture is one of the few existing sectors less dependent on external demand. To enable the second part of the strategy, the diversification in the country's existing comparative advantage, the priority is to reduce coordination problems (most likely by also somewhat reducing the regulatory burden as well). Finally, the longer term objective of upgrading Cambodia's endowment will require the strategy to shift toward education and infrastructure, while mobilizing more domestic savings.

[36] See regression analysis in the background paper by IFPRI.

Part 3. Policies to Sustain Rapid Growth

KEY MESSAGES:

This concluding part builds on lessons learned from Cambodia's first decade of growth and the constraints identified in Part 2 to design policy options for sustaining growth. This part should be read as a toolbox of options, focusing only on a few policy areas and with priorities to be adjusted depending on the growth diagnostic.

Chapter 7 outlines recommendations for **macroeconomic management and financial sector development**:

- The immediate priority is to revive economic growth while maintaining macroeconomic stability. In the short term, with concerns over inflation overtaken by concerns over growth, this probably requires a focus on (i) appropriate and effective fiscal stimulus; (ii) financing the balance of payments; and (iii) managing financial sector risks. In the medium term, the goal is to enhance the ability of the economy to absorb external shocks, especially through more effective exchange rate and monetary policies.
- Another priority is to support competitiveness and diversification. This requires influencing the real exchange rate to correct the recent sharp appreciation. A longer-term priority will be to increase savings (which will also contribute to depreciating the Cambodian riel).

Chapter 8 reviews options to **increase and efficiently use fiscal space**:

- Cambodia has precious little fiscal space, in no small part because of limited revenue collection. This should be addressed to respond to growth constraints.
- Priorities in the revenue area include: (i) expanding the tax base (including with a property tax); (ii) increasing enforcement while servicing taxpayers; and (iii) making tax incentives more favorable to diversification and investment.
- The two expenditure priorities are infrastructure maintenance and agriculture, although other budgets for other priorities (e.g. primary education) should be protected. In all cases, the quality of expenditures and institutional arrangements are as important as the volume of expenditures, if not more so. Cutting across these issues is the need for public sector reform.

Chapter 9 reviews options for **better supporting entrepreneurs at the firm level to diversify and become more productive**:

- While the process of simplifying regulatory processes and making them transparent continues, this will need to be complemented by more active industrial policies.
- There is ample experience of what works in Cambodia and what does not in the area of industrial policy: public-private sector dialog; special economic zones; tax holidays; interventions in the garment sector. Other initiatives could be encouraged to develop standards, to enable more contract farming, to target agribusiness investors, etc.

Chapter 10 discusses **three important challenges** to be managed actively as Cambodia grows: urbanization; inequality; and the environment.

7. Macroeconomic Management and Financial Sector Development

7.1. **There are three short- to medium-term constraints that economic policy can help address**. The first is the imperative of reviving economic growth while maintaining macroeconomic stability. The second is the objective of increasing competitiveness and diversifying the economy. The third, which is a more medium-term objective, is the need to gradually mobilize domestic savings. This chapter, reviewing the role of macroeconomic management and financial sector development, analyzes these three objectives in turn.

A. Revive Growth with Macroeconomic Stability

7.2. **The importance of macroeconomic stability, one of the "habits of SRG countries", has been internalized in Cambodia through a decade of rapid growth** (Chapter 2). The growth of the financial sector, the major commodity shocks in 2007-08 and most recently the global financial crisis have, however, put macroeconomic stability under stress.

7.3. **In a dollarized economy, fiscal policy is practically the only instrument for macroeconomic management**. Fiscal policy was relatively conservative while growth was rapid, containing expenditures within the revenue envelope and deferring both recurrent and capital expenditures (see for instance developments during 2002-07 in Figure 8.1). But the recent slowdown requires a fiscal stimulus. This will be challenging, however, since capacity for revenue mobilization has been limited, and the effectiveness of expenditures need significant overhaul, as further discussed in Chapter 8.[37]

7.4. **In the short term, macroeconomic stability will also require adequate management of financial sector risks**. The NBC has made strides in improving the regulatory framework for and corporate governance in banking and the RGC has laid out blueprints for financial development. However, recent rapid growth of the sector (Section 1.B), and the need to continue this rapid development (Section B) call for further strengthening of the control framework. Priorities include:

- *Deal with potential liquidity and credit risks, starting with an intense focus on the banking sector.* At the moment, the NBC is monitoring the weak banks, trying to limit their growth and to get them to clear NPLs. However, its supervisory capacity is limited by the small number of supervisors, most of whom lack experience. More fundamentally, the NBC's ability to take strong actions appears limited by a lack of political support. Failure of even a small bank could lead to systemic problems that reverse the gains that have been made.
- *Strengthen bank regulations.* The NBC is making efforts but much remains to be done. In particular, it could strengthen its fit and proper tests to take into account the difficulties of supervising small foreign banks (the September 2008 tripling of the capital requirements will be useful, as the number of banks has returned to previous levels and small banks raise supervision costs and are inherently risky because even relatively small loans represent a

[37] The more medium-term issue of fiscal policy with extractive industries is discussed in Section 5.A.

large fraction of their portfolio). There are also market integrity concerns given the rapid increase in foreign assets. Banks should institute or strengthen customer due diligence and other key measures that are the core of the Anti-Money Laundering (AML) requirements.

- *Set a baseline assessment of the sector's performance.* The existing blueprints for the reform of the financial system are useful as a vision, but do not provide an evaluation of past efforts, nor priorities for future work. One possibility to get a comprehensive evaluation and guidance on priorities for reform would be through a FSAP, which would be executed jointly by the World Bank and International Monetary Fund (IMF). FSAPs have been done in over 120 countries and cover all aspects of the financial system. The FSAP is a benchmark assessment for the structure and principles of financial regulatory system.

7.5. **In the medium term, the economy will continue to face frequent and significant shocks, highlighting the need to act pro-actively to mitigate their impacts**. Terms-of-trade shocks – which have been largely benign until 2006 – are likely to increase, especially if Cambodia moves into extractive industries (Chapter 5) and even though export diversification should mitigate this. For instance, if Cambodia had been exporting 10 percent of GDP of rice, 10 percent of GDP of oil and bauxite, and 5 percent of GDP of rubber, the terms-of-trade shock between January-October 2007 and the same period in 2008 would have been 23 percent. Cambodia's reliance on foreign savings (Figure 2.2) makes it vulnerable to volatility in global markets: a large current account deficit has to be financed. Although, so far, the financing consists mainly of official aid (grants and loans), FDI has played a major role. Moreover, while there is little "hot money" (besides some speculative investments on real estate), this could change with deeper financial integration if the country continues to rely on foreign savings. Finally, at the moment, there are few concerns surrounding the currency: the economy is dollarized, with limited currency mismatch given widespread pricing in dollars; almost all debt is denominated in dollars, with only a moderate risk of debt distress (Chapter 8) given low external debt and almost no local currency-denominated debt. This could gradually change as well.

7.6. **Hence the RGC will need to develop its policy mix instruments**. There are several options:

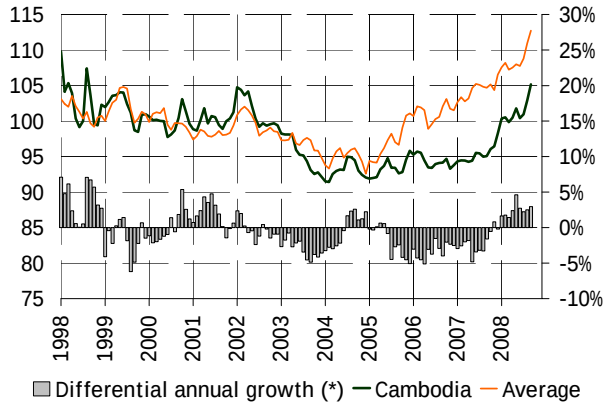
- The most radical option would be to *dedollarize the economy*. Box 7.1 discusses these options and cautions against hasty de-dollarization. However, in the long run, successful de-dollarization would provide an important instrument for macroeconomic policy, a prospect which creates a bias against full dollarization.
- Successful de-dollarization in the long run requires the development of *monetary policy* instruments. These would include a Government treasury-bill market (which often precedes the development of the equity market), including indexed instruments that offer an alternative to dollar assets. Exchange rate auctions are another possibility. These instruments could, in the medium term, support a policy of inflation targeting, and in the long run, a move towards independent monetary policy. In the short term, it could be argued that the nominal exchange rate acts as a useful nominal anchor to manage inflation. However, in 2007-08, the NBC resisted appreciation pressures through non-sterilized interventions, contributing to the inflationary pressures: hence the stability of the nominal rate against the dollar contrasts with the depreciation in nominal terms against a basket of currencies and the appreciation in real terms (Figure 6.3). In other words, the monetary policy of targeting a stable exchange rate of the riel against the dollar had a cost in terms of competitiveness.
- Reducing the dependency on foreign savings (Section C) by *increasing domestic savings* and investment might also play a role by reducing the balance of payments risk.

- Some authors (e.g., Rodrik, 2008) have suggested a more active management of the capital account through the taxation of capital account inflows.
- Finally, more active statistical monitoring will be necessary (including reviewing the weights of the consumer price index to better reflect consumption; monitoring wages and production costs; etc.). This would also be useful to assess at what point the monetary policy becomes too restrictive (as is for instance claimed in late 2008 by exporters that cannot access credit).

B. Support Competitiveness and Diversification[38]

7.7. **A competitive exchange rate appears to be an important requirement for Cambodia to enhance the competitiveness and diversification of its exports.** This conclusion is consistent with recent research highlighting the role of the real exchange rate in economic growth. As pointed out by Prasad, Rajan and Subramanian (2007), an appreciated Real Exchange Rate (RER) hurts economic growth through reduced investments in manufactures. Rodrik (2008) goes further by suggesting that there is empirical evidence that depreciated ("undervalued") exchange rates lead to faster growth. It would also be consistent with the analysis of Cambodia's comparative advantage (low cost labor), which is being undermined by the recent real appreciation (see Chapter 6 and Figure 7.1 for a comparison with garment exporters).

Figure 7.1: After a relative depreciation until mid 2007, the riel is appreciating faster than the currencies of other garment-exporting countries



Note: The average is based on Bangladesh, Cambodia, China, Indio, Indonesia, Pakistan, Philippines, Sri Lanka, and Vietnam. (*) when the differential growth rate is 5 percent, the Cambodia real exchange rate has appreciated by 5 percentage points relative to the average real exchange rate over the previous year. Source: IMF.

7.8. **The RER is not a policy instrument and options to depreciate it are few**:

- *Depreciate the nominal rate*. The NBC can announce that it will sell the riel at a given (depreciated) level. Indeed, the NBC can always print enough riels to meet demand. But, in a dollarized economy, this would not be effective since the pass-through to inflation would be practically immediate, thus offsetting the nominal depreciation.
- *Reduce inflation through fiscal policy* (e.g. by cutting government demand). Given the dollarized nature of Cambodia's economy, a depreciation of the RER would emerge from lower inflation in Cambodia vis-à-vis other countries.
- *Increase savings relative to investment* (see Section C).
- *Reduce demand for local currency or increase demand for dollars through capital account management*. This would include taxation of capital account inflows, liberalization of capital outflows and building foreign exchange reserves.
- In the longer run, the government could consider a policy of *de-dollarization* to gain a tool for macro management, in particular to engineer a lower rate (Box 7.1).

[38] This section focuses on the role of macroeconomic policy for these objectives.

Box 7.1: Full Dollarization, De-Dollarization, or Status Quo?

Full dollarization would lend greater credibility to monetary policy and improve financial depth by reducing the risk premium associated with credit operations – but it costs an independent stabilization policy as well as seignorage revenues. It is most beneficial to a small open economy heavily trading with other dollarized partners (including the US), with a history of high inflation and with a business cycle highly correlated with that of the US. While Cambodia is small, open, and trades heavily with dollarized partners, its monetary policy focuses supporting economic growth within a stable macroeconomic environment, rather than counter-cyclical stabilization. In that context, dollarization reduces the risk premium for investment and facilitates macroeconomic stability and financial intermediation.

The status quo has been supportive of macroeconomic stability, but the lack of monetary policy flexibility in the face of an appreciating real exchange rate is becoming a concern. In order to maintain the nominal exchange rate the NBC has been reluctant to supply more local currency to the market. There is still a strong preference for US dollars (71 percent of transfers made within the country, mainly by wage earners, and even in rural areas, are made in dollars). This suggests that any attempt to move away from dollarization needs to be done prudently to avoid negative consequences to inflation and the banking system, where assets are mostly dollarized. Countries that had unsuccessful de-dollarization experiences saw massive financial disintermediation, capital flight and inflation.

