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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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This survey is published under the responsibility of the Secretary-General.

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Foreword

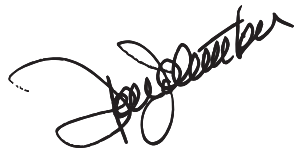
The 1960 Founding Convention of the OECD mandated the Organisation "to contribute to sound economic expansion in member, as well as non-member countries in the process of economic development". *However, until the 1990s, and the end of the Cold War, most activities of the Organisation* vis-à-vis *non-OECD economies were conducted through official development assistance and the Development Assistance Committee. In the 1990s, that rapidly changed. The OECD now has programmes with at least seventy non-OECD economies, including a number of country specific programmes, notably with Russia, and more recently with China.*

It is with great satisfaction that I write a Foreword for this first ever Economic Survey of China *by the Economics Department. Following the tradition of surveys of OECD economies, it focuses on policy and structural reforms to improve macroeconomic performance. This comes at a particularly opportune time. While there is great awareness in OECD countries about the increasing importance of the Chinese economy in a global context, there is much less knowledge of the extent to which China's economic policies have changed, or of the challenges that China still faces in its ongoing programme of reform. But these policies and their success or failure carry major consequences for all of us. This Survey intends to share the best practices of OECD countries, which have faced similar challenges during the course of their own development, while attempting to take into account the size, complexity and specificity of China, and of its on-going market-oriented reforms.*

I am confident that this Survey *will be of benefit to the Chinese Government, especially those ministries and agencies who co-operated closely with the OECD in its preparation, most notably the National Development and Reform Commission. But it will also be of great benefit to OECD countries, as well as non-OECD economies, who are increasingly engaged with China through trade and investment.*

This publication is being released during a time when we are broadening the important co-operation between the OECD and China. I believe that this Survey, *and the experience gained through the review process leading to its preparation, will provide the foundation for a deeper phase of engagement based on a better mutual understanding, following our frank and fruitful discussions, of the policies and structural reforms needed to improve the economic well-being of the Chinese people.*

While the Survey *is published under my responsibility, it has benefited from the views expressed in a Special Seminar of the Economic Development and Review Committee of the OECD in which representatives of the Chinese government actively participated.*



D. J. Johnston
OECD Secretary-General

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BASIC STATISTICS OF CHINA

THE LAND

Area (thousand sq. km)	9 597
Agricultural area, 2003 (thousand sq. km)	1 300
Forests, 2003 (thousand sq. km)	2 633

THE PEOPLE

Population, 2004 (million)	1 300	Civilian labour force, 2004 (million)	763
Annual rate of change of population, 2004	0.59	Civilian employment, 2004 (million) Total	752
Per sq. km, 2004	135	Distribution by sector, 2003 (%):	
Major cities, 2002 (million, total inhabitants):		Agriculture, forestry, fishing	49.1
Shanghai	10.0	Manufacturing, Mining, Utilities and Construction	21.6
Beijing	7.9	Services	29.3
Tianjin	5.1		
Guangzhou	4.7		
Wuhan	4.6		
Chongqing	4.2		

PRODUCTION

GDP (2004, billion CNY)	13 688	Origin of GDP, 2004 (per cent of total):	
GDP per head (2004, USD)	1 272	Agriculture, forestry, fishing	15.2
GDP per head (2002, USD PPP)	4 580	Manufacturing, Mining, Utilities and Construction	52.9
		Services	31.9
		Gross fixed capital formation (2004, billion CNY)	6 183
		Per cent of GDP	45
		Per head (US$)	575

THE GOVERNMENT

Government final consumption, (2004, per cent of GDP)	12.0
Government expenditure – Central, local and social insurance (2004, per cent of GDP)	27.9
Government revenue – Central, local and social insurance (2004, per cent of GDP)	27.3

FOREIGN TRADE

Exports of goods and services, (2004, per cent of GDP)	**36.0**	Imports of goods and services, (2004, per cent of GDP)	**34.0**
Main exports (per cent of total exports of goods):		Main imports (per cent of total imports of goods):	
Computers	14.7	Electrical machinery and semiconductors	19.7
Telecommunications equipment	11.5	Petroleum and petroleum products	7.9
Clothing	10.4	Computers	5.3
Electrical machinery and semiconductors	10.0	Iron and Steel	4.2

