Supporting Report 5

Reaching 'Win-Win' Solutions with the Rest of the World

Chapter 1 Introduction and Main Messages

After an absence of two centuries, China has returned to center stage of the global economy. Domestic reforms and integration into global markets have resulted in thirty years of unprecedented growth, making China the world's second-largest economy and premier creditor. The integration of China in the world economy has yielded huge benefits, both for China and the rest of the world. In China, poverty has been reduced dramatically and new employment opportunities have been created for hundreds of millions of people. Substantial FDI inflows into China have helped drive productivity in domestic firms with new technologies, training on the job and intensified competition. China has imported foreign practices in a host of areas ranging from banking regulation to product standards. For the rest of the world, manufactured products have become more affordable, while the FDI flows into China represented new investment opportunities for foreign firms and the efficiency of global production networks has sharply risen.

This remarkable story is set to continue. China has the potential to reach high-income status and to become the world's largest economy within the next 20 year. However, wide-ranging transformations in the relation between China and the rest of the world are required in order to avoid the "middle-income trap". The next 20 years will radically differ from the previous 20 years in case of a successful transition to high-income status.

- In recent decades, China's growth has been exceptionally high and driven by manufacturing sectors. In coming decades, growth will likely be lower and will depend more on the services sectors. In the past, the main concern was about the impact of sustained high growth. The focus was on bottlenecks in the fast growing export-oriented manufacturing sectors: limited availability of necessary natural resources; adverse environmental impacts; and slow growing foreign markets. Those problems will not disappear, but in the future, an equally important concern could become the impact of decelerating growth. What tensions and imbalances, especially in China's financial sector, will be revealed if growth slows?
- In recent decades, FDI into China was instrumental in gaining access to global markets and global technologies. In coming decades, further access to markets and technologies will instead come more and more through globalization of Chinese firms (and thus FDI outflows). Through investments abroad globalizing Chinese companies can not only enter new markets and acquire new technologies, but they can take advantage of economies of scale and move production up the value chain. Large global companies are a prerequisite for the transition into high-income economy.
- In recent decades, China's presence in global financial markets has been limited. In coming decades, China will have to become a more dominant player. In the past, China has protected itself from volatility in international financial markets by restricting capital account transactions, by pegging the RMB to the dollar and by accumulating large foreign exchange reserves. In the future, that strategy will become less effective and stability should come from a more international and independent role of the RMB.
- In recent decades, China has often approached international policy debates from a pure domestic perspective. In future decades, it is in the interest of both China and the rest of the world that China takes a more proactive approach and takes responsibility for proposing solutions to global governance problems and for the provision of global public goods.

Such a successful transformation can create more win-win opportunities for China and the world, but the next 20 years will pose new challenges, and come with new uncertainties. In thinking about the challenges that China (and the world) will face over the next two decades, it is useful to consider three questions. The answers are not obvious, and the policy choices involved are difficult and in some cases risky.

First, to what extent should China prepare for significantly lower growth? Growth prospects are obviously highly uncertain, not only because of the short-run uncertainty linked to the global financial crisis, but also because structural growth trends are contingent on innovations that are virtually impossible to predict. Nevertheless, there are strong signs that the shift to services and population aging will slow growth in China and many other parts of the world. Even if new sources of productivity growth in services could be unleashed, it would be prudent to anticipate decelerating growth, and to stress-test the sustainability of institutions in case of low growth.

Second, should China slow the pace of global integration or rather step up its globalization in new areas? Some argue that the penetration of China in global manufacturing has reached its limits. It is becoming increasingly difficult to further expand market shares, while the slow recovery in high-income countries may magnify calls for protectionist measures against Chinese exports. Consequently, future growth has to come more from domestic demand. Moreover, with globalization China has become more exposed to volatile global financial markets. However, China cannot achieve its goal of becoming a high-income country by retreating from the world economy. Indeed, China will have to integrate more in financial markets and markets for services to facilitate the globalization of its firms, to strengthen the international use of its currency and to increase efficiency in its delivery of services. As a result, China will likely become the main champion of globalization. Nevertheless, in some areas (the financial sector, in particular) a lengthy transition period is required to reduce the risk of instability.

Third, to what extend should China take responsibility for the provision of global public goods? Even if China reaches high-income status, its per-capita income will still fall far behind per-capita incomes in more advanced economies and its domestic problems will remain daunting. Still, it would be a mistake if China would leave the initiative to more advanced economies. Global governance structures and procedure to provide global public goods should be brought much more into line with the need of fast growing developing economies. China is not only critical in providing global solutions for environmental problems and financial stress, but its active role in negotiations can ensure that the solutions adequately reflect the interests of China and other developing countries.

These questions and the policy issues they raise are explored through three main chapters that consider scenarios for the future of the global economy, China's integration into global markets, and China's participation in addressing global public goods. Together, they outline a strategy for deepening China's integration into the global economy over the next two decades to upgrade production to more sophisticated manufactures, establish a world-class services sector, and contribute to the preservation of global public goods.

The World in 2030

Chapter 2 presents scenarios for the evolution of the global economy and China's role through 2030. To capture some of the many uncertainties, both a low-growth and a high-growth scenario have been developed. Both scenarios include anticipated structural changes, because China's future role in the global economy cannot be explored by simple extrapolations of gross domestic product (GDP). It is unlikely that the next two decades will bring a mere continuation of current growth patterns. Indeed, comparative advantages will change, economies will move up the value chain, production and trade patterns will shift, and relative prices will adjust. Therefore, detailed, model-based scenarios were developed for this study to capture the main changes to be expected. The scenarios incorporate key drivers of change during the next two decades, including technological catching up, demographic transformations, and further capital accumulation.

Several striking features emerge in the scenarios. First of all, we should expect a further rise of other emerging economies as drivers of global growth, rather than mainly a further rise of China, which has already established a dominant position. More rapid growth than in

advanced countries, combined with exchange rate appreciation, will make the emerging markets the main destinations for world trade. In both scenarios domestic demand in developing countries outside China will contribute more than 40 percent to global growth in 2030. That is more than the contribution of all high-income countries together, where roughly one third of global growth will originate. China alone would contribute between 20 percent in the low-growth scenario to 28 percent in the high-growth scenario.

Second, aging populations, declining investment rates, and a shift to services, with relatively low-productivity growth, all point to a slowing of GDP growth in many countries, including China. In the low-growth scenario growth in all developing countries combined is expected to slow from 6.5 percent currently to 4.5 percent in 2030. The slowdown in China will be even sharper, from 9 percent at present to just below 4 percent in 2030, although on average China remains one of the fastest growing countries during the next 20 years. High-income countries would see their annual growth rates more than halved, from 2.5 percent now to just above 1 percent in 2030. In the high-growth scenario, with world-wide more innovations in the services sectors, the slowdown is minimal. For example, China's growth remains for many years at current levels, and will drop after 2025 to 7 percent.

Third, despite the slowing in overall growth, environmental pressures will increase. This is clearly illustrated by the anticipated increase in greenhouse gas emissions. Without additional policies, even in the low-growth scenario emissions of the four main gasses that the model tracks are expected to more than double in China and India between now and 2030, while only minimal increases are anticipated in high-income countries. This means that China and other emerging countries will increasingly hold the key to the solution for global environmental problems.

Fourth, middle-income countries will continue to dominate international trade in manufactured products; but, domestically, will experience a significant shift toward services. Globally, the share of services in value added would increase from 56 percent now to 65 percent in 2030, while the share of manufacturing would decline from 19.5 percent now to 11 percent in 2030. As middle-income countries shift to services and move up the value chain in manufacturing, new opportunities will be created for low-income countries to expand their low-skill labor-intensive production.

Fifth, even in the high-growth scenario, with large investment needs and with the savings rate in China declining from 45 to 35 percent, capital remains abundant. This creates opportunities for substantial investments in new markets. It will also open up the opportunity for more productive investments abroad, a trend that might well become one of the most distinctive developments during the coming decades.

A final character of the scenarios is that, despite China's dominant position in the global economy and despite the sharp rise in average incomes, making China formally a high-income country, a large part of the population will still be relatively poor. It will likely take significantly more than 20 years for the whole population to reach high-income status.

Many of the opportunities and solutions to the challenges that emerge in this scenario can be found in global markets. Countries, developing and high-income alike, that maintain an outward orientation will be among the successful ones during the coming decades, while an inward-looking policy will increasingly prove self-defeating. Three outward-looking policy areas are of special interest for China: trade policies, policies that govern cross-border investments, and policies that will facilitate the internationalization of the RMB.

China's integration in global markets

Chapter 3 reviews how policies in the areas of trade, foreign direct investment (FDI), exchange rate, and capital controls will need to be modified in the light of China's interactions with the global economy. Increasing economic openness has been a critical driver of China's remarkable success over the past three decades. Reductions in import barriers have boosted the efficiency

of domestic firms through strengthening competition and increasing access to imported inputs, promoted China's participation in components trade, and facilitated rapid expansion into foreign markets through reciprocal reductions in foreign import restrictions and eventual entry into the World Trade Organization (WTO). Dismantling most barriers to FDI inflows has increased access to foreign technology and business practices. The integration of foreign standards into regulation and business practices has improved the quality of domestic production. Greater exposure to foreign ideas through the education abroad of Chinese students and increasing communications through the Internet have enriched China's, and the world's, economy and society.

Despite the obvious benefits of economic openness to China, we can see pressures for slowing China's economic integration with the rest of the world. These pressures stem from concerns over China's vulnerability to foreign protectionism, China's increasing financial dependence on low-yield US government liabilities, and the disruption to Chinese economic activity from the recent global financial crisis and its aftermath, as the full implications of the expansionary activities required to support demand are still not clear.

Despite these real concerns, China cannot achieve its full potential and become a high-income country by turning its back on the global economy. We argue that China needs to continue its outward orientation, but that the focus of that orientation should change during the coming decades. China (and the world) will continue to benefit from maintaining an open trading system, and welcoming investment in its economy to improve competitiveness, but will need an open financial sector and policies that enable an acceleration of investments in foreign markets. It is in the interest of other countries, both high- and low-income countries to welcome these investments. It is only through openness that China will be able to obtain the oil and metals required to support domestic industry and absorb the technology necessary to upgrade production to supply consumers with rising incomes and penetrate new foreign markets.

That does not mean that the government should move rapidly to dismantle all its controls on transactions with the global economy, which would be excessively risky. The pace of change in each sector should take into account the risks involved. China already receives large FDI inflows and is generating increasing FDI outflows, and most remaining limits on investment and approval requirements (except those to ensure compliance with national laws and maintain national security) could be eliminated easily. China should continue to pursue opportunities to increase its market access and maintain its relatively open trading system. By contrast, the transition to an open financial system and a flexible exchange rate will require time to ensure that China's institutions are adequate to maintain stability in the face of shocks from the international financial system.

China's huge size, presence in most markets, the threat of rising protectionism, and limited regional agreements argue for continued support for a global *trading system* based on multilateral negotiations. While China will continue to have a comparative advantage in manufactures, China should focus on services in future negotiations. Opening the services sector to foreign participants, if done in the context of a strong regulatory framework to ensure competition, can improve the efficiency of the services sector and thus improve efficiency in goods production as well. In addition, despite the rapid reduction in barriers to entry in services (from a high level of restrictions) undertaken for WTO accession, China still has a relatively high level of protection in services. Thus it has more concessions to offer in future negotiations than in most traded goods, where China's tariffs are relatively low. China also should continue current efforts to join the WTO procurement agreement. This will require improvements in procurement procedures to enhance transparency, which would in any event reduce costs and enhance quality in government purchases.

The division of the world into regional trading blocs is a challenge to the multilateral trading system and to China's market access. China should emphasize both multilateral and regional arrangements. China will benefit from abiding by and protecting existing multilateral agreements as well as pushing for further opening of global markets using multilateral channels. It

should also proactively push ahead with the negotiations for accession to the WTO government procurement agreement as part of its effort to improve procurement procedures, enhance transparency, reduce costs, and enhance quality in government purchases. At the same time, China needs to proactively participate in regional trade agreements that lower trade barriers at and behind borders and introduce trade facilitation arrangements, and, where possible, advocate "open regionalism", which would require that tariff levels agreed among regional partners be offered to other countries on most favored nation (MFN) basis.

In an integrated world it is especially important that countries press for disciplines that limit the use of export restrictions at times of food scarcity. While governments understandably take steps to avoid sharp increases in food prices, export restrictions should be discussed with consuming nations and the extent of the threat documented. Without some provision for review, the exceptions to WTO strictures against export restraints are open to abuse, resulting in an exacerbation of food shortages, sharper fluctuations in international prices. Trade restrictions make it difficult for importers to rely on the international trading system in times of scarcity and thus reduce food security.

Outward flows of *FDI* have increased markedly from China over the past decade, despite attempts to restrict Chinese investment in some markets. The government has supported outward investment through bilateral investment treaties that provide for national treatment of Chinese investors already established in the host country. Future efforts to protect overseas investment could shift towards gaining pre-entry national treatment, essentially ensuring that Chinese investors are allowed access to host country markets on the same basis as nationals. Even this more liberal approach to investment guarantees will not overcome obstacles to investment based on national security concerns, which has been an argument used to block some highly-publicized deals. However, such agreements could support less controversial investments in developing countries where the legal system may not be reliable in protecting investors' rights. And achieving pre-entry national treatment may be necessary to maintain the competitiveness of Chinese investors if such agreements proliferate in coming years. China should also consider supporting a multilateral agreement on investment, providing the terms of such an agreement can be shaped to be appropriate for developing country circumstances.

Sustaining access for overseas investment would require reciprocal concessions, including the dismantling of many of the sectoral controls on inflows of FDI. Such controls will in any event become less necessary, and less effective, as rapid growth continues to increase the complexity of the economy and as the financial system becomes more open to external capital flows.

China's tightly managed exchange rate and closed capital account have supported rapid growth and helped limit financial instability. Linking the RMB to the dollar has avoided sharp changes in the RMB value of foreign assets and trade flows that are largely denominated in dollars. And restricting capital movements has protected China's relatively undeveloped financial markets from the volatility experienced by many of its East Asian neighbors. However, these policies have also led to sharp swings in China's competitiveness with third countries, necessitated inefficient administrative controls to control inflation, resulted in a large build up of low-return and risky reserves, and constrained financial sector development.

Going forward, as other parts of the world become more important and economic relations diversify, greater use of the RMB as an international currency would provide more economic stability than a managed exchange rate. If a substantial portion of China's assets and trade were denominated in RMB, then fluctuations in the exchange rate would not have major implications for domestic stability. Moreover, an open capital account is needed to facilitate the internationalization of Chinese companies. Further integration with global financial markets would also support the creation of a robust and efficient domestic financial sector. With unrestricted capital movements, a floating exchange rate will be necessary to enable the government to use monetary policy to control inflation. However, this strategy entails risk; opening the capital account before China has in place the regulatory framework required to effectively supervise financial institutions and the credibility and experience with indirect monetary controls required to limit

inflation could be destabilizing. Thus a relatively conservative approach, stretching over many years, is recommended in transitioning to a more open and efficient financial and exchange rate system.

Global public goods

Over the next few decades, China will have a major impact on, and will be greatly affected by, the supply of global public goods. The final chapter, Chapter 4, reviews China's role in global governance surrounding select public goods, such as climate change, financial stability, and official finance. In the medium term, the government will face important choices in its policies towards global public goods. It can essentially leave the determination of global policies towards public goods to a multilateral consensus, with specific interventions to protect China's interests, or it can actively help to shape global agreements. Active involvement in international negotiations would likely imply shouldering some of the costs of preserving global public goods, for example diverting resources towards limiting environmental damages. Nevertheless, China has much to gain from helping to shape international agreements on public goods. The country's huge size means that effective agreements are unlikely in its absence, and in many areas China has a critical interest in ensuring the preservation of global public goods. In addition, having a say in the design of agreements can minimize the costs for China and in some cases open up opportunities for gain.

Climate change is one of the most critical policies and the best example of why China should not only participate in global negotiations, but indeed proactively help shape new global solutions. Absent changes in policy to reduce energy intensity, global carbon emissions could rise by about 50 percent over the next 20 years, with a quarter of this increase coming from China alone. The resulting increase in average temperatures could have disastrous implications for China and the global economy. Effective global policies to combat climate change are not feasible without China's participation, both because limiting China's emissions is critical and because other countries are unlikely to participate in the absence of the largest source of carbon emissions. If China fails to take steps to reduce carbon emissions while other countries do, China would get an artificial comparative advantage in energy-intensive production, making the country even more dependent on uncertain future energy supply and worsening its already considerable environmental challenges. Just as Supporting Report 3 has shown, limits on carbon emissions would not necessarily reduce China's GDP as "green" technologies may become a new source of growth. Finally, it is important that China continues to actively push for a global climate change treaty to ensure that emissions targets reflect developing countries' low levels of per capita emissions and leave room for future growth.

The integration of *international prudential norms* into China's banking regulations has helped the government improve the soundness of the banking system. Likewise, following the guidelines of Basel III should serve to improve regulatory standards and provide an anchor for continued reform. Heretofore, China has played little role in defining international standards, but that may need to change. For example, advanced countries may be concerned that controls on derivative transactions not overly impair the efficiency benefits (and the profits of their financial institutions) from sophisticated derivatives. By contrast, Chinese banks lack the technology and banking relationships required to play a major role in these markets, while China's economy suffered from the extreme volatility generated by the failure to properly regulate them. Thus it may be in China's interest to promote a stricter regulation of derivatives than is currently envisioned.

China has recently transitioned from a receiver to a provider of foreign aid. China's *official finance* has boosted the social and economic development of recipient countries and strengthened bilateral political and economic ties. China's current practice of tied aid, minimal project conditionality, and competitive terms for export credits resemble those of advanced countries a few decades ago. This South-south type *official finance* provided by China is used to achieve

multiple objectives: social and economic development of recipient countries; as well as export promotion; securing future flows of natural resources; and improved diplomatic relations. During the coming decades, as the development objective becomes a more independent one, effectiveness of aid should be emphasized more. That will require transparency in reporting data on aid flows and greater attention to environmental and governance standards. China could also improve global aid effectiveness by urging traditional donors to adopt China's more efficient approaches to infrastructure projects.

Chapter 2 The World in 2030

Despite intermittent crises, developing economies have been strikingly successful during the past two decades. Their GDP volume has increased, on average, by 4.6 percent per year. That was more than twice as fast as the 2.1 percent annual growth in high-income countries. As prices in developing countries have also increased twice as fast as in the high-income countries, their share in the global GDP value has risen from 16.7 percent in 1990 to 31.3 percent in 2010. This strong performance was achieved after broad-based domestic reforms in many countries and rapid integration in global markets, which pushed up potential growth from 3 percent during the early 1990s to 6.5 percent currently. Similar to their share in world GDP, developing countries' share in world trade has also roughly doubled, from 14.6 percent in 1990 to 30.3 percent in 2010. Export volumes increased 8.8 percent per year during the last two decades, compared with merely 2 percent annually during the previous 20 years. That acceleration in exports coincided with a similar acceleration in import volumes, from 3.5 percent annual growth during the 1970s and 1980s, to 9.5 percent annual growth during the last two decades.

China's success has been an important part of the strong performance of developing countries, as China's share in global GDP increased from 1.5 percent in 1990 to 9.5 percent in 2010. But also outside China growth was strong. The share of other developing countries in global GDP increased from 15 to 22 percent over the same period. The penetration of developing countries in global markets has reduced the market shares of high-income countries, but has not come at the cost of export growth of those countries, which was on average 5.2 percent per year between 1990 and 2010, exactly the same as during the previous 20 years. While competition increased for high-income exporters, also new opportunities were created by the accelerating imports in developing countries. High-income countries also benefited from the increased supply of affordable imports and from new investment opportunities in the emerging economies. Although the integration and catching up of emerging economies has also caused new tensions, on balance the last two decades have shown many winners and few losers.