There are only few examples of countries that have successfully "de-dollarized". These include Poland, Chile, Israel and Mexico, all middle income countries. Lessons include:

1. Need for a credible monetary policy: the monetary authority must create low inflation expectations, to raise expected returns on local currency instruments. A prudent monetary policy directly addresses the policy objective that dollarization is meant to address (namely price stability). Israel, Poland and Mexico saw real exchange rate appreciations, with their successful de-dollarization attempts, with the two first countries using the exchange rate as an explicit policy instrument for disinflation. This also shows the potential trade-off between de-dollarization (possibly requiring an appreciation of the riel to make it more attractive and to fight inflation) and competitiveness.
2. Prudential regulation must be strengthened, especially with regard to dollarized transactions. In Israel, higher collateral was required in the case of dollar lending to the non-tradable sector, whereas Chile outright banned loans in foreign currency to the non-tradable sector. Mexico imposed quantitative limitations on dollar lending, and prohibited households from holding dollar deposits. Improved prudential regulation is also part of financial sector development, which in the long run addresses directly the issue of financial depth that dollarization is meant to address.
3. Suitable replacements for dollar instruments must be made available in the local markets. Chile, Israel and Mexico all offered inflation-indexed government securities in parallel with other efforts to de-dollarize.

Hence, a short-term de-dollarization policy is unlikely to be successful in addressing the real exchange rate concerns, since the higher real interest rates generated by actions to reduce expected inflation through monetary policy are likely to lead to real appreciation in the exchange rate. In fact, it might not even be successful given that the institutional prerequisites in the financial sector are not yet present. Therefore, if de-dollarization is a long term objective, the priority is to build the institutional infrastructure in the financial sector, and strengthen the NBC's capacity by carefully developing tools for monetary policy implementation such as markets for government securities.

Sources: Alesina and Barro (2002), Arias (2005), and Levy-Yeyati (2005).

7.9. **The financial sector can also support competitiveness and diversification**. For that, two directions are important:

- *Increase transparency and diversify supply of credit.* There are fundamental issues relating to the financial sector infrastructure that must be tackled to ensure well-functioning markets. These relate to (i) transparency, (ii) collateral, and (iii) physical infrastructure. Increasing transparency implies reducing the costs of information acquisition, and requires credit and corporate information-gathering and disclosure as well as improved accounting and auditing standards. Collateral requirements could be made lighter, collateral definition could be expanded, and execution could be improved by making the credit bureau function properly and by improving the efficiency of land markets. The interbank payment system and information technology in the financial institutions and in the country more generally need to be overhauled. All these measures should also produce some further cooperation

between banks, possibly making syndicated loans possible for larger investments. Other financial products that could be developed include leasing (learning from the experience of ANZ Royal and Davco capital). Improving corporate governance requires a mix of regulations and internal reforms, often requiring progress in IT and communications (Section 4.A).

- *Create new instruments*. An equity market would be an attractive medium-term option, but faces challenges (Box 7.2). A possible alternative is to develop an Over-The-Counter (OTC) market, where securities transactions are negotiated directly between the buyer and the seller. Another possibility is to outsource part of Cambodia's stock exchange market functionalities to a regional stock exchange (as might be expected given the current partnership with the Korean Stock Exchange).

7.10. **Access to the financial sector should also drastically improve for agriculture**. This can build on the positive experience of the ACLEDA Bank, a success story started in 1993 as a micro-finance NGO, graduating to a private commercial bank in 2000, and now providing a full range of services. Currently, 12 percent of ACLEDA's portfolio is in the agriculture sector. ACLEDA uses selection criteria (irrigation, to reduce risks of adverse weather; access to market; and knowledge about the use of pesticides, to reduce risks from pest and diseases), works closely with borrowers to prepare their business plan (hence further screening proposals), and tailors loan funding, timing of loan disbursement, and repayment schedules to the specific needs (for the second loan to a client, ACLEDA also requires the investor to submit a complete set of financial statements). As a result ACLEDA's loan default rate is less than a tenth of a percent. Once ACLEDA's agricultural portfolio increases, it may also consider innovative risk-management tools such as weather risk insurance for farmers. Options for expanding credit to agriculture also include:

- *Build on ACLEDA's experience to give incentives to other banks (and MFIs)*. There might be some regulatory issues to address (such as not applying the real estate ceiling for agriculture-related buildings such as warehouses).
- *Support programs of loan guarantee funds funded by development partners*. Other forms of insurance – such as weather-based insurance – could be considered, although the feasibility (and cost) need further study.

C. Mobilize Savings

7.11. **Although mainly a medium-term objective, increasingly mobilizing domestic savings will be important**. This is one of the lessons from SRG experiences, with investment-to-GDP and savings-to-GDP ratios higher than those observed in Cambodia (although some countries developed without this – in Eastern Europe for instance – this conclusion is consistent with the East Asian experience). At the moment, the economy has a strong reliance on foreign savings, which leads to increases in the supply of tradable goods through imports, hence contributing to the appreciation of the riel in real terms. On the contrary, mobilizing domestic savings would reduce pressures on the exchange rate, hence also helping with competitiveness and diversification.

7.12. **Fiscal policy will play a critical role**. There remain considerable uncertainties about how to raise domestic savings, other than the fact that demographic trends will help as the growing working-age population tends to save more. Nevertheless, public savings are likely to play an important role. They have been increased significantly since 2003, in response to rapid growth and as a way of containing inflationary pressures. This could be further increased (Chapter 8).

7.13. **A sound, effective financial system mobilizes and allocates savings to productive investment and monitors and transforms risk at reasonable cost**. Deepening the financial

sector is therefore important for mobilizing savings. Three complementary directions can be pursued (in addition to managing risks – Section A – and supporting diversification – Section B):

- *Create new savings devices*. The possibility of setting up a stock (equity) market needs to be evaluated carefully, in the light of reasonable expectations and possible costs, particularly given the current weakness in developing country markets worldwide (Box 7.2). Consideration should be given to the various dynamics impacting the possible success or failure of such a market, such as the demand and supply for equity financing, potential lack of liquidity in the market, listing requirements, capabilities to supervise the market, and the potential spill-over impacts from the market to the banking sector. Beyond the proposed stock market, there is a small insurance sector. Life insurance could be promoted, but would need a much stronger framework (regulation of investments and auditing). Again, the Government would need to decide whether its regulatory capacity would permit it to encourage this industry to start in the country. The same is true for mandatory savings or pension schemes, if the Government wants to create such schemes.
- *Enable better services to consumers*. Enabling financial innovation by creating the regulatory environment and the ICT infrastructure (e.g. mobile banking, which is being piloted with support from the IFC) would help develop services.
- *Expand access in under-served areas*. Access to financial services outside the main urban sectors remains limited. Micro-Finance Institutions have a strong role to play. The Government may wish to consider expanding licenses for some MFIs to take certain types of deposits and be part of the new payments system, provided they improve systems to handle deposits.

Box 7.2: Developing Stock Markets in Small Economies

Economies of all sizes have been establishing stock markets worldwide. The reasons for the establishment are multiple, including creating efficient channels for resource allocation, mobilizing savings, providing risk capital to firms, improving transparency of the corporate sector, strengthening corporate governance, and creating a "modern" financial system. However, recent research indicates that economic scale is a strong factor in the success of these markets. Some academic research shows that "a percentage point increase in GDP per capita increases stock market development by 7.23 percentage points." Data from 2001 showed that, of the 16 stock markets with an annual turnover exceeding 75 percent of market capitalization, which is a key indicator of market activity, all but one were in countries which had a GDP of above US$20 billion. The reasons for the lack of liquidity in small economies can be explained by the relative lack of domestic investors, small capitalization of the domestic firms, and transactions costs, among others. Moreover, in smaller, under-developed economies, regulation and supervision of the market are often weak due to limited resources.

Some other factors, beyond economic size and income levels, have also been found to influence the development of stock markets. At the earlier stages of economic development, these factors include domestic investment and private capital flows, banking sector depth, and broader institutional issues, such as political risk, law and order, and bureaucratic quality. These factors need to be in place to ensure the success of a stock market and are still in the process of development in Cambodia.

Some smaller economies have moved towards regional approaches to establishing exchanges, ranging from harmonizing the rules, regulations, and trading systems to full integration via the merger of stock exchanges. These approaches have been applied in developing economies in Africa, as well as the more advanced (but small scale) Nordic economies of Europe, with varying success. For example, the only truly regional stock exchange in Africa, the BRVM, connects eight French-speaking western African countries, but it has relatively little trading activity and is largely dominated by companies of the market's host country, Cote d'Ivoire. On the other hand, the Baltic Market of the OMX Nordic Exchange has had considerable success as a result of the association of several well developed national exchanges with good regulation and governance with the regional exchange.

Sources: Staff, based on Shah and Thomas (2001), Yeartey and Adjsasi (2007), and Yeartey (2008).

8. Creating and Using Fiscal Space

8.1. **Several important constraints on growth have a fiscal dimension**. Fiscal policy has a major role in macroeconomic stability (Chapter 7). Among coordination issues, a key constraint on growth, the issue of tax holidays – and the question on whether they create incentives for investment of productivity – is fiscal. Electricity also has a fiscal dimension (although, as is argued below, a key issue at this stage is institutional). Further developing infrastructure (for agriculture in particular) and education also has significant costs. Mobilizing savings requires higher public savings. Finally, cutting across constraints, the issue of public sector capacity is partly a fiscal issue through its link to civil service pay reform. This chapter reviews the potential contribution of fiscal decisions to alleviating these constraints on growth. Section A defines the notion of fiscal space and reviews its current status in Cambodia. Section B assesses how to create more fiscal space. Section C discusses how to use fiscal space effectively, including through a concrete example of prioritization of rural infrastructure.[39]

A. Fiscal Space in Cambodia

8.2. **The notion of fiscal space is useful to characterize fiscal decisions**. Looking at how resources are mobilized (domestic revenues, commercial borrowing, and external aid in the forms of grants and loans) and how they are used (across sectors and types of expenditures) leads to a review of fiscal space, which includes but is not limited to the traditional view of the deficit (and its implications for macroeconomic stability, see World Bank, 2007). Fiscal space exists when "a government can increase expenditures without impairing its fiscal solvency, i.e. impairing its capacity to service debt". This suggests that increasing fiscal space – as long as it remains consistent with macroeconomic stability and good incentives for the private sector – can pay for itself, with additional public expenditures leading to growth and future revenues.

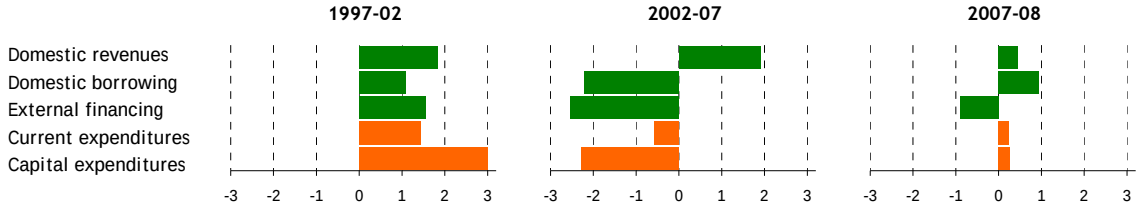
8.3. **Cambodia has a narrow resource envelope and a very small public sector** (Table 8.1). Among low-income countries, Cambodia has a very low revenue-to-GDP ratio. Domestic borrowing is nonexistent (the RGC has in fact reduced arrears and increased cash deposits in recent years). And external financing, although still generous (e.g. in per capita terms), has been decreasing. The fiscal space is used mainly for current expenditures, with capital expenditures also very low even by low-income country standards. The public sector, measured by either employment or spending, is very small.

8.4. **Despite progress in mobilizing revenues, the resource envelope has contracted since 2002** (Figure 8.1). Although domestic revenues increased by 2 percent of GDP between 2002 and 2007, the RGC has adopted a conservative fiscal policy to contain inflation in a rapid growth environment: it has reduced its arrears (a major outcome of the first stage of the Public Financial Management Reform Program, PFMRP) and increased cash deposits at the central

[39] This chapter updates trend analysis prepared for the 2003 Integrated Fiduciary Assessment and Public Expenditure Review (IFAPER) and adds some recent elements, in particular on prioritization. Further analysis is planned by the RGC and its development partners in the context of a 2009 IFAPER. Public Administration Reform is also not discussed in detail in this report as the RGC and its development partners are preparing the second National Public Administration Reform Program.

bank. Since, at the same time, external financing was reduced by slightly above 2 percentage points as well, expenditures had to contract. Capital expenditures were the first to suffer and lost more than 2 points of GDP over that period. In 2008, through further increases in revenue collection and a slightly lower cash surplus, the RGC was expected to manage a small increment in public expenditures.

Figure 8.1: The fiscal space contracted in 2002-07, largely at the cost of capital spending



Note: Data in % of GDP represent the change over the period. External financing includes grants and loans. A reduction in domestic borrowing means lower domestic borrowing or higher accumulation of cash deposits. Sources: MEF, Staff estimates.

8.5. **Cambodia's debt ratios have been declining over the past several years, reflecting a prudent debt management policy.** External debt (in nominal terms) declined from 34 percent of GDP in 2000 to 29 percent in 2007. The present value of debt to GDP stands at 12 percent of GDP, reflecting the largely concessional nature of the debt. The ratio of debt service to revenues has also declined since 2000, from 10.5 to 4.2 due to some improvements in revenue collection and a shift by some development partners to greater grant financing. There is virtually no domestic debt. This prudent debt management policy has created the space for some additional indebtedness, though any new commitments should be undertaken with great caution not to reverse the favorable trend seen so far.

