China and the Global Economy: Medium-term Issues and Options A Synthesis Report

Edwin Lim, Michael Spence, and Ricardo Hausmann

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Abstract
China's economic and social achievements since the beginning of reform and opening are unprecedented in global history. Managing the growth process in this continuously changing environment has required great skill and the use of unconventional economic policy. Now China has entered a new era in its development process with a set of challenges largely different from those of the recent past. Some problems - such as growing internal and external structural imbalances, increasing income and regional inequality – have arisen from, or been exacerbated by, the very pattern and success of high growth since reforms began. Others are newly posed by rapid changes in the global economy. These challenges can best be tackled in an integrated and coordinated fashion. This report, supported by the China Economic Research and Advisory Programme (CERAP), identifies the primary challenges facing China today and presents options for meeting them.

Keywords: China, global economy, macro-management, financial imbalances, exchange-rate regime

JEL codes: 020, 050

China Economic Research and Advisory Programme

China and the Global Economy: Medium-term Issues and Options

A synthesis report

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Foreword

This is the second policy study supported by the **China Economic Research and Advisory Programme** (**CERAP**). The main recommendations of the first study on social security reform were presented to Premier Wen Jiabao in November 2004, as well to a broader audience at a seminar in Beijing. At the meeting with Premier Wen, it was agreed that the next study to be conducted by the CERAP should be on medium-term issues associated with China and the global economy. The counterpart institutions for this study are the Institute of World Economy and Politics in the **Chinese Academy of Social Sciences**, and the Research Institute of the **People's Bank of China**.

A number of prominent economists from different parts of the world were invited to write papers for this study, either on the general topic of China and the global economy or on more specific issues, depending on personal interests and expertise. A number of papers were also prepared by the Chinese counterpart institutions.

This synthesis report was prepared by **Edwin Lim**, **Michael Spence** and **Ricardo Hausmann** on the basis of papers prepared by the following:

A team of economists at the People's Bank of China, led by Dr Tang Xu, Director of the Research Department, and a team at the Institute of World Economics and Politics, Chinese Academy of Social Sciences, led by Professor Yu Yongding and Dr He Fan.

Olivier Blanchard (French), Professor of Economics, Massachusetts Institute of Technology (MIT), Member of the French Prime Minister's Economic Advisory Council; **Barry Eichengreen (American)**, Professor of Economics and Professor of Political Science, University of California, Berkeley; former Senior Policy Advisor, IMF; **Francesco Giavazzi (Italian)**, Professor of Economics, Bocconi University in Milan; visiting Professor at MIT; Member of the Group of Economic Policy Advisers to the President of the European Commission; **Ricardo Hausmann (Venezuelan)**, Professor of Economic Development, Kennedy School of Government, Harvard University; former Venezuelan Minister of Planning and Chief Economist, Inter-American Development Bank; **Takatoshi Ito (Japanese),** Professor of Economics, University of Tokyo; former Deputy Vice Minister for International Affairs, Ministry of Finance, Japan; Senior Advisor, Research Department, IMF; **Michael Lipton (British)**, Research Professor, Poverty Research Unit, University of Sussex; **Warwick McKibbin (Australian)**, Professor of International Economics, Research School of Pacific and Asian Studies; Director of Centre for Applied Macroeconomic Analysis at the Australian National University; **Maurice Obstfeld (American)**, Professor of Economics, University of California, Berkeley; **Jean Pisani-Ferry (French)**, Director, Brussels European and Global Economic Laboratory (Bruegel); Professor of Economics, University of Paris-Dauphine; Member of the French Prime Minister's Economic Advisory Council; **Dani Rodrik (American)**, Professor of International Political Economy, Kennedy School of Government, Harvard University; **André Sapir** (**Belgian**), Professor of Economics, Université Libre de Bruxelles and member of the Group of Economic Policy Advisers to the President of the European Commission; and **Anthony Venables (British)**, Chief Economist, UK Department for International Development; Professor of International Economics, London School of Economics and Political Sciences;

Christopher Allsopp (Reader in Economics, University of Oxford, formerly member of the Monetary Policy Committee, Bank of England), **Professor William Hsiao** (School of Public Health, Harvard University), **Dr. Khor Hoe Ee** (Assistant Managing Director, Economics, Monetary Authority of Singapore), **Dr Cyril Lin** (Managing Director, Development Initiatives, Ltd, formerly University Lecturer in Economics, University of Oxford), and **Dr Tan Kim Song** (Singapore Management University) also provided inputs to the synthesis paper.

The work of CERAP was guided by the following advisory team, many of whom reviewed and provided comments on an early draft of this report:

Chinese advisors: **Liu Zhongli**, Chairman, Economic Committee of Political Consultative Committee; **Xiang Huaicheng**, Chairman, National Council for Social Security Fund; **Zhou Xiaochuan**, Governor, the People's Bank of China; **Wu Jinglian**, Senior Fellow, the Development and Research Center of the State Council; **Li Jiange**, Deputy Chairman, the Development and Research Center of the State Council; **Lou Jiwei**, Senior Vice Minister, Ministry of Finance; **Guo Shuqing**, Chairman, China Construction Bank; and **Yu Yongding**, Director General, Institute of World Economy and Politics, Chinese Academy of Social Sciences.

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Edwin Lim is responsible for overall management of CERAP.

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Executive Summary

Introduction

China's economic and social achievements since the beginning of reform and opening is unprecedented in global history. Managing the growth process in this continuously changing environment has required great skill and the use of unconventional economic policy. The approach to economic policy has been characterized by pragmatism, gradualism, innovative experimentation and caution ('moshi guohe' or 'crossing the river by feeling for stepping stones'), avoiding big-bang solutions and risky outcomes. The benefits of this growth have been spread widely, with hundreds of million of people lifted out of poverty.

China, however, has entered a new era in its development process with a set of challenges largely different from those of the recent past. Some of these challenges – such as the continued need to reform and modernize the economy, generate employment and raise living standards – remain outstanding and will always persist in one form or another. But other challenges – such as growing internal and external structural imbalances, increasing income and regional inequality – have arisen from, or been exacerbated by the very pattern and success of high growth since reforms began. And there are still other challenges newly posed by rapid changes in the global economy. These challenges can best be tackled in an integrated and coordinated fashion. Some can only be met by being addressed simultaneously, while responses to others need to be properly sequenced.
This report identifies the major, fundamental challenges facing China today and presents options for meeting them. Following an introductory chapter, Chapter 2 presents a comprehensive program to deal with internal and external imbalances, in ways that are consistent with China's growth strategy and with the need to address emerging social and economic problems. Chapter 3 discusses the challenge of maintaining rapid growth while continuing to reduce disparity and persistent poverty. Chapter 4 proposes a dual-track approach to building a macro-management system capable of guiding the necessary process of growth and adjustment in the coming years. Chapter 5 examines how China may play a more active role and, in some cases, assume a stronger leadership position in the affairs of regional and international economies. The time frame of these discussions is medium term, say, over the next 3–5 years. Thus, the final chapter takes a longer-term perspective, identifying the emerging trends in the global economy over the next two decades, of which China needs to be conscious now.

Dealing with Internal and External Balances

The global economy faces serious imbalances today. In this context, attention on China has focused on its large balance-of-payments surplus and the latter's implication for the country's exchange-rate policy. This is, however, an incomplete and misleading view of the problem. In our opinion, China should deal with its external and internal imbalances simultaneously. What is needed is a package of policy measures which would deal with outstanding issues in a comprehensive and coordinated manner, contribute to the adjustment necessary in the global economy, as well as help China achieve its own priorities.

China's current-account surplus is a reflection of an excess of saving over investment. This is an unusual and undesirable situation for a low-income country such as China, as it means that the Chinese are forgoing a substantial amount of consumption for low-return assets in rich countries. These resources could be better used to address the 'social debt' that has been accumulated over the past decades and to create the conditions for future growth, thus increasing the welfare of the current and future generations of China.

Both saving and investment in China today are very high compared to earlier years or to other countries. Investment, at about 46% of GDP, has reached a point of very low returns in some areas. Although more investment is still needed in some key areas, rapid growth could be maintained through more efficient investment while enabling a reduction in the overall level of investment.

Eliminating the saving–investment gap, therefore, requires that saving be reduced and consumption increased. Since 1990, saving has risen rapidly, reaching 50% of GDP in 2004, one of the highest rates in the world. There is therefore ample room for raising consumption through a reduction in saving. An increase in consumption expenditures that would help achieve a more balanced development strategy would also increase imports from the rest of the world and reduce China's dependence on external demand, thus achieving a better external balance.

To achieve internal and external balances, consumption in China needs to increase from the current level of only about 50% of GDP to 55–60% in the coming decade, which would approach the average level in the world. Thus, the key recommendation of this report is *a comprehensive package of policies* with three main elements: (i) reform measures to promote growth of consumption in the longer term; (ii) a public expenditure program to stimulate domestic demand in the short and medium term; and (iii) a managed appreciation of the currency.

Reform Measures to Promote Consumption Growth

Household consumption in China has not risen in line with national income because the household saving rate, although it seems to have stabilized in recent years, remains at one of the highest levels in the world, while the share of household disposable income in national income has fallen. A major cause of the high household saving rate in China is the so-called precautionary saving. Although income has risen substantially, the system of social protection has collapsed to a large extent. This, coupled with the rapid pace of change, has increased uncertainty.

To remedy the situation, the social security system needs to be strengthened. At the core is the reform of the pension system. Recommendations to reform the urban-based pension system, made by an international team organised by this program in 2004, include reducing the fragmentation of the system and introducing pooling and administration at the national level; eliminating early retirement abuses; transferring shares of SOEs still owned by the state to the National Social Security Fund to finance obligations left by the old SOE system; and strengthening individual accounts by switching to a Notional Defined Contribution system. In addition, an urgent task is to provide old-age security for the rural population, strengthen the minimum income (Dibao) program and improve access to and sharing of risks in health and education.

Financial-sector reforms will also be necessary to provide households with efficient instruments of saving which at present go mainly into low-return bank deposits.

Over the past few years, another reason for the slow growth of personal consumption has been the declining share of disposable household income in GDP, which means that household consumption has grown significantly less than GDP, although household saving rates seems to have stabilized or declined somewhat (although still at a very high level). In the last few years, the net income of enterprises has grown sharply. Unlike other market economies, where a substantial share of the net income of enterprises flows to households in the form of dividends to finance private consumption, almost all the income generated by enterprises in China is saved and used for investment, either by the enterprise itself or within the sector, with limited mobility. More listing of enterprises in the stock markets and increased allocation of enterprise income to dividends will be necessary to allow Chinese households to benefit more from growing enterprise income.

Government revenues as a percentage of national income have also increased sharply over the last few years, largely as a result of improved collection. In addition, government administrative reforms have led to a decrease in government consumption, while expenditures on education, health and other public services have not increased correspondingly. The improvement in fiscal balances has gone mostly into investment. Much of the increase in investment, especially by local government, has had low returns. To stimulate consumption in the economy, the government will need to increase the share of income going to households – through lower taxation of household income and increased transfers and subsidies – and to increase government consumption itself.

Special Public Expenditure Program to Stimulate Consumption in the Medium Term

To stimulate domestic demand over the short and medium term and respond to the macroeconomic objective of increasing consumption by 6–10% of GDP, a special public expenditure program covering the coming 3–5 years will be needed. The program should be used to facilitate the transition of the economy to China's new 'people-centered' and comprehensive, coordinated development strategy by supporting social services and consumption. A large legacy of 'debt' in social development now exists and requires urgent attention. Such expenditures to support the improvement of health, education and other social services will by themselves help to stimulate private consumption and reduce the need for precautionary saving.

The needs are very large and the following are areas that could be considered:

- *improvement in health care*, including increased government expenditures and subsidies to poorer regions and population groups;

- increased expenditures in *education* will be necessary, including the introduction of compulsory nine-year education in the poorest areas and the strengthening of technical education;

- in the same way as China has benefited greatly from its integration in the global economy over the past decade, there are opportunities for efficiency gains and growth through greater *internal integration*. Priority should be given to improving the quality of the transportation and communication infrastructure in the poorer interior regions, as well as agricultural research and extension, irrigation, rural infrastructure, and greater access to farm inputs and markets via transport and information. Given the rapid urbanization that China will be going through in the coming years, investment in urban infrastructure such as transport, water and sanitation, should also be of high priority in a public expenditure program.

Conditions exist in China to implement such a public expenditure program. The fiscal position of the government is strong. Since the growth rate of the economy – at about 9%– is much higher than the average real cost of debt service of about 2.5%, China can continue to run substantial fiscal deficits over the next few years without having to worry about the debt burden. The challenge is therefore not financial, but more one of whether a fiscal adjustment program can be designed that is compatible with macroeconomic, social and regional objectives, and that also limits the risks imposed by possible government failures. In addition, the adjustment program should not become a permanent feature of the fiscal system. With rising budgetary revenues, many of the recurrent elements of the public expenditure program should be absorbed into the regular budget while still allowing the government to maintain a balanced current account budget.

Managed Adjustment of Currency

An appreciation of the RMB would not only help correct the trade balance, but will also help promote a balanced development of the domestic economy. By its dampening effect on the economy, it would enable the economy to avoid going into a state of overheating and high inflation as a result of the increase in consumption. It would also lead to an increase in the prices of traded goods relative to non-traded goods and thus promote faster growth in the non-traded sectors, such as services.

The magnitude of appreciation desirable is impossible to estimate *ex ante*. Appreciation of the currency by itself could have adverse effects on growth and income distribution. Adjustment of the exchange rate should therefore be carefully managed and its impact on the economy closely monitored. Possible adverse effects can be overcome or mitigated, and the magnitude of appreciation necessary reduced, if the adjustment in the exchange rate is combined with the measures above.

Over time, the government should be prepared to make substantial adjustments in the exchange rate if market conditions require, and if needed to achieve internal and external balances. The reform of the foreign-exchange regime introduced on 21 July 2005 created the necessary conditions for a gradual and controlled transition to full currency convertibility. The new foreign-exchange regime also provides the opportunity to implement the managed appreciation of the exchange rate itself.

Finally, in the implementation of the above program to restore internal and external balances, the relative timing and magnitude of the different possible elements of the policy package need to be carefully coordinated and balanced. Too small an appreciation of the RMB combined with a large expansionary public expenditure program may result in overheating and inflationary pressure. The public expenditure program needs to be carefully planned also, to be sure that supply will be able to respond to the increased demand. The relative roles of the central and local governments in the financing and execution of this program need to be decided carefully.

There are important lessons of international experience on the need to take advantage of the opportunities this new mechanism provides. In the early 1970s Japan was in a situation similar to China's today. Instead of allowing a managed appreciation of the currency, Japan chose to increase the money supply in attempting to achieve external balance. This proved to be a major mistake, resulting in hyper-inflation and negative growth when the oil crisis hit in October 1973. The transitional arrangements possible under the new system in China are also consistent with the experiences in other emerging market countries, such as Chile and Israel, which have ultimately achieved healthy economic growth coupled with low inflation, financial stability, full currency convertibility, and a fully floating exchange rate. These should also be China's goals.

China and Global Imbalances

It is not yet possible to predict how the necessary adjustment in the global economy will take place in the next 3–5 years. It is, however, possible to identify the necessary components of an orderly and smooth adjustment. The United States should increase saving and reduce consumption substantially. Growth needs to accelerate in the EU and Japan. In the rest of Asia outside China, where saving is already high, investment needs to recover from the reduced level that followed the financial crisis of the late 1990s. Currency adjustment will facilitate this process of adjustment, including a significant depreciation of the US dollar and appreciation of the currencies in countries with substantial current account surpluses. In China, consumption should be the new engine of growth while the move towards a managed floating exchange rate will enable the exchange rate to adjust to market conditions. While contributing to an orderly and smooth adjustment of the global economy, this would be consistent with China's new development strategy and increase the welfare of the Chinese people.

Measures to Reduce the Capital Account Surplus

China's external imbalance is not limited to the current account surplus discussed above, but also involves the large surplus in the capital account (the so-called twin surpluses). The main element in the capital account is the capital inflows associated with foreign direct investment (FDI) – amounting in 2004 to about the same level as the current account surplus. FDI has been a major source of productivity and economic growth for China over the past decade. The question for China is how to continue to tap into the technology and management practices of foreign investors as it tries to move into the higher end of the production value chain while reducing the associated capital flows.

The first step is to eliminate the differentiation in tax and other treatments according to sources of capital. At the same time, domestic financing of investment by foreign investors should be encouraged. The objective would be not only to deal with the capital account surplus caused by FDI, but also to move towards a more efficient allocation of savings and capital within China, thereby raising the returns on domestic savings. Foreign investors should be allowed to borrow in RMB locally, either from banks or by issuing corporate bonds. Mature and successful foreign invested enterprises should also be encouraged to sell equity shares in the local stock markets. The listing of foreign-invested enterprises should not have to wait until the current efforts to strengthen the A share market are completed. Assets of foreign invested enterprises now amount to about $650 billion and represent the most dynamic and best-managed part of the Chinese economy. The entry of even a small fraction of these companies will make the A share market much more attractive and bring in more investors. The opportunity to sell shares in the local stock markets once an enterprise is mature and successful will encourage more foreign investors to bring in advanced technology and efficient management practices.

These measures notwithstanding, a substantial inflow of foreign capital associated with FDI will undoubtedly continue as long as China continues to grow at the current rate. Thus, even ignoring speculative capital flows, a surplus in the capital account will continue, and, unless China wants to run a current-account deficit, the build-up of international reserves will also continue, and be of a size significantly larger than that indicated by the usual need for international reserves. The question is then how China can manage its reserves better for the benefit of the current as well as the future population. A possible approach is to put aside part of its reserves – after adequate provision of precautionary liquid reserves – to be more actively managed, with the objective of enhancing the investment returns and providing an additional source of fiscal revenue for the government. In countries such as Singapore, Brunei, Kuwait, Abu Dhabi, Norway and, more recently, South Korea, a separate investment company is set up outside the central bank to manage part of the foreign reserves. These companies behave much like a long-term global endowment fund and try to maximise long-term returns, subject to matching requirements of long-term liabilities.

Of course, the circumstances and needs of China are very different from those of these much smaller economies with limited opportunities for investment domestically. Such an initiative in China will likely be of a more temporary nature, until the economy's ability to invest efficiently, through financial-sector and other reforms, catches up with the economy's propensity to save. For the next 5–10 years, however, active management of part of the reserves may be desirable.

Maintaining Growth: Challenges and Opportunities

Despite sustained and rapid growth over 25 years, China today faces broad-based challenges that will tend to slow down the economy. Since China grows faster than the rest of the world it tends to suffer from deteriorating terms of trade. This arises because it increases the supply of its exports faster than the increase in global demand for them, and raises the demand for imports faster than the growth in global supply. This tendency will become stronger as China becomes a larger part of the global economy. Moreover, China will face increasing protectionist tendencies in its major export markets. As China continues to grow, certain factors of production that are fixed – such as land, water, natural resources, clean air – become scarcer relative to those that can be accumulated, such as physical and human capital. As discussed above, ineffective response to internal and external imbalances could also have an undesirable impact on growth.