The question now arises whether the pace of recent rapid growth can be sustained over the next two decades and the world economy can continue to produce win-win solutions. The uncertainty is obviously large, especially in the short run, as turmoil in financial markets has the potential to seriously disrupt global activity. Long-run trends are easier to predict than short-term fluctuations, but these trends are ambiguous too. High-income countries are currently facing structural problems that restrain competitiveness and even in the case of adequate policy responses it is uncertain when growth will strengthen and unemployment will return to normal levels. Fundamentals in most developing countries remain strong, but there are limits to the current pattern of growth, if only because the share of services will increase over time.

To illustrate the long term uncertainty we explore two scenarios. In the first scenario, technological progress within sectors will continue at the same pace, even though one could argue that technological progress in manufacturing could slow as several emerging economies approach the slowly advancing global technological frontier. Despite the assumption of constant intra-sectoral technological progress, overall growth will slow for two main reasons. First, aging populations (particularly in Russia, China, and high-income countries) will limit labor force growth and push down savings rates, and thus investment. Second, the shift to services will reduce overall growth as productivity growth is much higher in manufacturing than in services. In emerging economies the share of services will rise because richer consumers will demand more services and because the price of basic services will increase relative to manufactures. In the advanced countries the aging population will demand more health and personal services and the relative price of those services will also increase. Furthermore, many of the new products in the global economy (coming from innovations in information and communications technology and bio technology) have a large service component, and require higher levels of education, in turn increasing demand for (education) services.

In the second scenario, we assume further domestic reforms and more rapid innovations in the services sector that lead to higher productivity growth than in the past. The higher productivity is supported by globalization of both production and consumption of services, which boosts innovation, competition, and economies of scale. As a result, volume growth is higher than in the first scenario in both high-income and developing economies, but the relative price increase of services is significantly smaller.

Average annual GDP growth during the next 20 years in developing countries ranges from 4.9 percent in the low-growth scenario to 7 percent in the high-growth scenario. The actual growth during the last 10 years was 5.9 percent, thus exactly in the middle of the two scenarios. So seemingly the two scenarios describe a range around a continuation of the recent trend. However, that is not correct. The past decade includes the global financial crisis which pushed average growth down and trend growth had been accelerating in the developing world. In the two years before the crisis growth in the developing world exceeded 8 percent and also in 2010 growth was 7.3 percent, higher than the average growth in the high-growth scenario. That means that in both forward-looking scenarios growth will come over time down from the recent very strong pace; in the low-growth scenario it falls to 3.5 percent in 2030 and in the high-growth scenario to 6 percent in 2030.

The decline in growth is somewhat steeper in China than on average in the rest of the world, as it will be difficult to maintain China's exceptionally high growth of the last decades (figure 1). Especially after 2025 forces that curb growth will become strong. Nevertheless, China is expected to remain one of the fastest growing economies in the world. Average annual growth is 5.7 percent in the low-growth scenario and 9 percent in the high-growth scenario, respectively 1 and 3 percentage points higher than average growth in the other developing countries. Growth in high-income countries will likely continue to be substantially lower than in developing countries. In both scenarios developing countries are growing more than twice as fast. Average growth in the high-income countries ranges from 1.6 percent in the low-growth scenario to 2.9 percent in the high-growth scenario. And again, growth is likely to decelerate over time, to 1.1 percent or 2.5 percent in 2030 in the respective scenarios.

TABLE 1 Past and future growth trends

Average annual GDP growth (in percentages)

	Low and Middle Income Countries	China	High Income Countries	U.S.
1990–2000	3.3	10.4	2.7	3.4
2000–2010	5.9	10.5	1.6	1.7
2010–2020*	5.6–7.4	7.4–10.1	2.0–3.1	2.3–3.5
2020–2030*	4.2–6.6	4.2–7.8	1.3–2.7	1.5–3.0

Average annual per-capita GDP growth (in percentages)

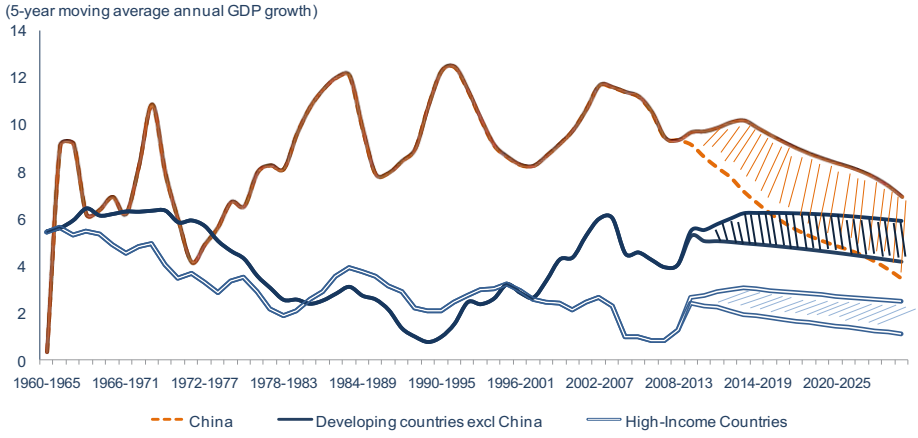
	Low and Middle Income Countries	China	High Income Countries	U.S.
1990–2000	1.6	9.3	2.0	2.3
2000–2010	4.6	9.8	1.0	0.7
2010–2020*	4.4–6.1	6.8–9.5	1.6–2.6	1.5–2.7
2020–2030*	3.4–5.8	3.9–7.6	1.1–2.4	0.9–2.4

*The lower and upper bounds reflect average growth rates in the low-growth and high-growth scenario.

In both scenarios developing countries will have established themselves in 2030 as the dominant force in the global economy. Developing countries will be responsible for two-third of global growth, with only one-third originating in what currently are the high-income countries (figure 2). A quarter of global growth will come from China; slightly more in the high-growth scenario, slightly less in the low-growth scenario. That implies that developing countries

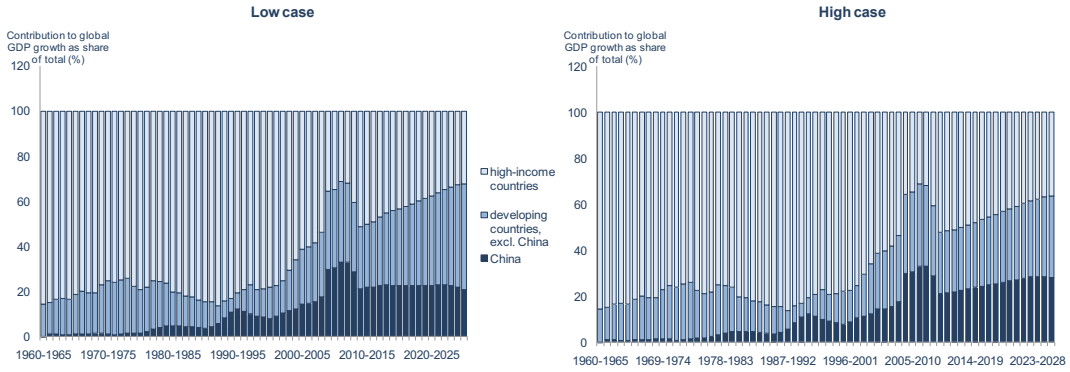
outside of China will have a larger impact on global growth (contributing over 40 percent to global growth) than all high-income countries together (where one third of global growth will originate). That has important consequences for China. Not only competitors to Chinese firms are predominantly in other developing countries, but increasingly markets for Chinese products are there too.

FIGURE 1 Growth trends



Source: World Bank calculations.

FIGURE 2 Growing share of developing countries in global growth (5-year moving average)



Source: World Bank calculations.

Driving forces of future long-term growth of the global economy

The expected deceleration of growth over time and the associated structural changes are suggested by mechanisms incorporated in an elaborate general-equilibrium model. The model contains 14 countries or country groupings and describes shifts over 21 sectors as a result of differentiated technological progress and different income elasticities. The model also distinguishes between skilled and unskilled labor and a segmented labor market, differentiating between rural and urban employment and describing endogenous migration to cities. The allocation of land over rural and urban areas can have significant impacts on relative prices, as does the availability of natural resources. Savings depend on youth and elderly dependency ratios and are positively correlated with growth. Together with capital flows they determine capital accumulation. In each sector international trade is based on the Armington assumption of differentiated products. To analyze global environmental policies a climate change module is incorporated in the model.

The main drivers of growth are technological progress, demographics, capital accumulation (including education, so-called human capital accumulation), changes in the use of land, and domestic migration from low productivity to high-productivity sectors. All these drivers imply higher growth in developing countries than in high-income countries during the next 20 years, but they also suggest that growth will slow over time. As a result, overall growth tends to drop as economies mature. Before describing the drivers in more detail, they can be summarized by the following bullets.

- Technological progress is relatively high in developing countries as these countries catch up to efficiency and skill levels already achieved in high-income countries, but the more they close the gap with the global technological frontier, the more difficult it will be to maintain the same pace of technological progress. Moreover, technological progress is still high at a macro level in developing countries because the share of services is smaller than in high-income countries. However, as a consequence, the future shift towards services tends to lower technological progress.
- Growth of population and of labor supply is higher in developing countries than in high-income countries, but over time those growth rates will decline.
- In many developing countries savings rates are large enough to allow for rapid growth in the stock of capital, making it possible to not only keep the capital stock in line with the rapidly growing output, but also to increase the capital-output ratio more than in high-income countries. However, as the capital intensity rises, further increases will be more and more difficult to achieve.
- Urbanization is an important part of the growth advantage in developing countries. Their capacity to transition labor and land from low-productivity sectors to high-productivity sectors is a significant part of productivity increase at a macro level. Segmented labor and land markets keep the factor prices in low-productivity sectors relatively low and the transition of factors imply a jump in value added. However, as with the other drivers of growth, this process has inherent limitations. The potential gains decline as the share of low productivity sectors drops.

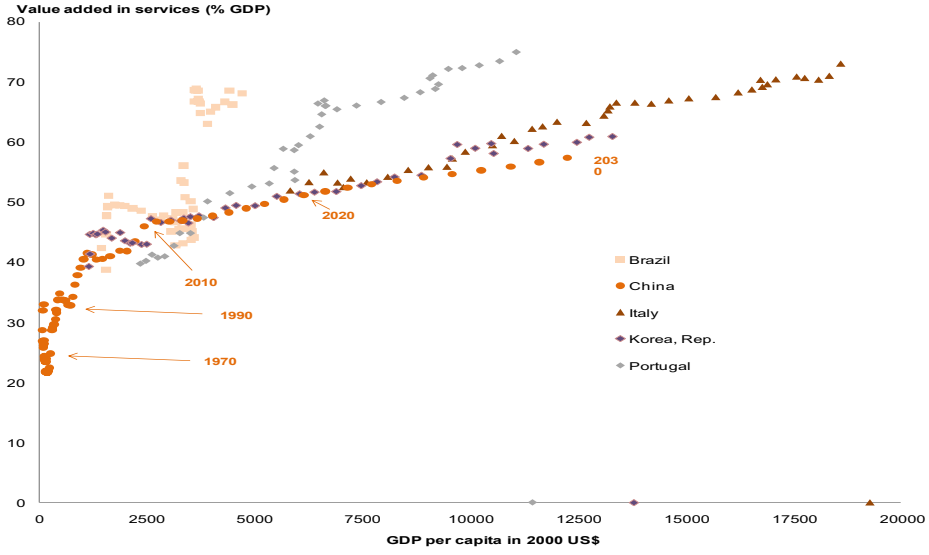
In the low-growth scenario historical trends in technological progress are extrapolated. That means that productivity growth in manufacturing sectors remains higher than in services and agricultural sectors. That is especially true in developing countries, which benefit from catching up in manufacturing sectors to the higher levels of efficiency in more advanced countries. The latter countries continue to experience lower productivity growth as they only gradually push the technological frontier further out.

The fast growth in manufacturing sectors makes developing countries as a whole grow faster than developed economies, but it also carries the seeds for a future deceleration of macroeconomic growth. The reason is that as a result of differentiated productivity growth across sectors the relative price of services will rise. That in turn will increase the size of the services sectors in the developing economies. The result is lower macroeconomic growth, because productivity growth in services is low. Also because of developments on the demand side the share of services is expected to rise. In developing countries this will happen mainly because per-capita incomes grow fast and the income elasticity of the demand for services is high. In high-income countries this will happen mainly because ageing will increase demand for health care and personal services.

The increasing importance of services will have far reaching consequences beyond the lowering of macroeconomic technological progress. Capital, including foreign capital, will increasingly be drawn to the higher prices in services. This capital deepening in sectors with slow technological progress further reduces macroeconomic volume growth. Another consequence of the rise in the prices of domestic services is that it reduces the relative price of internationally traded raw materials, including the relative price of energy. This reduces the energy efficiency of services and makes the need for stringent environmental policies even more urgent.

The high-growth scenario assumes faster growth of technological progress in the services sectors, i.e. additional progress over and above the historical trend. All countries benefit from the accelerating pace of global innovations in services and from the fact that a larger share of services becomes internationally tradable. As a result, macroeconomic growth is faster and slows less over time than in the low-growth scenario. The mitigated deceleration results from the smaller share of services in nominal GDP as the prices of services don't rise as quickly as in the low-growth scenario. Nevertheless, also in the high-growth scenario the share of services will increase in China and other developing countries, very much in line of previous experience in other countries that have now already achieved higher per-capita income levels (figure 3). The additional technological progress in the services sector is the only difference in assumptions between the two scenarios. However, this has endogenously also consequences for other drivers of growth. The higher macro growth results in more capital accumulation and also slightly more internal migration from low- to high-productivity sectors.

FIGURE 3 China's future share in services and historical experiences of other countries (high-growth scenario)



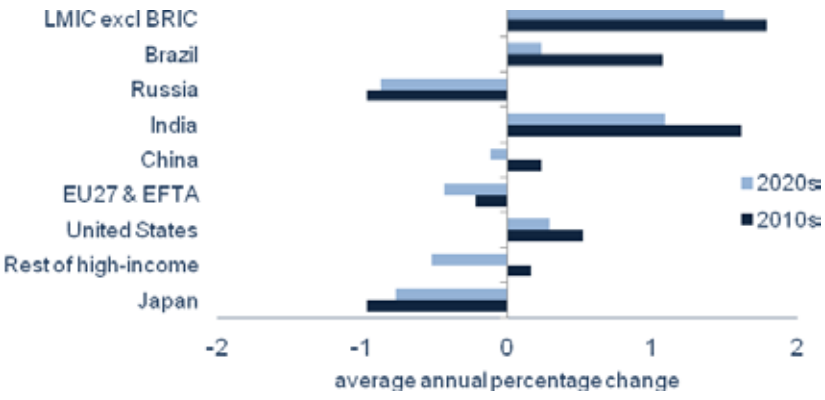
Source: World Bank calculations.

Growth in labor supply is another key driver of economic growth and does not differ between the two scenarios. Like in the case of technological progress, the expected demographics during the coming decades point at faster growth in the developing world than in the high income countries, while over time growth should slow.

In 2030, world population is expected to have grown to 8.3 billion people, i.e. 1.3 billion more than the current 7 billion. All the additional population will be added to the developing world, which will grow from 5.9 billion at present to 7.2 billion in 2030. This is one of the driving forces behind the growing importance of the developing world. At the same time, demographic changes will lead to slower growth worldwide, including in many developing countries. Despite the 20 percent increase in the world population during the next 20 years, or 0.9 percent per year, the pace of increase will be slower than in the previous 20 years, when the average annual rate of growth in world population was 1.3 percent. In parts of the world the change in the labor force is even more dramatic as a result of ageing. In 2030 the labor force in China, Russia, Japan and Europe will be declining at an annual pace of 0.4 percent or more. On the other hand, India and many African countries will still experience high, albeit declining, growth rates of labor supply (figure 4). These developments will obviously change

the comparative advantages among developing countries, with labor-intensive (especially low-skilled intensive) production shifting to Africa and South Asia.

FIGURE 4 Labor supply growth will vary greatly among countries

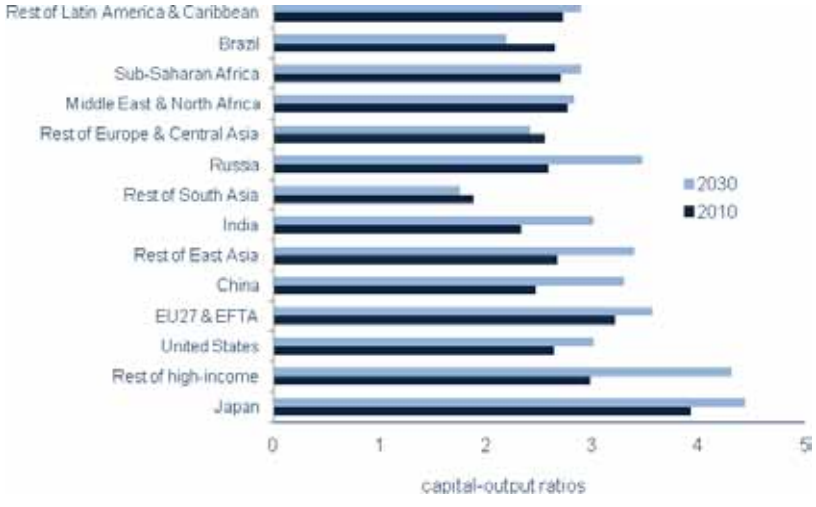


Source: World Bank calculations.

The trends triggered by technological progress and demographics will be reinforced by capital accumulation. In the long run, capital tends to grow at the same rate as overall output. Capital output ratios are changing only gradually, if at all, over time. If output increases, more savings are generated that allow a corresponding increase in the capital stock. This explains the rapid capital accumulation in developing countries. The result of this process is that capital output ratios are surprisingly similar across countries, even if capital labor ratios vastly differ.

On top of this mechanism, several emerging economies, with China as a prime example, are experiencing capital deepening (rising capital output ratios) (figure 5). That allows labor productivity to rise even faster. That capital deepening is expected to continue, albeit at a slower pace, in China and India as ample savings will allow more capital accumulation than is needed to keep pace with output growth. By contrast, capital output ratios in the relatively young emerging markets in Latin America and Sub-Saharan Africa will fall, while advanced countries will experience only small changes in capital output ratios.

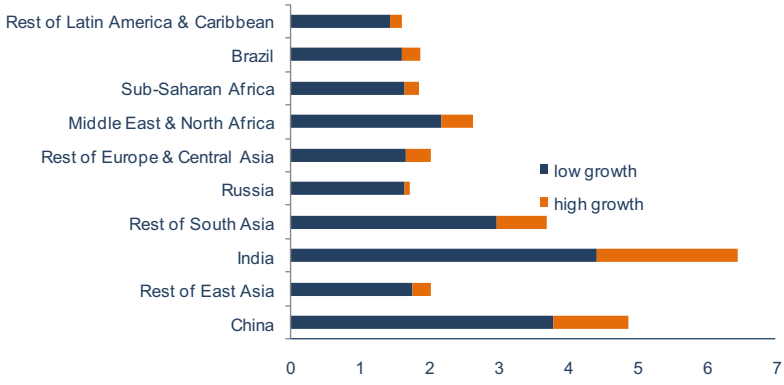
FIGURE 5 Capital-output ratios will further rise, especially in emerging economies



Source: World Bank calculations, derived from low-growth scenario.