Table 8.1: Fiscal Framework (% GDP)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Revenues		8.7	8.1	9.8	10.0	10.0	10.5	9.6	10.3	10.3	11.5	12.4			
Direct		0.4	0.5	0.6	1.0	0.9	0.8	0.8	0.7	0.9	1.1	1.9			
Inditrect - conso		2.0	2.1	3.2	3.6	3.9	4.1	3.6	4.5	4.5	4.7	5.4			
Trade		3.4	3.2	3.2	2.8	2.4	2.5	2.1	2.4	2.2	2.2	2.9			
Other		2.8	2.2	2.8	2.7	2.8	3.1	3.0	2.6	2.7	3.5	2.2			
Grants		3.8	2.9	2.9	2.8	2.8	3.3	2.5	1.7	2.2	2.7	2.2			
Expenditures		12.4	13.4	13.6	14.8	15.2	16.9	16.4	14.8	13.6	13.5	14.0			
Current		8.0	8.0	8.2	8.4	8.9	9.4	9.9	8.9	8.0	8.0	8.8			
Wages		3.8	3.8	3.9	3.6	3.9	4.2	4.0	3.5	3.2	3.3	3.0			
Interest		0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2			
Transfers and subsidies		0.9	0.9	1.0	1.1	1.1	1.5	1.8	1.5	1.4	1.6	1.6			
Other current		3.2	3.2	3.1	3.6	3.8	3.6	3.9	3.6	3.2	2.9	4.0			
Capital and net lending		4.5	5.4	5.4	6.4	6.2	7.5	6.5	6.0	5.6	5.5	5.2			
Deficit		-0.1	2.4	0.9	2.0	2.4	3.1	4.3	2.8	1.2	-0.7	-0.5			
Current w/o grants		-0.7	0.0	-1.6	-1.6	-1.1	-1.1	0.4	-1.4	-2.3	-3.5	-3.6			
Overall w/o grants		3.7	5.4	3.8	4.8	5.2	6.4	6.8	4.5	3.3	2.0	1.6			
Net financing		-0.1	2.4	0.9	2.0	2.4	3.1	4.3	2.8	1.2	-0.7	-0.5			
External		1.4	1.4	1.2	2.3	2.4	3.5	3.1	2.7	2.3	2.4	2.1			
Domestic		-1.5	1.0	-0.4	-0.2	0.0	-0.4	1.2	0.2	-1.2	-3.1	-2.7			

Source: MEF (TOFE) and CDC, Staff.

8.6. **Long-term debt and fiscal sustainability are vulnerable to implicit contingent liabilities**, which should be closely monitored by the government. Although the RCG has been prudent in issuing guarantees and undertaking explicit contingent liabilities, implicit contingent liabilities may pose a risk. In particular, attention should be paid to the risks related to the possibility that the banking sector may require a capital injection, as well as mounting losses in EDC (Section C), or price guarantees granted to power plant concessions.

B. Creating Fiscal Space

8.7. **Creating fiscal space is an important priority for Cambodia**. Given that the country that suffered major devastation of its physical and human capital base over an extended period, as noted in Chapter 6, there seems to be a plethora of public sector opportunities for both recurrent and capital investment activities that are in great demand and would be highly productive. As noted, creating fiscal space would also increase public savings.

8.8. **Fiscal policy is the major macroeconomic management instrument and an important tool for growth**. In the short term, the priority is to adjust the fiscal stance to the deteriorating economic outlook, while maintaining a sound policy mix (Section 7.A). In the medium term, the challenges are to mobilize more public savings and direct them at investments that develop Cambodia's growth potential. These two objectives can be partly reconciled through higher revenue mobilization and higher infrastructure investments. An additional medium-term policy challenge is the impact of extractive industries (Section 5.A).

8.9. **The short-term priority given the external environment is to increase the fiscal deficit**. While the policy to accumulate cash deposits was a key contributor to the macroeconomic stability of the last few years, the change in the environment calls for a change in fiscal stance.

8.10. **The next priority for creating fiscal space is to continue increasing domestic revenues**. Cambodia's fiscal space is quite constrained by its low revenue effort, the impact of which is noted across all categories of spending. If extractive industry revenues are confirmed and are sizable, the fiscal picture would change very abruptly, opening up the possibility of increasing spending across several types of spending simultaneously: as discussed in Chapter 5, under that scenario, the priorities are (i) to develop the RGC's capacity to adopt a clear fiscal regime and implement it to guarantee its fair share to Government, and (ii) to follow a disciplined fiscal policy (possibly through an oil fund) to avoid the potential adverse impact of these high (and temporary and volatile) revenues.

8.11. **In the absence of natural resource revenues, Cambodia would have to increase both tax and non-tax revenue significantly through both policy and administrative means**. The RGC's PFMRP already has a number of measures under implementation in that direction (although the RGC's trade commitments will further reduce revenues from international trade in the future). In the context of growth issues discussed in Part 2, three specific measures can be noted:

- The current set of *tax holidays* is unlikely to be cost-effective. The RGC assesses their cost at 6 percent of GDP, which would be 50 percent of total revenue collections. It is unclear how necessary these incentives are (given Cambodia's low tax burden), and, as in other countries, the current scheme may provide the wrong incentives, i.e. favor short-lived assets and disadvantage incremental investments, which would be important for productivity and diversification (Botman at al., 2008). Alternatives to tax holidays include accelerated depreciation and carry-forward, or more targeted incentives such as subsidies for training. On the other hand, the exemption of import duties and VAT on inputs used for manufactured exports appears to be a better targeted policy.
- A major drive to implement *a property tax and a capital gains tax* could help address the misallocation of capital, which results in a bias toward speculative investments in real estate. While recognizing the political and administrative complexities of these taxes, the economic benefits, especially in the context of the sharp slowdown in short-term growth prospects, appear significant.

- It is unclear whether *the import duty structure* supports diversification. A frequent question is whether higher duties on raw material than processed material create a disincentive to invest in longer value chains, hence hindering diversification. This deserves further analysis.

8.12. **Increased domestic revenues will also be essential to ensure long-term debt and fiscal sustainability**. Although Cambodia's debt has been declining, debt dynamics are vulnerable to a slowdown in economic growth and stagnation in domestic revenue collection. These vulnerabilities have led to a moderate risk rating in the latest debt sustainability analysis by the World Bank and the IMF. Moreover, acceleration in economic growth may renew interest in non-concessional borrowing, which also may pose additional risks. It is essential that the RGC strengthen its debt management capacity and develop a medium-term debt strategy before engaging in commercial borrowing. Since the process of capacity building and strategy development is a lengthy one, this should be given priority notwithstanding the fact that commercial borrowing still appears a distant possibility.

8.13. **Going forward, fiscal and debt sustainability will depend on increased economic growth and improvements in PFM**. Improvements in the institutions of public finance are the long-term answer to a sustainable increase in domestic revenues – and consequently, fiscal space. Moreover, as the efficiency of revenue collection improves, fiscal space will rely more on efficient spending of budget resources (as discussed below). There is room for improvement in this regard. This can be accomplished by moving to a medium-term expenditure framework coupled with a medium-term debt strategy. Improved PFM institutions will also allow the RGC to better manage macroeconomic risks and reduce both volatility and risks to fiscal and debt sustainability.

8.14. **Cambodia might also be able to increase external assistance, but only to a limited degree**. Cambodia has received large amounts of external assistance over the past decade and the global environment at the end of 2008 might put these amounts at risk. That said, a number of donors have performance-based allocation: while sustaining growth will somewhat reduce aid, progress in governance would increase it. In addition, a number of "new" donors (such as China, other East Asian countries, and Middle-East countries) are emerging and could create some fiscal space for the RGC.

C. Using Fiscal Space

8.15. **A major challenge Cambodia faces in supporting growth is allocating resources in ways that will achieve their highest potential**. This means not only financing high return investments but also not financing low return projects. Stopping wastage of resources on negative return projects in fact can be highly important, especially when there are so many opportunities for very productive investments, which is the case in Cambodia.[40] A policy change (such as an improved investment appraisal system) that raised the productivity of all public investments would have a major and long-term impact on growth. More generally, improvements in the fiduciary system and the effectiveness of expenditure system, the objective of the PFMRP, could generate significant fiscal space through savings.

8.16. Before turning to specific sector issues, the priorities that emerge from the detailed analysis of the budget are as follows (past expenditure allocations are summarized in Table 8.2).

[40] Cf. for instance the background paper on fiscal space, which lists the rates of return of many existing and proposed investment projects.

Table 8.2: Expenditure Allocations (by Function)

	Expenditures (% GDP)											Share of domestic (05-06, %)	Annual Growth in US$ (96-06, %)	
Summary Function	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006		Overall	Domestic
Core Government	**10.7**	**8.7**	**9.4**	**7.2**	**8.4**	**7.7**	**8.7**	**7.1**	**5.5**	**5.3**	**5.5**	**72.6**	**0.7**	**3.2**
Economic Services	**5.8**	**4.3**	**4.4**	**4.2**	**4.5**	**4.5**	**5.3**	**4.7**	**4.4**	**4.0**	**3.5**	**36.1**	**2.3**	**10.7**
Agriculture	2.1	0.8	0.6	0.9	1.5	1.3	1.3	1.2	1.2	1.0	0.9	52.1	(1.1)	18.5
Transport	2.0	1.5	1.7	1.2	1.8	2.2	2.8	2.0	2.1	1.7	1.2	33.7	2.0	12.2
Other Economic Services	1.6	1.9	2.0	2.0	1.1	0.9	0.9	1.0	0.7	1.2	1.2	30.2	4.3	4.0
Environmental Protection	0.1	0.2	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.2	0.2	17.1	15.0	13.7
Rural Development	**2.3**	**2.0**	**2.1**	**1.8**	**1.9**	**1.8**	**1.6**	**1.2**	**1.5**	**1.1**	**1.0**	**27.1**	**(1.4)**	**27.2**
Social Services	**4.7**	**4.9**	**6.7**	**6.5**	**6.7**	**7.6**	**8.2**	**8.5**	**7.2**	**6.7**	**6.4**	**43.9**	**10.8**	**12.3**
Health	1.7	1.5	2.4	3.0	2.6	2.5	2.6	2.7	2.7	3.1	2.8	30.3	13.1	14.6
Education	1.9	2.3	2.7	2.3	2.3	2.5	3.3	3.2	2.9	2.5	2.5	57.7	10.6	13.3
Community & Social Services	1.1	1.1	1.5	1.3	1.8	2.6	2.3	2.6	1.6	1.1	1.1	49.0	6.9	7.6
Humanitarian Aid & Relief	**1.0**	**0.6**	**0.5**	**1.7**	**2.1**	**1.3**	**0.7**	**1.3**	**0.8**	**0.9**	**0.5**	**100.0**	**(6.8)**	**-**
Total	**24.6**	**20.5**	**23.0**	**21.3**	**23.6**	**22.8**	**24.4**	**22.9**	**19.3**	**18.0**	**16.9**	**51.8**	**3.7**	**6.8**
Of which Treasury Executed	*9.7*	*9.2*	*9.0*	*9.9*	*10.9*	*10.9*	*12.2*	*11.8*	*9.7*	*9.0*	*9.1*	-	-	-

Note: This table is based on Government data, with an estimate of expenditures undertaken by donors outside the Treasury system. Rural development includes village / community development, integrated rural development, settlements, river basin development, and regional planning. Source: MEF (TOFE) and CDC, Staff.

8.17. **The budget allocation for the economic sectors (agriculture and infrastructure) should be increased and a reallocation should be made within the general government sector from general administration to the judiciary**. It seems that, despite some increases in real terms over the past decade, Cambodia's economic sectors are still starved of enough resources to make the difference between lower and higher growth. Though the RGC has increased spending in both agriculture and infrastructure (by 11 percent per annum in US$ between 1996 and 2006), the overall increase was from a very low base and the RGC increase has been offset by lower expenditures on the development partner side (development partners still account for two-thirds of expenditures in the economic sector). In functional terms, policy should address the economic sector gap now, as it will take some time for the investments to mature. Similarly, while acknowledging the substantial reallocation out of the defense sector (part of "core government" in Table 8.2), the problem of the budget-starved judiciary must be addressed. Sustained increases are needed to transform the judiciary. In both cases, however, there is a very important caveat: spending increases should proceed only after sectoral strategies have been developed and management has improved. While economic sector management is being developed, spending increases could focus on capital investments.

8.18. **In economic terms, the RGC should increase capital spending, increase maintenance, and increase the wage bill**:

- Increased *capital spending* is needed, from both Government and Official Development Aid (ODA) sources, to take advantage of the high return projects existing principally in infrastructure and agriculture. However, increased capital spending should follow the development of project appraisal capacity, which is currently lacking (developing an investment appraisal unit based on suitable methodologies should be a priority).
- In terms of ODA, donors should reallocate from Free-Standing Technical Cooperation (FTC) to capital spending where sector-wide approaches (SWAps) do not yet exist, or use FTC to set up SWAps, which seem to be the best mechanism in Cambodia for moving toward sustainable, capacity-enhancing, Government-led reform programs. FTC in the absence of SWAps seems to be generally quite wasteful and in most cases these resources could be more productive on the capital side.
- The RGC also clearly needs to increase *public sector wages* as the cornerstone of civil service reform. The RGC is planning prepare a new pay policy to provide the basis for an increase

in the wage allocation. Building institutions in Cambodia is as much of a priority as building physical assets.