THE CURRENCY

Monetary unit: CNY	Currency unit per USD, average of daily figures:	
	2003	8.3
	2004	8.3
	May-05	8.3

Preface

The OECD's Economics Department has been engaged in a constructive dialogue with the Chinese authorities since the late 1990s as part of the Organisation's strategy of reaching out to major non-member countries. The most noticeable milestone was the publication in 2002 of the volume China in World Economy: The Domestic Policy Challenges, *based on an OECD-wide effort led by the Economics Department. Today, with this first* Economic Survey, *the OECD extends further its dialogue with China, entering into a relationship that broadens discussions to the full range of domestic economic policies and their interactions.*

The major themes of this report are those relevant to ensuring sustainable growth in China: improving the framework for the private sector; labour market reforms; ageing; and reform of the public sector and the financial system. Some of these topics echo concerns shared by many OECD members. Financial sector reform is nowadays less of a prominent issue in most OECD countries, but it is fundamental to the long-term stability and growth of the Chinese economy.

This Survey *documents the encouraging extent to which structural reforms in China have triggered a durable process of economic development, at a time when there are many signs that, over the past two decades, this process of economic convergence has stalled or even backtracked in OECD countries.*

These reforms have also favoured the emergence of China as a major trading nation and significantly reduced the number of people living in absolute poverty. Extremely bold changes have been introduced in the past five years. Few OECD member governments have embarked on reforms that have restructured or closed hundreds of state enterprises every month over a five-year period – a development that is still continuing – or have ended life-time employment practices and, in the process, stimulated a nation-wide re-allocation of resources.

Private sector dynamism has offset the initial negative impact of the downsizing of public enterprises, with overall employment now rising as a result of the growth of small-and-medium-sized private companies. Indeed over half of national income now originates from the private sector. These original findings, resulting from close collaboration between the authors of the Survey *and the Chinese national statistical agency, are one of the main contributions of this study. Based on an analysis of almost a quarter million firms over the five years to 2003, the research documents the rising competitiveness of Chinese enterprises while pointing to the gains that would flow from a more efficient use of labour and capital in the industrial sector.*

The report also discusses labour market reforms, adopting a multifaceted approach suited to the Chinese context. It emphasises the need to increase labour market mobility by bringing down the administrative barriers to movement within the country, so helping to reduce income disparities between regions. The Survey *also highlights the challenges posed by rapid population ageing, an area where sharing experiences with OECD members can be valuable.*

Finally, the report argues for further financial market development and reform. The allocation of capital has been a persistent area of weakness, and better performance in this regard would most

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likely allow even faster growth and a higher level of consumption. In general, whether economic performance is ultimately best served by equity or bank finance remains an open question, but in China, considerable progress still has to be made in ensuring that both capital market and bank-provided finance is allocated efficiently.

Not all aspects of the Chinese economy can be covered in this first report nor can some of the topics be dealt with in the depth that they deserve, notably Chinese public expenditure policies, which will be analysed in a forthcoming monograph. The excellent level of co-operation with the Chinese economic agencies in the course of this study is both promising for analytical work and challenging for the targeted policy advice that China asks for with a view to sustain the momentum of growth and further integration with the world economy.

Jean-Philippe Cotis
OECD Chief Economist

Executive summary

Major changes in policies have boosted incomes. *China's economic growth has averaged 9½ per cent over the past two decades. The rapid pace of economic change is likely to be sustained for some time. These gains have contributed not only to higher personal incomes, but also to a significant reduction in poverty. At the same time, the economy has become substantially integrated with the world economy. A large part of these gains have come through profound shifts in government policies. Reforms have allowed market prices and private investors to play a significant role in production and trade.*

The private sector is driving growth and can be strengthened further. *The scope of private ownership has become substantial, producing well over half of GDP and an overwhelming share of exports. Private companies generate most new jobs and are improving the productivity and profitability of the whole economy. The government has restructured the state-owned business sector, resulting in a massive loss of jobs. Still, a large part of the state sector remains to be restructured; policies to facilitate this process have been identified and are being expanded. The performance of the business sector could be strengthened more through a further modernisation of the business framework and better enforcement of laws in the economic sphere, especially those for intellectual property rights.*