Maintaining Export Dynamism

Rising manufacturing productivity has been the main driver of China's growth up to date and has been facilitated by its orientation towards exports and the encouragement of FDI. This has created an unusually sophisticated export package: China's exports are characteristic of countries whose income per capita is triple that of China. This is a major reason why China's exports have been so dynamic. However, the degree of sophistication of China's exports has not increased much over the past decade and the country has to make a major effort at continuing to upgrade its exports to avoid deteriorating prices, profits and growth.

Industrial policy should move away from generalized subsidies to export activities. Instead, it should encourage experimentation into new areas and be willing explicitly or implicitly to subsidize the process in order to compensate for the costs of adaptation, labor training and supply-chain development, while at the same time making sure that special requirements in terms of infrastructure, regulation or education are provided. This process of experimentation is bound to generate successes and failures. It is critical to develop the mechanisms to make sure that initiatives that do not work out are abandoned early enough so that resources are not bottled up in unproductive activities.

Promoting service sector growth
Although the service sector has been China's main source of employment growth since 1990, productivity growth has lagged behind that in manufacturing. However, trade in services provided by highly educated people all over the world will represent an increasingly larger fraction of total world trade in the coming decades. Specific policies to promote the growth of the service sector in China could include revising the list of 'strategic' sectors reserved to state-owned enterprises (SOEs); removing restrictions on FDI in services; faster licensing for self-employed businesses and lower licence fees for small enterprises. Business process outsourcing should be stimulated, especially within China, where language barriers are not an issue and where there are ample opportunities to tap the labour supply from Central and Western regions. Little is known about the service sector in China, however, and further research is needed on the factors constraining the growth of the sector.

Increase the efficiency of investment
China's investment rate is the highest among large countries. The issue therefore is not how to increase the investment rate but how to raise its productivity. The financial system is at the core of the efficiency of investment, as it determines how savings are allocated and monitored. China is in the gradual process of developing a sophisticated financial system. As it does, more of the capital-allocation decisions will be subject to a market test and savings will be allocated across sectors to the activities that promise the highest risk-adjusted returns. It is important to develop an ambitious yet experimental, flexible and gradual policy to promote the development of capital markets and the set of complementary intangible assets. Reforms of fundamental areas such as property rights, company law and bankruptcy law will be essential to the further deepening of the financial system.

In addition, a large part of savings in China does not even flow through the financial system or is subject to any economy-wide allocation. Enterprise saving amounts to about the same level as household saving. A large part of these savings are either invested in the enterprise itself as retained earnings, or paid as dividends to the sectoral-holding companies for investment also within the sector. To improve the efficiency of investment, as much capital as possible must be subject to economy-wide allocation process. Policies should be adopted to break down the sectoral compartmentalization of investment resources in SOEs by requiring that an increased share of enterprise profits be paid to institutions with economy-wide responsibility. In most countries, dividends of SOEs accrue to the Ministry of Finance and are subject to allocation through the overall budgetary process. The proposal that shares of SOEs still owned by the state be transferred to the Social Security Fund would be a step in this direction.

Investment in human capital
While its rate of investment in physical capital has been the highest among large countries, China's investment in human capital has fallen off significantly in recent years and could seriously undermine the country's ability to compete in the global economy where trade will be increasingly skill-based services. This imbalance suggests that a major reallocation of the public sector's investment effort from physical to human capital should be part of the new growth strategy.

Health care is an area which has been adversely affected during the period of the 'reform and opening' policy. The problem is most serious in rural areas. In the 1970s, 90 per cent of the rural population was covered by community health insurance, but by 2003 this had fallen to only 20 per cent. The absence of risk-sharing and high medical costs has resulted in serious under-consumption of health care and a declining health status of the population. Priorities in the health area are well known and would include funds to support public health and basic prevention programs in low-income regions; a nutrition program for the poor; expansion of the compulsory urban social health insurance scheme to cover workers employed by small firms and the informal sector, particularly migrant workers, and their families and restoration of a community-based insurance scheme for the rural population. Many of these schemes are under consideration, but their implementation is impeded by an apparent excessive attempt to rely on market forces as well as the inability of a large section of the target population to pay, and of the poorer provinces to contribute their share of the financing.

Agriculture, migration and internal integration
China still has about half of its labor force in agriculture where its productivity is, on average, barely one-eighth of that observed in industry and about one-quarter of that observed in the service sector. A reallocation of labor away from agriculture and rural activities and into industry has been and will continue to be a major source of future aggregate increases in GDP per worker.

China still remains very rural. In 2003, China's rate of urbanization stood at about 40 per cent of the total population, compared to the 60 per cent that would be expected from international experience, given China's income level. Recent research on international experiences has stressed the importance of cities for modern growth, emphasizing the agglomeration externalities that arise from the increased depth and variety of the markets for skills and complementary inputs and services.

In the same way as China has benefited greatly from its integration in the global economy over the past decade, there are opportunities for efficiency gains and growth through greater internal integration in the coming decade. There are many provincial and sectoral barriers to internal integration which constrain the ability of resources to move to their most productive use and which limit the competitive pressures that foster greater productivity and innovation.

The process of integration with the global economy has favored coastal provinces over the central and western regions, and cities over rural areas. Much of this is inevitable but it also reflects the fact that for precautionary reasons, policy-makers opened some regions to FDI and not others. A policy to homogenize investment policies should help lower policy-induced regional imbalances, while a policy that improves the quality of the transportation and communication infrastructure would reduce disparities caused by transportation costs.

To promote these developments, the Government should consider policies in a number of areas. First is to increase labor mobility and facilitate migration by gradually eliminating the Hukou policy. Preference might be given to the poorest regions where poverty will persist unless more workers are able to migrate. Labor mobility would also be enhanced by the reform of the social security system to enable portability of workers' pensions across provinces. The government could also facilitate the urbanization process by investing in housing and urban infrastructure (utilities, urban transportation, social services, etc.) through a program financed by central government resources.

Another potential source of growth and poverty alleviation is increasing agricultural productivity per worker. Value added per worker in agriculture, which amounted to US$349 per annum in 2000, is the lowest of any country at China's income level. In all successful countries, increases in agricultural productivity and rural incomes have gone together with a rapid decline in rural population and with rising land/labor ratios in the countryside. Thus, policies should be pursued to help develop land rental markets and foster freer land markets, e.g. longer leases, more land security (against community seizures and transfers), more power for migrants to lease out. This should allow greater labor mobility, better use of land assets, and a reallocation of land to its most productive use. Special policies should be designed for the regional poverty islands, including agricultural research and extension, irrigation, rural infrastructure, and greater access to farm inputs and markets via transport and information. Agriculture-specific taxes should be replaced by taxes that are neutral among income sources. Rural finance is crucial for development and reform of the rural credit co-operatives should be a priority.

Energy use and environment

China is already the world's third largest energy producer and second largest energy consumer, accounting for 10 per cent of global energy use. Under plausible assumptions this share is expected to rise to 15 per cent by 2025. It is aiming for increased energy efficiency through a range of domestic programs, but these are likely to be outweighed by economic growth. In most economies it is common for the energy intensity of GDP to fall over time. This falling reliance on energy reflects a combination of more efficient use of energy in particular sectors and, more importantly, a changing composition of the economy, with more energy-intensive sectors, such as heavy manufacturing, gradually losing share to less energy-intensive activity, such as services. China is likely to experience this transformation over the coming decades. In the near term, however, it is unlikely that Chinese energy supply will rise as rapidly as energy demand, and therefore Chinese energy imports are likely to continue to rise.

With world energy prices reaching record levels, there will likely be significant supply responses in global energy markets in coming years. In particular, alternative energy sources will become more viable. Global energy markets are sufficiently open and regionally diversified that shortages are unlikely to result. However, there could be upward pressure on the level of and volatility in prices over the next few years.

A more important issue may be the environmental consequences of rising energy use in China. In particular, China will continue to rely on fossil fuels (particularly coal) as the primary source of energy for many decades into the future, the environmental impact of which is a concern to China as well as regionally and globally. China accounts for 13 per cent of global emissions of carbon dioxide – a major greenhouse gas that may cause significant global climate change in coming decades. In addition, the emission of black carbon is estimated to be responsible for local climate problems in China, such as increased drought in northern China and summer floods in southern China.

The different environmental issues associated with energy use in China require a mix of direct government intervention and market-based incentives. For example, to improve air quality, sulphur-trading systems that are already being implemented could be expanded. To address carbon-dioxide emissions, a longer-term strategy is required which acknowledges the need for China to continue to grow without a short-term carbon constraint but with clear pricing of the short-term and long-term costs of carbon dioxide. To reduce black carbon, a direct technology innovation in how households burn carbon (and agricultural burning practices) could be developed, with substantial health and economic benefits.

A Dual Track Approach to Macro-management and the Exchange Rate Regime

The challenges that China faces in the coming years – in maintaining rapid growth, in addressing issues of regional disparity and persistent poverty, and in dealing with internal and external imbalances – will place a heavy demand on the macro-management system. Notwithstanding the 25 years of reforms, the management system typical of a developed market economy is not yet fully in place. At the same time, the traditional tools of planning and direct controls are no longer fully effective, as a large part of the economy is now functioning on market principles. Hence the need to consider a new approach to macro-management.

Inflation targeting
There is likely to be little disagreement among economists about the final destination of the new approach. There has been a notable convergence among developed market economies, in their macroeconomic management policy framework, towards a system usually referred to as '*inflation targeting'*. Such a system involves focusing policy on the final objectives of inflation control and growth, and not on intermediate targets such as the money supply or the exchange rate (both of which have either proved of limited short-term use or led to unsuccessful results). Inflation targeting is aimed at achieving *stable non-inflationary growth at potential rates* – which is consistent with the objectives of China's overall macroeconomic policy as usually described.

Such a system, however, is not advisable for China in the short term. There would be a serious danger of a loss of control – the opposite of what is intended by adopting inflation targeting. Accordingly, the proposed *dual-track* approach would have the following two main elements:

- the maintenance of capital controls, but within an increasingly more flexible exchange rate system; and
- the continuation of credit controls (and other direct methods of influencing aggregate expenditure) whilst moving increasingly but gradually towards using the indirect instrument of interest rate as financial reform proceeds.

This approach is designed to ensure that existing control systems are only given up when better methods are available and the direct methods are no longer needed. In the short term, the longer-term model of inflation targeting would be an important guide for policy making.

Evolution of the foreign exchange regime
A critical element of the dual-track approach in the coming years will be the evolution of the foreign exchange regime. The 21 July 2005 changes to the exchange rate mechanism, in fact, have created the necessary conditions for a gradual and controlled transition to an increasingly flexible exchange rate regime. The new foreign exchange regime (belonging to the group commonly known as 'Basket, Band, Crawl' or 'BBC') also provides in principle the opportunity to implement managed changes in the exchange rate itself necessary to achieve internal and external balances as discussed earlier.

Given the government's stated objective for broader RMB convertibility in the longer run, a regime in which the RMB fluctuates – perhaps in a managed way – against trading partners' currencies, is necessary. The transition from the present regime to such a regime will require two steps.

The first is a move to a *meaningful* basket peg in which the currencies of major trading partners receive weights proportional to the value of their trade with China. In practice, a basket peg of this kind is equivalent to a movable peg of the RMB to the USD where the peg's daily value depends on the USD bilateral rate against the other currencies included in the basket. An advantage of this basket peg system is that it would be a deterrent against speculation by reducing the misalignments that would occur vis-à-vis third currencies under a bilateral peg. If the basket weights are somehow randomized, uncertainty for speculators would also be raised.

The second step should be a progressive widening of the band over time, with the eventual goal of a band so wide that intervention limits are rarely if ever met. Intervention (or monetary policy more generally) could be used to smooth fluctuations within this band. If the band is to be widened slowly, then a system in which the mid-point of the band crawls, or in which both sides of the band are widened asymmetrically over time, could be useful in accommodating a gradual appreciation of the RMB as required to achieve internal and external balances. An advantage of a *gradually* *expanding* target range is the limitation of risks while market agents are adjusting to an environment of active currency trading and exchange rate uncertainty.

Capital controls

The development of such a system would be 'facilitating', rather than implying an immediate change in policy – unless policy-makers so desired. But, with interest rates directed more and more towards domestic objectives, the capacity to manage the exchange rate (within limits) depends on the maintenance of capital controls.

Indeed, the current health of China's banking system does not allow a precipitous opening of the financial account. A danger in abolishing capital controls in the near future, especially given the very large amount of deposits held within the banking system, would be the risk of very large outflows if conditions were to deteriorate and sentiment about the RMB were to worsen. Another danger is the possible loss of control. An open capital account would mean that the authorities either have to let the exchange rate float subject to the vagaries of the market, or divert monetary policy away from domestic objectives of macro control to exchange rate management, and in this last case take the risk of speculative attack. Indeed, there are arguments for tightening capital controls, whilst pursuing a more flexible exchange rate policy

With capital controls in place and the possibility of intervention, macro policy (including, potentially, interest rates) can be assigned, as it should be, to the overall control of the economy, whilst at the same time selective intervention is used to control the exchange rate. But the process of exchange market intervention itself should avoid outcomes which may lead to *pressure* on the exchange rate caused by, for example, market perception of an undervaluation or overvaluation of the currency concerned. The need to deal with exchange rate pressure – manifested in huge speculative inflows of capital – could divert policy, undermine the development of indirect methods of macroeconomic management and hamper other aspects of financial and overall economic reforms. Alleviating or avoiding exchange rate pressures would allow interest rate policy – monetary policy more generally – to concentrate increasingly on its overall macro control function.

China and Global Economic Governance

For its own national interest and that of the global economy, China should play a more active role and in some cases, assume a stronger leadership position than it currently does in the affairs of regional and international economies. The global economy faces various risks whose containment and resolution require determined, joint actions from the major economic powers including China. To increase the effectiveness of its global and regional economic engagements, China should strengthen its own institutional and technical capacities at various levels of government.

China is already a full member of various formal multilateral bodies such as the WTO, the IMF, the World Bank and the Asian Development Bank etc. Its presence and influence in these organizations will grow over time. In the near term, however, China should try to play a stronger role in informal groupings like G3, G7/G8 and G20 etc (at the international level) and ASEAN+3 and APEC etc (at the regional level). It should aim to join the G7/G8 Group of Finance Ministers and Central Bank Governors as a full member by the end of the decade, to help ensure that its own interests are sufficiently represented in any joint policy responses to global issues among the major economic powers and to strengthen the forces of 'multilateralism' in global economic governance. China should also help forge consensus on various longer-term issues facing the global economy among some of the largest developing economies (e.g. Brazil, India etc.) through a more active participation in G20. It can also help strengthen the global monetary and exchange rate arrangements by engaging more closely in the confidential, informal consultation process among the senior representatives ('deputies') of the G3 group thereby extending it to become a G4 Group.

On regional matters, China has been actively pursuing free trade agreement (FTA) negotiations with various countries or sub-regions in East Asia in recent years. But given its fast broadening and deepening economic ties with the region, it should help establish a formal East Asia-wide free trade grouping. To avoid undue concern over China's dominance in such a grouping, the grouping could be centered on ASEAN. ASEAN has vast experience in forging consensus and integration among economies which for various historical, political and cultural reasons may find it difficult to negotiate on a bilateral basis. China could nevertheless enhance the free trade momentum in the region through bold, exemplary leadership, as it did when it offered the 'early harvest' program to ASEAN countries in the China-ASEAN FTA negotiations.

Compared with the Sino-East Asia or even China-US ties, the China-EU economic relationship could potentially be filled with more tension. Production in the newer EU member economies, for example, remains largely labor-intensive, making for a more competitive economic relationship with China than exists between China and the USA, or for that matter, East Asia. Moreover, the EU labor markets are much less flexible than that of the USA, further increasing the likelihood of political pressure that trade liberalization with China may entail. China's quest for more energy and raw materials, including using strategic foreign investment in some cases to secure access to such resources, would likely put pressure on the EU, which is just as import-dependent on these raw materials. Meanwhile, China's rising economic strength could imply a diminished role for the EU in multilateral institutions and informal groupings.

While many of these structural problems have to be solved by the EU itself, closer consultation and joint actions between China and the EU could help ease the pain. In some cases, tackling the problems requires significant policy adjustments for both. It is in the interest of both China and the EU to step up the dialogue process as early as possible, so as to identify potential tensions that could otherwise derail the continued expansion of the trade, investment and financial ties that have brought great benefits to both in the last two decades.

Long-term Trends in the Global Economy

Changes in the global economy are occurring at a very rapid pace and are already beginning to have profound implications for the future sources, patterns and rates of growth for developed and developing countries alike. It is therefore important for Chinese policy-makers to also anticipate the threats and opportunities posed by long-term trends in the global economy and to adopt a pro-active strategy for addressing them. The on-going preparation for the 11th Five-Year Plan (2006–10) and other policy-making arrangements provide Chinese policy-makers with a major opportunity for doing so.

The world is entering its third century of growth driven by science and technology. Following eight hundred years of virtually no growth, average per capita global income in real terms grew by about 20 per cent in the nineteenth century and almost 90 per cent in the twentieth century. These impressive growth rates however obscure large differentials among countries. While we cannot see clearly far into the twenty-first century, it is reasonable to predict that the growth in the global economy will dwarf even that in the twentieth century while the differential may continue, with a sizeable number of poor being left behind.

The global economy have quite clearly entered a period of more rapid growth and productivity gains, based not solely but largely on the exploitation of information technology (IT) to increase dramatically the efficiency of markets, supply chains, the delivery of services and the accessing of valuable human resources without reference to or bounded by geography or time. Played out over several decades, these technologies are quietly revolutionary. In addition to increasing the efficiency of all domestic economies, the larger effect in the medium to long run is to transform the global economy. Trade in services provided by highly educated people all over the world will increase both absolutely and as a fraction of total world trade. Research and development (R&D), business services and financial services will be sourced globally. Trade as a fraction of global GDP will continue to rise, increasing interdependence.

As a result, human resources are much more valuable in the context of the global economy. It is as if the boundaries of labor markets were partially breaking down. Neither the magnitude nor the importance of this can be overstated. Anticipating and preparing to participate in these new trends and possibilities represents an additional source of growth. It also offers the opportunity to move up the technological ladder more quickly than would otherwise be possible.

These trends driving the global economy represent huge opportunities for those developing countries, including China, that are able to make large and continuing investment in human capital. Though it is less often talked about, they represent large opportunities in the domestic economy. For example, in large countries like China, educated but under-used human resources in less developed provinces can be employed to deliver services in more advanced locations where the balance of labor demand and supply is very different and labor costs are much higher. This may reduce some of the pressures created by high rates of migration from rural to urban and from central to coastal areas.