Another driver of growth is the availability of land, which can become a constraint for agriculture and urban development. The rapid transformation of rural to urban land in developing countries contributes to the higher growth rates than in high-income countries, but over time the scarcity of land make this transformation more difficult, which curbs macroeconomic growth. Densely populated countries with high economic growth should experience the highest increases in land and real estate prices. And indeed, the scenarios generate the sharpest increases in land prices in India and China, with relatively modest increases in Latin America, Africa, and emerging Europe (figure 6).

FIGURE 6 Land prices in China and India will rise sharply
Index of land prices in 2030 (2005 = 1)



Source: World Bank calculations.

Finally, internal migration from rural to urban areas is an important driver of growth in developing countries as it allows workers to move to more productive jobs where wages are higher. Like many other drivers of growth, this one explains why developing countries outperform high-income countries, but also why growth is expected to slow over time. The existence of segmented labor markets with low-wage jobs in rural areas provides developing countries a large growth potential. However, that potential will diminish over time as the rural population shrinks. In the low-growth scenario China's internal migration in 2030 will be 9 percent lower than in 2010. Also other developing countries are expected to experience substantial declines. Only in Sub-Saharan Africa the migration potential remains large and internal migration is actually expected to increase by 50 percent over the next 20 years. Developments in the high-growth scenario are even more pronounced. Because of the higher productivity growth in cities, migration flows are larger than in the low-growth scenario during the early years. However, as a result, the deceleration will be faster too as the remaining pool of rural workers declines faster. The migration flows in that scenario are expected to decline by 12 percent in China, while in Africa the increase, from the higher levels achieved early on, is only 5 percent.

Changing trade patterns

Emerging markets will likely become the main destinations for world trade, and within the developing world the sectoral pattern of trade is expected to shift radically. Rapidly-growing middle-income countries, including China, will experience a declining comparative advantage in low-skilled labor-intensive products vis-à-vis other developing countries. As these countries move up the value chain, new opportunities arise for lower-income countries, which will become increasingly competitive in labor-intensive production.

Middle-income countries will continue to dominate trade in manufactured products, even if in their domestic economies the share of services in total value added is sharply increasing.

Exports of high-income countries would, in both the low-growth and the high-growth scenarios, shift more to services. As middle-income countries move up the value chain in manufacturing and low-income countries export more (low-skilled) labor-intensive manufactured products, the comparative advantage of high-income countries will shift even more to internationally tradable, cutting edge services.

Trade patterns will also change once additional environmental policies are put in place, which is not assumed in the baseline scenarios. The mounting environmental pressures are clearly illustrated by the anticipated increase in greenhouse gas emissions. Without policy changes to reduce energy intensity, already in the low-growth scenario emissions of the four main gasses that the model tracks are expected to more than double in China and India between now and 2030. This contrasts with the high-income countries, where emissions will hardly further increase from the already high levels. In case of a global agreement to reduce emissions (see Chapter 4 for more discussion on these policies), overall trade will become less energy-intensive and trade in energy-saving technologies will increase. If developing countries do not pursue mitigating policies, then they would be pushed towards an artificial comparative advantage of energy-intensive production, and their exports would become more energy intensive.

Despite the increased competition from low-income countries, and the slowing global economy, there will still emerge plenty of opportunities for China to penetrate further in existing markets and explore new markets. With the high growth in other emerging economies, new fast-growing markets will open up. With higher schooling levels and further accumulation of capital, Chinese firms can move to higher value-added segments of global markets. Globalization of Chinese firms will also create new opportunities, as these firms expand their investments abroad, and acquire new technologies. And even environment policies might create new growth opportunities in global markets. Bold, new environmental policies (that will price externalities in a consistent and predictable way) are likely to create win-win solutions as they address domestic bottlenecks, make developing countries competitive in new global growth markets, and contribute to the solution of global environmental problems, like climate change.

With all the changes in the global economy that are anticipated it is clear that many of the opportunities and the solution for many of the challenges can be found in global markets. Middle-income countries can only move up the value chain and create enough productivity growth, if their service sectors can benefit from increased global competition. High-income countries can benefit from the new global opportunities in services if they maintain an outward orientation and keep their markets open for emerging competitors that challenge their own advanced companies. Low income countries can only step into labor-intensive manufacturing sectors that middle-income countries are exiting if they participate in global markets. In agricultural markets, the costs of food policies that are based on self-reliance will increase, as production costs will further differentiate between areas with high and low population density. Reliable international trade flows will be an essential ingredient of food security. And finally, cross-border environmental problems will require global solutions. Countries, developing and high-income alike, that maintain an outward orientation will be among the successful ones during the coming decades, while an inward-looking policy will increasingly prove self-defeating. In short, many win-win solutions are possible, but only in case protectionist attitudes that aim to defend old positions and vested interests are avoided.

The transformation of China

China has become a dominant global economy. In 2010, China outstripped Japan to become the world's second largest economy (while remaining less than 40 percent of the US economy), as measured in nominal GDP. Still, even this remarkable achievement does not fully reveal how important China has become in terms of changes in the global economy. Over the last five years, China has added $3.7 trillion to global nominal GDP, which was almost a quarter of global growth and almost twice as large as the $2 trillion added to global output by the United

States. A similar picture emerges even if we exclude the role of real appreciation of the RMB. This pattern continued in 2010, when China was by far the largest contributor to global GDP growth; its economy added $638 billion to growth in global nominal GDP, versus $497 billion added by the U.S. economy.

China is yet more important if we look at the parts of the economy that are internationally tradable. In 2010, the value of investment in China already exceeded the U.S. investment value by 50 percent, and over the last five years China contributed half of the growth in global investments. China also holds a dominant position in other internationally tradable products. For example, in many metals markets China is responsible for half of global demand.

For example, the low-case scenario envisions a slowing of GDP growth in China and sharp changes in the composition of output over the next two decades. The labor force in the modern sector will fall as the population grows older and with reduced migration from rural to urban areas. The net rural-urban migration during the 1990s was 125.5 million in China (Chan and Hu, 2003), which would indicate an annual outflow of about 4%. However that migration rate likely has slowed significantly in more recent years and is assumed to be around 1 percent (of a slowly declining rural population) in the coming years.

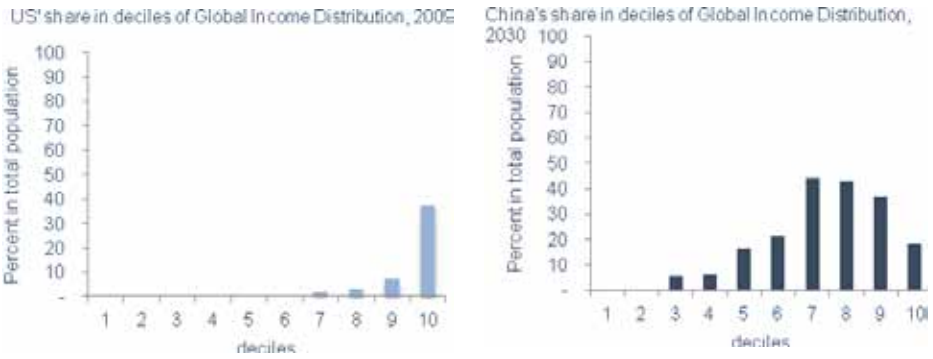
The decline in the labor force will mean that China will continue to lose its comparative advantage in labor-intensive production. Only ten years ago, roughly two out of ten additional jobs in the world were created in China. Over the next five years, China's labor supply will be declining and, if participation rates do not change, employment will decline in 2030 at a rate of 3 million jobs a year. That decline will be much larger if the current moderation of the still very high participation rate continues.

Savings rates will fall 10 percentage points, with a larger drop in investment rates. The share of services will rise from 38 percent in 2010 to 67 percent by 2030, resulting in lower average productivity growth.[1] Despite the decline in investment rates, the high initial level of investment (45 percent of GDP) will mean that the capital stock will continue to grow, by over 7 percent from 2010–2030, or 1.5 percentage points more rapidly than output. Capital deepening will place downward pressure on the return to capital, which will shift China towards a comparative advantage in capital-intensive sectors and create opportunities for substantial investments in new markets. It also will open up the opportunity for more productive investments abroad, a trend that might well become one of the most distinctive developments during the coming decades.

Finally, it is important to realize that China will continue to struggle with significant levels of poverty. Even measured in purchasing power parity (PPP) terms, China's per capita income is only one tenth of that in the richest countries in the world. There are more than 80 countries with higher per-capita incomes, while the income distribution in China is more unequal than in many of the rich countries. Despite the sharp rise in average incomes anticipated over the next 20 years, which will make China a high-income country, a large part of the country's population will still be relatively poor. It will likely take significantly more than 20 years for the whole population to reach high-income status. Unlike the current high-income countries, in which virtually all inhabitants are part of the highest deciles in the global income distribution, China will still have, in 2030, key characteristics of a developing country, with a population much closer to a crosscut of the world population (figure 7).

[1] The actual share of services was 43% in 2010. Because the model adopted 2004 as the baseline year, and does not include some of the more recent data revisions, there are differences between simulation results of past data and actual data.

FIGURE 7 China's population will have more low-income people in 2030 than the US does now



Source: World Bank calculations, based on the low-growth scenario.

In the next chapter, we consider policies that would facilitate the shift to services, more capital intensive production, and continued rapid productivity growth, focusing on outward looking policies in trade, cross-border investment, and the internationalization of the RMB.

Chapter 3 China's Integration in Global Markets

China's economic miracle is built on the adoption of market-oriented policies and openness to the world economy. The progressive reduction in trade barriers and dismantling of many restrictions on FDI have generated great benefits in the form of access to foreign technology, increasing competition in the domestic economy, and the growth of a mammoth industrial sector built on exports. Despite this remarkable progress, pressures can be seen for a change in direction: either a slowing of efforts towards global integration or a measured withdrawal from international economic interactions. The arguments for a retreat from integration are not trivial. China's dependence on exports has increased its vulnerability to foreign protectionist measures, and the threat of such steps is apparent in the political climate, for example, in the United States. The huge export surplus is reflected in an apparently never-ending accumulation of low-interest and potentially risky foreign assets. The United States-generated financial crisis posed a severe threat to stability. While massive stimulus policies maintained growth, they also engendered a risky increase in bank lending and local government debt that may yet have to be addressed. Looking at the risks of international economic relations over the past few years, it is not difficult to understand calls for a retreat from global integration.

We argue, however, that this view is shortsighted. China has the opportunity by the end of the next two decades to join the ranks of high-income countries, to substantially eliminate absolute poverty, and to become the world's largest economic power. The country cannot achieve these goals by looking inward. Instead, China needs to embrace further steps toward global integration to improve the competitiveness of its economy and sustain increases in living standards. Using its capital surplus to invest in foreign markets, increasing exports of more sophisticated goods, encouraging domestic competition in services sectors, and deepening the financial sector through the participation of foreign financial institutions will enable China to avoid the "middle-income trap" and continue its development.

It is important to emphasize that these reforms are essential to achieve broad-based development, regardless of the particular specialization of production that China may adopt over the next two decades. For example, an efficient financial system and world-class business services generate broad economic benefits, but they are in particular necessary to support the production and trade of sophisticated manufactured products. Thus emphasizing services does not mean the neglect of manufactures production, but rather a choice for technological progress and continued upgrading in all sectors through integration in the global economy.

This is a vision of how China should look in 2030. The transition to a more globally integrated economy and, in particular, the opening to capital flows transactions needs to be accomplished at a pace consistent with the strengthening of Chinese institutions required to ensure stability. We do not recommend that the government dismantle all of its controls on economic activity in the interest of promoting efficiency. Instead, we would set a goal over the next two decades of transitioning to an open financial system, a flexible exchange rate, limited controls over FDI transactions, and a services sector that can compete with the world's best. There are risks in this transition, but these policies promise to support a prosperous society for the next generation.

Trade[2]

Those arguing for a retreat from global integration point to the threat of protectionism against China's exports. And it is true that as China's exports further penetrate foreign markets, increasing market shares in China's traditional products and competing in higher value added segments, protectionism against imports from China may increase. Already China faces higher than average protectionist barriers. But the policy response that is consistent with long-term development is to seek to strengthen the world's open trading system built on multilateralism.

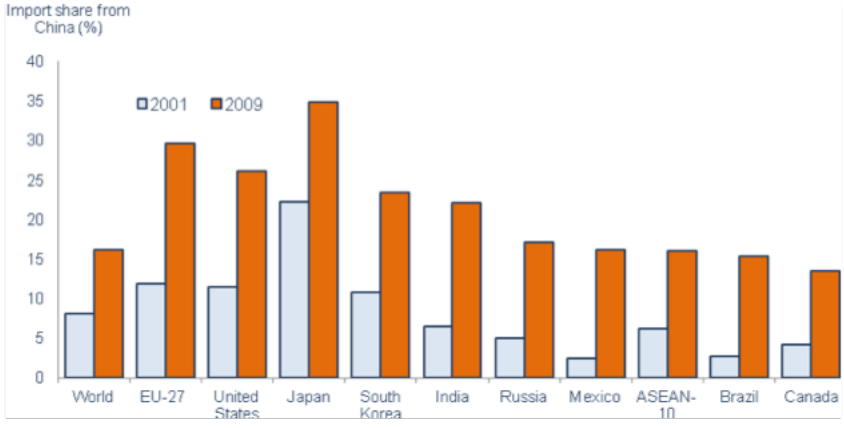
[2] Most of this section is based on Mattoo and Subramanian (forthcoming).

At the same time, China should advance its own agenda in future negotiations, which could include reducing barriers to trade in services, seeking regional partners to achieve deeper integration, strengthening WTO disciplines to require "open regionalism", and limiting the use of export restrictions at times of rising food prices.

Rapid export growth has dramatically increased China's share of global manufactures

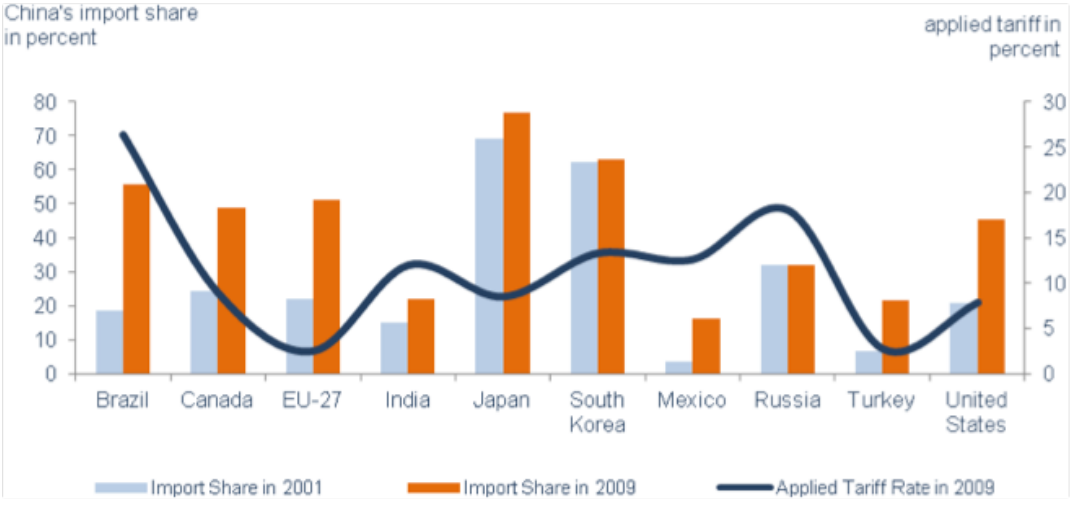
China's exports have risen by 17 percent per year (in dollar terms) over the past two decades, transforming the country into the world's largest exporter of goods and dramatically increasing the country's presence in global markets, particularly of manufactures. China's share of world manufactures trade doubled during the last decade, and China is now among the largest sources of manufactured exports in the major markets, accounting for 35 percent of manufacturing imports in Japan, 30 percent in the European Union and slightly over 25 percent in the United States (figure 8). China's exports are particularly significant in markets with the highest tariff levels (figure 9), indicating that China is exporting to markets that are politically sensitive and likely to be the source of trade frictions.

FIGURE 8 China's share in industrial imports of 10 largest importers has increased



Source: UN COMTRADE database.

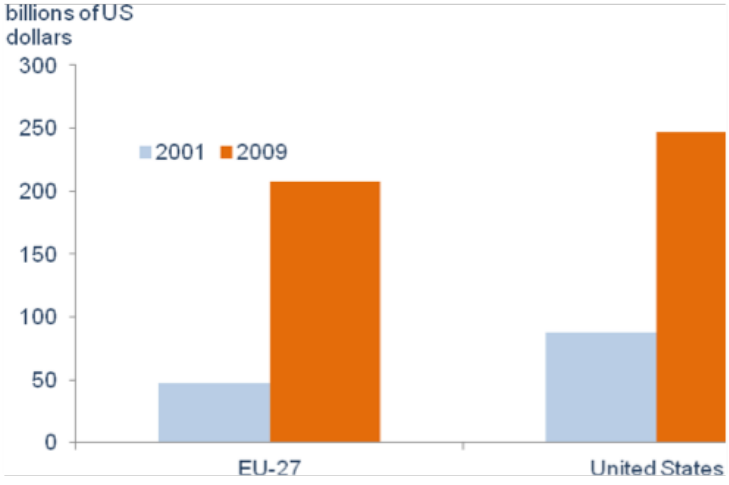
FIGURE 9 China's share in imports of 10 most protected sectors in 10 largest importers has increased



Note: Sectors defined at the Harmonized Schedule (HS) 2-digit level of aggregation in 2009.
Source: UN COMTRADE database (trade data) and UNCTAD TRAINS database (tariff data).

China has seen a substantial widening of its trade surplus in industrial goods with all of its major trading partners, with the exception of South Korea and Japan. For example, China's manufacturing trade surplus with both the United States and the European Union has increased over three times to $200 billion and $250 billion, respectively (figure 10a). China's trade surplus on manufactures with other large emerging-market countries has also increased sharply (figure 10b).

FIGURE 10A China has a large trade surplus in industrial goods with the United States and European Union



Source: UN COMTRADE database.

FIGURE 10B China has a large trade surplus in industrial goods with major trading partners

Source: UN COMTRADE database.

These bilateral surpluses are sometimes seen as signs of imbalances and can trigger protectionist responses. However, bilateral trade balances with individual countries provide no information on overall balance of payments pressures, and provide at best an incomplete picture of bilateral trade patterns. China is a major exporter of manufactures and importer of natural resources, so that surpluses in manufactures trade may be (partly) balanced by deficits in natural resources trade. The pattern of trade with China also differs in part based on geographical proximity and economic capabilities. Close by and relatively industrialized East

Asia is becoming part of a manufacturing network with China, where these countries export manufactured products to China, some of them inputs to goods that are assembled in China and then shipped to advanced countries. While the share of manufactures in developing East Asia's exports to China has remained at about a third since 1990, the share of parts and components has risen from about 10 percent in 1990 to almost half in 2010 (table 2). Over the same period the share of manufactures in the exports to China of distant and less industrialized Sub-Saharan Africa fell slightly, while the share of raw materials rose from two-thirds to almost 90 percent.

It is likely that China's trade surplus in manufactures will decline over time. Domestic production should shift towards services to meet the growing demand from consumers with rising incomes. This shift will require increased manufactured imports and will draw resources away from industrial production.

TABLE 2 China's trade with developing East Asia differs from that of Sub-Saharan Africa
(share of exports to China, percent)

	1990	2010
Developing East Asia		
Final manufactures	33	33
Parts & components	10	47
Raw materials	35	16
Sub-Saharan Africa		
Final manufactures	7	5
Parts & components	8	0
Raw materials	67	88

Note: Export categories exclude some products.
Source: UN Comtrade database.