A more flexible exchange rate would support a stable macroeconomic environment. *While fiscal policy has been run in a stabilising fashion, the outcome of monetary policy has been considerable volatility of inflation. Greater flexibility of the exchange rate would allow the authorities to guard against any further increase in inflation in both product and asset markets, more easily adapt monetary policy to domestic concerns, and allow market forces to determine bank interest rates to a greater extent. The change in the exchange rate arrangements announced in July 2005 is a step in that direction.*

Further reforms are needed in the financial sector. *Until five years ago, lending policies led to the accumulation of a considerable quantity of bad loans. The recapitalisation of more than two-thirds of the banking system to eliminate this historical burden is almost complete and the cost to public finances of completing the exercise, while substantial, appears to be manageable. Wide-ranging reforms have improved the capacity of banks to make market-based lending decisions. Overall, these policies appear to have been successful, as new loans have been of much higher quality, even using the new, more realistic, classification system for non-performing loans. Further progress will require a continued focus on improving governance and increasing private ownership. Policies designed to expand and further deregulate capital markets would improve the allocation of capital, lower the risk of further waste of savings, and minimise systemic risk.*

Solid public finances could permit tax and expenditure reforms. *Rapid growth of revenues and control of expenditure has put public finances in a sound position. As a result there is scope to move towards less discriminatory taxation of different types of companies and activities, while maintaining low marginal tax rates. Expenditure on health and education both in rural areas and for migrants in urban areas could also be strengthened, but achieving this objective may require*

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an overhaul of fiscal relations between different levels of governments. Such spending would help reduce inequalities but would need to be complemented by further labour market reforms. Additional reductions on the restraints to migration would help to facilitate a more rapid pace of urbanisation that could help to reduce income inequalities, especially if public services are guaranteed to newcomers and if those who leave rural areas do not lose their land-use rights. Increased urbanisation would need to be accompanied by policies designed to lower the high level of pollution in an efficient, economic fashion.

This Survey was prepared in the Economics Department by Richard Herd, Sean Dougherty and Margit Molnar, under the supervision of Silvana Malle.

Consultancy support was provided by Charles Pigott. Analysis of Chinese micro-economic data was undertaken by Ping He and Xin Zhang of the Chinese National Bureau of Statistics. Technical assistance was provided by Thomas Chalaux, secretarial assistance by Muriel Duluc and Lillie Kee.

The Survey was discussed at a special seminar of the Economic and Development Review Committee on 3 June 2005 in which members of the Committee and representatives of the Chinese government participated.

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Assessment and recommendations

Economic growth has been rapid

The pace of economic change in China has been extremely rapid since the start of economic reforms just over 25 years ago. Economic growth has averaged 9½ per cent over the past two decades and seems likely to continue at that pace for some time. Such an increase in output represents one of the most sustained and rapid economic transformations seen in the world economy in the past 50 years. It has delivered higher incomes and a substantial reduction of those living in absolute poverty. The size of the economy, when measured at market prices, now exceeds that of a number of major European economies and may be exceeded by only three OECD member countries in five years' time. While average incomes are still below those in other middle income countries, there are large parts of the country that have reached the income levels seen in some developed East Asian countries just one generation ago and are proceeding along a similar rapid catch-up path. Many industries have become completely integrated into the world supply chain and, on current trends, China could become the largest exporter in the world by the beginning of the next decade. Underlying this growth there has been a profound evolution of economic policies that has transformed the efficiency of enterprises.

Helped by profound changes in economic policies

This extraordinary economic performance has been driven by changes in government economic policy that have progressively given greater rein to market forces. The transformation started in the agricultural sector more than two decades ago and was extended progressively to industry and large parts of the service sector, so that price regulation was essentially dismantled by 2000. While price controls were being abolished, the government introduced a pioneering company law that for the first time permitted private individuals to own limited liability corporations. The government also rigorously enforced a number of competition laws in order to unify the internal market, while the business environment was further sharpened by allowing foreign direct investment in the country, reducing tariffs, abolishing the state export trading monopoly and ending multiple exchange rates. The momentum towards a freer economy has continued this decade with membership of the World Trade Organisation resulting in the standardisation of a large number of its laws and regulations and the prospect of further tariff reductions. In addition, fundamental changes were made to the constitution in 2004, stressing the role of the non-state sector in supporting economic activity in the country and protecting private property from arbitrary seizure. In 2005, regulations that prevented privately-owned companies entering a number of sectors of the economy, such as infrastructure, public utilities and financial services were abolished. Overall, these changes have permitted the emergence of a powerful private sector in the economy.