China, with its size and dynamism, could, with a sustained effort to build the institutional and human capital infrastructure required for modern financial and capital markets, become one of the leading financial centers in the world. In 25 years, China, with another two to three doublings of its GDP, it will be a major economic power and a leader, along with the USA, the EU and Japan, in setting international economic policies. China's international economic policies and its frame of reference in formulating them will increasingly influence the evolution of global economic policies.

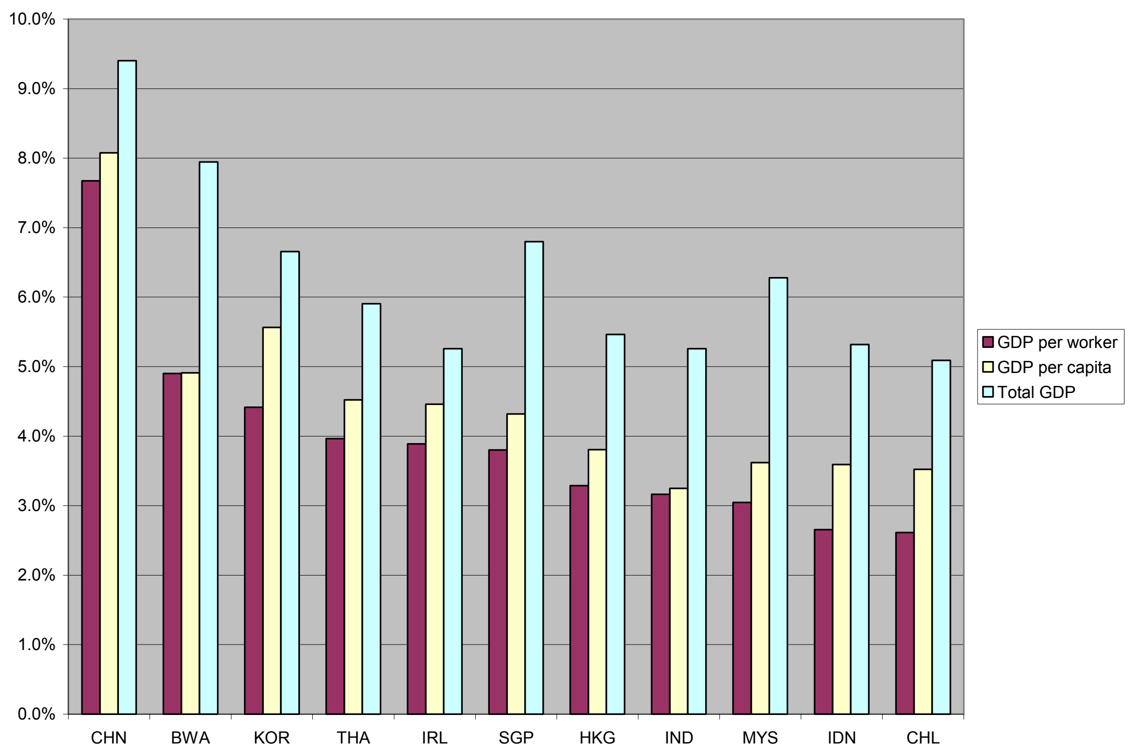
In the longer term, it is foreseeable that China with its large and growing economy will have an increasing impact on other countries and be increasingly powerful economically and in international economic relations. When this happens, as it will, China's policies will gradually but steadily need to focus increasingly on matters that relate to what is good for the global economy generally, as well as what is needed internally. In an increasingly integrated global economy, what will be beneficial for the global economy will also be beneficial for China, and vice versa. This interdependence should be an important consideration in the formulation of China's longer-term development strategy, just as it is important for other countries to take account of China's emergence. This policy-making process can best succeed through greater dialogue and collaboration between China and the outside world. This report, hopefully, is a step in that direction.

Chapter 1 Introduction

China's Economic Achievements in Historical Perspective

1.1. Since embarking on market-oriented reforms and opening up to foreign trade and investment in 1978, China has achieved growth rates that are unprecedented in an economy and a country of this size. Figure 1.1 below shows the 20 fastest growing countries in the 25-year period between 1978 and 2003, ordered by the rate of growth of GDP per worker[1]. It shows that China had the fastest rate of total GDP growth (9.4 percent), of per capita GDP growth (8.1 percent) and of per worker GDP growth (7.7 percent). The benefits of this growth have been spread quite widely, with hundreds of million of people lifted out of poverty.

Figure 1.1
Fastest growing countries between 1978 and 2003
(average annual growth rate)



1.2. China's achievement is especially impressive because its rapid growth is neither the consequence of a particularly rapid demographic transition, a fast urbanization process nor a particularly fast accumulation of human capital – as was the case in other

[1] Data is from the World Bank's lWorld Development Indicators (2005). The data covers 157 countries for this period and excludes countries with a population of less than 1 million in 2003.

East Asian countries when they experienced their respective growth miracles. In fact, China was already very advanced in its demographic transition by the time its growth began to accelerate in 1978. This meant that its growth did not derive or benefit from a significant increase in the ratio of workers per capita, as was the case in Korea and the other East Asian tigers. Instead, China's growth has been based on an unprecedented increase in labor productivity as measured by GDP per worker.

1.3. This productivity increase cannot be explained by a stellar performance in terms of human capital accumulation. For a country of its income level, China does not have an impressive or exceptional educational effort as measured in terms of enrollment rates. Its progress on education (measured by growth in enrollment) and on health, while good, is also not by any means outstanding. Urbanization is similarly not a major explanatory factor in China's exceptional growth. China ranks 64th internationally in the rate of decline of its rural population. China's GDP per worker in the economy as a whole is three times the value-added per worker in agriculture, ranking China one of the highest countries in the world in terms of the size of the productivity gap between agriculture and the rest of the economy.

1.4. The secret to China's growth must be found mainly in its exceptional advances in manufacturing productivity. These were facilitated by strong competitive pressures arising from China's open door policy which led to the country's gradual but steady integration into the global market and the consequent incorporation of world-class technology through openness to foreign direct investment (FDI). China has been very successful in managing foreign direct investment and manufacturing growth to achieve significant inbound technology transfer, thereby increasing the potential growth of the economy. It has also diversified effectively into a growing number of manufacturing sectors and is in the process of moving back in the supply chain and up on the technological ladder. Export- and manufacturing-led growth has resulted in the Chinese economy doubling in size three times since 1978 and the economy is continuing to double every 8 to 9 years.

1.5. Through most of this period, China's economy has been in various stages of transition from a centrally planned economy to an increasingly decentralized market economy. The transition process is still going on with many more stages to go. Managing the growth process in this continuously changing environment has required great skill, and the use of unconventional economic analysis. China's approach to economic policy has been characterized by pragmatism, gradualism and caution (avoiding big bang solutions), avoidance of risky outcomes and experimentation. There have been bold moves along the way, including the initial launching of the reforms, and the entrance into the WTO with its attendant changes and commitments.

Challenges to Sustainable Growth

1.6. China's pattern of growth is unlikely to be sustainable in the longer term unless a number of emerging sets of challenges are addressed. The first set of challenges concerns the growing internal structural imbalances in the Chinese economy that have emerged or been exacerbated since growth accelerated in 1978. One major imbalance is the increasing income and regional inequality, which have worsened since the 1980s with the growth of manufacturing and the export sector. There continues to be a large flow of people out of rural areas and agriculture into urban areas and into the manufacturing and service sectors.. Reducing inequality and creating employment for these people is one of biggest challenges for Chinese policymakers. It is therefore essential to maintain a high rate of growth in output and employment in order to accomplish the goal of absorbing surplus labor and of reducing inequality.

1.7. But achieving robust and sustainable growth in the longer term will require tackling other issues such as the savings-investment imbalance (i.e. high rate of 'precautionary' savings and relatively low rates of household consumption) caused in large part by uncertainty over employment and by inadequacies in the pension and health systems. Growth in China has indeed been driven mainly by exports of industrial products, to a large extent financed by FDI (concentrated in the coastal regions), rather than by domestic consumption and by a proportionate and balanced development of other sectors and the inland region. Moreover, the system of macroeconomic management needs to be improved in line with the significant marketisation that have already occurred and with further market-oriented reforms, especially in financial market development, internal economic integration and competition policy, that are essential for raising efficiency in resource allocation across sectors and regions. Also, the level of economic activity has grown to the point that actual and potential environmental impacts are large and need to be addressed.

1.8. Another set of challenges concerns China's increasing integration into the global economy, and derives in particular from China's growing external imbalances as well as from exogenous trends in the global economy that pose both threats and opportunities for China's long-term growth. External imbalances have arisen from China's export-led growth strategy, which has involved an exchange-rate system pegged to the US dollar and resulted in both large current and capital account surpluses. China's manufacturing sector is large and dynamic enough to put significant competitive pressure on its counterparts in developed and developing countries, often resulting in political responses from the former. China has become a major consumer of commodities, raw materials and energy, to the point that its influence on global prices at the margin is significant. In energy, because of the low elasticity of supply in the short to medium term, prices have risen dramatically. In addition, there is a real risk of a battle for energy security, through an attempt to buy up and control major sources of supply.[2]

[2] This situation has the incentive structure of the prisoners' dilemma in which it is in the interest of each country to secure its own supply, but if every country does so then in the aggregate we are all worse off.

1.9. Rapid growth leads to rapid changes in prices, particularly of labor. This can be delayed or slowed somewhat if there is a very large supply of labor entering the markets every year. Nonetheless, prices will eventually rise, which in turn will lead to shifts in comparative advantage and industrial mix in the economy. When these changes are rapid (as they will be at the rates of growth that China is experiencing and plans to maintain), it is important to anticipate them and invest in new industries, markets and human capital to facilitate smooth economic and structural transformations. One lesson from experience is that there is a tendency to try to keep doing what worked in the past, for longer than is justified.

Managing China's Growth and Global Integration

1.10. Managing the growth process in China has required great skill and the use of unconventional economic policy. The approach to economic policy has been characterized by pragmatism, gradualism, innovative experimentation ('moshi guohe' or 'crossing the river by feeling for stepping stones') and caution, avoiding big bang solutions and risky outcomes.

1.11. As mentioned above, China has entered a new era in its development process with a set of challenges largely different from those of the recent past. Some of these challenges, such as the continued need to reform and modernize the economy, generate employment and raise living standards, remain outstanding and will always persist in one form or another. But there are other challenges, such as growing internal and external structural imbalances, increasing income and regional inequality, that have arisen from -- or been exacerbated by – the very pattern and success of high growth since reforms began. And there are still other challenges newly posed by rapid changes in the global economy. The challenges in China's development can best be met in an integrated and coordinated fashion. Some can only be met by addressing them in a simultaneous fashion, while others need to properly sequenced.

1.12. This report identifies what we regard as the major, fundamental challenges and presents options for meeting them. Chapter 2 presents a comprehensive program to deal with internal and external imbalances, in ways that are consistent with China's growth strategy and with the need to address emerging social and economic problems. Chapter 3 discusses the challenge of maintaining rapid growth while continuing to reduce disparity and persistent poverty. Chapter 4 proposes a dual-track approach to building a macro-management system capable of guiding the necessary process of growth and adjustment in the coming years. Chapter 5 examines how China may play a more active role and, in some cases, assume a stronger leadership position in the affairs of regional and international economies. The time frame of these discussions is medium term, say, over the next 3–5 years. Thus, the final chapter takes a longer-term perspective, identifying the emerging trends in the global economy over the next two decades, of which China needs to be conscious now.

Chapter 2 Dealing with Internal and External Imbalances[3]

Overview

2.1. At present, much of the international discussion on global macro issues is centered on the Chinese balance-of-payments surplus and its implication for Chinese exchange-rate policy. Many abroad would like to see an appreciation of the Renminbi (RMB). Policy-makers in China, however, fear the negative effects on growth and employment of such an adjustment.

2.2. This chapter proposes a comprehensive approach to dealing with the problem. It starts from the observation that the key problem in China is excessive household savings, brought about largely by the collapse of the institutions that used to provide social security and basic health care and education. In addition, the share of household income in GDP in recent years has declined significantly, and the shares of enterprise and government incomes have increased and gone mainly into investment. As a result, the economy is forgoing consumption in order to accumulate assets – both in China and abroad – which have very low, even negative, returns. In principle, those resources could be better used in increasing the welfare of the current and future generations of Chinese.

2.3. A policy package is therefore needed to achieve a better balance in the economy by reducing the rate of savings in China, i.e. producing an increase in the rate of consumption. This would increase demand for all goods, causing, in principle, a reduction in the current account surplus. Employment would expand, lowering the perceived risk of excessive unemployment. The increased demand in China would raise the rate of return of investment projects in China, especially those that cater to the domestic market.

2.4. How to achieve a reduction in savings? First, by tackling the causes of the unusually high rate of 'precautionary savings', particularly problems with the pension and health systems. Policies should also be introduced to increase the share of household disposable income in national income. The impact of such measures will be seen only over time, however. Second, by shorter-term measures in the form of a program of public expenditure, financed by debt if necessary, to address some of the social and regional problems that have emerged over the past decade. The components of the program should by themselves increase the welfare of the population and help increase the population's willingness to consume, thus facilitating the long-term adjustment of growth strategy that the government intends.

2.5. These measures to reduce savings and stimulate consumption demand need also to be accompanied by a managed appreciation of the RMB. Without the dampening effect

[3] This section is based on a number of papers prepared for this study, including Blanchard and Giavazzi, 'China: A Three-handed Approach', Hausmann, 'Global Imbalances, Chinese Imbalances: A Fiscal Solution', and He Fan, Zhang Bin and Cao Yongfu, 'Rethinking China's Development Strategy'.

of an appreciation of the RMB on the economy, the increase in consumption would lead to overheating and inflation. This is a lesson China can learn from the experience of Japan in the 1960s and 1970s (see Annex B). As part of a comprehensive policy package, both the magnitude and the pace of currency appreciation would be moderated, and its adverse impact on the economy mitigated. This approach would also help the global imbalances, as the Chinese expansion in demand would give a positive push to world growth through increased imports. With a resulting improved trade balance and measures to address the surplus in the capital account, including measures to promote the domestic financing of FDI and active management of part of the foreign reserves, the need for the People's Bank of China (PBC) to accumulate low-return foreign assets would be reduced.

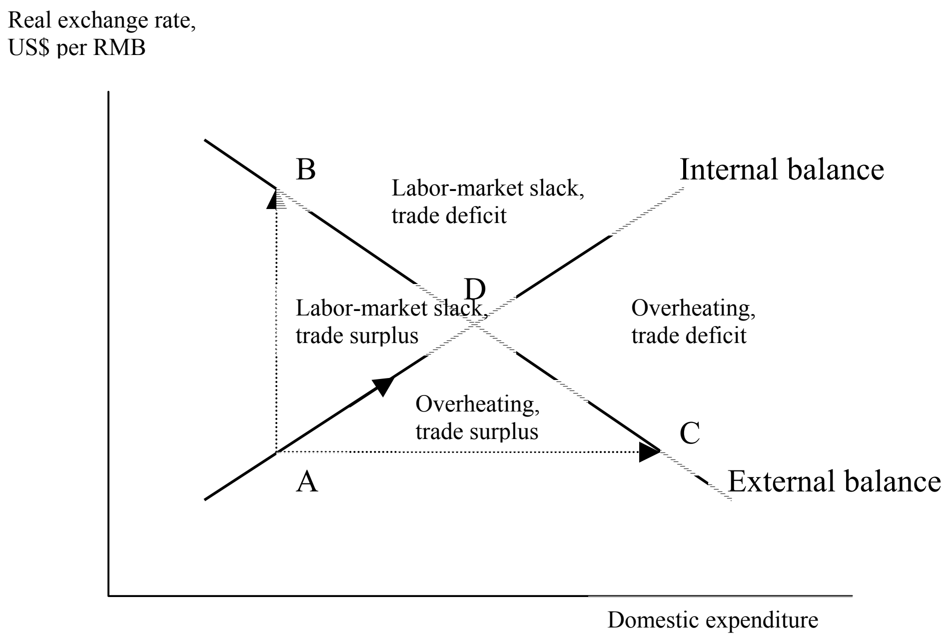
A Graphical Illustration of the Problem and Possible Solutions

2.6. Below is a diagram illustrating the conditions for achieving internal and external balances in an open economy.[4] The vertical axis represents the real exchange rate[5] expressed in terms of, say, US$ per RMB. The horizontal axis represents domestic expenditure, i.e. domestic consumption and investment.

[4] Such a diagram was first used by Swan in 1961 when he (and Salter) proposed a macroeconomic model of an open economy. Since then, the diagram (and a large number of variations) has been used in many texts on macroeconomics and has become a standard. A fuller explanation of the diagram, and the model behind it, is in the paper by Blanchard and Giavazzi, which also extends the model to the specific conditions of China.

[5] Since the diagram is concerned with the real economy, it is the real exchange rate that matters. The real exchange rate is the exchange rate after taking into account differences in inflation between the home country and the rest of the world. For example, if inflation is higher in, say, China than in the rest of the world, there is an appreciation of the real exchange rate even if the nominal exchange rate remains unchanged. This reflects the fact that Chinese goods are now more expensive in foreign countries because of the higher rate of inflation, even though there is no change in the nominal exchange rate. The real exchange rate is thus a measure of competitiveness.

Figure 2.1



2.7. The internal balance (IB) line in the diagram represents the different combinations of the exchange rate and level of domestic expenditure that would achieve balance in the domestic economy, i.e. full employment. Consider, for example, a move to the right away from any point on the IB line, i.e. an increase in domestic expenditure without any change in the exchange rate. This means an increased domestic demand for goods but external demand remaining the same; thus overheating will result. Balance can be restored only if there is a corresponding move up to return to the IB line, i.e. an appreciation of the exchange rate, which reduces external demand and switches some domestic demand to imported goods. Consider also a move down away from any point on the IB line, i.e. a depreciation of the RMB. External demand for Chinese goods will increase and Chinese demand for imported goods will decrease, once again resulting in overheating. Restoring internal balance will require a reduction in the level of domestic expenditure, i.e. a move to the left to get back to the line. Thus the internal balance line is upward sloping, as shown in the diagram.

2.8. The external balance (EB) line in the diagram represents the different combinations of the exchange rate and level of domestic expenditure that would achieve trade balance. Consider, for example, a move to the left away from any point on the EB line, i.e. an exogenous decrease in domestic expenditure. A trade surplus would thus emerge as more goods are available for export and demand for imports is reduced. A trade balance can be restored by an appreciation of the currency – a move up to return to the line – which would reduce export demand and increase import demand. Thus the external balance line is downward sloping, as shown in the diagram.

2.9. From the above, it can be seen that all points above the internal balance line represent the economy operating with less than full employment, while all points below the line represent overheating in the economy. All points to the left of the external balance line represent the economy with a trade surplus, and all points to the right represent the economy with a trade deficit. Thus all points on the diagram except those on the two lines represent a combination of overheating/unemployment and trade surplus/deficit.