- *Maintenance spending* is inadequate. Physical assets are deteriorating in many cases, undermining the high potential of capital spending to deliver sustained growth. Maintenance spending should be increased dramatically from less than 0.5 to about 1.5 percent of GDP.

Table 8.3: Expenditure Allocations (by Economic Classification)

Economic Category	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Structure (06)	Annual Growth in US$ (96-06, %)
Sub-Total Current Expenditure	**4.2**	**3.9**	**4.1**	**4.7**	**5.4**	**6.3**	**7.0**	**7.3**	**6.2**	**5.9**	**6.2**	**80.8**	**12.0**
10 : Salaries and Allowances	1.3	1.3	1.3	1.4	1.5	1.5	1.8	1.8	1.6	1.6	1.7	21.6	10.1
11 : Operating Costs	1.7	1.6	1.6	2.0	2.5	3.0	2.6	2.6	2.1	1.9	1.9	25.2	9.0
12 : Subsidies for provincial admin.	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.6	0.5	0.5	0.6	7.3	20.4
13 : Special programme agreements	0.0	0.0	0.2	0.0	0.1	0.5	0.8	0.8	0.7	0.6	0.7	9.7	82.4
20 : Interest on loans	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	2.2	9.6
30 : Economic transfer payments	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.5	6.0	19.4
31 : Social transfer payments	0.6	0.6	0.5	0.7	0.6	0.7	0.7	0.8	0.6	0.5	0.6	7.5	7.5
32 : Transfer to international org.	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5	1.6
40 : Miscellaneous	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.8	-
41 : Contingencies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
Sub-Total Capital Expenditure	**1.2**	**0.9**	**1.0**	**1.7**	**2.2**	**1.9**	**3.0**	**2.7**	**1.7**	**1.6**	**1.5**	**19.2**	**10.2**
50.1 : Construction & Equipment	0.6	0.7	0.7	1.4	1.6	1.2	2.1	1.1	0.7	0.6	0.7	8.5	9.2
50.2 : Counterpart funds	0.1	0.2	0.3	0.2	0.6	0.3	0.6	0.5	0.5	0.4	0.3	4.2	20.3
50.3 : Investment by foreign funds	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.4	0.2	0.3	3.7	-
52 : Financial Operations	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
53 : Debt amortization	0.5	0.1	0.0	0.1	0.1	0.1	0.1	0.6	0.2	0.4	0.2	2.9	-0.8
Total	**5.3**	**4.8**	**5.1**	**6.4**	**7.7**	**8.2**	**9.9**	**10.0**	**7.9**	**7.5**	**7.7**	**100.0**	**11.6**

Note: The chart of accounts underwent a major revision in 2007. Among other things, the new chart of accounts corrects the past definition of capital expenditures, as a significant part of Chapter 50 (formerly "capital expenditures") was technically not capital expenditures (e.g. recurrent expenses in donors' projects). Source: MEF (TOFE), Staff.

8.19. **Finally, much could be done to further reduce wasteful spending**. The Cambodian budget is characterized by pockets of inefficient spending. In some cases, this is due to high administrative overhead costs, in others it is due to the perverse impact that low wages have on other categories of spending (e.g., the operations and maintenance budget in education being used to pay teachers' special allowances) or the lack of a coherent sector strategy or program. The RGC should conduct an efficiency review to locate these pockets of waste.

Infrastructure

8.20. **To address electricity as a major constraint, Cambodia needs to invest in large-scale generation, build its national grid, and improve the operational and financial efficiency of this sector**. A medium- to long-term strategy should include, among other things:

- *Expand generation, transmission and distribution.* A significant pipeline of projects has already been initiated and the pipeline should be maintained with new feasibility studies, etc. Investments should in particular now target transmission and distribution, by building a HV network and regional interconnections, completing its Medium Voltage (MV) network planning and financing high priority MV projects, and expanding the Low Voltage (LV) distribution system by EDC to complement Rural Electrification Enterprises (REEs).
- *Expand access in the rural sector.* First, instead of an urban-rural dichotomy in roles and responsibilities of EDC and the private sector, there is a need for a flexible arrangements for rural power supply: (i) MV network expansion by EDC to scale up grid-connected

REEs, (ii) a variety of suppliers in rural areas to include EDC, REEs, and rural cooperatives, and (iii) construction and leasing of LV network by EDC to REEs and rural cooperatives which would obtain bulk supply from EDC and operate and maintain the local distribution and supply business. Another institutional issue relates to the Rural Electrification Fund's (REF) roles and responsibilities, diversification of off-grid electrification technologies and services delivery models (the REF should in particular be transformed into a revolving fund to make its operations sustainable). In terms of investments, a Master Plan for Grid-Based Electrification should (i) set more realistic targets and prioritization of areas (reviewing socio-economic profiles of villages to see how best they can be clustered and how best they can be electrified); (ii) coordinate planning of the HV and MV systems expansion with a timeline; (iii) develop lower cost generation sources, including small and mini-hydro, and other renewable energy sources; and (iv) ensure adequate financing of REEs and mechanisms for monitoring. These issues most likely require the preparation of a Rural Electrification Strategy Study.

- *Improve management of Private-Public Partnerships in Infrastructure*. Improving the enabling environment would encourage private sector participation in grid and off-grid electrification, with investment in expansion of LV distribution system to complement EDC's expansion, operation and maintenance of its LV distribution system on a lease basis, investment in small scale generation facility and mini-grids to serve local communities, and investment or service delivery to rural consumers with household-based off-grid electrification technologies (e.g. solar home systems). Three vehicles would be critical for these strategic objectives: (i) creating a national grid (EDC) with integration of EDC branch offices; (ii) diversifying operations of Rural Electrification Fund (REF) from its existing output-based subsidy operation into a combination of alternative business delivery models to support scale-up of off-grid electrification; and (iii) encouraging the Electricity Authority of Cambodia to strengthen capacity among staff to intensify its engagement in regulation of sector operators and implement clear principles of tariff review and adjustments.

8.21. **In addition, the fragile financial condition of EDC should be addressed**. EDC improved its finances in 2006 and 2007 through reduction in losses, increases in tariff, and improvement in bill collection but would likely suffer a loss in 2008 due to higher oil prices.

8.22. **In the area of rural infrastructure, the role of labor-intensive public works projects could be explored** (World Bank, 2008g). This instrument can be particularly appropriate to meet a combined objective of fiscal stimulus, social safety net, and rural infrastructure. A famous example is the Employment Guarantee Scheme in the Indian State of Maharashtra. Research shows sizeable income gains to participants (even net of the loss of income foregone by participating in these programs). Good planning processes are however necessary to ensure that the assets created by these programs have high returns.

Education[41]

8.23. **In education, as discussed in Section 4.A, the priority is to shift from increasing quantity to improving quality in the area of primary education**. In fact, for each generational group, priorities are somewhat different:

- *For young children*, the priority is to ensure children enter school on time and complete basic education. The challenge at the primary level has moved from access to quality of education. Teacher incentives (monetary and non-monetary) play an important role (World

[41] The Government has adopted a 2006-10 Education Strategic Plan and Cambodia is receiving support from the Education for All Fast Track Initiative.

Bank, 2007). Soon, progress in primary education will translate into a demand for secondary education, with more significant fiscal needs to expand access and ensure equity.

- *In tertiary education*, the issue seems to be much less fiscal (more than half the students are enrolled in private institutions). The priority is to improve the quality of the supply through a better accreditation system (for instance building on ASEAN peers). Another recommendation would be to consolidate the large number of institutions that are not under the administrative authority of the Ministry of Education (instead reporting to technical ministries, such as agriculture, health, etc.): this institutional fragmentation is inadequate for the objective of establishing homogenous standards and processes, and for cost effectiveness.
- *In technical and vocational training*, there are mismatches between supply and demand. The National Technical and Vocational Education Training should be revised to put more emphasis on the second track of the strategy, "responding to the needs of the enterprise sector". Options in this area include an expansion of the Voucher Skills Program (supported by the ADB) and a direct support to the private sector to address its training needs (for instance along the lines of the Penang Skills Center in Malaysia). Particular attention should be given to agriculture.

Agriculture

8.24. **Spending on agriculture remains low**. Cambodia spends around 3 percent of agricultural GDP on agriculture. This contrasts with China, Malaysia, and Thailand that all spend over 10 percent of agricultural GDP on the agricultural sector.

8.25. **Experience shows that investment in agricultural R&D and rural roads has the highest rate of return for poverty reduction**. In China, a 1 percent increase in agricultural R&D expenditure will increase agricultural GDP per capita by 0.085 percent. This growth in agricultural GDP will reduce the poverty headcount by 0.1 percentage point (Fan, Zhang and Zhang, 2002). In India, 85 people are lifted out of poverty per 1 million rupees spent on agricultural R&D compared to 18 people for the same amount spent on anti-poverty programs (Fan and Thorat, 2007). In Thailand, a 1 percent increase in agricultural R&D expenditure will reduce the poverty headcount by 0.45 percentage points (Fan, Jitsuchon and Yu, 2008).

8.26. **Prioritization will be essential**. This should be done through the ongoing development of the five programs to operationalize the Strategy on Agriculture and Water. The next paragraph outlines an approach for prioritization. Priorities could include:

- *Expand research and extension*. It is estimated that there are only 500 extension officers nationwide (Lim, 2006a), and only 0.7 percent of farmers with access to any form of extension services, which represents 0.014 percent of the government budget (World Bank, 2005). Ministry of Agriculture, Forestry and Fishery (MAFF) allocations for agricultural extension are less than 1 percent of its total budget, which is far below 16 percent in Thailand (World Bank, 2006b).
- *Invest in rural roads and rural electrification*. Despite the current improvement, road conditions in Cambodia still require tremendous work to better serve the rural population. Rural electrification was discussed above.
- *Invest in irrigation systems*. Although a number of these schemes should be private, a master plan and some large irrigation systems are necessary and require public investment.

Prioritization: a Concrete Example

8.27. **The need for a strong appraisal and evaluation office cuts across sectors**. At the moment, this function is fragmented, with the Budget Department of the Ministry of Economy and Finance (MEF) coordinating the budget (but focusing its analytical efforts on the recurrent budget), the Department of Investment and Cooperation in MEF coordinating the capital budget (but focusing on operational issues), the Ministry of Planning developing the Public Investment Plan (PIP) (with limited capacity and uneven links with the budget), and the Council for the Development of Cambodia (CDC) keeping track of ODA. In addition, the SNEC provides analytical support in some cases. A stronger office to review, appraise, and prioritize investment proposals is necessary. Limited capacity will need to be concentrated in a single office, with a very clear mandate and a strong technical and political support.

8.28. **Rural infrastructure provides a useful example of prioritization in action**. Based on an analysis of the determinants of rice and other crop outputs, it is possible to calculate the marginal returns of investment in rural infrastructure (Table 8.4).[42]

Table 8.4: Marginal Returns (in riels per ha) of Rural Infrastructure Investment

		1 km improvement in acccess			1% improvement in electrification rate		
Scenario		*Scenario 1*	*Scenario 2*	*Scenario 3*	*Scenario 1*	*Scenario 2*	*Scenario 3*
Output price		*survey year price*	*2007 price*	*2008 price*	*survey year price*	*2007 price*	*2008 price*
Input price		*survey year price*	*survey year price*	*survey year price*	*survey year price*	*survey year price*	*survey year price*
Wet season paddy							
2004	Plain	921	1,290	1,816	4,267	5,974	8,410
	Tonle Sap	490	687	967	1,774	2,484	3,497
	Coastal	2,746	3,844	5,412	2,731	3,823	5,382
	Plateau/Mountain	520	729	1,026	7,424	10,393	14,632
2007	Plain	1,354	1,354	1,906	8,697	8,697	12,244
	Tonle Sap	2,137	2,137	3,009	5,553	5,553	7,817
	Coastal	3,481	3,481	4,901	4,007	4,007	5,641
	Plateau/Mountain	11,482	11,482	16,164	12,129	12,129	17,075
Dry season paddy							
2004	Plain	2,741	3,653	5,022	1,074	1,431	1,968
	Tonle Sap	2,183	2,909	3,999	657	875	1,204
	Coastal	7,749	10,328	14,199	757	1,009	1,387
	Plateau/Mountain	1,947	2,595	3,568	2,343	3,123	4,294
2007	Plain	5,494	5,494	7,553	1,590	1,590	2,186
	Tonle Sap	2,953	2,953	4,060	760	760	1,045
	Coastal	11,034	11,034	15,170	506	506	696
	Plateau/Mountain	6,281	6,281	8,635	1,123	1,123	1,544
Other crops							
2004	Plain	1,397	2,095	2,794	9,613	14,420	19,227
	Tonle Sap	618	928	1,237	702	1,054	1,405
	Coastal	1,128	1,692	2,257	4,206	6,308	8,411
	Plateau/Mountain	259	389	518	7,897	11,845	15,794
2007	Plain	2,862	4,293	5,724	23,452	35,178	46,904
	Tonle Sap	1,595	2,393	3,191	15,348	23,022	30,696
	Coastal	5,642	8,464	11,285	6,842	10,263	13,684
	Plateau/Mountain	2,731	4,096	5,461	10,508	15,762	21,016

Note: This is based on production functions for rice (dry and wet seasons) and other crops estimated from household surveys. Source: IFPRI background paper.