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Reform of the state-owned sector

The government has also introduced wide ranging reforms into the state-owned sector that dominated the economy in the early 1990s. State-owned enterprises have been transformed into corporations with a formal legal business structure and many have been listed on stock exchanges that were created in the early 1990s. Since 1998, a policy of letting small enterprises go and restructuring large companies has been successfully pursued, with the number of state-controlled industrial enterprises falling by over one half in the following five years. Employment contracts were made more flexible, leading to job reductions in the industrial sector of over 14 million in the five years to 2003. This process was aided by the creation of unemployment and welfare programmes that transferred the burden of compensating redundant workers from enterprises to the state. Finally, in 2003, the government rationalised its control over state-controlled enterprises further by creating an agency charged with exercising the government's ownership rights and boosting the performance of these enterprises.

And rapid growth of physical and human capital

These reforms have improved the framework for mobilising the resources generated by one of the highest rates of savings in any economy – the gross saving rate approaches half of GDP – generating a particularly rapid increase in the capital stock, although such estimates can only be approximate since there are no official estimates either of the capital stock or of constant price estimates of expenditure components of GDP, the absence of which complicates interpretation of economic trends. Investment has, in part, served to raise the assets available to each worker in the business sector, so boosting the annual growth of labour productivity to 8½ per cent in 2003. It has also been used to create an increasingly urban society – a movement that has gone in step with a flow of people from the land into the service and manufacturing sectors of the economy. Since workers in agriculture have low productivity, such a movement has boosted growth considerably.

In parallel with the growth of physical assets, the government has pursued a policy of raising the education qualifications of young people. It launched a programme to give all children nine years' education, moving recently to ensure that all rural areas achieve this goal by 2006. Higher education has also been transformed. In the five year period to 2003, the number of students joining higher education courses has risen by 3½ times, with a strong emphasis on technical subjects. As a result of these policy initiatives, the average quality of the labour force has also been improving significantly, with new entrants to the labour force having almost three times as many years of schooling as those who are retiring. Finally, government initiatives have freed the urban labour market, with the wages for educated staff being pushed up by the growing influence of a market economy.

These factors have helped the private sector to be the basis of economic expansion

Indeed, the changes in government polices have created a largely market-oriented economy in which the private sector plays a key role. Precise measurement of the size of the private sector is difficult, but a definition which considers as private all companies that

are controlled neither by state nor collective shareholders suggests that the private sector was responsible for as much as 57% of the value-added produced by the non-farm business sector in 2003. Even amongst larger companies in the industrial sector, the private sector produced over half of value-added in 2003 and that share appears to have risen even further in the following two years. Overall, between 1998 and 2003, the progressive evolution in government policies allowed a fivefold rise in the output of domestically-owned private companies and a threefold rise in the output of non-mainland controlled companies; by contrast, the output of the state sector rose by just over 70% in this period.

The growth in private output has also been the result of the higher productivity of most companies in the sector. The sharper incentives facing the private sector companies have resulted in them using less capital and labour to produce output than state companies. Overall, the aggregate productivity of private companies in the industrial sector is estimated to be almost twice that of enterprises controlled directly by the state. The profitability of private companies has also risen considerably and, by 2003, they were earning a 15% rate of return on their physical assets. Such a high level of competitiveness has resulted in the private sector accounting for three-quarters of all exports in 2003. While the bulk of these exports are made by foreign-controlled companies, the domestically-owned private sector managed to quintuple its exports in the five years to 2003, as more small and medium sized enterprises were granted export licences. Overall, the growth in private sector ownership has had a very favourable impact on real incomes and macroeconomic activity, boosting the level of multifactor productivity in the industrial sector by close to 10% in five years. With the decision in 2005 to allow private enterprises to establish businesses in many previously restricted areas, further improvement in multifactor productivity may be possible.