Adjustment to achieve balance

2.10. A country can be at any point in Figure 2.1, depending on its level of expenditure and terms of trade. China today can be seen to be at point A. The economy is roughly at balance between labor supply and demand, but has a trade surplus.

2.11. As represented in the diagram by the three arrows, external balance can be achieved in several ways. The vertical arrow goes from point A to point B, indicating an appreciation of the currency without any change in domestic demand. This would lead to a decrease of exports and increase of imports, thus directly reducing the trade surplus. Point B, however, is way above the internal balance line. This means that, as a result of the currency appreciation which reduces external demand for Chinese goods and increases Chinese demand for imported goods, the economy will operate at a level less than that required for a balance between labor supply and demand.

2.12. As illustrated by the horizontal arrow in the diagram, external balance can also be achieved by increasing domestic expenditure, i.e. domestic consumption and investment, without any change in the real exchange rate. The increase in expenditure will lead to an increase in imports, and a decrease in the amount of domestic products available for export, thus achieving a trade balance. However, to reduce the trade surplus by an expansion of domestic expenditure only, the economy will have to move to point C in the diagram. Point C is far below the internal balance line. This means the level of domestic expenditure is way above that required for a balance between labor supply and demand, and overheating and high inflation will result.

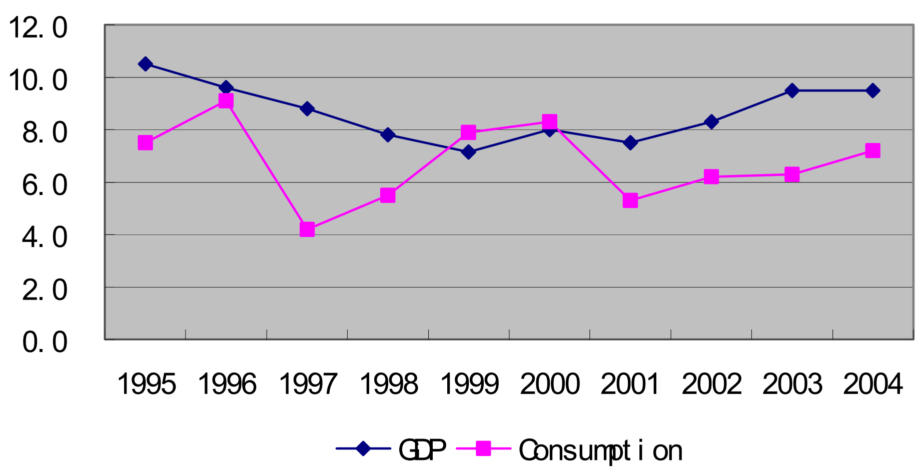
2.13. The right approach to achieving simultaneous external and internal balances is obvious from the diagram. The economy needs to use an appropriate combination of currency appreciation and expansion of domestic expenditure to move from point A to point D, at which both external and internal balance is achieved. Thus the challenge is to reduce the trade surplus while maintaining labor market balance in the economy through the prudent use of a combination of policy measures, and ensuring that these measures are consistent with the basic objectives of maintaining growth and reducing poverty.

2.14. The rest of this chapter discusses possible elements of a policy package to achieve these objectives: (a) increased private consumption through reform of the social security system and other measures to reduce the level of precautionary saving among the population and policies to increase the share of household disposable income in national income; (b) a public expenditure program financed by debt to address regional and social problems; and (c) a managed appreciation of the RMB. Finally some options to reduce the capital account surplus are also discussed.

Increasing Consumption

2.15. As shown in the diagram, increasing domestic expenditure – consumption and investment – is one way to reduce the trade surplus. There is another way of looking at this. The trade surplus can also be seen as a surplus of saving over investment. In China today, both saving and investment is very high compared to earlier years or to other countries, either developed or developing. In the last few years, saving has risen faster than investment, so that the saving surplus (which is equivalent to the external current account surplus) has risen. The high and rising saving rate thus poses a problem – an unusual situation for a developing country. Investment is also unusually high; to increase it further would likely result in poor quality of investment, low returns, and the risk of additional non-performing loans. As discussed earlier, the challenge with investment is not to increase its level but to improve its quality and its allocation to the higher priority areas.

Figure 2.2 Growth Rate of GDP and Household Consumption (%)



Source: China Statistical Yearbook, 2005.

2.16. Therefore, correcting the imbalance means raising consumption. Increasing consumption expenditure is consistent with the government's longer-term objective of relying more on domestic demand, particularly consumption, for future growth. As shown in Figure 2.2, over the past decade, private consumption has not risen in line with the growth of income, household consumption growth averaging nearly 2% less per year than GDP growth. A s shown in Table 2.1, in recent years, private consumption is less than half of GDP, significantly lower than in most other countries.

Table 2.1
Saving and Consumption: An International Comparison

	China 2001	USA 2002	France 2002	Japan 2002	Korea 2002	Mexico 2001
Private consumption as % of GDP	47.2	70.8	54.6	57.1	55.7	73.9
Household saving as % of disposable income	25.3	6.4	16.6	12.6	7.4	9.8

Source: Kuijs (2005).

2.17. Raising consumption means reducing saving. As also shown in Table 2.1, private saving in China is much higher than in almost all developing and developed countries – more than double that of high-saving countries such as Japan and Korea – and is the major reason for the high national saving rate, contributing in recent years to more than half of total saving. Some of the reasons for the high rate of private saving in China are consistent with experiences in other countries, including the high growth rate of per-capita income in recent years, and the demographic situation. In particular, the one-child-family policy has meant that families have to invest more in financial assets for old-age security.[6]

2.18. Even allowing for these factors, private saving is still unusually high in China, even though household saving rates seem to have stabilized and may have declined somewhat in recent years. This is quite understandable, given the developments in the country over the past decade. Although income has risen substantially, the system of social protection has collapsed to a large extent. In the urban areas, the traditional 'iron rice bowl' has been broken, but the new system of social security is not yet fully established. In the rural areas, in particular, the family support system has weakened, and the collective education and health systems have largely disappeared and not been replaced. Throughout the country, growing prosperity has been accompanied by a rising degree of uncertainty owing to the rapid speed of change. As indicated in Table 2.2, household saving rates have increased substantially over the past decade, and at a much higher rate in the rural areas, where the rate is now higher than the urban areas, despite the much lower level of income and rate of income growth. Information given in interviews indicates that rural household savings are largely precautionary saving, for retirement and medical expenses and for life-cycle events such as children's education, weddings and funerals.

[6] Kuijs, L. (2005), 'Investment and Saving in China', World Bank Research Working Paper 3633, July; Kraay, A. (2000), 'Household Saving in China', *The World Bank Economic Review*, September; and Modigliani, F., and Cao, S. L. (2004),' The Chinese Saving Puzzle and the Life-Cycle Hypothesis', *Journal of Economic Literature*, March. While the very high level of household saving in China by international standard is beyond doubt, actual changes in the saving rates over the past few years and explanations of these changes are still not clear and require much further research. See the article by He cited below.

Table 2.2
Household Saving Rates in Urban and Rural Areas of China
(% of disposable income)

	Urban	Rural
1993	18.1	16.5
2003	23.1	25.9

Source: Derived from National Bureau of Statistics Household Surveys.

2.19. Accelerating the growth of private consumption – decreasing the level of precautionary saving – requires the strengthening of the social security system, which has not kept up with other changes in the economy. At the core of the social security system is the pension system. Reform of the urban-based pension system was studied by an international team in 2004 and its recommendations, which remain valid today, are summarized in Box 2.1.

Box 2.1
Reform of the Urban-based Pension System[7]

- Reduce the fragmentation of the system. This will involve pooling at least at the provincial level, as already decided by the government, and preferably at the national level. The unification of the system would strengthen the finances of the system, and portability of pension would promote greater labor mobility.
- Strengthen administration. This involves creating a national pensions administration for record keeping and financial accounting. Contribution obligations should be enforced through collection by the tax authorities.
- Eliminate early retirement abuses and enforce current retirement policy, while gradually raising the retirement age. Flexibility in retirement ages can be supported by paying higher benefits to workers who retire at later ages.
- Transfer shares of state-owned enterprises (SOEs) still owned by the government to the National Social Security Fund (NSSF) to finance obligations left by the old SOE pension system. Transfer of these shares could also improve corporate governance of the SOEs and, as discussed in Chapter 3, would increase mobility of capital in the economy.
- Improve individual accounts by switching from funding to a book-keeping system – the NDC (notional defined contributions) system which is now being adopted by many countries in the world. Funding is being proposed in countries such as the United States because of the very low rate of private saving in those countries. The situation in China is quite the opposite. The failure of the present program to work as designed is illustrated by the ‘empty accounts’ that now characterize the individual accounts scheme. Workers face even greater uncertainty than before because they make deposits into these accounts but do not know where the money is and how much they will eventually get from these accounts.

In addition to the reform of the urban-based pension system discussed above, insecurity among the population can be reduced by widening and deepening the poverty-relief

[7] ‘Social Security Reform in China: Issues and Options’ prepared by an international team led by Professor Peter Diamond and Professor Nicholas Barr for the China Economic Research and Advisory Programme, November, 2004.

element in the social-security system. For example, the minimum-income guarantee for urban residents (Dibao) can be enhanced for the elderly.

2.20. The urban pension system would at best cover only one-third of the population. An urgent task for China must be to provide old-age security for the rural population, whose traditional forms of security have been eroded over the past decade and who, with migration of the younger members into urban areas, face an aging problem more severe than the average for the country as a whole. In addition to the various experiments under way in different provinces, China might wish to study the experience of countries such as New Zealand and South Africa in addressing the old-age security of a poor population, particularly through citizen's pensions and minimum-income guarantee schemes. For the rural population, improved access to and sharing of risks in health and education are probably some of the most effective ways of reducing uncertainty and thus precautionary saving among the population. Evidence from other countries has shown that improved public health can lead directly to an increase in household consumption, and this will undoubtedly be true also in China.[8] A public expenditure program, to increase domestic demand in the short term while addressing these issues, is discussed in the section below.

2.21. Over the past few years, another reason for the slow growth of personal consumption has been the declining share of disposable household income in GDP, which means that household consumption has grown significantly less than GDP, although household saving rates seems to have stabilized or declined somewhat, albeit still at a very high level.[9] In the last few years, the net income of enterprises has grown sharply. Unlike other market economies, where a substantial share of the net income of enterprises flows to households in the form of dividends to finance private consumption, almost all the income generated by enterprises in China is saved and used for investment, either by the enterprise itself or within the sector, with limited mobility. More listing of enterprises in the stock markets and increased allocation of enterprise income to dividends will be necessary to allow Chinese households to benefit more from growing enterprise income.

2.22. Government revenues as a percentage of national income have also increased sharply over the last few years. In addition, government administrative reforms have led to a decrease in government consumption, while expenditures on education, health and other public services have not increased correspondingly. The increase in revenues has gone mostly into investment. Much of the increase in investment, especially by local government, has had low returns. To stimulate consumption in the economy, the government will need to increase the share of income going to households – through lower taxation of household income and increased transfers and subsidies – and to increase government consumption itself.

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[8] A World Bank study of Viet Nam shows that the introduction of health insurance led to higher consumption of non-health items, such as food, etc. See Pradhan and Wagstaff (2005), 'Health Insurance Impacts on Health and Non-medical Consumption in a Developing Countries', World Bank Policy Research Working Paper 3563.

[9] This section draws mainly from Xinhua He and Yongfu Cao, 'Understanding the High Saving Rate in China', Institute of World Economics and Politics, Chinese Academy of Social Sciences.

A Debt-financed Public Expenditure Program to Increase Domestic Demand and to Address Social and Regional Problems

2.23. The above are long-term measures whose impact on household consumption will be permanent, but can only be realized over time. There is a need for a short-term adjustment program to accompany the longer-term effort to reduce personal saving and increase consumption. In terms of instruments, the stimulus package could come from a fiscal expansion or a credit expansion program.

2.24. There are disadvantages to using a credit expansion program. First, the banking system is not all that healthy and credit booms often end in losses. Second, a credit-induced consumption boom is likely to allocate the additional spending to those that are already well-off, and have assets and income to act as collateral. This may have the wrong distributive consequences both socially and regionally.

2.25. By contrast, a public expenditure program has several advantages. It can be targeted socially and regionally and avoids the potentially distorted allocation that would come from a problem-ridden banking system. In addition, it can address other developmental and social goals, some of which, like the reform of the health and education services, will by themselves help to stimulate private consumption as well. A public expenditure program would also be more transparent than credit expansion, and its components and implementation be subject to scrutiny.

2.26. These potential advantages have to be considered together with the risks of a fiscal program. These include many forms of government failure associated with patronage and corruption, but also poorly designed government programs, allocations that are not compatible with a sustainable development path, and the creation of entitlements that may be difficult to reverse. The challenge is whether a fiscal adjustment program can be designed that is compatible with macroeconomic, social and regional objectives but that also limits the risks imposed by possible government failures. In addition, the adjustment program should not become a permanent feature of the fiscal system. With rising budgetary revenues, many of the recurrent elements of the public expenditure program should be absorbed into the regular budget while still allowing the government to maintain a balanced current account budget.

2.27. In the present Chinese circumstances, a public expenditure program thus seems preferable. To have the desired effect on the economy, the program should be financed by debt (deficit) rather than taxes. Indeed, conditions in China today are favorable to the use of debt. In 2004, public debt was only 33 per cent and the primary deficit less than 2 per cent of GDP. Since the growth rate of the economy, at about 9 per cent, is much higher than the average cost of debt service in real terms of about 2.5 per cent, the principle of debt dynamics tells us that China can continue to run substantial fiscal deficits in the medium term without having to worry about the debt burden. Moreover, if the proposed public expenditure will benefit the population in the future – which expenditure on health, education and the critical infrastructure bottleneck obviously will – then the so-called ‘golden rule’ of public finance would suggest funding the program through debt rather than taxes.[10]

Thus, to stimulate domestic demand over the short and medium term and respond to the macroeconomic objective of increasing consumption by 6–10% of GDP, a special public expenditure program covering the coming 3–5 years will be needed. The program should be used to facilitate the transition of the economy to China’s new ‘people-centered’ and comprehensive, coordinated development strategy by supporting social services and consumption. A large legacy of ‘debt’ in social development now exists and requires urgent attention. Such expenditures to support the improvement of health, education and other social services will by themselves help to stimulate private consumption and reduce the need for precautionary saving.

The needs are very large and the following areas could be considered:

- *improvement in health care*, including increased government expenditures and subsidies to poorer regions and population groups;

- increased expenditures in *education* will be necessary, including the introduction of compulsory nine-year education in the poorest areas and the strengthening of technical education;

- in the same way as China has benefited greatly from its integration in the global economy over the past decade, there are opportunities for efficiency gains and growth through greater *internal integration*. Priority should be given to improving the quality of the transportation and communication infrastructure in the poorer interior regions as well as to agricultural research and extension, irrigation, rural infrastructure, and greater access to farm inputs and markets via transport and information.

Appreciation of the Renminbi

2.28. As illustrated in Figure 2.1, reliance on an expansion of domestic expenditures in an attempt to deal with the trade surplus will result in overheating of the economy. Thus, an appreciation of the currency should also be part of the package. Indeed, it should be noted that the government’s objective of increasing consumption to achieve a better balance in the domestic economy requires an appreciation of the currency, which would reduce export demand and allow more imports to meet the increase in domestic demand. Otherwise, the increase in consumption would have to be matched by an equivalent increase in investment to avoid overheating, which might be difficult to achieve. Of course, an appreciation of the RMB would also be consistent with the government’s longer-term objective of relying less on export and more on domestic demand, particularly in non-trade sectors such as services, and to address the immediate problem of the trade surplus.

[10] See the discussions and the box on debt dynamics in Blanchard and Giavazzi.

2.29. The question then is how much of an appreciation is desirable. Despite the efforts of some economists to calculate the necessary appreciation of the RMB to restore trade balance, on the basis of different analytical assumptions, the answer is that it is impossible to say. There is little reliable information on how Chinese exports and imports would respond to price changes. Much will depend on the response of countries competing with China in the export markets and supplying Chinese imports. Currency appreciation needs to be seen as part of the package and the extent of currency appreciation required would depend on what other policies are pursued – particularly policies to achieve the internal saving and investment balance described above – and how the economy responds to these policies.

2.30. It is, however, possible to predict the direction of change that might be caused by an increase in the value of the RMB. If an increase in the value of the RMB occurred in isolation, without compensatory measures, one could predict the trends that would derive from it. It would, indeed, tend to have an immediate dampening effect on the economy and might have an undesirable income-distribution effect. As agricultural prices in China are linked to international prices, appreciation would likely result in a decline of agricultural prices in China, and thus of rural income. A fall in rural income would induce more migration of farmers into urban areas, which would, in turn, exert downward pressure on wages of unskilled urban workers, thus widening the gap between the income of unskilled and skilled workers. Given China's importance today in the world economy, an excessively large appreciation that pushes the country into a deflationary state might also have undesirable repercussions beyond China itself.

2.31. Thus, because the magnitude of appreciation desirable is impossible to estimate *ex ante*, and because of its possible undesirable effect on growth and income distribution, an appreciation of the RMB to achieve internal and external balances should be carefully managed and its impact on the economy closely monitored. It should be combined with the policies to decrease saving and increase domestic demand discussed above in order to minimize the extent of appreciation required and to minimize the possible adverse impact that appreciation would have on the economy. Other policies that could be considered include the elimination or reduction of measures that now create distortions in the economy by providing stronger incentives to export than to produce for the domestic economy, e.g. specific export subsidies. Indeed, policies to reduce distortions in the economy as part of the government's strategy of more balanced growth may further reduce the size of the RMB appreciation required.

2.32. Over time, the government should be prepared to make substantial adjustments in the exchange rate if market conditions require it, and if needed to achieve internal and external balances. The reform of the foreign-exchange regime introduced on 21 July 2005 created the necessary conditions for a gradual and controlled transition to full currency convertibility. The new foreign-exchange regime also provides the opportunity to implement the managed appreciation of the exchange rate itself.

2.33. There are important lessons from international experience on the need to take advantage of the opportunities this new mechanism provides. In the early 1970s Japan was in a situation similar to China's today. Instead of allowing a managed appreciation of the currency, Japan chose to increase the money supply in attempting to achieve external balance. This proved to be a major mistake, resulting in hyper-inflation and negative growth when the oil crisis hit in October 1973. The transitional arrangements possible under the new system are also consistent with the experiences in other emerging market countries, such as Chile and Israel, which have ultimately achieved healthy economic growth coupled with low inflation, financial stability, full currency convertibility, and a fully floating exchange rate. These should also be China's goals.

2.34. Finally, in the implementation of the above program to restore internal and external balances, the relative timing and magnitude of the three possible elements of the policy package – measures to reduce precautionary saving, an expansionary public expenditure program and RMB appreciation – need to be carefully coordinated and balanced. Too small an appreciation of the RMB combined with a large expansionary public expenditure program may result in overheating and inflationary pressure. The public expenditure program needs to be carefully planned also, to be sure that supply will be able to respond to the increased demand for, say, health services.