China's exports have met increased protectionist barriers

China was the target of 15 percent of the antidumping actions initiated by the 10 economies that accounted for 79 percent of new antidumping investigations during 1995–2001, while China accounted for only 4 percent of these countries' imports (Bown 2007). Discriminatory practices increased after China's WTO accession, as the share of developing-country antidumping actions against China (as a share of their total actions) increased from 19 percent in 2002 to 34 percent in 2009. The corresponding figures for industrial countries were 11 and 27 percent, respectively.[3]

The current threat from protectionism should not be overstated, as the share of China's exports subject to quantitative restrictions or WTO processes does not appear to be large. In 2009, for example, 2.6 percent of China's exports to developing countries and 1.6 percent of its exports to developed countries were subject to antidumping (Bown 2010). Recourse to this instrument will become more difficult when China attains market economy status in 2016. Moreover, the product-specific transitional safeguards that were negotiated at the time of China's WTO accession are due to expire in 2013. But tensions over trade and disputes concerning exchange rate parities indicate the potential for increased protectionism in the future.

[3] Anti-dumping is hardly the only mechanism used to discriminate against China's exports. Others include the Transitional Product-Specific Safeguard Mechanism (a unique feature of China's WTO accession that allowed importers to invoke safeguards against China through 2014, with less evidentiary requirements than under the normal safeguards regime), the traditional safeguards regime, voluntary export restraints (particularly as a result of US and EU investigations of China textile and apparel exports, and despite the banning of voluntary export restraints under the WTO Agreement on Safeguards), and countervailing measures under anti-subsidy policies (Bown, 2007).

Protectionism may rise as China's exports continue to expand and move into new markets

China's exports are expected to rise by 6 percent per year from 2010–2030, a more moderate rate than in the past two decades but still representing some increase in penetration in the country's traditional export markets. In addition, continued rapid growth in incomes will drive rising wage levels and exchange rate appreciation, somewhat reducing China's competitive advantage in labor-intensive goods compared to lower-wage economies. Thus, as outlined in the global scenarios described in chapter 2, Chinese firms will need to move into the production and export of more capital- and knowledge-intensive goods and services. The need to absorb the technology, business management practices, and market knowledge required for this transition is an important reason why continued openness is essential to China's development.

China is so large, and the pace of its growth so rapid, that expanding into new markets is likely to elicit protectionist responses, from both the high-income countries that traditionally have dominated these markets and from other rapidly-growing emerging economies who wish to promote domestic production. All of these countries have a great deal invested in an open international trade regime. Nevertheless, China should be prepared for actions that are designed to limit competition, whether compliant with WTO rules or not. A useful historical parallel is the pressure that Japan faced during the 1980s to limit exports to the United States (box 1). This experience underlines the importance of supporting outward foreign investment as a means of exploiting market opportunities in the face of protectionism, apart from the obvious advantages for Chinese firms if they internationalize.

BOX 1 The Japanese experience with voluntary export restraints

Episodes of agreements between the United States and Japan to restrain the latter's exports occurred in textiles in the late 1930s and 1950s, in automobiles in the early 1980s, and in steel in the mid-1980s. While 'voluntary' export restraints were far from trivial (according to one study covering 32 percent of Japanese exports to the United States in 1984),[4] their economic impact on Japanese firms (although perhaps not on Japanese employment) was limited. The automobile export restraint was defined in terms of the number of cars, so that firms sold higher-value (and more profitable) cars to the United States than before the export restraints. Firms also could circumvent the export restraints by opening plants in the United States. Japanese FDI into the US auto sector increased from $200 million in 1980 (before the export restraints) to $850.8 million in 1986, and by the early nineties, Japanese brands accounted for some 30 percent of the US auto market, up from 21 percent in 1981. Japanese firms also exported from third countries not covered by the export restraint. Similarly, when the United States and major steel exporters (Japan and Europe) agreed on voluntary export restraints, steel was exported from the restrained countries to the non-restrained countries, and then underwent some further fabrication and was later on exported to the U.S market.[a]

a. Carbaugh, R. and Wassink, D. 1991. Steel Voluntary Restraint Agreements and Steel-Using Industries. Journal of World Trade, vol. 25 Issue 4.

China should meet the protectionist threat by seeking deeper integration with regional partners, supporting multilateral trade negotiations and open regionalism

China's response to the threat of rising protectionism should be anchored on support for an open trading system based on multilateral agreements. It is important to remember that China

[4] This is the share of existing products covered by export restraints. The share of potential exports (if the restraints did not exist) would be higher.

remains an extremely open economy, particularly given its large size (for example, in 2009 China's total trade in goods and services equaled 49 percent of GDP, compared to 25 percent in the United States). Thus continuing to pursue international agreements to preserve and further open markets should be a cornerstone of China's trade policies going forward.

China faces relatively high tariff rates in many of its export markets. Therefore, in further multilateral negotiations the government should push for proportionally larger reductions in relatively higher tariff levels, rather than across the board tariff reductions.

Preferential agreements may ultimately present a greater challenge to China's market access than MFN tariff levels. The number of preferential agreements has increased from about 70 in 1990 to almost 300 today. About half of the exports of the 30 largest exporting countries, including China, go to partners with whom the country has some sort of preferential agreement. This overstates the impact of agreements on trade flows, as only 16 percent of trade actually takes place on preferential terms (WTO, 2011).[5] Nevertheless, preferential agreements are of particularly concern for China, for two reasons.

First, China gains only limited benefits in the form of increased access through preferential agreements. Only about 6 percent of its exports enjoy preferential access—which is significantly below the world average, and low compared to other large traders, such as the European Union (13 percent), United States (22 percent), India (26 percent) and Brazil (15 percent). Moreover, China's non-preferential exports are somewhat disadvantaged compared to other major exporters. For most countries/blocs, including the European Union, United States, India and Brazil, only about 4 percent of non-preferential exports face MFN tariffs greater than 10 percent, but for China the proportion is twice as high.

Second, in the future preferential agreements in services may have a more exclusionary impact. Today, preferential agreements in services tend to cover more sectors and include greater legal commitments to openness than under the General Agreement on Trade in Services (Marchetti and Roy 2009). However, these commitments tend to be weaker than existing policies, and thus have had little role in opening markets.[6] Even in the rare cases where preferential agreements have induced liberalization, for example in Costa Rica's elimination of its telecommunications monopoly, the new policies are at least in principle applied on a non-discriminatory basis. Thus the cost of exclusion today from a preferential agreement in services is not worse access but less secure access, because these agreements involve not more liberalization but wider and deeper bindings.

In the future, however, any deepening of preferential agreements in services could create significant discrimination against outsiders because MFN levels of protection are significant and there is considerable scope for the preferential recognition of standards, licensing and qualification requirements. Strong exclusionary effects could also arise from "deeper integration" along other dimensions: preferential agreements increasingly have provisions on investment protection, intellectual property rights, government procurement, competition policy, and technical barriers to trade. A discriminatory tariff may matter less than the selective recognition of product safety standards or selective access to government procurement markets.

The government should pursue a two-track strategy to confront the potentially adverse impact of regional trade agreements. On one hand, on the basis of abiding by and protecting multilateral agreements, China should make efforts to push for the further opening of markets through multilateral organizations as a prime policy objective, and proactively push ahead with

[5] Over one half of trade is already subject to zero MFN rates where there is no room for preferences; and many products with high tariffs (e.g. in agriculture) are excluded from preferential agreements, so that trade still occurs at MFN rates.

[6] For example, India has committed to allowing maximum foreign ownership of 25 percent in basic telecommunications under the GATS and 49 percent in some of its preferential agreements, but in practice it already allows 74 percent.

the negotiations on its accession to the WTO government procurement agreement as part of its effort to improve procurement procedures, enhance transparency, reduce costs and enhance quality in government purchases. On the other hand, China should proactively participate in regional trade arrangements and, where possible, greatly advocate "open regionalism", which requires that tariff levels agreed among regional partners be offered to other non-member countries on an MFN basis.

Further liberalization of services and joining the government procurement agreement could boost export opportunities

In the context of joining the WTO, China committed to one of the most rapid programs of services market-opening ever seen. Over 2001–2008, many restrictions on banking, telecommunications, transport, retail and a range of business services were phased out. Nevertheless, China's services sector policies remain more restrictive than in many developing countries and much more so than in the high income countries, in all sectors except transport.[7] Easing remaining restrictions could provide the reciprocity required to open foreign markets, as well as improve efficiency in the Chinese economy (see box 2).

International commitments could encourage both increased market access and improved domestic efficiency in government procurement, which represents well over 20 percent of China's economy. A recent study by the European Union Chamber of Commerce of foreign-invested enterprises (FIEs) competing in China's public procurement markets found that the regulatory framework governing this enormous and increasing amount of economic activity is fragmented, inconsistent and unevenly implemented. The WTO's Trade Policy Review on China also finds that "China continues to face challenges in implementing a consistent and transparent approach to procurement across all levels of government."[8]

China has applied for accession to the WTO's government procurement agreement. Establishing the transparent and reliable procurement procedures necessary to gain access could enormously increase the efficiency of government operations.[9] Joining the agreement would also open potentially huge markets for Chinese firms. The total size of government procurement markets of the current and possible future accession candidates to the Agreement is between $2.3 and $3 trillion annually, while the portion of these government procurement markets that is likely to be covered by the GPA is in the range of $380 to $970 billion annually (Anderson et al, 2011).

Improving commodity security

Multilateral negotiations may also be a useful forum for improving China's assured access to food imports. China is increasingly dependent on imported food. Already, China accounts for 54 percent of world imports of soya beans, and 98 percent of its imports come from just three countries—United States, Brazil and Argentina. Considerable potential remains for increasing global food production (World Bank 2009), and prolonged food shortages are likely to be localized rather than affecting the global economy as a whole. However, short-term supply

[7] Restrictions of foreign firms in banking are to ensure that they are not used to evade capital controls, insurance remains closed in many respects, majority foreign ownership is prohibited in some sectors (e.g. telecommunications, air transport), and provision of domestic legal services is restricted.

[8] WTO Trade Policy Review, China. Chapter 3, page 41, paragraph 70. WTO Document WT/TPR/S/230, World Trade Organization, 4 June 2010.

[9] To join the procurement agreement, countries must (for the transactions covered) eliminate discrimination against foreign suppliers, enhance ex-ante transparency (advertising for bids for all procurements above a given threshold) and ex-post transparency (explain why suppliers were chosen), and establish procedures to review complaints.

disruptions and demand-driven price spikes are still possible, due to rising demand from increased incomes in developing counties, volatile fuel prices, and climate-change induced pressure on agricultural supplies. Multilateral disciplines could be useful in limiting export restrictions that tend to exacerbate price hikes. In the recent crisis, 18 developing countries imposed some form of export restrictions (World Bank 2008). Each country is trying to keep domestic supplies high on the grounds of food security. But, as more countries implement export controls, global supply contracts, pushing prices up further and impairing global food security.

There are few restrictions on the use of export taxes in the WTO and the disciplines on export restrictions are incomplete. Article XI of the General Agreement on Tariffs and Trade (GATT) does prohibit quantitative restrictions on exports, but its paragraph 2(a) permits temporary restrictions in order to prevent critical shortages of food or other goods.[10] To ensure continued access to critical foodstuffs, the government should consider pressing for a more multilateral approach to dealing with temporary shortages. This could involve requiring countries to justify export restrictions in terms of relieving critical domestic shortages, and provision for consultations between importing and exporting countries at times of scarcity. While governments are unlikely to forego trade restrictions in the face of sharp increases in prices that endanger the welfare of its population, assuring that such measures are only undertaken when essential would provide greater assurance to importers that they can rely on the world trading system, rather than bilateral deals, to supply food at times of scarcity.

Similar considerations apply to China's participation in global trade in raw materials. Ensuring a reliable supply of raw materials will be an important element of China's trade strategy over the next two decades. China is a significant producer of several metals that are critical to production, and also has large reserves of oil. Nevertheless, the high commodity-intensity of production and rapid growth of China's huge economy has made the country a significant presence in global trade in these commodities. China accounts for a quarter or more of world imports of most of the main metals and is a major energy consumer (Coxhead and Jayasuriya 2010). For example, in 2009 China produced half the world's supply of coking coal but still accounted for 17 percent of global imports. China also produced 15 percent of global iron ore but consumed more than half of global production and accounted for more than two-thirds of total imports (Christie and others 2011).

Current efforts to secure the supply of commodities include restrictions on export of selected minerals (e.g. coke, antimony, bauxite, magnesium carbonate, molybdenum, silicon carbide, tin and tungsten), limits on foreign exploration and mining (Organization for Economic Cooperation and Development 2011), investment in commodity producing activities abroad, long-term contracts with suppliers, and loans to energy-producing nations where minerals are used as collateral for eventual repayment. The combination of the dramatic increase in China's demand for raw materials and efforts to secure foreign sources of supply has raised foreign alarms about the country's efforts to monopolize access to minerals (for example, see Brightbill and others 2008) and calls for restrictions on Chinese minerals investments in some producing nations.[11] These views are gaining some public hearing, despite the fact that Chinese firms' investments in raw material production differ little from efforts at vertical integration by Western multinationals and China's share of global mining mergers and acquisitions (M&A) remains small.[12]

[10] This exception appears to have been interpreted relatively broadly in justifying the application or threat of export barriers, in cases such as the US proposal for an export ban on soybeans in 1973. Article 12 of the WTO Agreement on Agriculture requires that developed members and net-exporting developing-country members introducing export restrictions under this provision take into account the implications for importing members' food security, and notify the Committee on Agriculture, preferably in advance. However, this has rarely been done; it appears that the most recent notification is from Hungary in 1997 (Gamberoni and Newfarmer, 2008).

[11] See, for example, http://schumer.senate.gov/Newsroom/record.cfm?id=331896&&year=2011&

[12] In 2010, only 6 percent of buyers in global mining M&A deals were Chinese, and few Chinese buyers have secured controlling stakes in global mining corporations (Price Waterhouse Coopers 2011).

Continued efforts by Chinese firms to gain reliable access to raw materials seem rational from China's perspective and to the extent that these efforts lead to increased global supply they can also benefit other countries. However, a segmentation of the global market for commodities should be avoided. If major consuming nations have fixed, long-term contracts that tie up a large share of global production, shocks to the system (for example, increased demand due to changes in technology or supply interruptions due to political instability or natural disasters) could only be accommodated by changes in the share of global production that is not subject to such contracts. This would prevent the right price signals in the controlled parts of the markets and would introduce tremendous volatility in the free part of the market. The resulting substantial differences in prices with the more controlled parts of the market would ultimately be arbitraged and could trigger smuggling or the breaking of contracts, thus imposing increased volatility on the market in general. Such a system is not in China's long-term interest and the government should help ensure that globally investment and consumption decisions remain responsive to the right pricing signals. Thus while attempts to secure access make sense from an individual country perspective, the world as a whole (and given its huge presence in the market, China in particular) will benefit from maintaining an open trading system for raw materials.

Foreign Direct Investment

China has adopted FDI-friendly policies since 1980, beginning with permitting FDI in Special Economic Zones but steadily broadening to the rest of the nation. As a result, China is now host of almost 700 thousand foreign invested companies (FIC) with accumulated foreign investment of $1.05 trillion. FICs account for 22% of tax revenue, 28% of industrial value-added, 55% of exports, 69% of the trade surplus and 50% of technology imports. FDI has enabled China to integrate gradually into global manufacture networks, as well as contributed to exports, employment, technology and institutional reform.

As China is becoming richer, its attractiveness to foreign investors is changing, transnational corporations (TNC) no longer invest in China merely because of low labor costs, but increasingly because of a rapidly expanding domestic market, supporting industries, excellent infrastructure, and human resources (about 7 million university graduates every year) According to a survey by DRC after the global financial crises, China's attractiveness to TNCs goes well beyond low costs. The top 5 (of 17) reasons for investing in China were given as the domestic market, infrastructure, labor cost, access of FDI and industrial clusters, in which the large market was the most important.

Following this change in the strategy of the TNC, China needs to take several steps to capitalize on the potential advantages. First, the Industrial Guidelines for FDI should be adjusted to encourage investments in emerging industries and R&D. Second, policy should be shifted from preferential incentives to improving the investment climate: ensuring a level playing field between domestic and foreign investors, improving the quality and efficiency of public services, improving human resources, and strengthening the service sectors. Third, to make full use of FDI's spillover effects of R&D. FDI's R&D should be integrated into the domestic innovation system. The government should encourage greater cooperation and exchange between foreign companies and domestic institutes and companies in human resources, information and R&D projects. Finally, the government needs to enhance international competitiveness of service sectors by means of further liberalization of FDI in services.

Even more important than these changes towards inward FDI, China can benefit from promoting outward FDI; and investments abroad will play an important role in the transition to a high-income economy. At first glance it can be difficult to understand why it is important for a poor country like China to encourage its firms to invest overseas, and it is easy for those arguing for a more inward-looking development strategy to ignore the implications for outward FDI. Indeed, openness to FDI inflows and domestic policy reforms to ensure that

technology spillovers from foreign firms can disseminate quickly to domestic firms remain an important element of China's development strategy. However, Chinese multinationals also can play an important role in the country's development, by transferring technology obtained in foreign markets and by integrating business practices and organizational approaches observed in foreign countries into domestic operations. The government should strive to strengthen legal protections for Chinese overseas investments, either through bilateral investment treaties or a multilateral agreement on investment. Achieving stronger protection for Chinese investors would require granting reciprocal concessions to foreign investors in China, implying a dismantling of most restrictions on FDI inflows and continued improvements in the autonomy of state enterprises. These policies also are in the long-term interest of China's development.

FDI outflows are increasing

FDI outflows have risen rapidly since the inauguration of the "Going Global" policies in the late 1990s, from $1 billion in 2000 to $44 billion in 2009. China's total FDI outflows over the period were greater than all emerging markets except Russia and Hungary (table 3). Since 2003, almost 55 percent of China's greenfield FDI and 27 percent of M&A transactions have been in the mining sector, compared to 10 percent in M&A transactions from advanced countries. (figure 11).[13,14] Investment projects in services and manufactures tend to be smaller than in mining, and these two sectors were more important over this period in terms of the number of deals.

TABLE 3 FDI outflows by emerging markets rose sharply in 2000–2009

	FDI 2000	Total 2000-2009
Russian Federation	3	215
Hungary	1	160
China	**1**	**159**
India	1	75
Korea, Rep.	5	84
Singapore	6	97
Brazil	2	60
Malaysia	2	51
Mexico	0	40

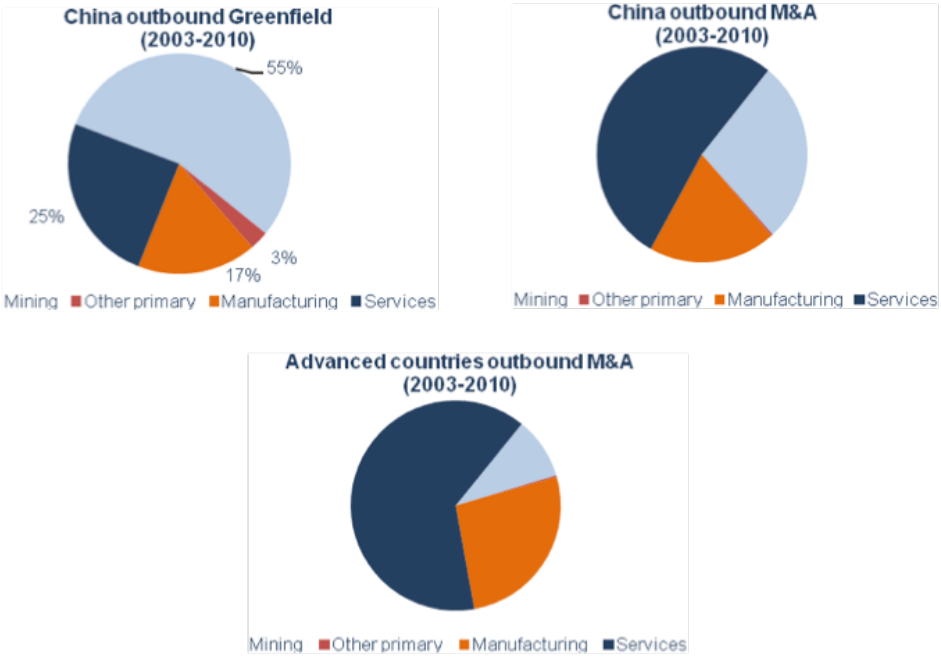
Source: IMF Balance of Payments database.