Prospects could be enhanced by further modernisation of the business framework

The growing importance of the private sector in supporting the economy makes it all the more important to further modernise the legal framework for business. The government is preparing legislation in three important areas: bankruptcy law, company law and the implementation of the constitutional amendment on property rights. The second draft of the bankruptcy law has now passed the legislature and is generally acknowledged to follow international best practice. The law should clearly establish the precise claims that employees have on assets, limiting payments to wages owed to employees and leaving other costs, such as redundancy and resettlement expenses, to social funds. Secured creditors would be more likely to lend to private companies under such circumstances. A new company law is under consideration. A reduction in the barriers to the formation of both limited and joint stock companies should be a priority. The upper limits on the number of shareholders in a limited company should be abolished, while at the lower end companies with one shareholder should be allowed. For both sorts of companies the minimum capital requirements needed for incorporation should be lowered. Such changes would facilitate the expansion of privately-owned companies. The revised company law should aim to improve corporate governance, notably offering better protection to minority shareholders in both quoted and unquoted public companies and defining the role of corporate bodies such as the supervisory board and the duties of directors. In addition, the proposed anti-monopoly law should cover a much wider range of anti-competitive

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activities than do current laws. Finally, rapid introduction of the laws to implement the constitutional amendment on private property rights should be envisaged.

With better enforcement of laws in the economic sphere

Beyond the content of the law, though, there is a more substantial problem of giving force to economic laws. A relatively complete set of laws and regulations covering intellectual property rights is in force, having been updated in 2001. The focus of government policy in this area has now switched to the enforcement of these laws. Adequate protection of intellectual property is also of increasing importance to Chinese entrepreneurs. Weaknesses here may hold back the degree of innovation and product development of local companies. At present, in this and other areas, it can be very difficult to obtain judgements in court and even more difficult to obtain enforcement of the judgement. Such difficulties are not just felt by foreign enterprises. Chinese entrepreneurs feel that expansion across provincial borders is made difficult by the lack of objectivity of local judiciaries when it comes to trying cases involving the infringement of trade secrets, intellectual property rights and contract enforcement more generally. The solution would appear to require a series of steps. One might be to transfer some of the financing of courts to the central government; another would be increase the extent of specialisation of the courts (notably in the area of bankruptcy and intellectual property).

And a continued reduction in the number of loss-making state enterprises

Reforms in the way that state-controlled firms are managed have improved performance but there remains significant scope for further improvement. In the industrial sector, the rate of return earned by state-controlled companies rose from 5% to 10% in the five years to 2003. Most of the increase in returns has, however, come from a minority of companies. Over 35% of all state-owned companies are not earning a positive rate of return and one in six has negative equity. For loss-making enterprises, the government has announced a four-year programme that will involve substantial additional restructuring. In some cases, asset sales may be possible in which case it is important to follow the regulations, issued in the spring of 2005, that ensure transparency in management buyouts. Within this framework, assets need to be valued on a forward-looking basis, supplementing valuations based on the acquisition cost of assets. Greater use could be made of the new property exchanges to ensure competitive prices are achieved for state assets. The government could also consider further sales of packages of distressed assets to companies with experience of restructuring, in order to supplement the efforts of the asset management companies. For quoted state-controlled companies, which earn returns on assets comparable with those of listed companies worldwide, the government has announced that there will be a progressive lifting of the non-transferability of state and local government owned shares, an initiative that could ease mergers and acquisitions.

Strong medium-growth requires a stable macroeconomic environment

The growing importance of the private sector puts a premium on the maintenance of a stable macroeconomic environment – notably in the area of prices. Fiscal policy has been run in a stabilising fashion. The overall fiscal position is sound, and has allowed scope for counter-cyclical management: expenditure and deficits were allowed to expand in 1998, when external developments threatened to reduce the pace of economic expansion; and deficits were reduced, while expenditure was kept under control when revenues surged beyond budget expectations in 2004. Yet, the past decade has seen considerable volatility in the inflation rate, almost 8 times that in the United States and 4 times that in Western Europe. The annual rate of inflation, when measured by the GDP deflator, has moved from 6% in 1996, to slight deflation in 2002, before rebounding again in 2003 and 2004 and still registered a rate of 4¼ per cent in the first half of 2005, though the consumer price index has slowed to a greater extent at the beginning of 2005 due to its high food content.