Dealing with the Capital-account Surplus

2.35. China's external imbalance involves the so-called twin surpluses, the current-account surplus discussed above and the large surplus in the capital account. In recent years the surplus in the capital account has been much larger than that in the current account. In addition to capital inflows associated with foreign direct investment (FDI) – amounting in 2004 to about the same level as the current account surplus, at 4 per cent of GDP – China has seen very large inflows of other types of capital, probably mostly speculative in nature, amounting to about $100 billion in 2004. Over the longer term, China may wish to have a reasonable capital-account surplus, equivalent to a current-account deficit, implying that the country would be a net borrower from the rest of the world. Meanwhile, however, policies are needed to deal with FDI inflows and to manage the large and growing international reserves. These are the subject of the following two sub-sections.

Domestic financing of foreign direct investment

2.36. Chinese policy-makers face a dilemma with regard to Foreign Direct Investment (FDI) inflows. FDI has been a major source of productivity and economic growth for China over the past decade. In the coming years, China will have to continue to tap into the technology and management practices of foreign investors as it tries to move into the higher end of the production value chain. On the other hand, capital inflows associated with FDI are an important factor in the large overall balance-of-payments surplus.

2.37. A possible approach to this dilemma is to separate the role of the foreign investors as a source of capital from that as providers of new technology and management practices. Indeed, FDI differs from portfolio investments precisely because the key issue involved in FDI is not the funding source but 'control' and 'management'. In many countries, direct foreign investors often raise funds locally, mainly because it entails a lower funding cost. Giving foreign investors access to local funds in China will help address the twin problems of having too much 'surplus' in capital and too much 'deficit' in advanced technology and efficient management practices.

2.38. There are different channels through which local funding of foreign investment can be accomplished. Below are three possibilities and the constraints they now face.

- **Allow foreign investors to borrow in RMB locally**
  This may be the most direct route to give foreign investors access to domestic savings. In the short term, however, foreign companies have few incentives to borrow onshore as the borrowing cost is much higher than offshore funding – largely because of the segmentation of the corporate lending market – and there is widespread expectation of an appreciation of the RMB.

- **Listing of foreign companies in China**
  Listing (i.e. sales of equity shares) of foreign firms operating in China and issuance of local currency bonds by them will allow the firms to tap into household savings directly. Indeed, mature and successful foreigninvested enterprises should be encouraged to sell equity shares in the local stock markets. The listing of foreign-invested enterprises should not have to wait until the current efforts to strengthen the A share market are completed. Assets of foreign invested enterprises now amount to about $650 billion and represent the most dynamic and best-managed part of the Chinese economy. The entry of even a small fraction of these companies will make the A share market much more attractive and bring in more investors. The opportunity to sell shares in the local stock markets once an enterprise is mature and successful will encourage more foreign investors to bring in advanced technology and efficient management practices.

- **Allow foreign private equity investors to tap into local funds**
  Another option is to allow foreign private equity funds to tap into local institutional money and that of particularly wealthy individuals as they try to help grow the Chinese companies they invest in However, foreign venture capitalists face many restrictions in exiting from their investment, and local money is not permitted to invest in off-shore funds.

2.39. For each of these channels to be successful in attracting domestic financing of FDI, changes in the regulations on capital flows and on the capital markets will be necessary. More generally, in an overall environment of strict control on both inflow and outflow, China has encouraged capital inflows associated with FDI and, in fact, has granted tax holidays and other incentives. This policy has been enormously successful, making China the largest recipient of FDI in the world, exceeding even the United States. And FDI has been a major factor in China's success. In today's circumstances, however, it may be desirable to review the regulations governing the capital account and foreign investment. Is it necessary to offer generous tax benefits and concessions simply because the investment is foreign funded? How can domestic saving be channeled to undoubtedly the most dynamic and productive area of the economy, that of FDI? The objective would be not only to deal with the capital-account surplus caused by FDI capital inflows, but also to move towards a more efficient allocation of savings and capital within China, thereby raising the returns on domestic savings. The problem of the capital inflows associated with FDI should be seen therefore as a problem of the inadequate financial markets in China today.

Active management of foreign reserves

2.40. These measures notwithstanding, a substantial inflow of foreign capital associated with FDI will undoubtedly continue as long as China continues to grow at the current rate. Thus, even ignoring speculative capital flows, a surplus in the capital account will continue, and, unless China wants to run a current-account deficit, the build-up of international reserves will also continue, and be of a size significantly larger than that indicated by the usual need for international reserves. The question is then how China can manage its reserves better for the benefit of the current as well as the future population. A possible approach is to put aside part of its reserves – after adequate provision of precautionary liquid reserves – to be more actively managed, with the objective of enhancing the investment returns and providing an additional source of fiscal revenue for the government.

2.41. In countries such as Singapore, Brunei, Kuwait, Abu Dhabi and Norway, a separate investment company is set up outside the central bank to manage part of the foreign reserves. These companies behave much like a long-term global endowment fund and try to maximize long-term returns, subject to matching requirements of long-term liabilities. The set-up allows them to capture longer-term risk and liquidity premiums not available to the liquid reserves at the central bank. The more notable examples include the Government Investment Corporation of Singapore (GIC) and the Norge Bank Investment Management (NBIM) of Norway. Success of these companies goes a long way in fortifying a country's external balance and creditworthiness positions. In addition, given the commercial orientation of these companies, they could provide considerable market-based economic and financial intelligence for policy-makers.

2.42. Of course, the circumstances and needs of China are very different from those of these much smaller economies with limited opportunities for investment domestically. Such an initiative in China will likely be of a more temporary nature, until the economy's ability to invest efficiently, through financial-sector and other reforms, catches up with the economy's propensity to save. For the next 5–10 years, however, active management of part of the reserves may be desirable. Operational issues of such an initiative would include estimating the likely official liabilities on a 10–50-year horizon, and deciding on a return target and an asset mix based on policy risk tolerance. It will also have to look into developing the capacity for active asset management. The capacity could come from both internal and external sources (i.e. outsourcing fund management to other companies) and the government will have to decide on the extent of active management it wants the investment company to undertake, as well as the division of labor between the internal and the external management teams. A strong corporate governance structure will also have to be set up to ensure a high degree of professionalism in the management of the funds and rigorous standards for transparency and risk management. Experiences of more successful models, such as Singapore's GIC and Norway's NBIM, could be tapped on, if necessary, in helping to set up these companies.

Chapter 3 Maintaining Growth: Challenges and Opportunities[11]

3.1. Despite sustained and rapid growth over 25 years, China today faces broad-based challenges that will tend to slow down the economy. Since China grows faster than the rest of the world it tends to suffer from deteriorating terms of trade. This arises because it increases the supply of its exports faster than the increase in global demand for them, and raises the demand for imports faster than the growth in global supply. This tendency will become stronger as China becomes a larger part of the global economy. Moreover, China will face increasing protectionist tendencies in its major export markets. As China continues to grow, certain factors of production that are fixed – such as land, water, natural resources, clean air – become scarcer relative to those that can be accumulated, such as physical and human capital. As discussed in Chapter 2, ineffective response to internal and external imbalances could also have an undesirable impact on growth.

3.2. In this chapter we explore eight major challenges and opportunities to sustain China's exceptional growth rate. These are:

- urbanisation,
- agricultural productivity and rural poverty,
- maintaining manufacturing export dynamism,
- service-sector productivity,
- efficiency of investment,
- internal trade integration,
- investment in human capital,
- energy and environment.

Urbanisation

Current situation

3.3. China still has about half of its labor force in agriculture, where its productivity is on average barely one-eighth of that observed in industry and about one-quarter of that observed in the service sector. A reallocation of labor away from agriculture and rural activities and into industry and urban services has been and will continue to be a major source of future aggregate increases in GDP per worker.

3.4. Underpinning this opportunity is the fact that China still remains very rural. In 2003, China's rate of urbanization stood at 40.5 per cent of the total population. This is almost 20 percentage points less than would be expected from international experience, given China's income and population. Urbanization would also facilitate the increase in agricultural productivity by increasing the amount of land per rural worker, thus allowing greater convergence of incomes between rural and urban areas. Over the 15-year period between 1988 and 2003, the rate of urbanization increased by 15 percentage points,

[11] This chapter is based on the following background papers produced for this project: R. Hausmann, 'China's Growth Miracle in Perspective'; D. Rodrik, 'What is so Special about China's Exports'; M. Lipton and Q. Zhang 'Reducing Inequality and Poverty During Liberalization in China: Rural and Agricultural Policy Options'; A. J. Venables, 'Trade and Regional Inequalities in China'; Warwick J. McKibbin 'Global Energy and Environmental Impact of an Expanding China'.

which implied that the urban population grew at 4 per cent per annum. In the same period, Portugal increased its rate of urbanization by 25.2 per cent, as it converged towards European income levels. Malaysia, Indonesia and the Philippines also exhibited faster rates of urbanization than China. This means that the process of urbanization still has much to contribute to sustain high growth.

3.5. The recent economic literature on growth theory has stressed the importance of cities for modern growth, emphasizing the agglomeration externalities that arise from the increased depth and variety of the markets for skills and complementary inputs and services. Peng, Zucker and Darby (1997)[12] study the impact of urban spillovers on the productivity of rural industrial productivity in China and finds that 'there is a very large effect on productivity from being near cities (30 to 35 percent higher productivity for a county one standard deviation above average in nearness to population centers) due to embodied technology transfer from urban residents'. Shang-Jin Wei (1994) argues that managerial and technological spillovers across firms in the same city are an important cause of Chinese export success[13]. These agglomeration externalities help explain in part the wage differentials and the difference in cost of living across cities. For example, Eaton and Eckstein (1994)[14] argue that agglomeration externalities make workers more productive and tend to create a dynamic in which larger cities will have higher levels of human capital, higher rents, and higher wages per worker, even if workers are homogeneous and free to migrate between cities. They find that the relative city size depends upon the environment that they provide for learning.

3.6. The urbanization process is full of market failures as individuals can free-ride on common resources leading to congestion, pollution and higher crime rates. Moreover, much of the growth of cities depends on government policies towards housing, urban transportation, public services and other policies. Some countries have been able to manage the urbanization process better than others and there is no single strategy for success. In some countries, there has been growth around few large cities. Paris, London, Mexico City, Buenos Aires, Bangkok and Santiago de Chile are such examples. In other countries, there has been a large dispersion of middle-sized cities. Germany, United States and Colombia are examples of more diffused urban growth.

3.7. The growth process in China will continue to exploit the agglomeration externalities that urbanization provides and policies for urban development and labor mobility will be critical to determine how fast and efficiently this process will take place.

Policy ideas

- Increase labor mobility by gradually eliminating the Hukou policy. This process should prioritize the poorest regions. This has the potential to improve the welfare of the migrants by allowing them to gain better access to

[12] 'Chinese Rural Industrial Productivity and Urban Spillovers', NBER WP# 6202.
[13] Shang-Jin Wei, (1995) 'Open Door Policy and China's Rapid Growth: Evidence from City-Level Data' in Takatoshi Ito and Anne O. Krueger (eds), *Growth Theories in Light of the East Asian Experience*, (Chicago: University of Chicago Press: 1995), pp. 73-98.
[14] 'Cities and Growth: Theory and Evidence from France and Japan', NBER WP# 4612, 1994.

jobs, housing and social services. It will also improve the welfare of their relatives who do not move, through remittances and lower land/labor ratios.

- Facilitate the urbanization process by investing in housing and urban infrastructure (utilities, urban transportation, social services, etc.) through a program financed with central government resources.
- To encourage provinces to eliminate the Hukou policy and in order to achieve an efficient and fair migration process it is important to reconsider the system of intergovernmental transfers. Localities that absorb new migrants should be compensated for the extra burden migration may impose on local services. Ideas for fiscal transfers that support efficient migration should be developed. In particular, special allocations for housing and urban development can be offered to local governments, in exchange for relaxation of the Hukou policy, and financed in the context of the fiscal expansion program described in Chapter 2.
- The internal labor market would be further strengthened by reforming the pension system to ensure that pension is portable across provinces..

Agricultural Productivity and Rural Poverty

Current situation

3.8. A second source of growth is the increase in agricultural productivity per worker. Value added per worker in agriculture in 2000, which amounted to US$490 per annum[15] is the lowest of any country at China's income level, and lower than some interesting comparators such as Indonesia (US$547), Thailand (US$620), Philippines (US$1,040), Malaysia (US$4,851), or Korea (US$9,792). This implies that there is ample opportunity to increase agricultural output and productivity. In all successful countries, increases in agricultural productivity and rural incomes have gone together with a rapid decline in rural population and with rising land/labor ratios in the countryside. This process helps reduce the gap between rural and urban incomes.

3.9. Moreover, poverty in China is concentrated in rural areas, especially in the Central and Western provinces.

Policies

- Part of the low agricultural productivity reflects excess rural population and low land/labor ratios. This should be eased by facilitating migration, as described above.
- Land markets should be improved by developing land rental markets. In particular, policies should foster freer land markets – longer leases, more land security (against community seizures and transfers), more power for migrants to lease out. This should allow greater labor mobility, better use of land assets, and a reallocation of land to its most productive use.

[15] At 2000 prices. Statistics are from the World Development Indicators (2005).

- Special policies should be designed for the regional poverty islands, including agricultural research and extension, irrigation, rural infrastructure, and greater access to farm inputs and markets via transport and information.
- Agriculture-specific taxes should be replaced by taxes that are neutral among income sources, as prefigured by the Premier in June 2005; but for this to work, implementation must not be impeded, nor its effect reversed, by provincial- or county-level fee or tax increases on agriculture.
- Rural finance is crucial for development. China's Rural Credit Co-operatives are negatively affected by unsustainable mandated subsidies on interest rates. In addition, they are in effect a public monopoly agency. Gradual introduction of competition, including private lenders, would help. However, global experience shows that the private market is not *sufficient* to tackle the problems that keep rural financial services from the poor. NGOs with peer monitoring have sometimes helped a lot.
- Farmers' professional organizations should be encouraged and helped to operate in financial markets (new legislation would be needed).
- Comprehensive crop insurance (at viable rates) can help develop safe lending by sharing risks across villages so that village lending entities are protected from local climate hazards.

Maintaining Manufacturing Export Dynamism

Current situation

3.10. A third potential source of growth involves maintaining China's manufacturing export performance. In fact, rising manufacturing productivity has been the main driver of China's growth up to date and has been facilitated by its orientation towards exports and by the encouragement of FDI. This has created an unusually sophisticated export package: while China's income per capita at purchasing power parity (PPP) stood at US$4900 in 2003, its exports were characteristic of countries whose income per capita stood at US$13,575.[16] This gap is a major reason why China's exports have been so dynamic and why it worries richer countries so much. However, the degree of sophistication of China's exports has not been rising much over the past decade. This means that if the country does not make a major effort at continuing to upgrade its exports, these may face deteriorating prices, profits and growth, as the terms of trade of the country deteriorate.

Policies

3.11. While the overall policy framework must make sure that the business environment is appropriate in terms of general provision of public goods (infrastructure, education, labor training, appropriate regulation, property rights, contract enforcement and rule of law) industrial policies should move away from generalized subsidies to export activities and, instead, focus the resources on encouraging new activities that can have demonstration effects or informational or technological spillovers.

[16] See Rodrik, 'What is so Special about China's Exports'.

3.12. The policy should encourage experimentation into new areas and be willing explicitly or implicitly to subsidize the process in order to compensate for the costs of adaptation, labor training and supply-chain development, while at the same time making sure that special requirements in terms of infrastructure, regulation or education are provided. However, this process of experimentation is bound to generate successes and failures. It is critical to develop the mechanisms to make sure that initiatives that do not work out are abandoned early enough so that resources are not bottled up in unproductive activities. Developing the institutional mechanisms to achieve this should be a principal concern of policy going forward.

Service-sector Productivity

Current situation

3.13. The service sector has been China's main source of employment growth since 1990. Of the 96.8 million jobs that the economy created between 1990 and 2003, the sector created 98.3 million jobs, i.e. more than 100 per cent of the job growth.[17] However, productivity in services has lagged behind that in manufacturing. In 1990, output per worker in industry was only 14.9 per cent higher than in services. By 2003, the difference had gone up to 113.3 per cent. This reflects the fact that the service sector has not been subject to the same extent to the forces that have driven manufacturing productivity – namely competition and FDI. Obviously, it is hard to create the same amount of competition in the service sector as that faced by manufacturing in global markets, as much of the service sector sells in the domestic economy. However, policies to encourage competition and FDI may allow significant increases in productivity and growth.

Policies

- The list of 'strategic' sectors reserved to SOEs should be revised.
- Restrictions on FDI that seeks access to the domestic market should be relaxed in order to encourage competition and innovation.
- There should be faster licensing for self-employed businesses and lower licence fees for small enterprises.
- Business process outsourcing should be stimulated, especially within China, where language barriers are not an issue and where there are ample opportunities to tap the labor supply from Central and Western regions.

Efficiency of Investment

Current situation

3.14. A fifth source of additional growth is the increase in the productivity of investment. China's investment rate is one of the highest in the world.[18] However, its productivity is not. Hence, the issue in China is not how to increase the investment rate but, instead, how to raise its productivity.

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[17] Industry created 22.2 million jobs in this period, while agriculture lost 23.7 million workers.

[18] In fact, the only country with more than 1 million inhabitants that has had a higher investment rate than China in the period 1999–2003 is Tchad, because of a major mining project in that very poor country.

3.15. Financial markets are at the core of the efficiency of investment, as they determine how savings are allocated and monitored. Capital markets are composed of a highly country-specific collection of intangible assets such as private financial firms of different kinds (e.g. banks, mutual funds, investment banks, pension funds, insurance companies, etc.), laws and public regulatory bodies to enforce them, rules of corporate governance and accountability and their respective private or public supervisory bodies (e.g. stock exchanges), auditing services, disclosure standards and entities that organize and disseminate the relevant information, legal counsel services, accounting practices, contractual practices, courts and arbitration mechanisms, among others. All this is dependent on specialized human capital, with experience in the transaction practices of the country.

3.16. China is in the gradual process of developing a sophisticated financial system. As it does, more of the capital allocation decisions will be subject to a market test and savings will be able to flow across sectors to the activities that promise the highest risk-adjusted returns. However, much of the allocation of investment does not go through a market test, a legacy of the importance of state-owned enterprises in the economy.

3.17. The low productivity of investment is due to a significant extent to some state-owned enterprises (SOEs). The problem arises because the cash flow generated by SOEs is either reinvested directly in the same firm or flows to a sector-specific holding company, but is not reallocated more broadly to higher-return activities. This means that reinvestment – which according to a World Bank study (Kuijs, 2005) represents over 50 per cent of enterprise investment – does not pass a market test. This is aggravated by the fact that SOEs have had preferential access to bank loans, although policies in this respect have been tightened.