China's FDI outflows have increased at about the same annual rate of growth as outflows from, to take regional examples that have achieved rapid growth, Japan and Korea (beginning from the year that these countries' outflows exceeded $1 billion), but less than Malaysia. Given China's huge size, FDI outflows could quickly rise to high levels. For example, by 2030, China's per capita GDP will exceed $10,000. If China's FDI outflows relative to GDP equaled the level of Japan's at a similar level of income (about 0.5 percent), then China's outflows would almost double to $75 billion.

[13] The data on M&A transactions may overstate the share of services, and thus understate the share of mining and manufacturing. The M&A data are reported by the acquirer. As many acquiring firms are banks acting as intermediaries, the M&A data may not accurately represent the business of the acquired firms.

[14] Fung and others (2009) find that proxies for natural resources do not have a significant relationship with the location of Chinese outward FDI flows. Cheung and Qian (2009) find that resource-seeking is an important motive, although China does not appear to invest in African and oil-producing countries mainly to obtain natural resources.

FIGURE 11 China's outward FDI is directed more towards mining, compared with advanced countries' FDI (percent)



Sources: For M&A data, World Bank staff estimates based on Thomson-Reuters SDC Platinum. For greenfield data, World Bank staff estimates based on FDI Markets.

Outward FDI can generate important benefits for Chinese firms and the country's development

Outward FDI can play an important role in exploiting global business opportunities. China's rapid increase in incomes means that firms may need to relocate to lower-wage locations to employ their expertise and technology. Trade barriers may increase the profitability of locating production in host country markets (see above). China's multinationals can become an important source of technology, brand names, distribution networks, market contacts, and skilled workers for domestic firms. China's large stock of foreign exchange reserves are largely invested in low-return assets (such as US Treasuries), and demand for foreign exchange by firms to invest abroad represents some diversification, from the perspective of the country as a whole, of foreign assets.[15]

More controversially, FDI can be used to secure essential commodities for the domestic economy. The high energy and metals intensity of production mean that the economy is dependent on a stable, secure supply.[16] There are two reasons why China might be concerned about its future ability to secure commodities. While these commodities do trade in international markets, their supply is heavily influenced by government decisions: oil prices depend greatly on Organization of Petroleum Exporting Countries (OPEC) production, while several important metals are located in a few, relatively unstable countries, where the governments could potentially affect supply, at least in the short term. China's political influence and investments in oil

[15] The government also is beginning efforts at diversifying foreign exchange reserves through the China Investment Corporation.

[16] China's per capita demand for steel rose from .06 tonne in 1990 to .37 tonne in 2008, or at about 2.5 percentage points more rapidly than the rise in per capita GDP (McKay and others 2010). In 2010 China's consumption of refined metals exceeded the total of all OECD economies combined.

and metals could encourage supportive government policies in supplying countries. Second, China accounts for a significant share of global consumption of some commodities (e.g. in 2008 China's consumption of oil and net imports of oil equaled almost 9 percent and 4.5 percent, respectively, of global oil consumption, according to the U.S. Energy Information Administration). Concerns over continued increases in Chinese consumption coupled with increasing investments in natural resources could lead to efforts by other countries to safeguard their own access to these resources. China's share of global natural resources FDI has doubled over the past 7 years, but remains below 15 percent.

Not that foreign investment is an unalloyed benefit. The rapid increase in foreign investments by a relative newcomer to international investment can engender mistakes. Witness the huge losses suffered by Japanese investors in US real estate and other sectors in the 1980s.[17] There is also some concern that government influence over the large state-owned enterprises may encourage unprofitable, but politically important, foreign takeovers and that limits on interest rates reduce resources allocated to project evaluation and increase incentives to lend to public sector firms, thus reducing the efficiency of FDI projects (Morck and others 2007).

Chinese outward FDI has encountered obstacles

China's investment outflows have already stirred concern among some commentators in host countries, and efforts by Chinese firms to purchase foreign companies, and to operate in foreign countries, have in some cases met with political opposition. For example, the state-owned China National Offshore Oil Corporation withdrew its bid for Union Oil Company of California (Unocal) in the face of political opposition in the United States. And a 2008 deal to double Aluminium Corporation of China's (Chinalco) stake in Rio Tinto, an Anglo-Australian iron ore producer, was scrapped due to opposition from Australian lawmakers (Xu 2009). The reasons for opposition to Chinese investments are varied, but do not (or at least should not) reflect fears of Chinese domination of the global economy. Despite its rapid growth, China's outward FDI remains a small share of total FDI flows and a miniscule amount compared to total investment in most host countries.

Other issues are probably more important. Chinese firms' lack of experience means that they may lack adequate political networks and knowledge of host country culture to avoid mistakes in public relations, branding, and management. Chinese companies have made mistakes that have engendered opposition. Many observers have expressed concern over the environmental impact of investments by Chinese firms. Governments or political interests who view China as a long-term threat to other countries' security interests may not welcome investment by Chinese firms. The government's support for outward investment, including subsidies for investments in natural resources, tax breaks, and low-interest financing from state-owned banks (Luo and others 2010), although some of these practices are hardly unique to China, have raised resentment over competitive practices that undermine domestic investors.

Perhaps most importantly, the prominent role played by state-owned enterprises (SOEs) rather than private firms may engender suspicion in host countries about potential strategic behavior by Chinese investors. More than two-thirds of FDI outflows were from centrally-controlled SOEs in 2009, and a portion of the remainder was from firms partially-owned or controlled by the state, or by provincial or municipal governments (Salidjanova 2011). The important role played by SOEs in China's foreign investment is not surprising since, due to the legacy of central planning most of the large Chinese companies that have the resources and expertise to invest abroad are owned by the state. Of the 43 Chinese companies in the Fortune 500 list of the largest global firms, only two are privately owned.[18] Nevertheless, the government should ensure that private firms are given the same opportunity to invest abroad

[17] Japanese investment in US real estate totaled nearly $300 billion in the 1980s, and the "value of many of these assets fell by as much as 50 percent in the early 1990s" (Pristin 2005).

[18] He and Lyles (2008) claim that fears of government domination of SOEs are outdated after three decades of reform have improved the SOEs' autonomy and responsiveness to market forces.

and should avoid burdensome approval processes that might inhibit such investment. The main reason for encouraging outward investment is to enable Chinese multinationals to absorb foreign technology and use it to improve domestic production. Since private firms are typically more successful in adopting new technology than government-owned firms, it is important to ensure that private firms participate in foreign investment.

The government can help improve the legal framework for outward investment

Given the potential benefits of outward FDI and the political obstacles and tensions that some Chinese investments have engendered, the government has an interest in demonstrating support for Chinese investors, to ensure that they are treated equally with other investors and to provide adequate recourse in case of disputes. This issue is set to intensify in coming years, since Chinese outward investment will no doubt continue to expand as China becomes richer and its firms more exposed to international competition.

Chinese policy has focused on international treaties to protect foreign investors. Since the early 1980s, China has signed 127 bilateral investment treaties (through May 2010) and 112 double taxation treaties (through May 2009) (Davies 2010). Since 2000, China's bilateral investment treaties (BITs), mostly concluded with developing countries that are the main destinations for Chinese FDI, have expanded protections for investors. This has included commitments by host countries to treat foreign investors, once established in the country, equally with domestic investors, and to provide investors with virtually unrestricted access to international tribunals (e.g. the World Bank's International Centre for the Settlement of Investment Disputes), when they believe that host government policy violates these commitments (Berger 2008a). The latest Chinese BITs do allow for the continuation of existing provisions that discriminate against existing foreign investors, subject to a 'best effort' commitment to rollback such measures over time.

BITs can provide important support to overseas investors by cementing political relationships, providing some leverage to foreign investors where political concerns are not paramount, and as a means of demonstrating the government's commitment to its foreign investors. Indeed, the failure to participate in today's proliferation of investment agreements could be taken as a symbol of government indifference.

Nevertheless, BITs cannot address many of the obstacles to China's outward investment. Even the US BITs, which embody the most stringent investment protections, include an exception for national security concerns (Congyan 2009), and such concerns were cited in the most prominent examples of barriers to Chinese FDI. Thus BITs, while useful, cannot, in and of themselves resolve most of the barriers to investment described above.

Should China enter into more liberal investment treaties?

The most liberal investment treaties, as exemplified in treaties promoted by the United States, include commitments to eliminate any existing discriminatory practices and to treat foreign investors equally with domestic investors in all respects, including giving foreigners the right to invest in the country if they meet the criteria (if any) that are imposed on domestic investors (referred to as pre-entry national treatment).[19]

Securing pre-entry national treatment for Chinese overseas investment could be beneficial. In the absence of such protection, Chinese firms could be at a competitive disadvantage in some markets. That is, Chinese firms could potentially be subject to time-consuming processes that firms from countries with treaties guaranteeing pre-entry national treatment could avoid. Firms

[19] It is also necessary to define the assets to be covered by the agreement, for example to decide whether short-term flows are also protected, although a substantial transitional period would be required until China can achieve an open capital account (see below). Xiao (2010) argues that China should press for a hybrid approach. Access to investment should be based on a narrow definition (e.g. kind of activity), while protection of existing investments should be determined by a broad asset definition.

that are seeking a foreign purchaser may choose investors who are not subject to such delays.[20] To the extent that BITs with strong investor protections proliferate over time, this constraint could become important.[21]

A distinction should be made between BITs with developing countries that are not major sources of FDI flows, and with the advanced countries. Explicit investment guarantees and access to international tribunals are not so critical in the advanced countries, where legal redress through relatively fair judicial procedures is available. By contrast, securing protection for Chinese investors in the more uncertain policy environments in developing countries may be more important in supporting outward FDI.[22]

Bilateral investment treaties or a multilateral agreement on investment?

Assuming that the government decides to strengthen the legal protection for Chinese outward FDI, it then confronts the question of how to do so. One choice would be to enter into bilateral investment treaties (BITs) that provide strong investor protections. Another would be to press for a Multilateral Agreement on Investment that includes most countries.

A global agreement would have advantages. The existence of multiple BITs can increase transactions costs for firms, which face different investment rules depending on the host country, although the importance of this is disputed.[23] A multilateral investment agreement could provide more certainty to investor protections than a BIT (and, thus, may be more supportive of increases in FDI outflows), by increasing the costs to host countries of violating the agreement. Thus a multilateral agreement could play a more important role in encouraging FDI than multiple BITs (studies provide mixed evidence about the extent to which stronger investment protection secured through BITs encourage greater foreign investment).[24] By joining hands with other developing countries, China may be able to achieve a more development-friendly multilateral framework for investment than it could through individual BITs negotiations.[25] A multilateral investment framework could also curb the power of multinational companies to implement restrictive business practices such as transfer pricing to evade taxation, restrictions on ability of subsidiaries to trade with some domestic firms, and restrictions on the licensing of technology by subsidiaries (Xiao 2010 and Crystal 2009).

On the other hand, pursuing multiple BITs would provide China more leverage over specific terms. Thus, for example, a BIT might specify the sectors in which national treatment would be provided, while such sectoral restrictions (apart from general provisions such as national security or health and safety exceptions) would be more complicated to negotiate through a multilateral framework. Thus, if China decides to pursue a multilateral approach to investor protections, it is important that it play an active role in shaping the agreement. Allowing the advanced countries to negotiate such an agreement amongst themselves and then deciding

[20] For example, one complaint concerning the process for approval of Chinese investment in Australia's Rio Tinto was that the responsible agency took three months longer than expected before ultimately approving it.
[21] The same issues are not as pressing for post-entry national treatment, as MFN provisions of Chinese BITs imply that Chinese firms would enjoy the same protections as granted under other treaties.
[22] Even there, however, the importance of access to tribunals is suspect. Investors are understandably reluctant to appeal to international tribunals against governments in host countries. For example, despite the inclusion of arbitration provisions, albeit with exceptions, in several Chinese BITs, no investor has brought a case against China to international arbitration (no doubt largely because of the fear that doing so would impair the investor's relationship with China—Economist Intelligence Unit 2010).
[23] Hoekman and Saggi (2000) find that there would be little reduction in transactions costs for either governments or investors by a multilateral framework as opposed to reliance on BITs.
[24] Some empirical studies find that BITs have little impact on FDI flows (Nunnemkamp and Pant 2003). On the other hand, Berger and others (2010) finds that BITs with liberal investment provisions guaranteeing market access for FDI are significantly and positively related to cross-border investment flows.
[25] For example, transparency provisions could reflect weak administration in developing countries, and technical assistance could be provided to help developing countries implement the agreement.

whether to accept it, is unlikely to serve Chinese interests. Instead, the Chinese government needs to act to help define the specific terms of such an agreement, to ensure that the level of investment protection is suitable and that the particular circumstances of developing countries are recognized.

Guaranteeing national treatment to foreign investors has important implications for domestic policy

Securing pre-entry national treatment for Chinese investors would require providing the same protection for foreign investors in China. The large share of production accounted for by state enterprises and government subsidies for productive activities complicate efforts to credibly ensure an equal playing field for domestic and foreign investors. Increasing state enterprises' autonomy and phasing out subsidies that explicitly favor domestic firms (as opposed to demand-side subsidies that do not discriminate between foreign and locally-owned firms) could provide more credibility to policies guaranteeing national treatment and, thus, help to secure such rights for Chinese investors in other markets.

Providing pre-entry national treatment would also imply reducing restrictions on FDI inflows. While China has progressively simplified approval procedures for foreign investment, local or central government review is still required for many investments.[26] Investment can be encouraged, restricted, or prohibited depending on the sector, the level of technology, and (formerly) the extent of exports. Elimination of at least some of these restrictions would significantly expand the sectors open to foreign investment.

It is difficult to argue that such dramatic changes in development policy should be undertaken simply to achieve reciprocity for Chinese investments overseas. As it happens, however, the domestic reforms that could help achieve stronger legal protection for Chinese overseas investments are also likely to further Chinese development. Increasing the autonomy of state enterprises and reducing the role of subsidies would be consistent with efforts to improve the efficiency of SOEs.[27]

Dismantling the system of approvals and restrictions for inward FDI could reduce the costs confronting foreign investors, by providing greater assurance that they would be able to invest without excessive delays and to operate without undue interference. In particular, reducing restrictions on services sector FDI would promote service sector efficiency, the importance of which will rise as China strives to become a high-income economy. Encouraging FDI inflows can be particularly useful in improving the efficiency of services sectors that are less affected by competition through trade (box 2). Also, as China becomes a richer and more globally-integrated economy, the usefulness of government review of foreign investment will decline. The economy will become much more complicated, making it more difficult to control investments and to understand all of the ramifications of guiding investment in the way practiced when the economy was simpler. And, establishing an open capital account (see below) will complicate the issues involved in imposing restrictions on foreign investment (for example, by making it simpler to invest through local intermediaries).

Thus, with Chinese development, the usefulness of investment restrictions will decline, while the potential benefits of stronger investment protections in foreign markets will rise. In short, China does have an interest in continuing to ease restrictions on inward FDI and to undertake commitments to strong investor protection in international agreements. Some transition period

[26] The State Council has assigned most of its authority for approving foreign investments to the Ministry of Commerce (MOFCOM) and local governments, although the Council retains final authority for investments with significant macroeconomic or foreign policy implications (Berger 2008b).

[27] The subject is beyond the scope of this paper, but such reforms of state enterprises will have to take into account a host of concerns, most notably the implications for employment, and will need to be phased in over time.

is likely necessary to ensure that government agencies have the ability to regulate foreign investment effectively without extensive approval procedures. Also, in some sectors, domestic investors may need time to be able to compete with foreign investors who enjoy national treatment. Limited exceptions to national treatment could be incorporated into investment agreements that generally provide for an open regime towards FDI. However, it is important that such restrictions have sunset clauses, to ensure that eventually the protected sectors can enjoy the benefits of increased investment. Overall, in a decade or so, it is likely that developmental interests will be better served by the dismantling of the current regime for inward FDI and entering into international agreements to achieve strong protection for Chinese firms investing abroad.

BOX 2 FDI and competition in services (all the papers cited in this box are not listed in reference)

FDI can have a positive impact on the services sector, and thus more broadly, on the overall economy (several studies show that FDI in services can improve productivity in manufacturing through vertical linkages—e.g. Arnold et al. 2007). Many developing countries have limited FDI in services, in part because they lack an adequate regulatory framework to oversee a more competitive sector. But inefficient services sectors can be a severe constraint on development so, as incomes rise and the resources available to regulate the sector increase, opening services to FDI can be important to future growth.

FDI that results in increased competition can encourage lower prices and improvements in quality, expand the set of available producer services, and improve the productivity of domestic firms through knowledge spillovers. For example, cutting-edge retail practices (central warehousing, appointment system, use of palettes) introduced in Mexico by Walmart were quickly adopted by other retail chains (Javorick, Keller and Tybout 2006, McKinsey 2003). Similarly, with the opening of Korea's retail market, competition from Walmart and Carrefour encouraged domestic firms to lower prices and expand consumer choice, while enabling them to absorb advanced technology that increased the productivity of distribution networks. While smaller businesses were driven out of the market, the larger Korean retail stores flourished and bought out Walmart and Carrefour within 10 years.

FDI can have a positive impact on infrastructure. A study covering 85 developing countries from 1985–99 found that telecommunications services improved after foreign entry (Fink et al. 2002). In countries with strong regulatory systems, FDI has led to improved telecom services and contributed to higher economic growth (Norton 1992; Roller and Waverman 2001). FDI improved the reliability of electricity and telecommunications services provision in Latin America (World Bank 2004). The positive impact of FDI in infrastructure, however, requires a regulatory environment that encourages competition. In Argentina, Mexico and Venezuela, telecom enterprises were transformed from loss-making, subsidized entities into tax-paying firms, but part of their profitability arose from monopoly positions and captive regulators. In Argentina, the privatization of Entel did not result in lower service prices (UNCTAD 2004), and in Brazil, greater efficiency was accompanied by higher prices (Anuatti-Neto et al. 2003).

Both cross-country and case studies find that FDI can strengthen the banking sector.[28] Again, however, the regulatory environment is critical. Studies find that foreign bank participation improved efficiency and competition in Colombia (Barajas, Steiner and Salazar 2000) and Argentina (Cull and others 2000). But studies of Mexico (Haber and Musacchio 2005; Schulz 2006) argue that high concentration in the sector before and after foreign entry meant there was no improvement in efficiency.

[28] Claessens, Demirguc-Kunt and Huizinga (2000) use data from a sample of 80 countries to show that foreign entry reduces the profitability of domestic banks and enhances their efficiency. Claessens and Lee (2003) conclude that the increased presence of foreign banks in low-income countries reduced financial intermediation costs and made the banking system more efficient and robust.