That would be best achieved with a more flexible exchange rate

Such fluctuations suggest that domestic monetary policy has not always been successful in maintaining low and stable inflation. Rather, the existence of a relatively fixed rate of exchange against the dollar has exposed the economy to inflationary or deflationary impulses stemming from fluctuations in the effective exchange rate of the dollar. In the current cycle, the combination of a rising current account surplus and foreign direct investment inflows has led to a need to purchase dollar assets to stabilise the exchange rate. The Chinese authorities have been able to sterilise much of this inflow through changes in reserve ratios, open market operations and window guidance to restrain the growth of bank lending without raising interest rates. However, given that inflows amounted to 12½ per cent of GDP in 2004 and, in line with experience in other countries, central bank sales of securities may eventually disturb the portfolio balance of the private sector, putting upward pressure on interest rates. Although there are strict controls on capital inflows, there is a likelihood that, with increasing trade flows, the capital account may become increasingly porous and responsive to any such increase in interest rates, increasing the pressure for sterilisation. Moreover, reliance on window guidance to limit bank lending goes against the government's policy of increasing the use of market-based instruments to control monetary developments. Indeed, in line with this policy, the authorities have started to develop foreign exchange and derivative markets that would allow a redistribution of risks stemming from exchange rate fluctuations. Overall, a policy of allowing greater flexibility in the exchange rate would allow the authorities to guard against the risk of any further increase in inflation in both product and asset markets, to more easily adapt monetary policy to domestic concerns and to allow market forces to determine bank interest rates to a greater extent. The July 2005 revaluation of the currency, together with the associated change in the exchange rate arrangements, represents a step in this direction.

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A significant reform of the banking sector is underway

One concern of the authorities in moving to a more flexible exchange rate, perhaps overstated given the low exposure of banks to foreign lending, has been the weakness of the banking system, but significant reforms have now been undertaken in this area. Until 1995, banks paid considerable attention to national policies in determining the allocation of bank credit. As a result, banks accumulated around CNY 4 trillion of bad debts mostly as the result of loans made in the period up to 1999. Wide ranging reforms have been introduced since then. Banks have started to modernise their lending and risk management practices. Better risk weightings have been introduced by the banking regulator and the classification system for non-performing loans has been made more realistic. Foreign investors have been allowed to acquire stakes in 12 second-tier joint stock banks. Overall, these reforms appear to have been successful, as since 2000 the new loans made by banks seem to be of a much better quality. With a reform of the banking sector infrastructure in place, the government has embarked on a strategy of recapitalising the major banks and preparing to list them on the stock market. The process of establishing a sound banking system is now well advanced for two of the major banks and has started with a third.

But further changes are still required in this sector

Re-organisation of the remainder of the banking system is still needed and would be best accompanied by a growing marketisation of the banking sector. Almost 30% of the banking sector remains to be recapitalised. The process may take some time in the rural credit co-operative sector where there are a large number of small institutions with significant problems. Progress has been made in a number of pilot provinces where co-operatives have been converted into commercial banks. The companies set up to dispose of non-performing loans previously owned by banks are recovering about 20% of their face value and so eventually there will be a need for the government to provide for their refinancing. Taking this into account, the ultimate costs to the government budget of recapitalising the banks, though likely to be substantial, appear manageable. But recapitalisation only represents the first step in improving the banking system. Better governance is also needed. Amongst both the joint-stock banks and city commercial banks one possible route might be to involve the non-state sector to a greater extent than at the present, as there are only a couple of banks controlled by private interests, while limiting the participation of industrial and commercial groups. As to the major banks, policy should focus on improving governance; in particular by introducing a transparent recruitment process for appointments to senior management posts. Given that a move to private ownership and changes in management are likely to take time, the bank regulator will have a key role to play in ensuring that banks put adequate risk management tools into place.

Capital markets need to be developed

Broadening financial markets is a further crucial aspect of improving the allocation of capital. At present, such markets have a limited role and this generates a concentration of financial risk in the banking sector to a greater extent than in OECD economies. The equity

market could be further developed, as the market value of freely tradable shares represented just 9% of GDP in 2004. Moreover, nearly all the quoted companies are state-controlled, while outstanding corporate bonds were equivalent to less than 1% of GDP in 2003. Share markets are unable to act as a market for control as the bulk of issued shares have restrictive covenants that, in theory, limit their transfer. The government is moving in the direction of liberalising the market, by easing restrictions on the sale of state-owned shares in quoted companies. At the same time, the pricing of initial public offers has been put on a more market driven basis, but the final decisions on which companies are listed are still made by the State Council. A freer procedure could be considered subject only to ensuring that issuing criteria have been met and that information disclosure has been adequate. In the corporate bond market, decisions on new issues are still determined administratively and are subject to industrial policy criteria. Here too a more neutral procedure could be considered. Such reforms would allow the developing private sector greater access to capital markets and make the markets more efficient, so helping to avoid the significant waste of savings represented by non-performing bank loans. Moreover, improved financial returns would benefit those saving for retirement.