Policies

- It is important to develop an ambitious yet experimental, flexible and gradual policy to promote the development of capital markets and the set of complementary intangible assets. The experimental nature is important because the international experience is full of surprises in terms of major efforts to develop markets that never took off and rapid successes in markets that did not appear initially to be particularly promising or planned.
- In the shorter term, policies should be adopted to break down the sectoral compartamentalization of investment resources in SOEs. This can be achieved by requiring SOEs to distribute a larger share of dividends to shareholders. Holding companies should be required to distribute dividends to the government. These dividends could then be reallocated to other sectors or to fund greater investments in human capital and other public priorities.
- A similar reallocation would happen in the context of a pension reform, one of whose proposal was to transfer shares of SOEs that remain with the state to the Social Security Fund. The fund would then exercise shareholder rights and would reinvest dividends where the perceived returns were higher, thus imposing a market test.

Internal Trade Integration

Current situation

3.18. China has benefited enormously from integration to the global economy. This process has favored coastal provinces over the central and western regions, and cities over rural areas. Much of this is inevitable and is part of the process of agricultural progress, economic development and globalization, as export activities tend to locate in coastal areas where international transportation costs are minimized. However, in China, it also reflects the fact that for precautionary reasons, policymakers opened some regions and not others to foreign direct investment. Since these initiatives were highly successful they exacerbated regional inequalities, between the provinces that were initially chosen and those that were not. A policy to homogenize investment policies should help lower policy-induced regional imbalances, while a policy that improves the quality of the transportation and communication infrastructure would reduce disparities caused by transportation costs.

3.19. There are also significant potential benefits to be derived from greater integration within China. There are many provincial and sectoral barriers to internal integration which constrain the ability of resources to move to their most productive use and which limit the competitive pressures that foster greater productivity and innovation. As China has benefited greatly from its integration in the global economy over the past decade, there are opportunities for efficiency gains and growth through greater internal integration in the coming decade.

3.20. In fact, internal barriers and infrastructure obstacles are likely to have been a factor contributing to the concentration of export activity in coastal regions. In particular, in sectors where output is exported and intermediate goods imported, small barriers and trade costs have a large impact on domestic value added. For example, if 50 per cent of gross costs are imported intermediates and 100 per cent of output is exported, an increase in trade costs equal to 1 per cent of the value of goods shipped (on both output and inputs) has the effect of reducing domestic value added by 3 per cent. (Value added is squeezed both by higher input costs and lower export receipts.) If half of value added goes to mobile factors (e.g. if capital has the same price in all regions) then immobile factors (e.g. unskilled labor) have their earnings reduced by 6 per cent. This arithmetic explains both the concentration of activity in coastal regions and the steep wage gradients from coastal to interior regions. It also points to large multiplier effects, as reducing internal barriers enables interior regions to participate in export trade, thus bidding up wages. While reducing internal barriers should increase the number of provinces able to export to world markets, for some provinces natural trade costs will remain too high for effective participation.

3.21. Domestic integration will also facilitate the location of firms in areas that are farther from the coast but well located vis-à-vis the large domestic market, this lowering regional imbalances. Reducing barriers facilitates expansion of the most efficient domestic firms and sectors. There is a good deal of evidence that (i) Chinese industrial sectors were, historically, not located in line with regional comparative advantage; (ii)

China has not fully achieved the potential efficiency benefits from clustering activity, either sectorally or in aggregate (Chan, Henderson and Tsui, 2005); and (iii) there remains a high degree of heterogeneity in productivity levels of firms.

3.22. These are exactly the circumstances in which the gains from promoting regional competition and consequent regional specialization are likely to be large. To the extent that there are dynamic scale economies – e.g. learning and knowledge spillovers – such specialization might be expected to trigger growth in regional centres. Growth of domestic demand is more likely to be met by domestic supply than by imports if these internal efficiency improvements are in place.

3.23. Trade diversion is a potential source of aggregate loss from internal trade liberalization, but is unlikely to be a major concern in China. It occurs when regions buy from other regions instead of buying from a cheaper foreign source. It is avoided by a relatively liberal import regime, as China is adopting in the context of WTO accession.

3.24. Efficiency gains from specialization are attained by the growth of efficient sectors/firms and the closure of inefficient ones. This involves job turnover. Standard gains-from-trade arguments imply that all provinces can gain from liberalization, but for these gains to be realized price and quantity adjustments must be allowed to take place. It is possible that such changes may make some factors in some regions worse off. For example, a province's expanding sectors may not automatically employ all labor released from sectors that contract under import competition, without some adjustment in relative wages.

3.25. These effects will vary across provinces in line with their changing export opportunities and import competition. For some provinces, internal liberalization will permit expansion of labor-intensive industries, this bidding up wages. Provinces in which manufacturing was being protected might experience a fall in demand for factors intensively used in manufacturing, while factors used in agriculture gain. Re-employment of displaced labor may require either a wage reduction, or migration of the labor to higher-wage regions. If neither of these mechanisms is allowed to operate (or if migration costs are set too high) then factors may be unemployed with consequent real income loss.

Policy ideas

- Allow greater labor mobility by removing constraints on migration such as the *hukou* policy and making pensions portable through out China.
- Improve internal transportation and communication networks.
- Eliminate provincial barriers to trade and investment.
- Reduce restrictions on foreign firms selling in the domestic market.

Investment in Human Capital

Current situation

3.26. China's rate of investment in physical capital is one of the highest in the world. Although important improvements have taken place, its rate of investment in human capital is not similarly stellar.. There has been a substantial increase in tertiary education over the past few years, but areas such as technical education remains underdeveloped compared to other developing countries at a similar income level.

3.27. Investment in education is important both for growth and equity. On the growth side, it is important to maintain productivity growth and to increase the sophistication of China's exports. On the equity side, it will prevent wage differentials between university graduates and the rest to increase excessively, as they have in high inequality countries such as Brazil, where the ratio of tertiary to secondary school enrollment is similar to China's (17 per cent) and where wage differentials and Gini coefficients are among the highest in the world.

3.28. Health care is also an area where China underperforms.[19] It was adversely affected during the period of the 'reform and opening' policy. The problem is most serious in rural areas. In the 1970s, 90 per cent of the rural population was covered by community health insurance, but by 2003 this had fallen to only 20 per cent. The absence of risk-sharing and high medical costs has resulted in serious under-consumption of health care. Recent surveys found that 34 and 44 per cent, respectively, of the urban and rural populations did not seek health care when they were ill because they could not afford it. Medical expenditures were the chief cause of impoverishment; about 4 per cent annually of the rural population in Western China fell into poverty because of medical expenses. The absence of adequate health care is already being reflected in a worsening of the population's health status (a recent World Bank study found that the health status of the poorest 25 per cent of the population had worsened slightly over the past decade).

3.29. Some ideas on how to improve the current situation include:

- funds to support public health and basic prevention programs in low-income regions;
- a nutrition program for the poor;
- expansion of the compulsory social health insurance scheme to cover workers employed by small firms and the informal sector, particularly migrant workers, and their families;
- restoration of a community-based insurance scheme for the rural population.

Many of these schemes are under consideration, but their implementation is impeded by the inability of a large section of the target population to pay, and of the poorer provinces to contribute their share of the financing. The central government may need to consider whether larger subsidies to the poor and the waiving of the requirement of matching funds from the poorer provinces and counties may be desirable. Such measures would seem fiscally affordable. Compared to the RMB100 billion fiscal stimulus program during the Asian financial crisis, for instance, the annual cost of a sound prevention program covering 400 million farmers would total about RMB 2–3 billion. Rather than the planned 10 RMB per-capita contributions from central government, local government

[19] This section is based on a contribution from Professor William Hsiao of the School of Public Health at Harvard and the series of 'Briefing Notes on Health in China' produced by the World Bank.

and the individuals, each contribution could be increased to 15 RMB. The total premium of 45 RMB would be much more viable to provide the basic health care and insurance against a significant portion of large medical expenses. The total cost of the subsidies to central and local government would be between 12 and 15 billion RMB. If the government were to fully subsidize the premium for impoverished households, total outlay would amount to another 1.2 billion RMB annually.

3.30. The imbalance between the very high accumulation of physical capital, where returns at the margin are low, and the less impressive progress in human capital, where marginal returns appear to be very high, suggests that a major reallocation of the public sector's investment effort from physical to human capital should be part of the new growth strategy.

Energy and Environment

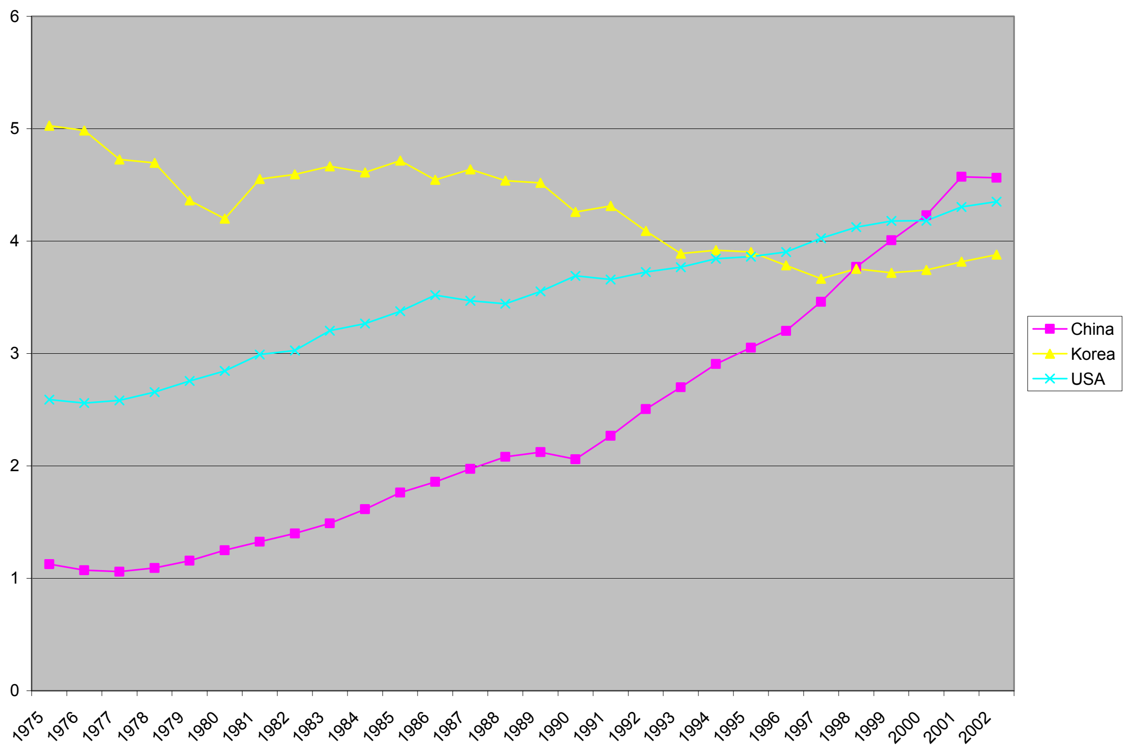
Current situation

3.31. China is already the world's third largest energy producer and second largest energy consumer, accounting for 10 per cent of global energy use. Under plausible assumptions this share is expected to rise to 15 per cent by 2025. Since becoming a net energy importer in the mid-1990s, China has been blamed for putting upward pressure on global energy prices. However, the impact on global energy markets of rising energy use in China depends importantly on what is expected to happen to Chinese energy supply, as well as on projections of global energy demand and supply over coming decades. China is already investing in significant energy generation capacity including nuclear power, with an additional 30 reactors planned for the next two decades. This, together with significant investment in hydroelectric generators and increased use of renewable energy, such as wind power, will add to Chinese capacity. However, as the world's largest coal producer, China will continue to rely on coal for generating around 75 per cent of its energy over coming decades. China is aiming for increased energy efficiency through a range of domestic programs, but these are likely to be outweighed by economic growth. In most economies it is common for the energy intensity of GDP to fall over time. This falling reliance on energy reflects a combination of more efficient use of energy in particular sectors and, more importantly, a changing composition of the economy, with more energy-intensive sectors such as heavy manufacturing industry gradually losing share to less energy-intensive activity such as services. China is likely to experience this transformation over coming decades, given the rate and composition of economic growth. In the near term, however, it is unlikely that Chinese energy supply will rise as rapidly as energy demand, and therefore it is likely that Chinese energy imports will continue to rise.

3.32. With world energy prices reaching record levels it is likely that there will be significant supply responses in global energy markets in coming years. In particular, alternative energy sources are likely to become more viable. For example, at current prices, Canadian tar sands become economically viable and it is likely that China could continue to grow at rates around 9 per cent per year without running into serious energy constraints. Global energy markets are sufficiently open and regionally diversified that it is unlikely that shortages will result; however, there could be upward pressure on the level of prices as well as volatility in prices over the next few years.

3.33. China has made impressive progress in terms of the efficiency with which it uses energy. Figure 2.2 below shows the evolution of the GDP at purchasing power parity per unit of energy input (measured as kilograms of oil equivalent) for China, Korea and the US. The data clearly shows the impressive improvement in China, which has gone from less than one-quarter of the US level to a greater absolute level of efficiency than either country.

Figure 3.1
Energy efficiency: GDP at PPP per unit of energy use in China, Korea and the US (US dollars at constant PPP prices per kilogram of oil equivalent)



3.34. A more important issue is likely to be the environmental consequences of rising energy use in China. In particular, China will continue to rely on fossil fuels (particularly coal) as the primary source of energy for many decades into the future. The environmental problems associated with coal burning are a concern for China as well as regionally and globally. Various studies have estimated that air pollution from burning fossil fuels might cost the Chinese economy as much as 2 per cent of GDP per year. Sulphur-dioxide (SO2) emissions from burning fossil fuels have local (health and acid rain) and regional (acid rain) implications. The World Health Organization (WHO) estimates that more than 600 million people in China are exposed to SO2 levels above the WHO standards. SO2 mixing with nitrogen oxides (NOX) causes acid rain. In 2004 the WHO estimated that acid rain seriously affected 30 per cent of China. However, this is not just a problem for China. China is the major source of acid rain across North-east

Asia. China has responded with a range of SO2 control policies which caused SO2 emissions to fall from 1995 to 2002, but they have been rising again recently. Direct policies, including sulphur trading programs, could be expanded to tackle this problem further.

3.35. Another problem associated with fossil fuel use is the emission of black carbon. Black carbon is the fine particulates that are released from imperfect combustion of carbonaceous materials. The major source of this problem is not power stations but households burning carbon in small open stoves. Current research suggests that direct action to reduce the emissions of black carbon from household energy use (and burning of forests and agricultural waste) is an important issue that needs urgent attention in China. The consequences of black carbon are wide ranging: reduced visibility; serious health problems; damage to buildings; and reduction in the productivity of agriculture crops. Black carbon is estimated to be responsible for local climate problems in China, such as increased drought in northern China and summer floods in southern China. The time lag between reducing black-carbon emissions and significant local climate effects is estimated to be around 5 years – a far quicker effect on climate than the implications of tackling carbon-dioxide emissions, which are measured in many decades. The emissions of black carbon can be addressed by a direct and low-cost technical change in the ways households use energy.

3.36. A significant global concern with China's rising energy use (particularly of fossil fuels) is the emissions of carbon dioxide. China accounts for 13 per cent of global emissions of carbon dioxide – a major greenhouse gas that may cause significant global climate change in coming decades. China has ratified the Kyoto Protocol, an international agreement to limit emissions, but China does not have any binding targets. China is a key participant in the climate-change debate, both because it is a large emitter but also because it is a developing country whose policy responses to carbon emissions could lead the global debate on policy. Rather than taking on strict targets and a timetables approach, as underlies the Kyoto Protocol, China would be better to implement a hybrid system of market incentive and government controls, as outlined in an approach known as the McKibbin–Wilcoxen Blueprint. The basis of this approach is to establish a system of property rights over carbon-dioxide emissions, based on long-run targets for emissions. Markets can then be created to trade and price these rights, without a short-term constraint on emissions but with a price cap. This approach encourages conservation of energy use, energy efficiency and long-run incentives to move away from carbon-dioxide-emitting technologies where it is possible at low cost. It also enables the government to encourage foreign investment in energy generation and use by allocating property rights over carbon emissions within China.

Policy ideas

3.37. The different environmental issues associated with energy use in China require different approaches. They also require a mix of direct government intervention and market-based incentives.

- To improve air quality, sulphur trading systems that are already being implemented could be expanded.

- To reduce black carbon, a direct technology innovation in how households burn carbon (and agricultural burning practices) could be followed, with substantial health and economic benefits.
- To address carbon dioxide emissions, a longer-term strategy is required which acknowledges the need for China to continue to grow without a short-term carbon constraint but with clear pricing of the short-term and long-term cost of carbon dioxide.

Chapter 4 Reforming the Macro-management System and the Exchange-rate Regime[20]

A Dual-track Approach to Macro-management

4.1. The challenges that China faces in the coming years – in maintaining rapid growth, in addressing issues of regional disparity and persistent poverty, and in dealing with internal and external imbalances – will place a heavy demand on the macro-management system. Notwithstanding the 25 years of reforms, the management system typical of a developed market economy is not yet fully in place. At the same time, the traditional tools of planning and direct controls are no longer fully effective, as a large part of the economy is now functioning on market principles. Hence the need to consider a new approach to macro-management.

4.2. There is likely to be little disagreement among economists about the final destination of the new approach. There has been a notable convergence among developed market economies, in their macroeconomic policy framework, towards a system usually known as *inflation targeting.* Such a system involves focusing policy on the final objectives of inflation control and growth, and not on intermediate targets such as the money supply. Effectively, inflation targeting involves aiming for *stable non-inflationary growth at potential rates*, i.e. the highest potential growth rates given the state of technology, avoiding overheating or recession and unemployment. Thus the final objectives of 'flexible inflation targeting' are consistent with the objectives of Chinese overall macroeconomic policy as usually described

4.3. With developed financial systems and free movements of international capital, inflation targeting is usually carried out by independent central banks, which use the indirect control instrument of the short-term *policy interest rate* to achieve their aims. China should move *towards* such a system of inflation targeting in the longer term, as financial reform proceeds and as financial markets become increasingly integrated into the world economy. Such an aspiration is an important guide for policy-making in the short term.

4.4. Such a system is, however, not appropriate for China in the short term. There would be a serious danger of a loss of control – the opposite of what is intended by adopting inflation-targeting systems. Accordingly, we recommend a *dual-track* approach, designed to keep control in the short term, while moving towards a more flexible inflation-targeting framework in the longer term. We emphasize two aspects of the *dual-track* approach:

- the maintenance of capital controls, but within an increasingly more flexible exchange-rate system;

[20] This chapter is based on contributions from Christopher Allsopp, Cyril Lin, Takatoshi Ito, 'A Robust Monetary Framework for China', Maurice Obstfeld, 'The Renminbi's Dollar Peg at the Crossroad', and papers prepared by the Research Institute of PBC.