Deeper integration into the global financial system

China's tightly-managed exchange rate and extensive capital controls have been lynchpins of China's economic policies. These policies have helped support spectacular export-led growth and supported financial stability. This policy mix has also played an important role in insulating the economy from global financial crises. However, continued economic and financial stability requires the gradual adoption of an alternative policy mix—involving greater exchange rate flexibility, modernization of the financial system, and liberalization of capital controls leading eventually to full convertibility. These policies also would support the rebalancing of growth toward greater domestic demand and greater production of non-traded goods and services which is required for China to become a high-income economy. In the long-run, when the economy becomes even more integrated in the global economy, the internationalization of the RMB will provide more stability than the current system of a managed exchange rate. However, the transition to a more financially-integrated economy involves risks. Careful attention must be paid to the timing and sequencing of policies and to the building of strong institutions to manage the financial system.

Exchange rate stability and capital controls have supported stability in China

China has achieved remarkable growth by opening to the world economy. But at the same time its global relationships have on occasion created significant challenges for domestic economic stability. Most of China's foreign investments and a significant share of external trade transactions are perforce largely denominated in dollars, so that changes in the dollar/RMB exchange rate have enormous implications for the profitability and balance sheets of domestic firms, and for the prices faced by consumers. A stable (albeit not fixed) exchange rate with the dollar has helped to limit domestic economic instability.

China's official exchange rate depreciated sharply in 1994 with the unification of the formerly dual exchange rate system.[29] Thereafter the government essentially fixed the RMB/dollar rate until July 2005 when the managed floating exchange rate regime was adopted, after which the RMB gradually appreciated. Till Oct. 2011, the real effective exchange rate of the RMB/dollar has appreciated by 66% compared with that of Jan. 1994, and has appreciated by 31% compared with that of Jan. 2005.[30]

At the same time, the managed exchange rate policy has required maintaining a closed capital account, so that the domestic monetary policies could be more independent and effective: with limited exchange rate flexibility and an open capital account, the government would lose the ability to use monetary policy to influence domestic inflation and economic activity.[31] This strategy has enabled China to achieve rapid growth and maintain a highly-competitive exchange rate to support exports.

[29] From 1988 to 1993, the government maintained a dual exchange rate system where businesses involved in trade had access to the swap market with a market-determined exchange rate, while most others had to undertake transactions at the official, controlled rate. During the early 1990s the rate in the swap market (which accounted for about 80 percent of foreign exchange transactions by 1994) depreciated sharply, and the official exchange rate became increasingly overvalued. Thus the official rate records a large nominal depreciation with the unification of the exchange rate system (Huang and Wang 2004).

[30] BIS effective exchange rate.

[31] China's capital controls also serve other purposes, including supporting interest rate controls and limiting the impact of capital movements on China's relatively undeveloped financial markets.

Nevertheless, the tightly-managed exchange rate now is posing more difficult challenges for macroeconomic policy

First, while the tightly managed exchange rate of RMB[32] does help stabilize the nominal value of a large portion of China's overseas investments and trade, it occasionally has engendered sharp swings in China's competitive position with third countries. The most dramatic example occurred when countries hit by the East Asian crisis in the late 1990s depreciated sharply against the dollar, while the RMB/dollar exchange rate remained stable (table 4). The real exchange rate of Korea, Malaysia, Philippines and Thailand fell by an average of 24 percent from 1997–98, while China's real exchange rate appreciated slightly. The collapse of demand in the crisis-hit countries further reduced China's exports, and China's growth of the U.S. dollar value of merchandise exports fell from 20.9 percent in 1997 to 0.5 percent in 1998. The stability of the RMB has, however, been credited as a significant factor in re-establishing regional growth and shortening the effects of the crisis, while doing little damage to China's medium term growth.

TABLE 4 China's exchange rate was relatively stable during the East Asian crisis
Percentage change in exchange rate, 1997–98

	Real Exchange Rate	Nominal Exchange Rate
China	-5.0	-0.1
Korea, Rep.	32.0	47.3
Malaysia	25.3	39.5
Philippines	19.4	38.8
Thailand	19.0	31.9

Source: World Bank.

Second, the managed exchange rate policy impairs the government's ability to control inflation. Inflationary pressures are strong to the extent that in China, as in other rapidly-growing developing countries, there is a natural tendency for the prices of non-traded goods to rise relative to traded goods (i.e. for the currency to appreciate in real terms).[33] If the prices of non-traded goods cannot rise through an appreciation of the nominal exchange rate, then they will tend to rise through inflation. It is difficult for the government to control inflation by increasing interest rates sufficiently in response to excessive demand growth, in part because rising interest rates will attract some capital inflows (to the extent that capital controls are not 100 percent effective) that will further boost domestic liquidity. Thus the government has had to rely on administrative controls (e.g., guidance to banks to reduce lending and direct controls of prices) to restrain inflation. For example, the government was initially reluctant to raise interest rates to cope with the overheating economy in 2004, leading to a plunge in the real rate of interest to corporate borrowers, which contributed to excess demand (Goldstein and Lardy 2006). Instead, the government imposed administrative controls (which are inconsistent with the long-term goal of increasing the autonomy of state enterprises) to reduce commitments to large-scale projects (Gallagher 2005). While these efforts were ultimately successful in bringing inflation down, they introduced distortions that have hampered efficiency and undermined the credibility of government policy.

[32] In 2005, the authorities announced that the renminbi would no longer be pegged to the US dollar but to a basket, although the composition of that basket has not been announced. This may explain why the real effective exchange rate has been more stable than the exchange rate against the dollar. See Frenkel (2009).
[33] Increasing productivity in the production of traded goods will increase the demand for labor, thus increasing wages in both traded and non-traded sectors. But as productivity growth is slower in the production of non-traded goods, the rise in wages will require an increase in the relative price of non-traded goods.

Presently, very low interest rates in the United States and other advanced countries are contributing to another episode where inflation is rising above government targets. Thus under the dollar dominated international monetary system, the tightly managed exchange rate has to a considerable degree made China's monetary policy hostage to decisions by the US Federal Reserve, the ECB and other advanced economy central banks. While exchange rate volatility can also be undesirable, in present circumstances less resistance to upward pressures on the exchange rate (if accompanied by appropriate monetary and fiscal policies) would help dampen inflationary pressures, similar to the experience of Japan during the 1970s (box 3).

BOX 3 Japan's transition to a floating exchange rate

Japan's adoption of a floating exchange rate provides useful lessons for China's policies. Japan in the 1970s had several similarities with China today: a fixed exchange rate (the yen equaled 360 to the dollar from shortly after World War II until 1971), capital controls, limits on interest rates that helped finance industrial investments, an underdeveloped financial system, a history of rapid growth propelled by rapidly increasing exports, a large trade surplus, and tensions with trading partners over rapid market penetration. Japan faced similar challenges in maintaining stability with a fixed exchange rate, relying on various administrative controls to contain inflationary pressures. Rising inflation (which peaked at 7.7 percent in 1970) and complaints from trade partners over the low valuation of the yen increased pressures for a change in parity. Events came to a head with the breakdown of the Bretton Woods system, and after some initial attempts to support the existing rate, the Japanese government allowed the yen to fluctuate (and appreciate) with only limited intervention.

The adoption of a floating exchange rate strengthened monetary autonomy and helped Japan cope with the significant economic turbulence of the 1970s. The floating exchange rate in the context of a steady decline in monetary growth led to a sharp fall in inflation (after the oil price shock),which averaged 4 percent in 1978–79 when inflation in the United States was about 10 percent. And the variability of both prices and output were considerably lower than under the fixed rate regime (Meltzer 1986). Lower inflation was accompanied by average GDP growth of 4 percent from 1974–1982, a comedown from pre-1970 growth rates but significantly higher than Japan's advanced country trading partners (the period includes the severe global recession).

Third, maintaining the managed exchange rate policy in the face of the booming trade surplus has partly led to a huge build up of foreign exchange reserves. Reserves rose to almost $2.9 trillion in 2010 and projected to reach almost $3.5 trillion by the end of 2011, representing about 200 percent of annual imports. The buildup of foreign reserves, largely held in US government and agency paper, has saddled China with assets that earn very low rates of return and, given the continued deterioration in the US fiscal position and the Eurozone debt crisis, have also become increasingly risky. Reportedly, the authorities are making efforts to diversify reserve holdings both away from dollar-denominated assets and to higher-yielding investments through various sovereign wealth funds including the China Investment Corporation.[34] China is also taking a lead in moving forward international discussions to encourage alternatives to the dollar as a reserve currency. However, such diversification is a slow process, particularly since any attempt to shift a large portion of reserves out of US Treasuries could precipitate a sharp depreciation of the dollar, thus severely reducing the real value of the remaining stock of reserves, and be highly destabilizing to the global economy.

Fourth, while allowing greater flexibility of the exchange rate may not immediately reduce the trade surplus by a substantial amount, over time movement to an equilibrium exchange rate will act to stimulate domestic absorption, reduce the current account surplus, and stimulate

[34] The exact currency composition of China's reserves is not known because China does not participate in the IMF's COFER database.

greater investment in non-traded goods and services. Such a readjustment would contribute to raising standards of living in China, increasing macroeconomic stability, as well as contribute to reducing global imbalances.

A different policy mix will be required to maintain stability as China's development continues

A tightly-managed exchange rate regime with the rate deviating from equilibrium levels and a largely-closed capital account are unlikely to continue to contribute to stability over the medium term. As the dollar has been subject to considerable instability vis-à-vis other major currencies, and may become critical if the dollar is no longer a reliable store of value due to US fiscal mismanagement, RMB's close relationship to the USD and the large amount of foreign reserves dominated by the USD would not be conducive to the future development of China's international economic activities. Also, over time it is likely that capital controls will increasingly become less effective, as the sophistication of China's financial system increases, as Chinese firms increase their overseas operations, and as international financial players become more adept at circumventing controls. To the extent that capital controls become more porous, an inflexible exchange rate regime will make it increasingly difficult for the central bank to undertake an independent monetary policy, so that the economy would become increasingly vulnerable to the global economic cycle.

Gradually liberalizing capital controls would enhance China's ability to achieve high-income status. Capital controls inhibit the development of the financial sector, thus reducing the scope of domestic investment by firms, limiting asset diversification opportunities for Chinese households, restricting the provision of sophisticated financial services required by complex modern economies, and impairing the ability of the financial system to allocate resources to the most productive activities. In the past, the government's domination of the financial system and the channeling of resources to large industrial projects and exports have supported development by overcoming impediments to the coordination of economic activities, reaping economies of scale, and increasing confidence. However, China's future development will require a more efficient services sector and more diversified manufactured production to serve domestic demand. A market-based financial sector is essential to support these new requirements as China's economy becomes more complex and incomes continue to increase. The gradual removal of capital controls will be required to support an efficient, and well-regulated, financial sector.

Increasing the use of the RMB in international transactions could support economic stability

Thus continued development will require greater monetary independence, exchange rate flexibility, and a modern, more open, financial system. Increased use of the RMB in international transactions can make an important contribution if a significant share of foreign assets were denominated in RMB, and if Chinese firm that operate abroad can borrow in RMB, then exchange rate fluctuations would have less impact on economic and financial stability. From the perspective of individual firms, use of the RMB in external activities (e.g., trade) would allow diversification in the sense of reducing exposure to risks specific to the Chinese economy without increasing foreign exchange risk. From the perspective of the country, the danger of capital outflows during crises is smaller if the RMB is recognized as an international currency.

Achieving greater use of the RMB in international transactions would have other, perhaps less important, benefits. To the extent that non-residents are willing to hold RMB, the government would enjoy seigniorage revenues.[35] The government and firms could face lower interest rates on their debt if foreigners increased their demand for RMB assets. Chinese travelling

[35] Since issuing additional cash is virtually costless, the government earns a real return on monetary expansion, part of which would come from foreigners if RMB were to circulate internationally as dollars do now.

abroad would be able to use RMB to purchase domestic currencies with relatively low transactions costs if currency traders had access to well-established markets for trading in RMBs.

Having the rest of the world use one's currency does have some downsides. If some regional trading partners choose to peg their exchange rates to the RMB, future Chinese authorities could face some economic and political challenges in pursuing purely national objectives when conducting monetary and exchange policy. The increased demand for RMB assets associated with external use of the RMB likely would result in a more appreciated exchange rate than otherwise, potentially reducing the attractiveness of China's exports. Chinese monetary policy would become a greater focus of attention if foreigners hold significant RMB assets (witness the considerable reaction to the US Federal Reserve's quantitative easing, as opposed to little interest in similar policies followed by the Bank of England), while foreigners' demand for RMB could increase the instability of money demand, potentially complicating monetary policy. Counterfeiting of the RMB could become an issue, as it has for the dollar. But these issues are manageable and would not greatly reduce the significant benefits involved from the RMB becoming an international currency.

What is required for the RMB to become a more widely-used international currency?

For its currency to be accepted in international transactions by other countries and be held as assets by foreigners, the country's shares in international trade and financial transactions have to be significant. Inflation and inflation expectations need to be low, so that the currency is a reliable store of value. Non-residents should have confidence in the independence and competence of monetary authorities. Domestic capital markets need to be deep and liquid (so that investors can buy and sell large volumes of securities without greatly affecting the market price) and include a broad range of financial instruments with different risk-return characteristics.

China presently meets only some of these necessary conditions. The country is now the second largest trading economy. The scenario presented in chapter 2 indicates that China's share of world trade is likely to increase by two thirds over the coming 20 years, and its share of global output to nearly double to become the world's largest economy. Officially-recorded inflation is presently just above 5 percent, somewhat above the government's target as a result of expansionary policies during the financial crisis. But inflation was relatively low (about 2 percent, albeit somewhat unstable) over the past decade.

In most respects, however, the RMB is not yet a suitable to be international reserve currency. While the Chinese authorities' concern over inflationary pressures has contributed to the credibility of stabilization policies, the inability to understand how monetary policy decisions are made makes it difficult for market participants to anticipate changes. An international ranking finds that the transparency of China's central bank improved substantially in the early part of the last decade but remained below most middle-income countries (Dincer and Eichengreen 2006). Thus further moves to improve the independence of the central bank and to increase the transparency of monetary policy decision making would be essential to support greater international acceptance of the RMB.

But perhaps the greatest challenge that China faces in expanding the cross-border use of the RMB is its under-developed financial system. China lacks the diversified financial instruments and the secondary markets that would enable investors to quickly and cheaply convert their RMB assets into cash, even if capital controls were removed. Low efficiency, high transactions costs, and weak supervision and regulation are major limitations on financial sector development (Wu and others 2010). Administered interest rates and the lack of transparency in the regulation of banks and financial markets inhibit market competition and the development of advanced financial products (Dobson and Masson 2009). For example, the large state-owned enterprises can fund their activities with retained earnings and cheap credit due to interest rate controls, which has meant little issuance of corporate debt and asset-backed securities and a relatively illiquid market. Financial market infrastructure is improving but remains challenged: bankruptcy procedures are not widely understood, modern accounting standards

are not applied uniformly, and issues often lack transparency (Zhou 2005). Restriction on the kinds of foreign institutions allowed to acquire domestic securities, on the size of investments and on pace of repatriation (necessary to ensure that capital controls are not evaded) severely limit foreigners' ability to participate in the market.

Strengthening of financial regulation and supervision is essential to ensure stability in the context of a more liberalized financial environment. Considerable progress has been made in strengthening the capital adequacy of the banking system, although the implications of the recent sharp increase in lending are as yet not fully clear. Improved coordination among the various institutions involved in financial regulation will be important. Further progress also will be necessary to ensure that State-owned banks operate on market principles, rather than being responsive to political decisions. At the same time the regulation and supervision of non-bank financial institutions involved in these markets will be essential, particularly as in the absence of such improvements restrictions on the banking sector will be reflected in the transfer of funds to non-banks. The regulation of non-bank financial institutions is probably the most difficult challenge the government will face in establishing a market-based financial system. It will be necessary to encourage the growth of alternative instruments and sources of funds, while ensuring the soundness of all institutions that borrow short and lend long (and are thus potentially subject to sudden failure). Industrial countries spectacularly failed to achieve adequate regulation of non-bank financial institutions during the recent boom, with dismal results.

The government is taking steps to increase financial integration with the rest of the world

The government is undertaking policies that are increasing the use of RMB in trade and financial transactions. On the trade side, settlement in RMB is growing rapidly and in April 2011 accounted for around 7 percent of total trade, up from almost nothing at the beginning of 2010 (IMF, 2011). The pattern of settlement in RMB, however, is very unbalanced with almost 90 percent of the settlements on the import side.

The government also is undertaking cautious steps towards allowing foreigners to participate in capital account transactions denominated in RMB. A few qualified investors, including international development institutions in China, have been allowed to issue bonds in China's domestic market (Makin 2010), and some foreign participation in the banking system is underway, although foreign banks' share of financial assets remains below 2 percent, and their activities are restricted (see Reuters, 2011). The government is developing an offshore market in RMB in Hong Kong, including provision for RMB balances to be held by foreigners, the development of instruments for hedging currency risk, and the issuance of RMB-denominated government bonds (Yiping 2010). The goal, according to Subacchi (2010), is to develop an offshore market while maintaining capital account restrictions, reminiscent of the development of the offshore Eurodollar market when the United States had controls on capital outflows during the 1960s and 70s (He and McCauley 2010). While some Chinese companies have issued RMB-denominated bonds in Hong Kong, the size of the available RMB-denominated assets is still small, resulting in the bulk of the trade settlements held in deposits in the Honk Kong clearing bank. Since October 2010, China has allowed three types of foreign institutions, including foreign central banks or monetary authorities, RMB clearing banks in Hong Kong SAR and Macao SAR and foreign banks participating in cross border RMB trade settlement to invest in domestic Chinese interbank bond markets using RMB.

So far these policies have played little role in encouraging a broader role for the RMB. Overall the RMB remains little used internationally, accounting for one side of only 0.9 percent of foreign exchange trades (BIS 2010). An expanded offshore market and expanded trade invoicing will encourage some greater international use of the RMB. However, even a flourishing offshore market is unlikely to encourage widespread adoption of RMB-denominated assets when the domestic capital markets remain small and illiquid.

A program to deepen China's financial integration with the global financial system will require careful planning

Deepening China's financial integration with the global financial system will require more aggressive measures to modernize and regulate its financial system and to open it more to foreign competition, increased exchange rate flexibility, and gradual removal of capital controls. But these policy changes, particularly the transition to an open capital account and removal of domestic financial sector controls, entail significant risks. Many countries in Latin America, Eastern Europe, and East Asia that have eliminated capital controls have suffered dramatic financial crises accompanied by calamitous declines in output and large increases in poverty. These crises have typically been driven by large financial sector weaknesses and imbalances, coupled with failures to manage increases in aggregate demand from unrestrained capital inflows, real exchange rate appreciation (often reflected in real estate booms) and an eventual withdrawal of capital and a major collapse in asset prices. The European experience with financial sector and capital account liberalization was more positive, and holds some lessons for China (box 4).