8.29. **Investment in rural infrastructure has a strong but uneven return**. If distance to market is reduced by 1 kilometer, marginal revenue to farmers increases across the board. Taking the Coastal zone as an example, farmers could receive an additional 3,481 riels from wet season paddy and 11,034 riels from dry season paddy from one hectare of land in 2007. Other crops yielded another 5,642 riels per hectare. If the electrification rate increases by 1 percentage point, the marginal revenue to farmers to increase significantly for

[42] Detailed data on public expenditures would enable the calculation of unit cost for these investments, hence the estimation of cost-benefit ratios.

both wet and dry season paddy. The impacts of electricity are greater for other crops. Since vegetables and other export crops require higher levels of farming practice and transportation facilities, access to roads for expedited delivery to the market will have a bigger effect on farmer's income.

8.30. **Hence, there is no one-size-fits-all recipe for higher agricultural income in all geographic regions**. Each agro-ecological zone has its only unique soil and water conditions, as well as infrastructure and human capital stocks. It is important to target public investment with the highest impact on productivity and poverty, and to set up government support programs accordingly. The effect of public investment could be enhanced if these differences were taken into consideration during planning and implementation. For example, improved roads could increase the yield of dry season paddy and other crops in the Plain zone, but has little impact on farmers in the Plateau/Mountain zone. Promotion of modern technology and crop diversification should also be tailored to local conditions. Coefficients of fertilizer with respect to other crop yield are impressively high in northeast Mountain provinces (0.5 versus 0.3-0.4 in other regions). However, poor road and market conditions prevent local producers from benefiting from this comparative advantage. More investment in infrastructure could enable farmers to collect the latest market information and transport their produce to Phnom Penh and other regional markets.

9. Trade, Regulatory, and Industrial Policies

9.1. **Not all constraints are fiscal**. This chapter reviews the binding constraints that are mainly of a regulatory nature or a market failure that could be addressed through active policies. This can be done either through cross-cutting or targeted policies. In this sense, targeted policies are about "industrial policy", i.e. "policies that stimulate specific economic activities and promote structural change" (Rodrik, 2008).[43] Section A discusses cross-cutting reforms and their impact on the constraints identified in Part 2. Section B outlines policy options to deploy more effective industrial policy instruments. Section C considers industrial policy as a process, and outlines how it could contribute to strengthening Cambodia's growth potential.

A. Business Environment and Cross-Cutting Reform Efforts

9.2. **Many reforms are ongoing to improve the business environment in Cambodia** (World Bank, 2008d). A far-reaching legal agenda is ongoing, in no small part as a commitment during the WTO accession process. An arbitration center is being set up to deal with commercial disputes (building on a successful model already being implementation for labor disputes). Various simplifications to the business registration process have been approved. Trade facilitation and investment promotion are being upgraded. In particular, the implementation of the computerized system for customs at the Port of Sihanoukville and the risk management strategy for border inspections from 2008 is reducing costs and time incurred in proceeding through borders. A broad trade strategy has been adopted and a Trade Sector-Wide Approach is being designed to implement it. A Small and Medium Enterprise (SME) framework is being implemented to improve the business environment for SMEs.

9.3. **These efforts remain important to support growth, in particular as they address appropriation issues discussed in Chapter 6**. Creating a level-playing field is important for diversification because it removes barriers to entry. Simplification and transparency make coordination efforts less demanding. Trade facilitation helps exporters other than garment manufacturers to benefit from cheaper and faster import and export processes (see Figure 2.5). Simpler regulations, stronger accountability mechanisms, and enhanced transparency will also help mitigate the limited capacity of the civil service and create trust for investors (especially foreign investors and green field investors). These are also important actions to fight corruption, reducing unproductive risks to investment as well as the cost of doing business.

9.4. **Priorities in this areas include** (these priorities are reviewed in more details in World Bank, 2008d): (i) further trade facilitation at the border through more transparent processes and computerization (initially of all customs offices, over time bringing other agencies into a National Single Window (NSW), and then connecting the Single Window to the ASEAN framework) and continued progress to meet WTO requirements; (ii) regulatory simplification and clarification (reviewing licensing requirements; making processes transparent and effective; introducing rulings in the tax area to reduce uncertainty and increase transparency); (iii) facilitate

[43] It should be noted that in this definition industrial policy does not need to be focused on industries, but could equally support services and agriculture.

dispute resolution (initially through alternative mechanisms, such as the existing Labor Arbitration Council, and over time through an overhaul of the legal and judicial framework); (iv) improve incentives for labor productivity gains (facilitate better industrial relations; generalize productivity-based wage pay practices); and (v) further trade and investment policy improvements to facilitate regional integration. The last point could include:

- *Coordinate trade facilitation across ASEAN countries*. In particular, the coordination of efforts toward National Single Windows would generate positive synergies in terms of information sharing, transparency, and lower transaction costs.
- *Facilitate transit and cross-border trade*. Building on existing agreements, such as the Cross-Border Transport Agreement and the Strategic Framework for Action on Trade Facilitation and Investment (both sponsored by the ADB), a few actions could facilitate border movements: (i) create a regional transit system (in the spirit of the Transport International Routier or TIR) with a clear protocol for transit; (ii) improve processing at the border (possibly through joint facilities); (iii) develop agreements for trucks to operate in several countries and develop the financial sector to enable logistics companies to operate in several countries; and (iv) improve capacity and coordination (of customs agencies, ministries of transport, private sector).
- *Rationalize rules of origin*. This would help further creation of regional production networks.

B. Strengthening Industrial Policy

9.5. **Targeted policies are also necessary**. Given the nature of the constraints identified in Part 2 (especially those related to coordination and market failures), these cross-cutting reforms, while important for diversification, are unlikely to be sufficient. There is a long-standing debate around the role of "industrial policy" as a development policy, with now a recognition that these policies are necessary because market failures are pervasive, but with many questions about how these market failures can be addressed, and with what role for governments (Rodrik, 2008).

9.6. **Three characteristics of a good industrial policy can be identified** (Rodrik, 2008):

- Industrial policy must aim at a strategic collaboration and coordination with the private sector, striking a balance between full autonomy (to be able to fix market failures) and restricted autonomy (to avoid capture and corruption). In other words, industrial policy instruments should be *embedded* in a concrete set of social ties, such as the Government-Private Sector Forum (Box 9.2), to collect and understand the detailed information about the private sector's needs that is required, while keeping some autonomy to address these failures.
- Industrial policy must have the right set of *carrots* (because innovation requires rents) and *sticks* (because rents invite rent-seeking). "It must encourage investments in non-traditional areas, but also weed out projects and investments that fail" (Rodrik, 2008). A typical effective approach is to link industrial policy to exports, as a key market-based test of performance.
- Industrial policy must have strong oversight and *accountability* mechanisms. While this is true for all public interventions, it is particularly important for industrial policy given the risks of collusion and corruption. Such mechanisms include setting clear goals and monitoring their achievements; fostering transparency; and having a politically visible high-level champion for industrial policy instruments.

9.7. **Cambodia has experience with many types of industrial policies**. Although they are not necessarily recognized by that name, Cambodia is beyond the debate of "whether" these policies are necessary or not given that such policies are already in place in many sectors. In fact,

most exports have received support from targeted Government policies: negotiations of higher quotas for garments; "Open Skies" policies and other infrastructure policies for tourism; SEZ policies for a few assembly factories; possibly soon rice export. However, very little assessment of the effectiveness of these policies has been undertaken.

9.8. **A rapid review of existing industrial policy instruments generates three important insights** (a number of instruments are reviewed against the criteria of a good industrial policy, Table 9.1):

Table 9.1: A Few Existing Industrial Policy Instruments

Instruments	Objectives / Notes	E	C/S	A
Export quotas for labor standards	Trade preferences granted by US in exchange for higher labor standards (monitored by BFC)	■■■	■■■	■■
Tax holidays	Generous tax holidays for a range of sectors	■	■	
Exemption of import duties and VAT for imported inputs used for manufactured exports	Ditto, but targeted at exporters	■■■	■■	■■
Investment promotion	Unit in Council for the Development of Cambodia in charge of investment servicing ("one stop shop") and investment promotion. Investment promotion activities are almost inexistent	■	■	■
Export promotion	Trade Promotion department in Ministry of Commerce, in charge of promoting new exports	■	■	■
Special Economic Zones	Provide a bundle of infrastructure, land, and tax exemptions in special zones	■■	■■	■
Export Market Access Fund (EMAF)	Provide matching grants to exporters undertaking a market access study	■■■	■■	■■■
Government-Private Sector Forum	Identify and address constraints through public-private dialog	■■■	■	■■■
Value Chain interventions	Interventions financed by donors to support various parts of (usually) agribusinesses' value chains (the assessment would vary with the specific interventions)	■		■
Economic Land Concessions	Provide state land to investors	■	■	

Note: (E) refers to embeddedness; (C/S) to carrots and sticks; and (A) to accountability. See para.87 and Rodrik (2008) for a definition. These three dimensions are summarily assessed on a 0-to-3 scale (with ■). The assessment reflects their current status, not their potential. Source: Staff assessment.

- An obvious finding is that most instruments *lack accountability*. The only exceptions are those that are tested by the market through exports. But most of the others have very few (if any) transparency requirements. No evaluation has ever been done or published: in fact, in several cases it would be difficult to make an evaluation since there is no clear definition of what success would look like. This is evident for the SEZs, a policy that makes sense for addressing coordination issues, but has not progressed very fast; or for investment promotion (with an investment promotion agency with virtually no budget and a separate export promotion agency – plus ongoing efforts by development partners to develop investment promotion at the provincial level); or for ELCs, (see Chapter 4).
- In many cases, the instruments seem to lack *coordination*. This is clear in the area of investment and export promotions. Similarly a variety of initiatives seem to be taken to promote rice exports, but the coordination is unclear, in particular when the issue cuts across ministries. Also, for ELCs, there is very little planning regarding land management (Section 4A). By contrast strong progress in the garment sector was achieved with clear leadership from the MOC.

- Finally several instruments *either lack incentives or are poorly targeted* (too cheap or too expensive). Tax holidays cover a broad range of sectors and are not targeted at "new" activities, which would have a substantial pay-off from a diversification point of view. This poor targeting translates into weak incentives for productivity (cf. for instance Figure 6.7). The targeting strategy for investment promotion and export promotion is unclear.

9.9. **Hence, a priority is to make existing instruments more transparent and accountable to maximize their impact**. This is likely to reveal the need to drop some of these instruments, or improve their enforcement, or target them better. A review of tax incentives is discussed in Section 8.B. The implementation of SEZ is also under review with a view to draft a law on SEZ. Other instruments should also be assessed. In addition, a few new (or scaled up) instruments could be considered based on the analysis in Part 2 and international experience.

9.10. **Perhaps most importantly, one of the missing incentives for diversification - the lack of standards - calls for a major institutional revamping**. Most recently, the 2007 DTIS put the emphasis on this issue. While technical capacity is indeed a constraint, the main barrier is the RGC's inability to provide a clear division of labor across agencies involved in standards. This means a duplication of efforts, lack of incentives, and opportunities for rent-seeking. There is an urgent need for (i) the RGC to make a strong decision to significantly streamline institutional responsibilities and (ii) an action plan on standards to be developed, agreed upon, financed, and implemented. In addition, this is one of the areas where the lessons from the garment sector could be applied through the use of a third-party for the monitoring of standards, as BFC is doing for labor standards. Hence one or several non-government organizations in Cambodia could work on behalf of international certifying bodies to validate that Cambodia's agricultural exports meet international standards for quality and food safety. While this organization's conformity assessments and verification would not be legally binding (under the International Plant Protection Convention, only Government officials are empowered to sign phyto-sanitary certificates), it could develop the moral authority to ensure the marketability of Cambodia's horticultural exports.[44] Third party certification for quality is relatively common for basic commodities such as grains, tobacco, and cotton. Such options could be developed, for instance, in the context of access to a particular market (e.g. the European Community for fish or US for Hazard Analysis and Critical Control Points – HACCP – rules), where the destination market would be interested in exploring such options. Another option would be to attract an international investor interested in providing such certification for its own products (e.g. for the export of tropical fruits), providing a demonstration effect to the broader public and private sectors.

9.11. **Other opportunities for such arrangements could be explored**. They should be possible whenever standards can be a selling point, and when there is a sufficiently organized demand for these standards. In addition to food quality, this could be case for environmental standards or eco-tourism. As discussed in Section 4.C, ASEAN could be a vehicle for creating such arrangements.