- continuation of credit controls (and other direct methods of influencing aggregate expenditure), while moving more and more towards using the indirect instrument of the interest rate as financial reform proceeds.

4.5. Clearly, the coordination and *sequencing* of financial reforms and liberalization on the one hand, and movement towards reliance on indirect (interest rate) methods of control on the other hand, is crucial. The overall approach is designed to ensure that existing control systems are only given up when better methods are available and the direct methods are no longer needed. The system proposed can be thought of as a form of inflation targeting which adapts over time, with the longer-term aspiration an important guide for policy-making in the short term.

Inflation Targeting

4.6. The choice of the framework of inflation targeting, focusing on the final objectives, in China in the longer term is in large part determined by the unsuitability of other, alternative frameworks, such as intermediate targeting of money supply (defined in terms of either the monetary base or broad money) and exchange-rate targeting. Most countries that have adopted inflation-targeting regimes have done so because of the failure of previous, alternative regimes, such as monetary targeting. Experience with monetary targeting as a basis of macroeconomic control in developed countries is almost universally adverse, which is why it has been abandoned. The evidence for China is that the connection between the monetary base and nominal spending is weak, ambiguous or non-existent. Broad money has been rising rapidly (to about 180 per cent of GDP) and similarly has little direct or unambiguous connection with growth or inflation. Clearly, neither the monetary base nor broad money would constitute an appropriate intermediate target for macroeconomic policy in China.

4.7. The other kind of framework that should be ruled out as a basis for macroeconomic policy is an exchange-rate target (such as a dollar peg). Many small countries have used an exchange-rate target as a basis for overall policy since they provide an alternative 'nominal anchor' for (relative) inflation in the longer term. In such a regime, the domestic policy reaction function (i.e. the response of macroeconomic policy-makers to changing economic circumstances and shocks) would then be geared to meeting the exchange-rate target, rather than being directed towards domestic inflation in the medium term (and growth at its potential rate) – as it would be with inflation targeting. An exchange-rate target is not a suitable alternative for a large economy such as China. Moreover, China has capital controls – which means that, to an extent, the exchange rate can be targeted independently of domestic macroeconomic policy (see the discussion below). But this is quite different from using overall macroeconomic policy itself to target the exchange rate.

4.8. The chief advantage of inflation targeting is that it focuses directly on policy objectives and priorities. One of these is inflation, or, more strictly, deviations of inflation from its target rate in the medium term. The other is growth at potential rates, with the objective of minimizing deviations from the target track. Thus it is the task of policy-makers to get as near as possible to growth at potential rates and inflation close to target. There are trade-offs involved, e.g. between output fluctuations and variations in inflation, and shocks will drive the economy off course. But policy should always be bringing the economy back towards its full potential growth trend and towards target inflation.

The Foreign-exchange Regime and Capital Account

4.9. On 21 July 2005 the PBC revalued the RMB by slightly over 2 per cent against the US dollar, announcing that it:

- was 'moving into a managed floating exchange rate regime based on market supply and demand with reference to a basket of currencies';
- would ensure that 'the daily trading price of the US dollar against the RMB in the inter-bank foreign exchange market will continue to be allowed to float within a band of ±0.3 per cent around the central parity published by the People's Bank of China, while the trading prices of the non-US dollar currencies against the RMB will be allowed to move within a certain band announced by the People's Bank of China';
- 'will make adjustment of the RMB exchange rate band when necessary according to market development as well as the economic and financial situation' and maintain 'the RMB exchange rate basically stable at an adaptive and equilibrium level, so as to promote the basic equilibrium of the balance of payments and safeguard macroeconomic and financial stability'.

These changes create the necessary conditions for a gradual and controlled transition to an increasingly flexible exchange-rate regime consistent with a dual-track approach to macroeconomic management generally. The new foreign-exchange regime, belonging to the group commonly known as 'Basket, Band, Crawl', or BBC, also provides in principle the opportunity to implement the managed changes in the exchange rate itself necessary to achieve internal and external balances as proposed in chapter 4. The transitional arrangements possible under the new system are also consistent with the experiences in other emerging market countries, such as Chile and Israel (see Annex B), which have ultimately achieved healthy economic growth coupled with low inflation, financial stability, full currency convertibility, and a fully floating exchange rate.

4.10. There are two important and immediate advantages to the new system. First, even a small degree of day-to-day *symmetric* uncertainty about the exchange rate is a deterrent to capital inflows speculating on further RMB revaluations. Given the width of the band, there is the potential for speculators against the dollar and in favor of the RMB to lose money. The second advantage of even the limited degree of variability allowed so far is in terms of the development of the domestic foreign-exchange market under conditions of day-to-day uncertainty. Markets in both spot and forward transactions will have to develop further as a prerequisite for allowing a greater play of market forces in determining the exchange rate.

4.11. Given the government's stated objective of broader RMB convertibility in the longer run, a regime in which the RMB fluctuates – perhaps in a managed way – against trading partners' currencies is necessary. The transition from the present regime to such a regime will require two steps. The first is a move to a *meaningful* basket zone. Despite the stated intention of the PBC to restrict the RMB's rate against non-US currencies to stated ranges, while simultaneously restricting the RMB/USD rate to a narrow range, it is hard to see how this will be possible in all circumstances. For example, a very large one-day shift in the USD/euro exchange rate must result in a commensurate shift in the RMB/euro rate, unless the narrow RMB/USD fluctuation limit is breached. In the past, such fluctuations against the euro or yen have been as large as 2 per cent (or even more) in a single week. Such large unexpected fluctuations may cause serious adjustment problems for some market participants.

4.12. Thus a rapid move to a basket peg in which the currencies of major trading partners receive weights proportional to the value of their trade with China is desirable. Operationally, a basket peg of this kind is equivalent to a movable peg of the RMB to the USD, where the peg's daily value depends on the USD bilateral rate against the other currencies included in the basket. In a setting such as the current one with currency bands, those bands would evolve over time in a way determined by fluctuations in the USD's exchange rate against the other basket currencies. A feature of the basket system is that intervention could still be carried out entirely in the RMB/USD market.

4.13. An advantage of this basket peg system is the deterrent against speculation. In the operation of the system, there would not necessarily be a one-way bet for speculators against the dollar at the edge of the band, because the band as a whole could move in either direction as a result of movements in the dollar's rates against the yen and euro. Speculators could bet on the value of the basket, however – though some randomization of the basket weights would introduce greater uncertainty into that trade. Some countries, such as Singapore, attempt to foil speculation by creating uncertainty about the weights on the various basket components.

4.14. While the move to a *meaningful* basket zone is a necessary first step, the next step should be a progressive widening of the zone over time, with the eventual goal of a zone so wide that intervention limits are rarely, if ever, met. Naturally, intervention (or monetary policy more generally) could be used to smooth fluctuations within this zone. If the zone width is to be widened slowly, then a system in which the mid-point of the zone crawls, or in which the bands are widened asymmetrically over time, could be useful in accommodating a gradual appreciation of the RMB as required to achieve internal and external balances. An advantage of a *gradually expanding* target range is the limitation of risks while market actors and institutions are adjusting to an environment of active currency trading and exchange-rate uncertainty.

Capital controls

4.15. The development of such a system would allow a more flexible exchange-rate policy, better able to adapt to changing circumstances. It would be 'facilitating', rather than implying an immediate change in policy – unless policy-makers so desired. But, with interest rates directed more and more towards domestic objectives, the capacity to manage the exchange rate (within limits) depends on the maintenance of capital controls. This is an aspect of the dual track approach which envisages the maintenance of capital controls in the short term, but within an increasingly flexible exchange rate system.

4.16. There is, however, concern that capital controls are becoming more ‘porous’ and ineffective. An important point is that a policy of moving the exchange rate closer to the market’s perception of equilibrium – reducing exchange-rate pressure (see the next sub-section) – would make the controls easier to maintain and less distorting. In the longer term, however, the logic of financial reform suggests liberalizing the capital account. But there are important arguments against reducing or abolishing capital controls in China in the near future, given present circumstances. One danger, especially given the very large amount of deposits held within the banking system, would be the risk of very large outflows if conditions were to deteriorate and sentiment about the RMB were to worsen. Another is that the still fragile banking system would not be able to cope with capital account liberalization. These are arguments about future risk.

4.17. The other important argument against loosening capital controls in the near future is not about risk, but about control. With capital controls, the authorities have considerable power to influence the exchange rate, although there are limits as to how much ‘pressure’ can be tolerated. An open capital account, on the other hand, would mean that the authorities either have to let the exchange rate float, subject to the vagaries of the market, or divert monetary policy away from domestic objectives of macro control to exchange-rate management, and in this last case take the risk of speculative attack. Indeed, there are arguments for tightening capital controls, while pursuing a more flexible exchange-rate policy. In terms of sequencing, freeing up the capital account and adopting a free float is something that should be contemplated quite late on.

Macroeconomic Policy and the Exchange Rate in China

4.18. The task of macroeconomic policy-makers under an inflation-targeting regime is to take into account the *effects* of exchange rates on the overall economy. This is no different from taking account of, say, a surge in consumer demand or a change in international oil prices.

Exchange-rate pressure

4.19. Some kinds of exchange-rate policy, however, can interfere with the requirements of overall macroeconomic control. A main lesson from developed-country experience is that a single policy instrument (e.g. the interest rate in inflation-targeting regimes) cannot be used to target more than one thing. Thus, it makes no sense to use interest rates to target inflation *and* the exchange rate. For the purposes of overall macroeconomic control, it is often helpful to think of different detailed instruments as substitutes. Of course they will have differential effects. Thus, for a given overall demand effect, a change in the mix of policy between fiscal and monetary instruments will affect the interest rate and (in an open economy with free capital movements) the exchange rate. With capital controls in place and the possibility of intervention, macro policy (including, potentially, interest rates) can be assigned, as it should be, to the overall control of the economy, while, at the same time, selective intervention is used to control the exchange rate.

4.20. The key question is whether the process of exchange-market intervention itself threatens domestic monetary and macroeconomic control. This is not just a matter of the level of the exchange rate itself, but also of *pressure* on the exchange rate caused by market perception of an undervaluation or overvaluation of the currency concerned, which accelerates and magnifies the long-term effects of a wrong level of the exchange rate. The most obvious symptom of the degree of such pressure is the rapid build-up of reserves in China, caused by the market perception that an appreciation of the RMB is unavoidable. In an economy with free capital movements, the build-up would become, effectively, infinitely fast, forcing the abandonment of the attempt to fix or control the exchange rate. Even in an economy with capital control, exchange-rate pressure and reserve build-up do tend to lead to a change in exchange-rate policy, as has, in fact, happened recently in China.

Adverse impacts of exchange-rate pressure

4.21. There are other reasons for wanting exchange-rate pressure to be reduced. First, in the context of a policy objective of keeping the exchange rate down, there is a tendency for interest rates to be kept low (to reduce upward pressure) and for policy-makers to be reluctant to use interest rates to slow the economy if there is overheating. Effectively, interest rates are being targeted in part on the exchange rate, or at least being influenced by exchange-rate considerations, quite contrary to what we recommend in general. A trajectory towards a macroeconomic control system of flexible inflation targeting involves interest rates being used more actively (in combination with other instruments) to target non-inflationary growth. In overall policy terms, upward (or downward) exchange-rate pressure is distinctly unhelpful. If interest rates are subject to this pressure, *other* policy measures (e.g. credit controls) to control the macroeconomy are excessively favored. These are not suitable policy measures and the longer-term objective is for them to play less of a role, not more.

4.22. Second, financial reform generally involves more flexible and probably higher interest rates (at least in some areas). It also inevitably involves the risk of a more porous capital account, making the exchange-rate dilemmas more acute. Thus, financial reform is held back if exchange-rate pressure is significant, militating against the general strategy of moving towards a system of flexible inflation targeting and reliance on indirect (interest-rate) control in the longer run.

4.23. Third, just as monetary policy may be diverted from its appropriate role and lead to the adoption of alternative and unsuitable domestic policies, inappropriate or dangerous responses to the exchange-rate pressure itself may be encouraged. Liberalization of capital outflows is a potential way of reducing the pressure. But, with enormous and relatively liquid balances in the banking system, liberalization of outflows carries with it severe danger of a currency crisis if sentiment turned against the RMB and the pressure were reversed.

4.24. These reasons mean that it would be beneficial for interest-rate policy, and monetary policy more generally, to be freed from exchange-rate pressure so that monetary policy can concentrate increasingly on its overall macro control function.

Other Reforms and Their Sequencing

4.25. The dual-track system should involve continued and coordinated reforms in other areas of the economy as well as a correct sequencing of these reforms. Financial reform is important for increasing efficiency in resource allocation and for the portfolio choices of households and the saving decision. It appears that relatively little attention has been given to the asset side of the picture and the desirability of a much wider menu of assets that can be held by households. Thus, precautionary saving in China may be higher than it should be owing to a lack of appropriate savings instruments. A major issue is the implications of financial reforms for macroeconomic control relying on interest rates.

Banking reforms
A key feature of the Chinese economic system at present is an over-dependence on the banking system, as evident in the build-up of (broad) money, which at present is about 180 per cent of GDP. This is related to the pattern of excessive intermediation in China from high-saving households through the banking system to investing firms. The development of alternative channels of intermediation outside the banking system is essential to addressing the problem. But improvements in the way that the existing bank-centered system operates are equally important.

4.26. The credit system remains central to bank financing in China. There has been some progress towards more indirect methods of controlling credit, but relatively little reliance on interest rates, which remain low. The behavior of banks, for example in response to liberalization or interest-rate changes, is relatively unpredictable. The active use of interest rates to curb excess investment has been blunted owing to exchange-rate policy and capital inflows. It is important that the system adapts so that interest rates can play more of a role within a dual-track system, even if the credit mechanism remains important in the near future.

4.27. Other aspects of the banking system, such as the inter-bank money markets, are developing more quickly. An important issue is that these developments will increasingly become inconsistent with capital controls and exchange-rate management. The solution would be, again, a dual-track approach within which the exchange rate moves towards market fundamentals and sentiment (thus reducing the pressure) while maintaining the capacity for managing the system.

Alternative channels of financing
4.28. The need for developing alternative channels of financing was recognized by the Chinese authorities over a decade ago but they have been developed slowly. The availability of cheap bank finance has not helped. The corporate bond market is only available to prime-quality borrowers, with bond issuance subject to approval by the

government and effectively government guaranteed. The equity market grew rapidly in the 1990s, but its development has been hampered by weak corporate governance, ambiguous property rights, questionable practices among securities firms, and concerns over possible large-scale divestiture of state shares of listed companies.

4.29. Portfolio diversification would be facilitated by increased capital outflows. A concern about capital-account liberalization is that diversification abroad could get out of control. The chief risk in developing alternative intermediation channels is a potential weakening of macroeconomic control. But this strengthens the case for moves towards indirect methods of control, since they operate throughout the financial system and not just though the banking system. Potential risks should be mitigated through improvements in corporate governance and the regulatory framework, and not by lack of progress in financial reform.

Chapter 5 China's Role in International and Regional Economic Groupings

5.1. China's growing economic strength has inevitably raised questions about the appropriate roles it should play in the global economy. China is now the sixth largest economy in the world. It is also among the top trading partners of the USA, the EU and Japan as well as East Asia as a whole. Developments and policy changes in the Chinese economy have far-reaching consequences for the rest of the world. Yet, China's profile in the global and regional economic groupings remains relatively low and, in the view of many, neither commensurate with the relative size and strength of its economy nor reflective of the high degree of interdependence between China and the rest of the world. As a result, many argue that China has not been able to contribute as meaningfully as it could have to the growth and development as well as the stability of the global economy.

5.2. We believe that both for its own national interest and the interest of the global economy, China should play a more active role and, in some cases, assume a stronger leadership position in the affairs of regional and international economies. The global economy faces various risks that require determined, joint actions from the major economic powers: the resolution of the global current account imbalances; structural reforms and stimulus for higher growth, especially in Japan and the EU; greater exchange-rate flexibility in East Asia; joint responses to rising oil prices including actions on the supply (investment) and the demand (energy efficiency and conservation) sides; resolving the potential conflict between global free trade and regional trade agreements, etc. In these and other policy areas, an active participation from China is essential in helping to bring about a meaningful and successful outcome.

5.3. China is already a full member of various formal multilateral bodies, such as the WTO, the IMF, the World Bank, the Asian Development Bank etc. Its presence and influence in these organizations will grow over time. We believe that it is in the more informal groupings such as G3, G7/G8, G20 etc. (at the international level) and ASEAN+3, APEC etc. (at the regional level) that China could have a stronger impact in the short to medium term if it were actively to develop a strategy to this end. In addition, China should actively expand its links with other major regional groupings, such as the EU, ASEAN etc., without altering its fundamental support for multilateral free-trade negotiations via the WTO. China should, however, be mindful of the different dynamics in these various groupings and adopt a somewhat different strategy in dealing with each of them.

5.4. Meanwhile, in order more effectively to pursue the strategy of integrating fully into global economic governance, China should continue to strengthen the institutional and technical capacities of government entities at all levels, building on the impressive progress already made in recent years.

China's Role in Informal Global Groupings

The Group of Seven/Eight (G7/G8)

5.5. Considerations of interdependence suggest that China should develop a strategy and timetable for joining the G7/G8 of Finance Ministers and Central Bank Governors. As a member of the world's most powerful economic grouping, China will be able to ensure that its own interests are sufficiently represented in any joint policy responses to pressing and strategic global issues. Such an advantage far outweighs either the 'risk' of having its actions restricted by the 'rules of the game' of the group, or the perceived 'cost' of being alienated by the group of developing countries.[21] Importantly, China's participation in G7/G8 will strengthen the forces of 'multilateralism' in global economic governance and help counter the 'unilateralist' tendencies of the USA. Increasingly, China's voice and participation will be of critical importance in a global approach to resolve the problems of global imbalances, macroeconomic surveillance and crisis prevention, as well as financial crisis management and financial stability.

5.6. China should aim to join the G7/G8 before the end of the decade. Moreover, to play a meaningful role, China should accept nothing less than full membership of the group. However, doing so requires careful handling of two matters. First, as a full member, China will have to join the G8 summit meetings at the Heads of State/government level. This forum deals with a variety of political and other non-economic issues and China will have to be prepared to take a collective position on this issues. Second, Russia is at present a member of the G8 Heads of State, but not of the G7/G8 Finance Ministers and Governors group. In fact, there is strong opposition from many G7 members to Russia becoming a full member – i.e. participating in all sessions on all subjects at G7 minister-level meetings. China will have to work with the existing full members of the group to resolve this situation satisfactorily.

Group of Twenty (G20)

5.7. China successfully conducted its Presidency of Finance Ministers and Central Bank Governors of the Group of Twenty (G20) in 2005. In the long term, this informal group, which includes some of the largest developing economies (e.g. Brazil, India etc.), has the potential of steering the world economy in a number of areas in the same way that the G7 does today.[22] Building on its successful Presidency, China should continue to enhance its role and participation in G20 (and expand on its technical capacity to do so), in order to turn the group into a forum that could fairly represent the member countries' interests as well as the interests they share with other large emerging market economies (EMEs).