BOX 4 Lessons of the European Experiences with Capital Account Liberalization

Today's Europe of open financial markets and unrestricted capital flows took a long time to establish. Many western European countries imposed extensive restrictions on their financial sectors for three to four decades following World War II, and exchange controls were not fully abolished by the European Union until 1990 (Wyplosz 1999). Capital account restrictions were often used to dampen pressures for exchange rate changes, by restraining capital outflows that could force a depreciation and (at other times) limiting capital inflows that would otherwise tend towards appreciation and a decline in competitiveness. In addition, several European countries used capital account restrictions to sustain financial sector policies that maintained low interest rates (primarily to reduce the costs of financing government deficits) and directed credit toward favored borrowers. With interest rates artificially low, quantitative ceilings were used to control credit. Thus controls on capital outflows were necessary to prevent asset holders from placing their wealth at the higher interest rates available abroad, and controls on inflows were sometimes required to avoid exchange rate appreciation as borrowers sought to circumvent credit constraints. In short some European countries' financial sector controls, monetary policies, and capital account restrictions, along with the challenges faced in the potential disintermediation of the banking system and growing circumvention of controls, resemble China's current experience.

Financial repression and capital account controls gradually became less popular, for several reasons. The effectiveness of controls declined as financial markets became more sophisticated. The growth of derivative products significantly reduced the costs of, and increased the potential for, circumventing controls, while funds increasingly flowed out of the tightly-regulated banks to other financial institutions. Controls also became increasingly costly in terms of administrative procedures, efforts at evasion which introduced competitive distortions among firms, and the diversion of commercial and financial activities to other countries. The process of European integration provided an impetus to more stable macroeconomic policies to maintain the fixed exchange rate with low-inflation Germany, and improving macroeconomic stability reduced the need for controls to respond to foreign exchange crises.

The European countries' approach to financial sector liberalization and opening the capital account varied. Most countries employed a gradual approach to liberalization. For example, France began a process of liberalization in 1983 (after aborted attempts in the 1960s) which involved financial sector deregulation and a shift to indirect means of monetary control, while capital account restrictions were still in place. Once the macroeconomic situation was favorable and the financial sector was viewed as able to withstand foreign competition, capital controls were gradually withdrawn. The sequence of measures to ease controls began with intra-EEC direct investment flows, then FDI from others countries along with travel allowances, then restrictions on foreign exchange operations, then restrictions on bank lending to nonresidents and administrative controls on import and export settlements (initially imposed to avoid the use

of current account transactions to circumvent capital controls), then controls on foreign borrowing and holding of foreign currency accounts by domestic enterprises, and finally restrictions on bank lending in French francs to nonresidents. The full process of liberalization took six years.

Some countries adopted a much more rapid approach to capital account liberalization. The United Kingdom abolished all capital account restrictions in 1979 in conjunction with floating the exchange rate, the removal of credit controls, and a tightening of fiscal and monetary policies. These measures, undertaken when the country had a strong balance of payments position due to the rise in the oil price, were largely successful in improving macroeconomic stability and establishing a more efficient financial sector, although there were some transitional costs from higher exchange rate volatility and an asset price bubble at the end of the 1980s.

Denmark, Finland, Norway and Sweden also rapidly implemented capital account liberalization and a deregulation of financial markets during the 1980s, with some costs in terms of asset price booms leading to banking crises in Norway, Finland and Sweden (in the first two countries also driven by lower oil prices and the collapse in trade with the Soviet Union). By contrast, Denmark did not suffer significant financial sector difficulties despite loan losses, owing to improvements in banking supervision.

The European experience has some useful lessons for China. First, in China's situation reform must cover a broad agenda, including the removal of credit controls and of restrictions on interest rates, the reliance of monetary policy on interest rates and open-market operations rather than quantitative controls, moving to a more market-determined exchange rate, and the gradual opening of the capital account. Ultimately none of these reforms will function effectively without the others. Second, steps to ease financial sector restrictions and open the capital account should be undertaken when the country is in a strong balance of payments position. This perspective argues for China initiating this process soon, when the country's huge current account surplus could cushion downside risks involved in larger than expected capital outflows, which is likely a more serious problem than larger than expected inflows. Third, it is critical to achieve adequate supervision of the financial sector before opening the capital account. While defining 'adequate' in this context is difficult, the potential for asset price booms followed by collapses is high when the banks are unaccustomed to dealing with the increased potential for both profits and risks in a newly-liberalized financial sector. Fourth, financial sector reform and capital account liberalization must be supported by a stable macroeconomic environment. Thus the recent rise in inflation needs to be addressed prior to, or in conjunction with, any steps towards liberalization. Finally, some European countries removed controls, and then reinstituted them when their exchange rates came under pressure. The reversal in policies made it more difficult for market participants to anticipate government policy and reduced long-term investment.

Nevertheless, the applicability of the European experience for China is limited due to the substantial difference in levels of development and changes in the international financial system. Western European countries had a long history of established financial sector institutions and prudential frameworks, that China is now developing. European countries also had much more extensive stock and bond markets that could absorb large capital inflows without putting at risk depositors' money, and thus potentially inducing rescues of insolvent institutions and the attendant moral hazard that can spur excessive lending. A stronger and more diversified financial sector in Europe likely contributed to the relatively mild impact of financial sector liberalization in most countries, as compared, for example, with the severe crises experienced in East Asia and the Southern Cone of Latin America. Thus the risks facing China in embarking on this process, and the need for caution and experimentation, are likely greater than in Europe of the 1980s.

China also faces a much more complex and sophisticated global financial environment than Europe did. The availability of standardized derivative instruments and a multiplicity of offshore centers which lack controls on external transactions should make it easier to circumvent controls today than in the 1980s. While China's control regime remains effective, the more sophisticated international financial environment implies some greater difficulty in opening the capital account gradually, as initial steps to free some transactions (e.g. remove all controls on FDI) could be exploited to effect more extensive capital account transactions. This implies the necessity to maintain some vigilance, perhaps in the form of requiring the reporting of transactions, during the process of capital account liberalization so that large anomalies can be checked.

Source: Unless otherwise noted, Bakker and Chapple (2002).

To minimize stability risks, the reform agenda must be carefully timed and sequenced

China can limit the instability often experienced during financial sector liberalization and capital account opening through a gradual approach that involves careful attention to the appropriate sequencing of policy changes. It is impossible to lay out a detailed blueprint for financial and capital account liberalization, as some flexibility will be required to take into account economic developments and the degree of success of various reforms. However, it is useful to provide an overview of the steps that will be required with some information on their order. In particular, there are several prerequisites for an opening of the capital account.

The most important first step is to reform the RMB exchange rate mechanism in the direction of a more market-determined, flexible regime. That will provide an indication of the extent to which the currency is misaligned. Indeed, an important goal of China's capital controls has been resisting pressures to appreciate the RMB (Yongding 2009). Dismantling capital controls in the context of a widespread expectation of an appreciation of the exchange rate would encourage huge capital inflows. Establishing a market-based exchange rate, while not eliminating the potential for instability from capital inflows, would at least reduce one reason for it. Moreover, providing for exchange rate flexibility would improve the authorities' ability to control inflationary pressures through monetary policy and reduce the pace of the buildup of foreign reserves. At the same time, the government should proceed with steps to increase the independence of the central bank, improve the transparency of monetary policy, and strengthen financial sector regulation.

Even before the exchange rate reaches an equilibrium level, parallel efforts should be undertaken to improve the methods for conducting monetary policy and to improve financial market regulation and supervision. As progress is made on these fronts, the government can proceed with financial liberalization. Deposit interest rates would be raised towards market levels, perhaps in stages to gauge the impact on bank balance sheets. Experience shows that the removal of deposit rates can lead to excessive credit expansion, so it will be necessary to ensure that monetary conditions are sufficiently tight to maintain stability (Feyzioglu, Porter, and Takats 2009). Controls on lending rates can also be gradually removed. While the reforms required for successful financial liberalization take time, there is some urgency in implementing them. Financial innovation and stronger banking regulation is encouraging greater flows to non-bank institutions, potentially challenging the government's ability to control inflation through administrative means (IMF 2011). Improving the regulation of non-bank financial institutions while establishing market-based interest rates is necessary to enable the government to manage macroeconomic policy successfully and ensure financial stability.

To set the stage for further capital account liberalization, the government could increase current initiatives to encourage the use of the RMB in settling current account transactions and expand bilateral currency-swap arrangements to more trade partners. But as these progress, it will be increasingly difficult to achieve a more balanced settlement pattern while the exchange rate remains significantly undervalued (IMF, 2011). A further, early measure would be to abolish approval processes for inward and outward FDI, which tend to be more stable and long-term than portfolio flows. Given China's large current account surplus and large and growing official reserves, it would make sense to consider lifting controls on outflows before controls on inflows. Programs to allow residents greater access to external financial markets could reduce upward pressures on the exchange rate and lessen official reserve accumulation. The range of qualified investments by foreigners could then be increased and restrictions on foreign investment in the stock market gradually eliminated. Cross-country experience strongly suggests that restrictions on short-term capital inflows be removed last.

Establishing the RMB as an international currency will take time

The reforms outlined above are necessary, but not sufficient, to ensure that the RMB becomes a major international currency. That will require more time, perhaps many years, to develop sufficiently deep capital markets and to establish the reputation for stability that is required for foreigners to hold large amounts of a country's currency. The pace of international acceptance will be in part determined by international conditions. To the extent that alternative reserve currencies, notably the dollar and the euro, are subject to instability and mismanagement, reliance on the RMB would increase more rapidly. One informed estimate places the earliest year that the RMB would become a global currency as beyond 2025 (Wu and others 2010), another model-based simulation predicts the RMB could account for up to 12 percent of international reserves by 2035 (Lee 2010), and one market analyst sees the RMB likely to become one of the world's major reserve currencies sometime after 2030 (Jaeger 2010).

The policies required to establish the RMB as an international currency will have important implications for China and the world

The policies required to establish the RMB as an international currency will have profound implications China's development model. State-owned banks would have to be allowed to act like private banks and not be subject to instructions from the government to increase lending for macroeconomic reasons (Eichengreen 2010). State-owned enterprises (SOEs) would have to face hard budget constraints. That is, SOEs that became insolvent would have to be allowed to go bankrupt, so that creditors would not be tempted to lend in the expectation that their loans enjoyed an implicit government guarantee. Similarly, it will be necessary to ensure some constraint on borrowing by local governments, either through greater administrative control from the center or statutory limits on local government deficits. Another problem worth noting is the double mismatch between currency and maturity of borrowing and lending, i.e., borrowing short in foreign currency while lending long in local currency. This double mismatch has been a major cause for heightened exchange rate risk and debt crises in many developing countries, most notably in 1997 Asian Financial crisis.

The implications of these policies go beyond ensuring financial stability in government and government-owned institutions. To the extent that prices are allowed to clear markets, reliance on influence and contacts should become less important than innovation and efficiency for economic success. This would be beneficial to the economy, but may also imply that some formerly successful firms are no longer profitable, underlying the importance of social insurance to provide health care and pensions. A more market-based exchange rate would mean less reliance on exports and a rebalancing of the economy from manufacturing to services. All of these changes would be beneficial in their own right, in addition to consistent with a greater international role for the RMB. They do, however, imply dramatic changes in the way that business is transacted in China.

Finally, China should not ignore the international implications of increasing the use of the RMB. As Barry Eichengreen (2010) has emphasized, the emergence of the RMB as an international currency would provide a useful diversification away from the dollar, helping to limit financing of the sort of excessive current account deficits pursued by the United States prior to the crisis, and thus reducing the likelihood of a repetition. China's efforts to establish the RMB as an international currency would support global economic stability, which given China's size and openness is an essential ingredient of stability in China.

Chapter 4 Global Public Goods

China's future prosperity depends to a large extent on the preservation of global public goods, or issues that are important for many countries, where market forces cannot be relied upon to achieve efficient outcomes. Thus, coordinated government policies are necessary to ensure the efficient provision of global public goods, which covers a wide variety of issues. The market cannot be relied upon to limit environmental damages, either domestically or cross-border. Issues such as climate change and threats to the ozone layer can only be resolved through international coordination. Similarly, preserving global resources such as ocean fisheries, seabed minerals, and Antarctica requires coordinated interventions by governments. The benefits of communications networks increase with the number of users, so that international agreements and domestic regulations that, for example, promote efficient Internet use are in everyone's interest. International trade and financial transactions require a framework of rules to promote cooperation; reducing import barriers and ensuring global financial stability often requires international discussion. Efforts to reduce global poverty, which contribute to global stability, will be more effective if all countries with sufficient resources are encouraged to participate. Indeed, the term 'global public goods' is to an extent misleading: much of the work involves establishing effective institutions to take into account the global impact of the provision of goods and services. While all of these issues touch on domestic policies, they all also involve international coordination; thus, this section also considers aspects of domestic regulations that have a significant international impact.

While China has certainly cooperated in efforts to sustain global public goods, the government faces an important policy question. Should China rely on a multilateral consensus to determine global policies, with specific interventions to protect China's interests, or should China actively help to shape global agreements? This question is particularly difficult for environmental agreements, where it might be argued that since the advanced countries are principally responsible for damages to the environment, and are richer and thus better able to forego income for future benefits, they should shoulder the costs involved.

While the ethical argument concerning advanced countries' responsibility has resonance, it remains in China's interest to play an active role in shaping agreements on global public goods. China's huge size imposes both a responsibility to contribute to safeguarding public goods (else others will refuse to cooperate as well) and the opportunity to shape global agreements so that they support China's development.

Here we consider a few examples of global issues that cannot be resolved efficiently by relying on the market, and where China should actively participate in international solutions, for its own and the world's benefit. Some of these issues will be critical to China's development in coming years while others, though important, will have less impact. Our purpose is to provide examples of common problems where China plays an important role, not to enumerate all of the challenges in preserving global public goods over the next decades.

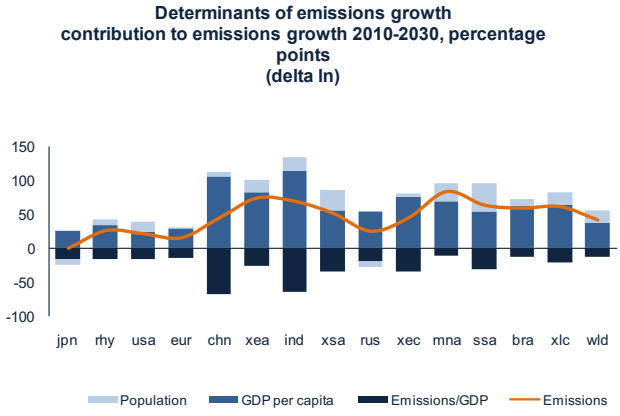
Climate change

The global economy faces an enormous challenge in reducing carbon emissions to avoid the worst effects of climate change. Absent changes in policies to reduce emission intensity, the increase in average global temperatures over the next several decades could be calamitous, with a rise in the sea level that would inundate vast regions where millions of people live and the degradation of agricultural land that millions of poor depend on for their livelihood. China will be severely affected too, both directly in some regions and indirectly as the global economy deteriorates. Here we discuss how global emissions could evolve over the next 20 years, what role China should play in multilateral efforts to reduce emissions, and the implications of different agreements for China's economy.

Emissions are set to increase

Global annual emissions are expected to increase around 50 percent over the next 20 years. This is largely due to growth in GDP per capita and to a lesser extent to population growth, while emissions per unit of GDP are expected to decline slightly (figure 12).

FIGURE 12 Carbon emissions will rise in the baseline scenario

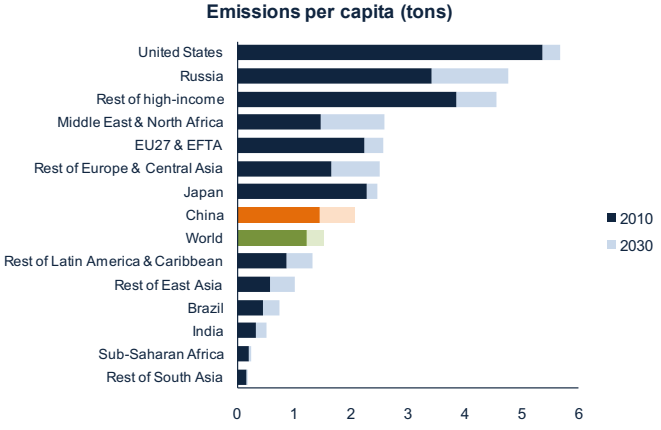


Source: World Bank.

More than four-fifths of the rise in emissions over the next 20 years will come from developing countries. The large share of developing countries in the global increase reflects higher population growth and higher per capita GDP growth compared with high-income countries, although the relationship between growth in developing countries and global emissions is complex.

While developing countries will be responsible for the bulk of new emissions, their emissions per capita are much lower than in high-income countries (figure 13). While developing countries' per capita emissions are expected to rise somewhat, they will not approach the levels in high-income countries. However, emissions per unit of GDP are relatively high in developing countries, and China is among the countries with the highest emission intensity in the world. A key reason for the high emission intensity in the developing world is the low valuation of non-tradable products in those countries, which makes GDP relatively small. Especially in China, another reason is the small share of services and the large share of manufacturing. As a consequence of the high emission intensity, GDP growth in the developing world leads to more than proportional growth in global emissions, even as the emission intensity is expected to decline sharply along with the shift to services and the rise in the relative price of non-tradable products.

FIGURE 13 Emissions per capita in developing countries are much lower than in advanced countries



Source: World Bank.

It is in China's interest to actively promote global efforts to reduce carbon emissions

China is the largest source of carbon emissions, accounting for 23 percent of global CO_2 emissions (although note that China's large export sector means that a significant portion of the goods produced in generating these emissions are actually consumed abroad). Moreover, during the next 20 years, China is expected to be responsible for one-quarter of the increase in emissions, even in a baseline scenario that assumes a significant shift towards the service sectors in China. Effective global policies are not feasible without China's participation, both because limiting China's emissions is critical and because other countries are unlikely to participate in the absence of the largest source of carbon emissions.

It is in China's interest to significantly reduce carbon emissions; otherwise China would create an artificial comparative advantage in energy-intensive production and be stuck with current emission structure, making the country even more dependent on future energy supply. Over the long term, the supply of energy is one of the most binding constraints on growth potential, so having a comparative advantage in energy-intensive production is not desirable. In addition, greater reliance on energy-intensive production would worsen China's already considerable environmental challenges.

Limits on carbon emissions would reduce China's GDP in the short run. However, these limits would not necessarily reduce consumption, because a large share of relatively energy-intensive production is devoted to exports. Global limits on carbon emissions would increase the relative price of these exports, which would reduce the volume of exports but also generate tax revenues for the government. The impact on consumption would depend on the government's allocation of these tax revenues. More importantly, as Supporting Report 3 argues, a green strategy may well become a new source of growth, increasing long-term growth potential.

A fair and effective global climate agreement is important to China

China should actively push for a fair, reasonable and sustainable global climate regime based on *common but differentiated* principle. Failure on the part of major countries to reach agreement on climate change and contain the climate crisis will lead to serious consequences for the world economy, in particular developing countries including China that are likely to be the most severely affected by climate change. A fair global climate regime can be consistent with China's implementation of its domestic commitment to reduce GHG emissions. China's 12th Five Year Plan already includes declining intensity of GHG emissions as a binding target.

China's earnest efforts to reach this target and establish a market-based emissions reduction mechanism within the country will not only spur other major economies to adopt forceful measures for GHG reduction, but also facilitate transformation of development model, advances in technology and economic growth within China, thereby turning emission reduction from a burden into an opportunity.

Global limits on carbon emissions have to take into account the need for continued growth in developing countries. Developed countries, having reached an advanced phase of industrialization, have high existing emissions levels and low future economic growth potential. Developing countries, on the other hand, have relatively low existing emission levels, and high future economic growth potential. That growth potential has to be realized to meet pressing development needs. Therefore, emission targets in a global climate change agreement should not be based on existing emission levels, but on future needs.