9.12. **Second, for agribusiness, there is a need for an investment clearinghouse to link potential investors with viable local partners**. While the CDC is responsible for foreign investments, it has neither the background nor the depth of experience to fully respond to the needs of international agribusiness. Given the specialized yet complex nature of agricultural

[44] The International Social and Environmental Accreditation and Labeling (ISEAL) Alliance provides case studies on this topic (www.isealalliance.org).

investments,[45] there is a strong need for an organization to serve potential agricultural and agribusiness investors. Such an investor services organization would be staffed by international professional managers with local technical support staff, experienced in international agribusiness and knowledgeable about Cambodia's agricultural sector. Such an organization would be a "one stop shop" to actively assist foreign as well as local investors in their due diligence efforts by providing information, contacts, and referrals. It would help develop coherent programs to address information and coordination failures (Box 9.1). It would have a current database of clearly identified land available under the Economic Land Concession program, information and contacts to encourage joint ventures between foreign investors with reliable Cambodian partners, contact with farmers' associations, etc. Hence it would serve as an investment clearing house, by linking the proponents of smaller investment opportunities with venture capital and other sources of financing.

9.13. **Third, there are various institutional models to integrate value chains in agriculture** (World Bank, 2008c). Contract farming is one example of coordination device. A large tobacco firm has used this model successfully. There is evidence that farmers under contract farming (e.g. in rice and tobacco) generate higher yields and gross margins. Contract farming is however not a magic bullet and risks should be mitigated. Risks for farmers include the inability to participate due to insufficient land or transport infrastructure, lack of bargaining power to ensure a "fair" price or respect for contract terms. Risks for the producers include the inability of farmers to provide the quality or quantity needed, or inability to enforce delivery of products to the firm if farmers sell their production in spot market or to traders. Farmer cooperatives and associations can be an alternative to contract farming, although Cambodia has less experience with this so far. Cambodia also has experience with a nucleus estate of cassava, with a core production area supplemented by purchase from independent producers: however, this model suffered land conflicts. Another model – for oil palm – tried to fully integrate production, processing, and marketing, but the owner faced difficulties in labor management. For pepper, Cambodia has experience with a model where traders are the local aggregators, providing an informal way to integrate the value chain.

9.14. **Fourth, tourism also needs coordination**. At the moment, some 30 public agencies are directly or indirectly involved in the management of the sector (FIAS, 2007): consolidation of public institutions will be important for simplifying processes and avoiding spreading limited financial and human resources too thin. Transparency will also help reduce the need for coordination. A counterexample is the process of allocations of the islands on Cambodia's coast: with little transparency; it is unclear how complementary investments can be planned to maximize the returns. As noted in Section 4.A, the tourism sector could also usefully interact with other sectors to test products for which there is international demand.

9.15. **Fifth, in the area of training, coordination mechanisms should be explored**. Some business associations (garments and hotels) are already developing partnership to develop their own supply of training. The approach could be replicated or extended, for instance on the model of the Penang Skills Center (Chapter 8). Coordination could also happen through the tax incentives provided to firms (which could be linked to training) or through the SEZ scheme (e.g. having a vocational training center attached to each zone).

9.16. **Sixth, for growth "at the intensive margin" (i.e. growth within existing sector), a number of measures could be considered**. As discussed in Chapters 7 and 8, financing instruments will have a role in promoting productivity and diversification. A recent experiment

[45] World Bank (2008c) discusses the specificity of the agribusiness sector in the context of global food supply chains, showing major coordination issues, in particular due to the higher standards demanded by consumers. The sector also presents economies of scale, calling for significant investment, from firms with experience.

(financed by a World Bank grant) is the Export Market Access Fund (EMAF). Built on an approach that was successful in Tunisia (and many other countries), this fund, managed by the MOC, will provide matching grants for export market feasibility studies. Separately, tax holidays could be made more effective at targeting productivity improvements. A few other options in the area of agriculture were discussed in Secton 6.D (storage facility, user groups, etc.). Finally, the reasons why Cambodian exporters are not able to sustain their exports (Figure 6.6) should be further investigated.

Box 9.1: Successful government interventions to correct coordination and information failures

Governments can play a critical role in resolving coordination and informational failures to enable private firms and farms to grow faster and often even leapfrog. Examples of how some governments successfully intervened to redress barriers to technological adaptation and diffusion to spur growth suggest that there is no blue print for perfect government intervention. While the problems across various country experiences frequently have broad similarities, the policy instruments used to implement them have varied considerably from one country to another, and sometimes even from industry to industry in the same country.

Coordination spillovers necessitate large-scale complementary public investments in inputs to reassure individual firms that their investments in new technologies are profitable. To foster the development of a hi-tech industry, the Taiwanese government invested heavily in cluster-conducive infrastructure. Public investments in land and utilities persuaded firms to relocate to Taiwan's pioneering Hsinchu Science Park which was designed to create an "industrial ecology" in which high-tech industries could flourish. High-tech domestic and foreign firms seeking and adapting cutting-edge technologies flourished in close proximity, benefiting from the synergies created by technological progress. Another example of government intervention to resolve coordination failure is the Penang cluster in the heart of Malaysia's electronics district. Encouraged by the recent success of its table grape producers in scaling up exports to the EU, the government is investing in wine parks to forge forward linkages from grapes to wine in India's nascent wine industry. India's wine parks also spread technological know-how among small firms and producers. The software technology parks in India with international gateways at 39 locations equipped with IT and telecom infrastructure enjoy single-window permitting and are yet another example of government interventions to support select industries to adapt superior technologies. In Kenya, government made large investments in refrigerated facilities at the airport to enable local floriculturists to start exporting.

Several developing country governments have also redressed information failures when market prices have failed to reveal the profitability of new investments in new technologies and deterred firms from discovering them. Getting it right in each case is attributable largely to appropriate synchronization of the elements of industry-specific policies with the institutions necessary to motivate learning among firms. A good example is the Malaysian palm oil industry that exported crude palm oil to Europe where it was refined and re-exported back to Malaysia for domestic consumption. To induce firms to move into higher value products such as processed palm oil, processed palm kernel oil, and palm kernel cake, the government provided a comprehensive package of public support. It funded industry-specific R&D and skills development, provided financing, built physical infrastructure, and offered tax incentives which were successful in encouraging firms to transition from exports of crude to processed palm oil and oleo-chemicals.

Another example is the spinning off of domestic firms in Taiwan's electronics industry in its early stage of development when private firms were unwilling to explore and adapt new technologies because they were unaware of payoffs in the industry. In at least two cases, governments have helped the emergence of domestic firms by providing financial support, demonstrate feasibility, or make available technologies developed in domestic research organizations. Examples include Taiwan's Industrial Technology Research Institute, which retained shares in the firms it spun off, and Fundación Chile and the Corporación de Fomento (CORFO) which started the first commercial-scale salmon-farming operation in Chile. In the initial stages of development, domestic firms were reluctant to invest in salmon farming or semiconductors until public entrepreneurship demonstrated the potential returns to investment in the new activity.

Source: Chandra (2006).

9.17. **Finally, Information and ICT might provide a major opportunity for coordination (and productivity improvements)**. Mobile banking is already planned by some banks to expand access to the financial sector. ICT-based services have been used in many countries to

provide real-time market prices and information on demand in agriculture. In India, the rollout of internet kiosks has been made viable by partnering with local companies providing agricultural support services, with farmers paying a modest fee for agricultural advice and market information that provides farmers with the data they need to make informed decisions on issues such as how to avoid the middleman and sell their surplus to various types of buyers. Other examples exist in education (e.g. access to educational materials through the internet), health (e.g. gathering heath data on personal digital assistants), and government (e.g. e-procurement, computerization of customs). Macedonia also developed an innovative approach to maintain its competitive edge in the garment industry.[46]

9.18. **Unleashing these potential benefits of ICT use will largely depend on how network capacity can be increased in the next few years**. The following actions would help to create the appropriate environment for a more vibrant ICT sector:

- *Separate the policy and regulatory functions of the Ministry of Posts and Telecommunications (MPTC).* The enactment of the draft Telecommunications Law will provide for a governance framework that is currently lacking in the sector (by setting up an autonomous regulatory authority responsible for creating a level playing field for existing and future service providers through addressing issues in licensing, spectrum management, interconnection regulation, universal access, and numbering).
- *Moving forward with ICT policy-making at the national level.* There are several draft policy documents that are pending approval, and further detailed facilitating policies, decrees and laws will need to be drawn up. Key areas in leveraging ICTs for private sector development are e-transactions, e-commerce, technology transfer, privacy, intellectual property, and e-security. The National ICT Development Agency (NiDA) is leading the effort in drawing ICT policies and strategies. Clarification of the roles of MPTC and NiDA would help to prioritize policy areas for the two institutions.
- *Growing the IT industry through nurturing an ICT-skilled workforce.* A vibrant IT industry relies on several inputs including affordable and quality ICT services as well as IT-skilled labor. Currently, both pose bottlenecks for IT service providers and users. The government needs to take decisive steps in improving education in ICTs at all levels in academia and to consider vocational programs to supplement the growing demand for ICT skills.

C. Industrial Policy as a Process

9.19. **Finally, industrial policy can be seen as a process, without a preconceived list of sectors and policy instruments**. In Cambodia, this is one of the positive lessons of the garment industry, through the role of the Garment Manufacturers Association of Cambodia. This approach argues for a stronger role of the existing G-PSF (Box 9.2), providing it with solid research and secretariat functions to go beyond its existing "trouble shooter" role to a more systematic approach of identifying concerns in the private sector, developing solutions, and holding Government accountable for implementing solutions. In addition to the Forum, the practice of "rulings" – mainly for tax purposes – could be developed, leading the private sector

[46] In 2003, experts predicted that the Macedonian apparel industry would lose out to the low-cost producers by 2008. After this diagnosis, the government established e-Biz centers to revive the failing industry and strengthen its competitiveness in the global market by helping them move to higher-value niches through the use of IT solutions. The New Trend Apparel Technology e-BIZ Center offers computer-aided design and manufacturing using sophisticated equipment for embroidery, stick-laser design and sourcing services as well as quality and quantity control systems. With these ICT applications, they were able to shift to producing higher-value added and to enter the "rapid response" international market segments.

to identify key issues, the Government to issue a transparent and non-discretionary response, and the private sector to then monitor its implementation.

9.20. **More broadly, this supports the idea of developing "clusters" supported by strong industry associations**. These associations will promote policies to support the sector and capacity development, and the exchange of ideas among members. They will also provide a vehicle for coordinated support from development partners. By focusing on clusters including various parts of the value chain, this approach helps address market failures related to the absence or lack of quality of upstream or downstream services, possibly leading to government interventions (Box 9.1). A cluster association could also serve as an entry point for investors and entrepreneurs.

9.21. **Top-down structures could also be reinforced**. The Supreme National Economic Council has a role to play and its policy role could be brought closer to the "focal monopoly of governance" discussed in Chapter 2. The role of trade and investment promotion, now separated in the Cambodia Investment Board (CIB) at the CDC and the Trade Promotion Department in the MOC, should be reviewed jointly. More generally, a priority within the Public Administration Reform program should be to consolidate and clarify functions, to avoid fragmentation, duplication or gaps, and avoid spreading limited budget and technical resources too thin.

Box 9.2: The Government-Private Sector Forum

Cambodia's Government-Private Sector Forum (G-PSF), launched by the Royal Government of Cambodia in 1999, is a mechanism for public-private sector consultation on investment climate issues ranging from long range policy to day-to-day operations.

The G-PSF gives the private sector a reliable means of raising and resolving problems. The G-PSF also gives government a channel for getting private sector feedback on draft policies, laws and regulations. Twice a year, the G-PSF holds formal, nationally-televised meetings which bring together the Prime Minister, key cabinet ministers, and some 600 business leaders, government officials, journalists and development partners. Since these have the status of cabinet meetings, decisions made by the Prime Minister are binding.

Throughout the year, eight private sector Working Groups (WGs) meet regularly to identify and prioritize common problems, and negotiate solutions with government counterparts. These WGs concern: Banking and Finance; Tourism; Manufacturing and SMEs; Agriculture and Agribusiness; Export Processing and Trade Facilitation; Energy Infrastructure and Transport; Law, Tax and Governance; and Industrial Relations.

The International Finance Corporation (IFC) has been supporting a G-PSF Coordinating Bureau since 2002. IFC facilitates dialogue within and among the WGs and broadly, between the government and the business community. IFC also conducts selected research to aid WGs in advocating for reform. Currently the WGs and government counterparts are negotiating solutions for more than 300 different problems.

In an independent evaluation in 2007, the Forum received high marks for organizational effectiveness and impact on the reform process. The evaluation also cited criteria for judging the Forum's economic impact. These criteria included:

- An estimate of US$350,000 per year for the pro bono input business leaders provide to the Forum through their participation in the WGs. This compares very favorably with annual donor funding for the Forum of US$160,000.
- An assessment of a sample of only nine reforms out of the nearly 1,000 raised with government. This assessment found that the nine reforms resulted in nearly US$70 million in private sector savings.
- A return of US$105 for each dollar invested in the Forum by the IFC and other donors.