5.8. The composition of the G20 lends itself well to forging consensus and assuming leadership on a number of pressing and longer-term issues facing the global economy: energy policy (with the largest oil producers and consumers around the table); strategic

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[21] The latter risk, among others, can be mitigated by an active role in the G20.

[22] It has been estimated the combined GDP of Brazil, Russia, India and China will account for half the GDP of the G7 by 2025 and should exceed the latter by 2040. See study by Goldman Sachs (2003).

reform of the IMF and World Bank, including enhanced representation of EMEs; regional integration as an answer to globalization; migration policies; and rules to avoid abuse of the international financial system. Global macroeconomic surveillance and exchange-rate policies are not suited to this group in the foreseeable future.

The Group of Four (G4)

5.9. China should further enhance its participation in the confidential, informal consultation process that has evolved on exchange-rate policies among the three major currency areas (dollar, euro and yen). The aim should be to become a full participant in these ad-hoc meetings conducted by senior Representatives ('Deputies') from the US Treasury, ECB and the Eurogroup of Finance Ministers, and the Japanese Ministry of Finance.

5.10. Given the sensitivity and immediate market-relevance of these consultations, particularly in moments of crisis, they are limited to the main currency areas and involve only a sub-group of deputies of the G7. China has been invited to participate in some sessions of this deputy group on an ad-hoc basis in recent years. Enhanced and ultimately full participation would enable China to 'multilateralize' these sensitive deliberations on exchange-rate policy, rather than be exposed to bilateral negotiations driven by individual-country interests. Potentially this 'G4' format on the single issue of exchange-rate policy coordination could be the forerunner of an informal G4, steering the world economy in the distant future in other areas as well.

China's Links with Regional Groupings

China and East Asia

5.11. In recent years, China has been actively engaged in free trade agreement (FTA) negotiations with various East Asian economies, beginning with the China-ASEAN FTA in 2002. China's initiatives have in no small measure contributed to the momentum of free-trade movement in the region. For example, Japan's decision to initiate FTA negotiations first with Singapore in 2001 and subsequently with ASEAN as a whole was seen by many to be prompted by China's moves. China should address two questions: (i) whether it should continue to pursue bilateral FTA with individual countries/groupings, or whether it should exercise stronger leadership to help bring about region-wide integration in East Asia; (ii) how it should approach the formation of a pan-East Asia grouping if it decides on this option.

5.12. There is little doubt that China's trade and investment ties with the other East Asian countries, which are already strong, will continue to deepen in the years to come. But the nature of the relationship will likely change as the domestic economic structure in China is being transformed. Currently, the close economic links are built on China's role as a 'processing hub' for manufacturing goods in the region, leveraging on the comparative advantage it enjoys in low-cost labour. Exports from China, in fact, embody a large amount of inputs and represent an indirect export from other East Asian economies in the form of raw materials, technology, capital goods and other intermediate goods. But China is rapidly diversifying its production structure. Specifically, it is fast moving up the technology and value chains, acquiring similar comparative advantages to the more developed East Asian economies.

5.13. As the trend continues and China's income level grows, we expect to see more intra-industry trade within East Asia. There will also be greater Chinese appetite for services and final consumer goods from other East Asian countries. China will also increase its demands for energy and other resources and raw materials etc. In addition, we are likely to see more Chinese investments in the region, not only as part of the quest for higher returns on its reserves, but also as a move to take a strategic stake in key industries, such as the resource-based industries. In short, the economic ties will be much broader than the current one, which is largely defined by China's central role in the supply chain network of the region. It is in China's interest, therefore, to broaden its integration with the other East Asian economies. Indeed, China will benefit greatly from the formation of a region-wide free-trade grouping.

5.14. Given the dominance of the Chinese economy, it is almost inevitable that any pan-East Asia economic integration will end up being China-centred. This may not be readily accepted by the rest of the countries in the region in the short to medium term. For historical, geopolitical and even economic reasons, a number of East Asian countries have reservations about the formation of a China-centred economic grouping. Too aggressive a move on China's part to push for such a grouping may, in fact, deepen the suspicion in some countries. Over the longer run, as the economic imperatives and the inevitability of such a grouping become clearer, political resistance from other East Asian countries may subside.

5.15. In the short to medium term, one possible approach is to anchor the move towards a pan-East Asia economic grouping on ASEAN. ASEAN is currently the most formalized regional grouping in East Asia. Its success over the years testifies to the possibility of integrating two economies which are otherwise reluctant partners through a larger grouping that allows for different coalitions. The larger forum in ASEAN makes it possible for rival economies to avoid negotiating directly with each other. Instead, they may belong to different coalitions within the larger group. The group dynamics inject a large dose of neutrality into the negotiation process, making it possible for the member economies not to see the issues solely from a bilateral perspective. ASEAN can play the same role in easing the tension between China and some other East Asian economies. As noted above, ASEAN has already demonstrated its capacity to be a catalyst for actions by rival economies: it was China's decision to initiate negotiations for the China-ASEAN Free Trade Agreement (CAFTA) that prompted a fundamental re-think in Japan's regional economic policy.

5.16. Even without a China-centric structure, China can still play a constructive role in expediting the integration process in the short run. By accelerating the CAFTA negotiations, for example, China will likely put pressure on other East Asian economies to do likewise. Indeed, China surprised many when it took the unprecedented step of including an 'early harvest' programme in the CAFTA process. The programme offers ASEAN early access to its agriculture sector – traditionally considered among the most sensitive sectors in the economy – and marks a sharp contrast to Japan's insistence on protecting its own agriculture sector. The CAFTA could conceivably serve as a template for JAFTA (and other FTAs in the region) and significantly speed up the negotiation process of an East Asia-wide FTA.

China and the EU

5.17. For about two decades, the economic relationship between China and the EU has been developing smoothly. Unlike the Sino-US trade relations, there have been few major disputes between China and the EU. To a large extent, this may be attributed to the 'benign neglect' on the part of the EU. Until very recently, the EU has focused most of its political energy on internal adjustment issues related to the formation of the single market and single currency, as well as the management of the group's relationship with the USA. The benign approach has helped expand trade and investment between the two, to their mutual benefit. But the situation is changing. The rising strength of the Chinese economy and its implications for the EU (including the adverse implications) are likely to receive a lot more scrutiny and political attention in the years ahead.

5.18. Compared with the Sino-East Asia or even the Sino-US ties, the China-EU economic relationship could potentially be filled with more tension. As an integrated body, the EU has to take a collective position for 25 member economies that are structurally very different from each other in some cases. Production in the newer member economies, for example, remains largely labor-intensive, making for a more competitive economic relationship with China than exists between China and the USA, or for that matter, East Asia. Moreover, the EU labor markets are much less flexible than that of the USA, further increasing the likelihood of political pressure that trade liberalization with China may entail. Greater trade with China could also affect the privileged trade concessions that EU member economies reserve for one another and undermine the integration process within the grouping.

5.19. There are other potential sources of tension for the China–EU relationship. China's quest for more energy and raw materials, including using strategic foreign investment in some cases to secure access to such resources, would likely put pressure on the EU, which is just as import-dependent on these raw materials. The limited flexibility of the RMB is seen to place an undue burden of adjustment on other more flexible currencies in the world, including the euro. Meanwhile, China's rising economic strength could imply a diminished role for the EU in multilateral institutions and informal groupings.

5.20. While many of these structural problems have to be solved by the EU itself, closer consultation and joint actions between China and the EU could help ease the pain. In some cases, tackling the problems requires significant policy adjustments for both. It is in the interest of both China and the EU to step up the dialogue process as early as possible, so as to identify potential tensions that could otherwise derail the continued expansion of the trade, investment and financial ties that have brought great benefits to both in the last two decades.

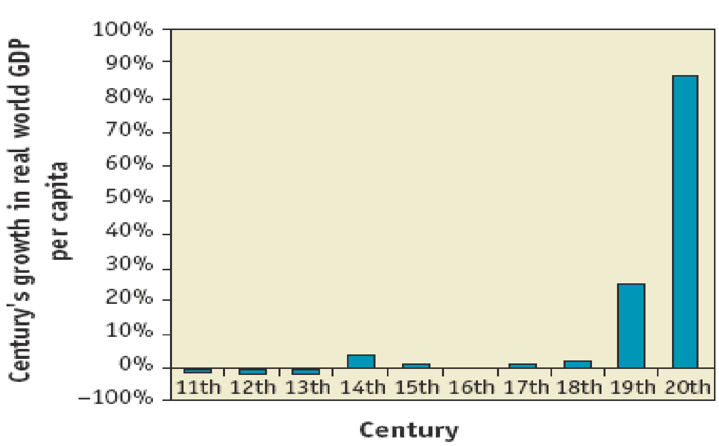
Chapter 6 China and the Global Economy in the Next Two Decades

5.1. The previous chapters have been concerned with the leading policy and institutional reforms that need to be addressed by Chinese policy-makers in the short and medium term if robust growth is to be sustained. These reforms are essential to resolve various structural internal and external imbalances that have arisen during, or been exacerbated by, China's remarkable economic successes since transition to a more open and market-oriented economy began in 1978. These imbalances derive largely from China's development strategy, one based on exports, FDI and foreign exchange accumulation, from the transitional nature of China's institutional arrangements, which are increasingly unsuitable, and also from the fundamental changes that have occurred – and are occurring – in the global economy. Changes in the global economy, in particular, are occurring at a very rapid pace and are already beginning to have profound implications for the future sources, patterns and rates of growth for developed and developing countries alike. It is therefore important for Chinese policy-makers to anticipate the threats and opportunities posed by long-term trends in the global economy and to adopt a pro-active strategy for addressing them. The on-going preparation for the 11th Five-Year Plan (2006–10) and other policy-making arrangements provide Chinese policy-makers with a major opportunity for doing so. What follows in this chapter is a summary of key trends in the global economy that could help inform Chinese policy-makers in formulating the country's longer-term development strategy.

5.2. The world is entering its third century of growth driven by science and technology. Data assembled by the World Bank clearly indicate that something unprecedented is happening. While we cannot see clearly far into the twenty-first century, it is reasonable to predict that the growth in the global economy will dwarf even that in the twentieth century.

Figure 6.1
Worldwide Growth in Real GDP Per Capita, Year 1000 to the Present

5.3. There are several reasons for this. The advanced countries have quite clearly entered a period of more rapid growth and productivity gains, based not solely but largely on the exploitation of information technology (IT) to increase dramatically the efficiency



Source: DeLong 2000.

of markets, supply chains, the delivery of services and the accessing of valuable human resources without reference to or bounded by geography or time. Played out over several decades, these technologies are quietly revolutionary. In addition to increasing the efficiency of all domestic economies, the larger effect in the medium to long run is to transform the global economy. Trade in services provided by highly educated people all over the world will increase both absolutely and as a fraction of total world trade. Research and development (R&D), business services and financial services will be sourced globally. Trade as a fraction of global GDP will continue to rise, increasing interdependence.

5.4. China's human resources will be a central feature of this landscape, as will India's. China, with its size and dynamism, could, with a sustained effort to build the institutional and human capital infrastructure required for modern financial and capital markets, become one of the leading financial centers in the world.

Longer-term Trends in the Global Economy

5.5. The global economy is changing dramatically in a number of dimensions. With the addition of China and later India, the global economy, meaning the fraction of the world's GDP that is actively engaged in the global economy, is much larger and more dynamic. China and India together represent an addition of 40 per cent of the world's population.

The impacts of network-based IT

5.6. Even more important is the advent and wider accessibility of network-based IT. From an economic point of view, this technology dramatically lowers transactions costs. The effects are pervasive and the long-run impact, which will occur over several decades, has only started to be felt. In addition, there is innovation every year and it is not possible to predict accurately the effects of these technologies over the next two decades. It is clear, however, that something significant and fundamental is happening, and it would be hard to overstate the importance of these nascent changes. They occur in three categories.

5.7. First, the informational structures that are required to operate supply chains within companies and in the global economy on an inter-company basis are significantly more efficient and less costly. To put it succinctly, they are being automated. Human processing of information is systematically being removed, thereby eliminating cost, error and delays. The effects over time are very large. All of this is underpinned by networks that are reliable and continuously available, populated not just by people but also by information-processing machines that talk to each other. The global reach of the Internet is the underlying infrastructure. Geographically extensive supply chains in the global economy are less costly to coordinate. For example, evidence suggests that the interval from design to market in many industries using offshore manufacturing and global supply chains has declined by factors of three or more. This aspect of IT's impact is capital intensive and labor saving.

5.8. Second, the costs of making markets (e.g. buyers and sellers finding each other; learning about product characteristics, including prices; matching buyers with diverse preferences with differentiated products), all of which represent the informational underpinnings of a market, are much lower. As a result, millions of new markets come into existence (as in the case of eBay – rapidly becoming a global marketplace – the geographical boundaries of markets are pushed out). Financial services that are information and transaction intensive will gravitate to the Internet. These effects are harder to measure precisely but are large – as large or larger than the first group. This category includes the use of network-based IT to deliver government services in a highly efficient way. This effect alone is capable, when properly used, of increasing significantly the efficiency of the economy and the rate of growth of the private sector.

5.9. Third, and most important, the Internet allows services of a variety of kinds to be delivered remotely, without having to move personnel to the point of delivery. High-quality human resources that were previously of limited value in the global economy because of their location are able to deliver services (IT, software engineering, business processes, research and engineering, medical services and a host of others) to remote locations. As a result, human resources are much more valuable in the context of the global economy. It is as if the boundaries of labor markets were partially breaking down – as if labor in the old world was mobile, even if it is not, in fact, geographically mobile. The burgeoning IT-outsourcing industries in India are early examples of this trend and technological innovation. Neither the magnitude nor the importance of this can be overstated. It is clear, even though it is the beginning of a trend, that trade in services, including services provided by the most highly educated and trained personnel, will be a growing fraction of global trade, and that trade in relation to global GDP will expand substantially. Anticipating and preparing to participate in these new trends and possibilities represents an additional source of growth. It also offers the opportunity to move up the technological ladder more quickly than would otherwise be possible.

5.10. These trends driving the global economy represent huge opportunities for developing countries, including especially China, because of its continuing investment in human capital. Though it is less often talked about, they represent large opportunities in the domestic economy. For example, educated but under-used human resources in less developed provinces can be employed to deliver services in more advanced locations where the balance of labor demand and supply is very different and labor costs are much higher. This may reduce some of the pressures created by high rates of migration from rural to urban and from central to coastal areas.

5.11. It is important to note that the technologies described above have launched the developed countries into a period of higher than normal productivity growth – 4 per cent as opposed to the post-war average of 2 per cent. There is debate about how long this will go on, but most knowledgeable observers and analysts believe that we are in the early stages of this trend, and that it is reasonable to expect that it will continue, as it expands into the global economy for two or more decades.

5.12. Europe and Japan do not yet show the higher productivity growth rates than can be seen in the USA. There are reasons for this, some having to do with flexibility in the economy and in labor markets. But this situation is not permanent and, hence, it is a sound prediction that Europe and Japan will be on a similar path in the future, albeit with a delay or lag.

Financial Imbalances in the USA

5.13. The major risk in the global economy in the medium term does not come from China or from the developing countries. It comes from the USA. It is widely believed that a regime in which the USA saves at low rates and finances its investment by running trade deficits and borrowing abroad, is not sustainable in the long run. The reasons for the very low savings rate in the USA are not completely clear. The federal deficit makes an obvious contribution. Second, the mechanisms for facilitating the use of debt by consumers are well developed and it is possible that the economy tends to irrational and excessive use of debt. This may in small part be related to bankruptcy laws that, until recently, made the cost of insolvency in the household sector too low. It is hard, however, to believe that this by itself would result in near zero savings. Demographics play a role. The baby boom may be in a dissavings phase of life, following the Modigliani model of life-cycle savings. Lack of transparency in the social security system, which is far from fully funded, may contribute to households thinking they have saved 'enough' when in the aggregate they have not. Rather, they have passed the problem on to the next generation. Finally, when asset prices are high, the household sector may feel it is healthy enough to justify moderate savings. In the recent past the Internet boom or bubble occurred and now, owing in part to low interest rates, there is a housing bubble.

5.14. Nevertheless, when you add this all up, while it is clear that the USA can save at low rates for a period of time, it cannot in the long term run a trade deficit and finance the investment-savings differential with foreign 'borrowing' (more properly foreign investment). If this is correct then the question (to which no one has an answer) is when and how rapidly this will end.

5.15. It is possible that a gradual process over a decade will remove this imbalance. It is also possible that there would be a relatively sudden change, taking the form of a forced increase in US savings, an interest-rate spike, and a recession in the USA that would then spread quickly globally. It is in everyone's interest to avoid this second scenario.

5.16. The new currency regime in China, including a possible gradual upward adjustment of the RMB relative to the dollar, the yen and the euro, will help correct imbalances in the global currency and financial markets, but it will *not* eliminate or even substantially reduce the trade surpluses with respect to these countries and regions, and it will certainly not eliminate the US trade deficit, which is a larger problem, notwithstanding public perceptions to the contrary. Higher consumption by a rapidly growing China, on the other hand, will likely have more impact over time.

China's Increasing Economic Power and Role in the Global Economy

5.17. China is exceedingly important in its economic power. First, China has been highly successful over more than a quarter of a century, and is very likely to continue to grow in its success, admittedly with the familiar sequence of challenges, transitions, bottlenecks that we know from the past and which have been dealt with pragmatically and successfully. China is and should be a model for many other countries. Being willing to talk about and share the lessons of its own experience will help substantially in increasing the likelihood of successful development in other countries.

5.18. Second, China is large and important now, in size and even more in foreign trade. In 25 years, with another two to three doublings of its GDP, it will be a major economic power and a leader, along with the USA, the EU and Japan, in setting international economic policies. China's international economic policies and its frame of reference in formulating them will increasingly influence the evolution of global economic policies. No one reasonably argues that lack of growth in the stagnant countries is solely the result of international policies and rules that do not favor these economies. But few would disagree that many of the current policies do not help. China will have a major role in determining how those policies evolve and its recent experience with rapid economic growth and development will be a valuable contribution.

5.19. In the longer term, it is foreseeable that China with its large and growing economy will have an increasing impact on other countries and be increasingly powerful economically and in international economic relations. When this happens, as it will, China's policies will gradually but steadily need to focus increasingly on matters that relate to what is good for the global economy generally, as well as what is needed internally. In an increasingly integrated global economy, what will be beneficial for the global economy will also be beneficial for China, and vice versa. This interdependence should be an important consideration in the formulation of China's longer-term development strategy, just as it is important for other countries to take account of China's emergence. This policy-making process can best succeed through greater dialogue and collaboration between China and the outside world. This report, hopefully, is a step in that direction.