Reforms to the pension system are needed to avoid future fiscal burdens

A greater role for capital markets is all the more important given the rapid ageing that will occur in the population over the next two decades. Since the nationwide reform of 1997, the public pension system, which only covers 14% of the active population, has been a two-part system. The first part provides a basic flat rate pension while the second part provides a pension proportional to contributions, revalued by the bank deposit rate. This second part could, eventually, be developed into a fully-funded individual account system, with the balances invested in capital market instruments that would yield more than bank deposits. A trial reform in this sense has been launched in several provinces. At present, all contributions are needed to pay existing pension entitlements and so the pilot programme requires transfers from government revenues to meet the transition costs. A generalisation of such trials would likely require a reduction in prospective pension outlays in order to fund these costs and so avoid fiscal deficits. This could be achieved by equalising and raising retirement ages for men and women, phasing out early retirement schemes and bringing benefits from the second part of the system into line with life expectancy at retirement. In addition, the government is committed, in principle, to using part of the proceeds from selling participations in state-owned companies to create a fund to smooth the spending of the pension system. Such a policy has considerable scope for raising funds given that state assets are equivalent to 80% of GDP. Over the longer term, consideration will need to be given to widening the coverage of the pension systems to rural areas as, with increasing migration, traditional support systems for the elderly may function less well.

But elsewhere public finances are in good shape

Public finances are in good shape. The reform of public finances introduced in 1994 has permitted a strong rise in government revenues with a larger part coming from indirect taxation rather than from levies on income. The management and transparency of public

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finances has also been improved. These reforms have provided a strong basis for restoring public expenditure after the crisis of the first half of the 1990s that was linked to the fall in profitability of state-owned enterprises. Between 1994 and 2000, public expenditure rose by almost 7 percentage points of GDP but is still fully 13 percentage points below the OECD weighted average. Such a difference is mainly due to low payments for both social security and debt interest. Indeed, apart from these two areas, public spending absorbs a similar share of GDP as in the OECD area. More recently, rapid growth of revenues and tight control over expenditure has been used to bring the overall budget deficit down to below 1% of GDP and to keep public debt stable at around 23% of GDP.

Some reforms of taxation are being considered

If government revenues continue on the buoyant path of the past few years, a number of reforms could be considered with the objective of reducing distortions. One change already envisaged by the government is the equalisation of the rate of company taxation for domestically and foreign – owned companies. The basic rate of corporate income taxation, at 33%, is in the upper quartile of rates in the world. On the other hand, foreign companies are taxed at a rate (15%) that is amongst the lowest in the world. The unified rate will need to be set at a competitive level for firms in China in order to encourage domestic capital formation, suggesting a unified rate close to that currently paid by foreign companies. At the same time, dividends paid to domestic shareholders could be exempted from any further taxation, so bringing the tax rates on risk capital more into line with the tax on government bonds. The government is testing the deductibility of VAT on investment goods in a number of provinces. If this change is generalised, it will be important to ensure that there is no discrimination in the tax treatment of investment in different industries. At the same time, the base of VAT could be widened to include all services, with consequent changes made to the business tax.

And further changes to taxation might be desirable

Over the medium term, some changes could also be envisaged to personal income taxation. In this area, the system has been kept simple, with few deductions and a flat tax on income from capital. At present, few people have sufficiently high incomes to pay the highest marginal tax rate of 45% and the average marginal tax rate is low. But, given rapid growth in incomes, this situation could change if allowances and thresholds remain without any indexation to wages or prices, as has been the case since 1980. A strong signal of the intention of the government to continue its support for private sector entrepreneurial activity would be to reduce top marginal income tax rates, a move that would cost little in revenue but would align China with a number of other transition countries that have found that a low tax rate encourages the declaration of income and improves incentives for economic activity. At the same time, an increase in thresholds below which income tax is not paid would help preserve equity.