Since IFC's involvement began in 2002, the dialogue among all participants has matured and the private sector now shows sufficient capacity to directly engage their government counterparts. Therefore, over the next three years, IFC will work with key Cambodian business associations to develop their capacity to play a greater role in administering the G-PSF, commissioning research and undertaking advocacy. IFC is also working with other development partners such as United States Agency for International Development (USAID), GTZ, UNDP, and the Asia Foundation to expand dialogue at the provincial level and provide more support for research related to reform proposals.

Sources: World Bank (2008d).

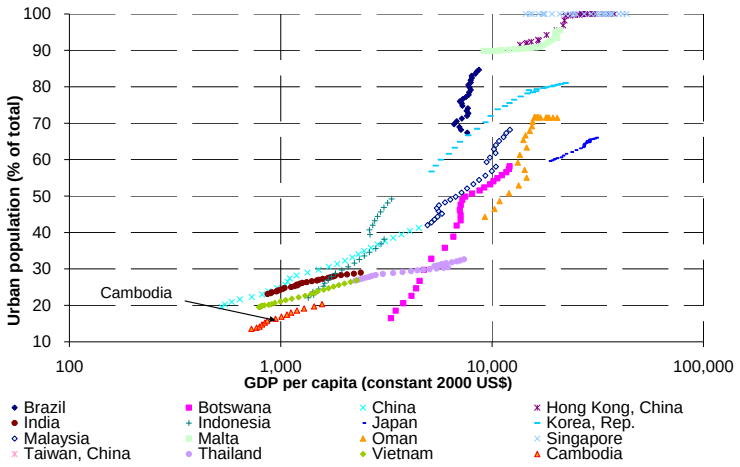
10. Managing Challenges of Rapid Growth

10.1. **A number of challenges will need to be managed well to maintain the growth momentum and the polity**. The three most significant challenges are described in this section: urbanization (Section A); inequality (Section B); environment (Section C), all three requiring further analysis. Section D concludes the report.

A. Urbanization

10.2. **Urbanization will quickly accelerate**. There is ample evidence that sustained rapid growth will lead to rapid urbanization. This has been the case in all SRG countries, with a particular acceleration when income per capita is between US$100 and US$2,000 (Figure 10.1). The process has already started in Cambodia, with the share of population in urban areas increasing from 17.7 to 19.5 percent of the population between 1998 and 2008, but the process is not yet as rapid as it is bound to become.

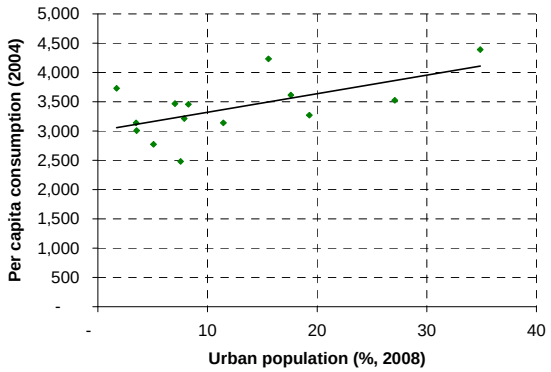
Figure 10.1: The pace of urbanization in Cambodia is slower than other SRG countries at the same level of development



Source: World Bank, WDI.

10.3. **The process of urbanization is welcome**. In most countries, urbanization is both a reflection of structural economic transformation and itself an important vehicle for generating agglomeration effects that drive growth (World Bank, 2008e). In Cambodia, it is clear that provinces with higher urban populations are also those with higher living standards (i.e. higher average per capita consumption (Figure 10.2).

Figure 10.2: More urban provinces are richer



Note: Each dot is a province (or group of provinces for smaller ones). Phnom Penh is excluded as it has a much higher urbanization rate (94%) and consumption per capita (8,120 riels). Source: NIS (2008 Census and 2004 CSES).

10.4. **However, the benefits of urbanization do not come automatically.** Unmanaged, there is a great risk that urbanization may have more negative than positive effects: a range of adverse effects on

livelihoods and businesses, often summarized as "grime, time, and crime", offsetting the positive agglomeration effects. Already, in Phnom Penh, questions about land pressures and resettlement, traffic congestion, lack of electricity, rain water flood, and transport services have emerged.

10.5. **The role of public policy is to develop good infrastructure, good land policies, and effective institutions**. No large city has grown without slums, but a combination of better infrastructure and land policies can help overcome the problem. Better infrastructure supports a dense concentration of people and businesses, to maximize agglomeration effects, while allowing people to live, and commute from, areas where land is cheap. Good land policies allow land to be reallocated to efficient uses. Both need to be supported by effective institutions.

10.6. **In the context of Cambodia, the priority will be better management of Phnom Penh** (Box 10.1). Given its size, the country is unlikely to develop many large urban centers. However, secondary urban centers can also play an important role in connecting the agricultural and non-agricultural sectors (for example, as centers for processing and marketing agricultural produce, or ensuring the quality of agricultural inputs such as fertilizers).

Box 10.1: The Development of Phnom Penh

To be a new source of growth, Phnom Penh needs to be an attractive city. It needs to position itself vis-à-vis other capital cities since it will remain economically smaller than many other cities: assets other than size can include environmental friendliness, quality of life, etc. Phnom Penh is built on a unique site (in particular with Chaktomuk, a site located at the border of four rivers) and parts of the city remain well protected.

The development of the city has recently accelerated, but in an uncoordinated way. Phnom Penh was largely reconstructed between 1993 and 2000, with basic services and infrastructure rebuilt by then. Since then, however, a burst of major urban development projects has stretched existing services and raised questions about the sustainability of the city's growth. The filling of a number of lakes has merely displaced flooded areas, possibly moving flooding problems. The inner city transport system is already becoming congested, while roads on the outskirts of the city were conceived as rural roads and cannot serve the city's development well. The development of large projects has not appropriately factored in the need for public facilities such as health centers and schools. These projects are likely to create social disparities (in addition to resettlement issues). There are very few strategies and policies in place to minimize negative externalities (such as norms for energy consumption in new buildings, or impact analysis of new projects on transport systems).

Unaddressed, this situation could have irreversible consequences fo the attractiveness of Phnom Penh. Some issues – such as poor waste management in Phnom Penh leading to contamination in the Tonle Sap – could even have a national impact. Some private investors are becoming aware of this issue. This offers a chance to make a breakthrough.

The ingredients for such a breakthrough are well recognized: (i) a clear master plan that is simple and comprehensive to truly guide investments (public and private); (ii) high level leadership, in the central government and the municipality, to coordinate development along the lines of the agreed master plan; (iii) higher capacity in the public sector, in particular for planning and supervision; (iv) public-private partnership for infrastructure and service provision; and (v) appropriate revenue mobilization. Sector priorities include the overall vision (e.g. one center vs. multi-center city; role of commuting), urban transportation systems, water and flood management, and the city's attractiveness.

Source: background paper on the development of Phnom Penh.

10.7. **Further analysis of urbanization will be important**. A better understanding of the potential for growth of Phnom Penh and other urban centers would be useful, as well as the potential downsides for the environment, social tensions, congestion, etc. This should guide a strong policy response to ensure Cambodia can reap the growth benefits of urbanization.

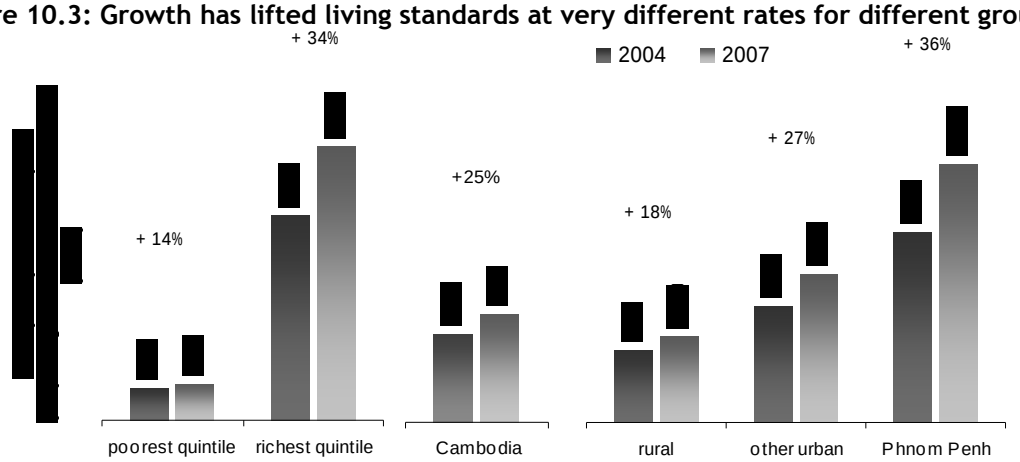
B. Inequality and Vulnerability

10.8. **In recent years, the benefits of growth have been shared unequally**. The richest 20 percent of the population have seen their living standards rise at a much higher rate - and from a much higher base - than those of the poorest 20 percent. Similar disparities can be seen between

rural and urban populations: average living standards are rising much faster in towns, and particularly in Phnom Penh, than they are in the countryside (Figure 10.3).[47]

10.9. **Inequality is increasingly observed within the rural population, as well as between them and the urban population**. Economic growth started in urban growth centers, and in particularly in those cities – Phnom Penh, Siem Reap and Sihanoukville – associated with the sectors (garments, tourism and construction) that have driven Cambodia's growth for the past decade. However, as transport infrastructure has improved, this growth has spread out along national highways and to secondary urban centers; and then, particularly with the good performance of the agricultural sector in the past few years, from these well-connected areas into the rest of the countryside. In the process, villages closer to roads and towns have started to pull ahead of remoter rural areas, and villagers with better initial endowments have started to pull ahead of neighbors who have less land, education or luck (World Bank 2007).

Figure 10.3: Growth has lifted living standards at very different rates for different groups



Source: CSES 2004 and 2007, analyzed in Knowles 2008.

10.10. **As a result, overall inequality in Cambodia has increased at a rapid rate**. The Gini coefficient (in which a value of zero signifies perfect equality, and a value of 1 signifies perfect inequality) for per capita consumption rose from 0.39 in 2004 to 0.43 in 2007. Rising at an average of 1.3 percentage points per annum over these three years, this is an unusually rapid rate of increase: amongst Cambodia's neighbors for the period over which records are available, there has been no comparable annual rate of increase in inequality (Table 3.1 and Figure 10.4).[48]

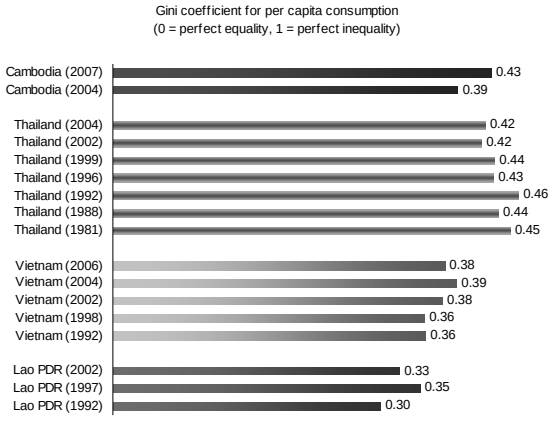
10.11. **International experience suggests that inequality and vulnerability could continue to increase as the country develops**. During the structural transformation, the rural-urban gap and returns to education, which are strongly correlated with parental education, are likely to increase, potentially driving up inequality. At the same time, especially given Cambodia's integration in the global economy, external shocks are likely to be significant (Section 7.A). Indeed in 2008, Cambodian households and businesses have faced difficulties in coping with inflation. Certain groups within the population – e.g. fishing communities – are particularly affected: their coping strategies (e.g. withdrawing children from school or switching to cheaper and less nutritious foodstuffs) may have long-term effects on Cambodia's ability to accumulate human capital and move into higher value-added activities (CDRI 2008).

[47] The issue of inequalities across geographical regions ("lagging regions") is not discussed in detail here (except as it relates to urbanization, Section A). This would merit further analysis.

[48] Indeed, it seems that inequality, at least as measured by the Gini, has begun to decline recently in Thailand, Vietnam and Lao. The closest comparable rate of increase in inequality to that seen in Cambodia was seen in Lao between 1992 and 1997, when the Gini rose from 0.30 to 0.35.

10.12. **High and rising levels of inequality and vulnerability are a cause for concern, especially if they reflect the existence of poverty traps**. High levels of inequality not only weaken the effect of growth on poverty reduction, but can themselves undermine the basis for growth (Box 10.2). Households at very low levels of consumption and asset ownership are unable to access finance and become highly risk-adverse, making it hard for them to participate in the market economy. Even non-poor Cambodian households remain vulnerable to a range of shocks (e.g. serious illness, drought or flooding) that can erode their productivity and push them back into poverty.

Figure 10.4: Inequality is high, and increasing rapidly



Note: Data excluded for East / South-East Asian countries that use per capita income rather than per capita consumption as the welfare model (Malaysia, Philippines) or which produce separate rural and urban estimates (China, Indonesia). Source: national living standard sample surveys, analyzed using PovcalNet.