International financial regulations

The financial crisis highlighted the importance of effective supervision of financial systems for global stability. International agreements can enable individual country authorities to impose regulatory rules without impairing the competitive position of their banks vis-a-vis banks in other jurisdictions. International norms can also provide an anchor for domestic reforms. China has consistently supported international prudential norms for banking regulation, and has made considerable progress in integrating these norms into its domestic financial system. Going forward, the government may need to take a more proactive role in helping to shape these norms. This discussion does not cover all, or necessarily even the most important, areas where China relies on international coordination to preserve financial stability. For example, our focus on the long term means we do not consider the current financial controversies concerning China's criticism of US monetary policies and debt burden, an important, albeit short-term, area for stability in China.

China has benefited from adopting international regulatory norms for banks

China accelerated its program to implement Basel standards in the late 1990s, as a guide for the recapitalization of state-owned banks in response to the large amount of non-performing loans (NPLs). Adopting international norms provided a useful benchmark and a means of enhancing the credibility of the government's program. Authorities combined elements of the implementation of Basel I (e.g. capital requirements) with elements from Basel II (supervisory review and disclosure procedures), in what officials of the China Bank Regulatory Commission (CBRC) sometimes called "Basel 1.5". As a result of this process and strong economic growth, the banks' NPLs dropped from a staggering 23 percent of GDP in 2000 (Allen et al, 2008) to below 2 percent in January 2010 (according to the China Bank Regulatory Commission).[36]

Support for the use of international prudential norms also comes from the large, state-owned banks (who hold over 50 percent of total banking assets—figure 14). These banks have an interest in adhering to an internationally-recognised regulatory framework to support their efforts at international expansion and to ensure that other domestic banks cannot compete by adopting more lax prudential norms.

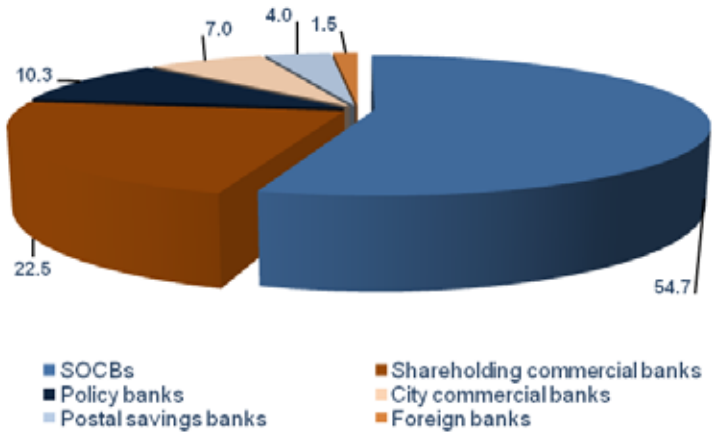
The government remains committed to integrating the Basel prudential norms into its regulatory practices, despite the financial crisis engineered by poor regulation and supervision in the US banking system (Walter 2010).[37] It is recognized that considerable work remains in

[36] The process of reducing NPLs of the four major state-owned banks involved the transfer of NPLs to asset management companies (in return for an equity position in the banks) and subsequent sales to the public, in conjunction with capital injections into the banks.

[37] By contrast, the Asian crisis and the prolonged Japanese stagnation eliminated the attractiveness of alternative regional models (for instance, during the 1990s, Korea's regulatory framework as considered as a possible reference; this ended after 1997).

establishing an efficient financial sector,[38] and the implementation of international norms is seen as a part of this still unfinished reform process.

FIGURE 14 The state-owned banks dominate China's banking sector
Share of types of banks in total assets, 2009



Source: UBS.

Moreover, the stimulus program in response to the global financial crisis involved a substantial expansion in credit extended by the state-owned banks. The size and necessary speed of this process is likely to result in some rise in NPLs going forward.[39] As happened with Basel I, the implementation of Basel III will provide an external standard for Chinese regulators in the necessary future clean-up, and again helping to defuse potential domestic criticism of the process.[40] The Five Year Development Plan (covering 2011–2015) envisions the continued implementation of Basel regulatory norms, and the CBRC announced in May 2011 the imposition of increased capital adequacy ratios, with higher levels for "systemically important banks".

China also should take advantage of informal bilateral relationships related to international banking supervision to share experiences and information. Membership in the Financial Stability Board (FSB) puts Chinese authorities into direct and regular contacts with other regulatory organizations, which also have an interest in formal and informal exchanges of information with their Chinese counterparts.[41]

China's reliance on international prudential norms in its domestic financial reform process does not mean that the country should passively accept norms that are defined by the advanced

[38] The Chinese banking system remains underdeveloped in many areas. The scope of bank services is extremely limited in comparison to more developed systems (for example, consumer credit remains a small share of total credit), and the regulatory system is limited (for example, there is still no formal system-wide deposit insurance scheme in China, and the government maintains ceilings/floors on interest rates).

[39] The existing figures for the current level of NPLs, at around 2 percent of GDP, are widely considered to significantly understate the dimension of the problem (see OECD, 2010). Nevertheless, the CBRC has already used its considerable "moral suasion" powers to force an increase in capital adequacy ratios, which reached an estimated average of 9 percent in the 14 domestic listed banks by 2010.

[40] Basel III is the successor of ill fated Basel II, but now with risk-adjusted capital, leverage and liquidity standards of a (arguably) simpler, more strict and transparent nature.

[41] An example of those more informal exchange processes is provided by the regular Dialogues held by Directorate-General for Internal Market, the regulator of the financial markets in the European Union, with its Chinese counterparts (see http://ec.europa.eu/internal_market/ext-dimension/dialogues/index_en.htm). From a more formal point of view, the new sectoral agencies created in the post-crisis overhaul of the financial regulatory environment in the EU, the European Systemic Risk Board, the European Banking Authority and the European Securities and Markets Authority are institutionally mandated to engage in administrative agreements with third country authorities in the pursuit of their respective mandates, and contacts with their Chinese counterparts to that effect have already started.

countries. While developing countries have recently become more involved in international financial discussions,[42] the agenda is still essentially set by high-income countries.[43] These international norms should be reviewed both for their relevance to China's financial system and for their implications for China's interactions with the global economy. The first issue does not present great difficulties, as the government has been successful in adapting norms to domestic circumstances.[44]

The second issue may require further study. International prudential norms have changed in response to the vulnerabilities exposed by the financial crisis. These changes reflect a difficult trade-off (from the perspective of the advanced countries) between the desire for increased stability and the wish to avoid unduly reducing the efficiency benefits (and bank profits) generated from the use of sophisticated derivatives. China's view of this trade-off may differ from authorities in advanced countries. China's banks lack the technology and banking relationships required to sell these products, while China's economy suffered from the extreme volatility generated by the failure to properly regulate them. Thus, it may be in China's interest to promote a stricter regulation of derivatives than is currently envisioned.

For example, one difficult issue is the extent to which certain kinds of derivatives held by major financial institutions should be moved to central clearinghouses and subject to strict capital requirements. Establishing a single clearinghouse which spans a broad range of over-the-counter derivatives would be desirable to ensure adequate regulatory control. However, recent proposals that would reduce the capital threshold for a clearinghouse and exempt some over-the-counter derivatives from movement to clearinghouses would encourage a proliferation of clearinghouses and increase systemic risk (Singh 2011). China profits little from such sophisticated derivatives, and the most recent 5-year plan envisions little progress in easing restrictions on such trades. It would, therefore, be logical for China to push for aggressive measures to limit the risks from OTC derivatives. This is simply one illustration of the many technical issues where a developing country perspective would likely take a more conservative view of the trade-off between efficiency and risk in today's financial markets.

In short, as China becomes more integrated in the global financial system, the implications for China of external instability will rise. China should, thus, play an active role in promoting more stable financial sector regulation.

Official finance

One global issue where China is playing an increasingly important role is official development assistance (ODA). While China has provided financial assistance to developing countries since the 1950s, the size of its program and its importance for development in the poorest countries is increasing rapidly. China's program of financial assistance has provided substantial benefits to developing countries, in some respects through mechanisms that are superior to the programs of OECD countries. In the future, China could improve the effectiveness of its overseas development finance (and avoid the same mistakes that the advanced countries made in their aid

[42] Developing countries are playing a more important role in discussions of international financial decisions through reliance on the G20 as the main body for international economic coordination and the expansion of the Financial Stability Board.

[43] Among other things, this agenda includes strengthened international governance, colleges of supervisors for cross-border banks, the expansion of the Financial Stability Board, better regulation of credit rating agencies and private pools of capital (hedge funds), improvements in accounting standards, standardization and increased resilience of credit derivative markets, principles for employee compensation, improved corporate governance and prudential supervision (including macro supervision), reducing evasion of standards through off-shore financial centers, and addressing the pro-cyclical nature of capital requirements.

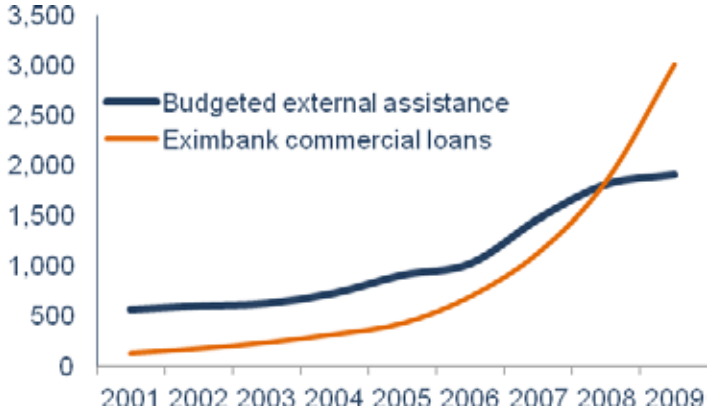
[44] As noted above, authorities pursued a somewhat selective implementation of Basel prudential norms during the past decade. And with the onset of the financial crisis CBRC statements signaled an implicit rejection of Basel II's market-based and self-regulatory approaches to capital adequacy standards.

programs) by exchanging information about policies and procedures with the OECD. At the same time, the OECD countries should consider integrating some aspects of China's overseas financing policies, including flexible application of debt-sustainability guidelines and steps to improve the efficiency of infrastructure projects, into their own programs. The government also should consider potential competitive responses by the advanced countries to China's growing export credit program.

China's official aid statistics differ from OECD's in classification

The recent publication of an official paper on China's foreign aid is a welcome step towards greater transparency (State Council 2011). However, the statistics provided in the paper generally follow the Chinese practice of providing cumulative totals of annual figures over many years (China's aid totaled RMB 256 billion by end-2009). Data on the government's annual expenditures on external assistance (published in the China Statistical Yearbook) show a sharp rise in concessional assistance, from a total of about $.7 billion in 2001 to almost $5 billion in 2009 (figure 15). However, these figures cannot be directly compared with those reported as official development assistance by other major donors (see below). This is due to different classification of aid statistics between China and OECD countries, which is partly related to the differing features of aid policies and development experiences.

FIGURE 15 China official finance increased sharply in the past decade
(millions of US dollars)



Source: Originally from Brautigam (2009), as reported with modifications by author in Christensen (2010).

Both China and recipients have benefited from China's program of official finance

China's aid procedures are simple, allowing for quick implementation, as no policy conditions are attached. Most of the funds go to infrastructure and living standard enhancing projects such as roads, hospital, clean water projects, personnel training programs, etc, fostering economic and social development in the recipient country. The provision of finance has assisted China's efforts to improve strategic relationships with other developing countries, to foster trade and other business opportunities for Chinese firms, to improve access to key commodities, and to boost awareness and appreciation of China's political and economic system. Perhaps not as specific and detailed as required traditional donors, China's aid institutions do require evaluation of social and environmental impacts and the efficacy of the aid programs, which can be strengthened to ensure the quality and effectiveness of China's program and maximize developmental benefits for recipient countries.

China does not impose formal conditions for receiving finance

Unlike traditional donors, China does not systematically impose formal conditions concerning governance or economic policy. Indeed, a central principle of China's program is respect for the sovereignty of recipient governments and the refusal to become involved in their internal policies, although the government has on occasion vigorously expressed concerns about corruption and the possible diversion of its finance (Mold and others 2010). Embezzlement in China's official loans is limited by paying Chinese firms directly for building infrastructure (The Economist 2011). China provides very little direct budget support. China also has provided several rounds of substantial debt relief since 2000, but without linking debt relief to policy reforms. And China's loans to a few heavily-indebted poor countries (HIPC) have raised concerns of a renewal of debt problems.

China's policies are in some respects beneficial to recipients

China's provision of finance in different forms and with a different approach from the traditional donors can provide recipient countries with greater policy autonomy; they have an alternative source of funding if traditional donors' conditionality appears onerous or unproductive. China is willing to finance dams, power plants, stadiums and other government buildings—projects that traditional donors have largely stopped financing. China finances projects in countries without regard to political or governance concerns. China's lack of conditionality reduces the burden on government officials, as well as the delays and costs inherent in demonstrating compliance with conditionality. All of this can increase the attractiveness of Chinese finance for recipient governments.

China needs to be vigilant about corruptive behavior in its aid programs

Preventing corruptive behavior in China's aid program and ensuring effectiveness of aid will become increasingly important to maintain the real diplomatic benefits that China has garnered from its financial program. As China's program increases, examples of mismanagement and corruption may also rise. For example, China Eximbank's system of relying on Chinese companies to generate projects for financing by concessional loans can increase the risk of illicit payments or kickbacks. Concerns have been raised about a lack of attention to operations and maintenance costs in projects (Hanson 2009). Of course, cases of corruptions are sometimes found in traditional donors' programs. But China can impose more transparency as an important measure to tackle corruption in its aid programs. It is encouraging that China has signed and ratified the 2005 UN Convention Against Corruption, and recently followed through by making corrupt practices by Chinese companies overseas illegal under Chinese law. The challenge now will be effective enforcement.[45]

China can learn from the failures and successes of traditional donors' development assistance

In some respects, for example heavy reliance on tied aid and lack of conditionality, China's policies can logically be seen as similar to the approaches by traditional donors. Official finance programs, including aid and export credits, initially were designed to expand diplomatic influence and commercial interests. Over time, however, some policies were modified to focus on development effectiveness and to adopt more cooperative approaches to the provision of official finance. This process, in part, responded to obvious aid failures and growing pressures from civil society. It also reflected the increasingly important institutional role played by the

[45] Brautigam 2011.

multilateral institutions, growing cooperation among bilateral aid agencies, the realization that competition among export credit agencies was counterproductive (from the standpoint of creditors), and more recently the need to achieve fair burden sharing in debt relief to the HIPCs. Overall, global goals rose in importance compared to national and commercial goals. These changes are only partial, and donors' financing programs still often serve narrow interests, either that of the nation or specific firms. But the goals of promoting development effectiveness and financial cooperation have taken on more and more importance over time. For example, most Development Assistance Committee (DAC) countries have considerably reduced tied aid requirements to improve the effectiveness of competitive bidding in reducing costs. On average, only about 13 percent of DAC countries' ODA was tied to purchases in donor countries (Perroulaz and others 2010).[46] In contrast, projects financed by concessional loans from China Eximbank are required to give priority to Chinese suppliers for equipment, raw materials, technology and services procurement.[47] Because of their competitiveness, Chinese companies would likely still win most, if not all, contracts even if they were not formally tied.

As China's financial programs increase in size, the government will confront pressures to take on a similar perspective. Greater openness in China will increase the importance of civil society and their ability to lobby for policies that promote aid effectiveness. Higher levels of official finance will increase the importance of coordinating with other countries. And China's increased impact on recipient countries will inevitably generate pressures to improve effectiveness.

The government should focus on improvements in transparency and standards over the medium to long term

China is still a developing country and its aid policy should be more seen as South-South cooperation than as the unilateral aid provided by traditional donors. Therefore, China's classification and data gathering of its official aid is also quite different from those of the developed economies. Naturally, China's aid is now much more integrated in its trade policies and its own development strategy. However, as China transitions into a high-income economy, it is logical that its aid policy becomes more independent, with its own objectives and its own effectiveness measures.

Already now China has adopted higher technical and environmental standards in its aid programs and is paying more attention to the people's livelihood and natural environment in recipient countries.[48] However, increasing transparency and learning from the well established practice and experience of official aid programs of the developed economies, for example, hiring professional institutions for independent evaluation will be conducive to enhancing the quality and reputation of China's aid programs.

There are several concrete steps that the government could take as its aid program develops during the coming transition. First, the transparency can be improved. One possible way to enforce an improvement in transparency would be to report the country's official finance according to DAC categories, as 20 non-DAC donors do already (World Bank 2011) or

[46] Note, however, that these figures exclude aid related to technical cooperation and administrative assistance (which often are tied), and thus probably underestimate tied aid levels. Also, research shows that even when OECD aid is untied, donor country firms still win the vast majority of contracts. Source: William Nichol and Ann Gordon, "Implementing the 2001 DAC Recommendation on Untying Aid: 2010–2011 Review," Development Co-Operation Directorate, DCD/DAC(2011)4/REV1, OECD, Paris March 14, 2011 http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC%282011%294/REV1&docLanguage=En [accessed May 14, 2010].

[47] China Eximbank website.

[48] We need to distinguish between technical and environmental standards adopted in overseas business ventures by Chinese enterprise and those adopted in official aid programs, which are normally higher than the former.

according to alternative categories that are consistent with an independent aid flows. [49] Collecting this data in a systematic way could also improve the government's monitoring of its financing program. Second, the government could introduce independent evaluations of projects or country programs. This would impose a useful discipline on officials responsible for projects, and the lessons learned would ultimately improve program effectiveness. At the same time, integrating research on the impact of projects into project design would force officials to be explicit about the goals of projects and provide invaluable information on project results.

The issue of conditionality in projects raises thornier issues. On the one hand, the lack of conditionality in Chinese projects means that they can be implemented more rapidly, more cheaply, and with less of a burden on government officials than projects undertaken by traditional donors. On the other hand, from the angle of traditional donors, the lack of conditions raises the risk of undesirable consequences. The challenge is to take side-effects of aid projects into account, while avoiding excessive interference in recipient government policies. Finding the right strategy is not straightforward. Many traditional donors still provide aid to countries where governance has been sharply criticized (witness the rise in US assistance to Iraq and Afghanistan over the past decade). Nevertheless, many studies have shown that aid is more effective in an overall environment of good governance.

Rising official finance may require greater global coordination

As China becomes a more significant source of concessional assistance, efforts to improve coordination with other donors will become more important. This will require adjustments in the aid programs of both China and the traditional donors. Extension of current initiatives, such as the dialogue initiated with the British Department for International Development and the collaborative workshop with the Australian government on aid to the Pacific Islands, and new initiatives would be a useful vehicle for learning and for considering proposals for improved coordination between China, traditional donors and recipient countries.

As its size and influence expands, China's official finance should take more factors into consideration

The rapid growth of China's overseas finance implies that China will increasingly be responsible for financial flows that are large relative to the size of some recipients' economies. To ensure the continuing effectiveness of its economic cooperation, it will be necessary to take into account broader considerations than simply the quality of specific projects. The government will have to pay attention to whether project allocation across the economy is sensible, whether the government's resources devoted to operations and maintenance are adequate, and whether the recipient is adequately coping with potential macroeconomic implications of large inflows of finance (Christensen 2010).

[49] This would require presenting China's aid according to DAC definitions, which differ somewhat from China's. For example, China does not count scholarships as aid, while DAC does; China includes military assistance in its external assistance budget, but DAC excludes military assistance from ODA; China does not count debt relief as aid, while DAC does include debt relief on non-concessional loans; and China includes only the interest subsidy in concessional loans as aid, while DAC includes the face value as ODA while deducting repayments in subsequent years (Brautigam 2010).

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