10.13. **International experience shows that well-designed social safety nets support growth by tackling perverse incentives that otherwise affect economic behavior**. Household behavior that is good for long-run economic growth – such as diversification and investment in education and skills – also involves risks: in the absence of safety net arrangements, poor and middle-income households will avoid such risks because they cannot afford the consequences of failure. By enabling entrepreneurial individuals to take economically rational risks, safety nets thus help to facilitate the operation of markets and promote growth and structural transformation. Such policies are typically a cost-effective use of limited Government funds: it is cheaper to prevent people falling into poverty in the first place, than to lift them out of poverty afterwards.

10.14. **Key Government documents recognize the need for a social safety net system**. The building blocks of such a system are emerging in sector-specific programs (for example, programs to exempt poor patients from health fees) and in efforts to roll out a standardized system for identifying poor households for targeting purposes. However, these initiatives are still largely a set of sector-specific schemes, with limited coverage and financing. There is considerable potential to make these interventions more cost-efficient and effective by bringing the various elements together in a unified system.

10.15. **An emerging consensus on social safety nets requires further analytical work**. Recognizing these issues, the 2008 Cambodia Development Cooperation Forum (CDCF), the RGC and its development partners agreed to a study to map existing schemes and assess options to develop an integrated framework. As well, some analytical work could usefully deepen the debate on lagging and leading regions, in connection to the need for planning for areas in the periphery of Cambodia (Section 4.A).

Box 10.2: Assets, Access to Finance, and Productivity

In an economy in which markets worked perfectly, access to information was equitable, and the risks of failure were not catastrophic (e.g. starvation), investment would flow as it should to those best able to make use of it profitably, to their benefit and that of society as a whole. This would mean that rich and poor would have equal access to credit for investment, being judged solely on the strength of their ideas or track record in turning a profit. In such an ideal model of the economy, parents would invest in the education of their children in rational expectation that this would generate long-term returns in the form of higher earnings. A certain level of inequality would also be expected and crude efforts to force equality would undermine growth and poverty reduction themselves.

In practice, of course, markets are imperfect and individuals are not equally able to make use of opportunities. When a significant proportion of the population is trapped in extreme poverty and lacks collateral, these individuals will not be able to obtain access to credit, or will only be able to obtain credit at significantly higher interest rates. This results in a sub-optimal allocation of available capital, which flows instead to richer clients, with little regard for whether their investment ideas are any better.

Similarly, poor parents will be forced to sacrifice investment in the future education-related earnings of their children in order to meet current consumption needs, because they cannot afford the direct and / or indirect (opportunity) costs of sending their children to school. Poor and near-poor individuals who cannot afford to fail will rationally decide to undertake activities and investments that minimize risk, rather than those which have slightly higher risk but also much higher potential reward. Well-known examples of such risk-*minimizing* economic *behavior* on the part of poor and vulnerable households includes planting crop varieties that will produce at least some yield even in a bad year, even if they produce only a modest yield in a good year; or investment of family resources in a risk-spreading range of activities rather than concentrating these resources more profitably in the most promising activity.

In the words of Cambodian families:

The poor have no land or other assets to rely on … no capital to invest in alternative businesses … Most poor here take a new loan to repay an outstanding loan, meet food shortages or cure sick household members … If someone falls into this vicious poverty, it is almost impossible for them to escape *(Trapeang Prey village, Kampong Speu)*

The have-nots earn just enough for food and consumption and cannot make any savings. The rich can earn more than household consumption… [and] make some savings for investing in new income-earning activities. *(Krasaing village, Battambang)*

Over time, stratification has been getting worse… It will be very hard for the poor to move out of poverty in the next five years because of landlessness, lack of capital and growing inequality. The gap between the rich and poor has grown tremendously. *(Andong Trach village, Battambang)*

Sources: World Bank (2005), FitzGerald and So 2007.

C. Environment

10.16. **Cambodia's natural environment is a major asset**. As discussed in Section 4.A, Cambodia has extraordinary biodiversity, superb landscapes and coastal areas, and a unique eco-system in the Tonle Sap. This is an asset in itself, as well as, in economic terms, for the agriculture and tourism potential it creates.

10.17. **However, the environment is likely to be under stress as the economy develops**:

- Intensification of agriculture could have a negative effect on soil and pollution, possibly on water usage;
- The mining sector (as well as oil and gas, especially if on-shore) already has an adverse impact through artisanal mining and large-scale mining is a risk (Section 5.B);
- The overcrowding at the Angkor Archaeological Park and the issue of water tables underneath the site highlight the critical role of environmental protection for economic growth (FIAS, 2007);
- The recent allocation of licenses to develop the coastal area and its islands could also have a negative impact on the overall quality of the environment in these areas;
- Unchecked urbanization could have a negative impact on flood management, air pollution, waste management, etc;

- Rapid development of power generation, including coal-fired power plants as currently planned, also needs proper management;
- In addition, Cambodia is subject to the same risks of climate change as other countries. Cambodia ranks 180th globally in carbon emissions (in 2005), but 55th on a per capita basis. Cambodia is already severely affected by extremes in climate, and climate change could lead to more rainfall, more floods, and also longer summers with more droughts.

10.18. **None of these risks is unmanageable**. There are modern technologies to address some of these issues; others simply require good planning and good policies. All require clear strategic directions, good coordination across stakeholders, and capacity.

10.19. **As discussed in para. 5.32, Cambodia is putting in place a regulatory framework**. In the area of climate change, Cambodia has adopted an adaptation strategy. Proactive implementation is necessary as most of the damage that would ensue if the risks were not addressed is irreversible.

D. Epilogue

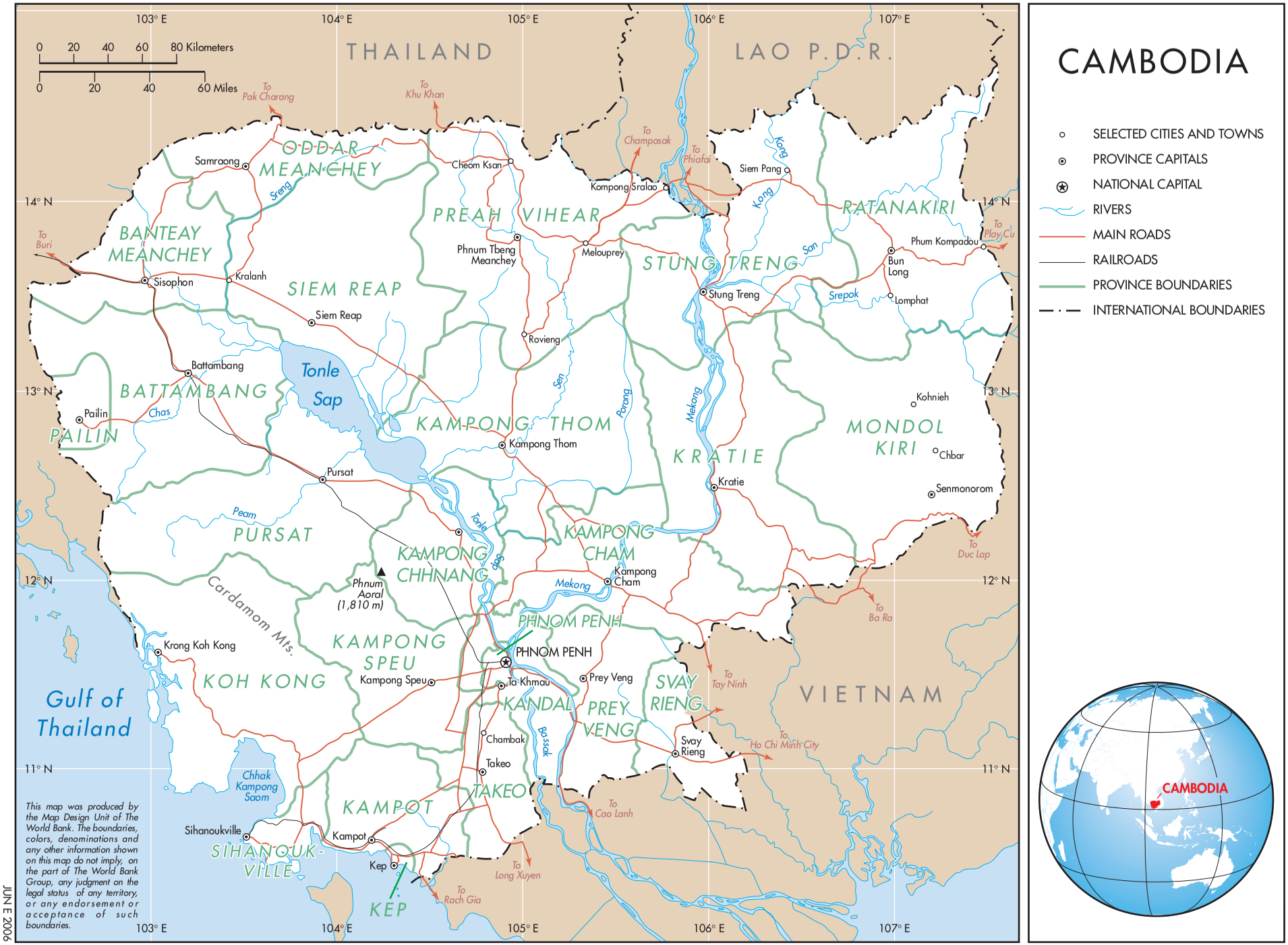
10.20. **Cambodia has experienced a sustained period of rapid growth**. This has had a profound impact on its society. Important lessons have been learned from this decade and the RGC has a strategy in place that covers a number of the key ingredients of a sound growth strategy.

10.21. **Nevertheless, the environment is changing very rapidly**. During the past decade, growth has been pushed by drivers that are weakening and the global environment is also rapidly changing. Lessons in development across the world also suggest that *sustaining* growth requires different actions than those required for *igniting* it. Beyond this, the external environment has become distinctively less supportive to sustained rapid growth since late 2008, underscoring the vulnerabilities to Cambodia's past achievements in the area of economic growth.

10.22. **The foregoing analysis has shown that (i) there are promising opportunities for Cambodia to sustain rapid growth, but that (ii) it will take resolute actions to achieve this**.

10.23. **Perhaps the most important lesson is the need to focus efforts**. Amid a multitude of initiatives, led by various parts of the Government, its development partners, the private sector, NGOs, and others, there is a need for focus. The Government is fundamentally organized around discrete policy areas (and not all are well defined). It is important that someone in the Government feels accountable for the lack of investment and the lack of diversification (just as the MEF feels accountable for the budget, the NBC for the monetary policy, etc.). This will also help address one of the main constraints to growth, that is, the coordination issues.

10.24. **Finally, finalizing a growth diagnostic such as the one in this report is inherently a political decision**, since it includes choices in an uncertain environment (uncertain because it is changing and because our knowledge on the process of growth is incomplete). Hence it is important that this diagnostic is debated and adjusted accordingly. This is likely to require further analysis and dialog in specific areas, which will also help choose priorities among the many instruments discussed in Part 3.


CAMBODIA
SELECTED CITIES AND TOWNS
PROVINCE CAPITALS
NATIONAL CAPITAL
RIVERS
MAIN ROADS
RAILROADS
PROVINCE BOUNDARIES
INTERNATIONAL BOUNDARIES
THAILAND
LAO P.D.R.
VIETNAM
Gulf of Thailand
ODDAR MEANCHEY
BANTEAY MEANCHEY
SIEM REAP
PREAH VIHEAR
STUNG TRENG
RATANAKIRI
BATTAMBANG
PAILIN
KAMPONG THOM
KRATIE
MONDOL KIRI
PURSAT
KAMPONG CHHNANG
KAMPONG CHAM
PHNOM PENH
KAMPONG SPEU
KOH KONG
KANDAL
PREY VENG
SVAY RIENG
TAKEO
KAMPOT
SIHANOUK-VILLE
KEP
Tonle Sap
Cardamom Mts.
Phnum Aoral (1,810 m)
Samraong
Sisophon
Kralanh
Siem Reap
Battambang
Pailin
Pursat
Kampong Thom
Rovieng
Phnum Tbeng Meanchey
Cheom Ksan
Kompong Sralao
Melouprey
Siem Pang
Stung Treng
Phum Kompadou
Bun Long
Lomphat
Kohnieh
Chbar
Kratie
Senmonorom
Kampong Cham
Prey Veng
Svay Rieng
Ta Khmau
Chambak
Takeo
Kampong Speu
Krong Koh Kong
Sihanoukville
Kampot
Kep
To Pak Charang
To Khu Khan
To Champasak
To Phiafai
To Buri
To Play Cu
To Duc Lap
To Ba Ra
To Tay Ninh
To Ho Chi Minh City
To Cao Lanh
To Long Xuyen
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Porang
Mekong
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Peam
Chhak Kampong Saom
0 20 40 60 80 Kilometers
0 20 40 60 Miles
103° E
104° E
105° E
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107° E
14° N
13° N
12° N
11° N
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