Along with some restructuring of public expenditure

There has been a marked recovery in public expenditure, particularly in the area of investment, in the past decade. Public outlays on education and health are low relative to OECD countries and moreover have tended to favour better off groups in society. On the other hand, in recent years, total government-financed capital outlays, including direct capital formation and investment financed by capital transfers, have, on a national accounts basis, amounted to over 9% of GDP and helped create, *inter alia*, a freeway system. However, there is evidence that some of this investment has been wasteful, suggesting that some re-orientation of spending may be needed. The government has started to increase health and education expenditure but a further effort will be needed, especially in the poorer parts of the country as outlays are still low relative to needs. Achieving such a result may require another overhaul of fiscal relations between different levels of government. The reform of the mid-1990s has allowed a major increase in transfers from central to sub-national government that has helped stabilise inequalities in public spending across the country. However, health and education expenditure is undertaken at the lower levels of government which have inadequate sources of tax revenue and are dependent on transfers whose importance varies considerably across the country. Greater attention needs to be paid to aligning the revenues of local government to their expenditure mandates and to designing an equity-oriented national scheme for sub-national fiscal relations.

Reductions in geographic income dispersion are needed

Increased fiscal transfers have helped lessen some of the inequalities in economic development but need to be complemented by further liberalisation of the labour market. Since 1999, polices have been in place to boost infrastructure and education spending in the poorest, western areas of the country with the objective of providing the conditions for faster growth. Programmes are also in place to reduce taxation and illegal fees in rural areas, so boosting incomes. Such programmes could be usefully complemented by efforts to create a national, or at least provincial, labour market. At the moment, it is difficult for workers and their families to permanently change their place of residence. Even for a temporary move, many permits are required and many local services, such as education and health are either not available to migrants or only available on unfavourable terms. Moreover, if a rural person moves permanently to a city, his rural landholdings are forfeited without compensation. The government has been reducing restrictions on movement but further relaxations would tend to reduce rural-urban income differentials.

And could be helped by a faster pace of urbanisation

Migration will bring increased urbanisation that will need to be managed carefully. At present, Chinese cities are more equally sized than those in other economies. Considerable gains in productivity might be achieved with larger cities and recent government reports have highlighted the benefit of creating three major agglomeration hubs, as well as a number of city belts on the coast and major rivers. However, policies with regard to land

ownership tend to militate for relatively extensive urban development, as cities and towns retain most of the funds from the sale of land leases, leading the central government to curb excessive development during the current upswing. Following extensive privatisation during the past decade, a residential housing market has emerged, with the owner occupation rate approaching 70% in urban areas. Nonetheless, the short length of commercial and residential leases (40 and 70 years, respectively) may constitute a barrier to effective improvement of land, as property on the land reverts to the state at the end of a lease. In 2003, new legislation gave farmers the right to a 30 year lease on their land, but this law has not yet been fully implemented. Moreover, leased land may be subject to redistribution when household size changes. Longer leases might improve incentives for rational land-use.

In sum, the very wide urban-rural income differences mean that large-scale migration will continue one way or another. On the positive side, continued urbanisation will contribute to growth, and also to reduced inequality. But managing the process is complex and requires simultaneous reform in several areas: reduction in regulated barriers to migration; land-law reforms to underpin a more efficient urbanisation process; changes in fiscal relations among levels of government (particularly within provinces) to assure an adequate funding of health and education spending for the newly urbanised population; as well as proper incentives for urban governments to allocate resources to these ends.

That can be achieved without sacrificing the environment

Increased urbanisation and economic activity has taken place in the context of an environment that is subject to a high level of pollution. Government policies have been successful in containing the level of pollution but, even so, five of the ten most polluted cities in the world are in China. Investments under the 9th and 10th five year plans have improved pollution control. Indeed, the quantity of sulphur emissions rose only 5% between 1993 and 2003, despite GDP more than doubling in the same period. The upswing in emissions in the recent business cycle suggests that it will be a significant challenge to ensure that environmental measures and energy policies are sufficiently forceful to lower pollution levels markedly. New legislation, introduced in 2003, has strengthened the use of economic instruments by markedly increasing penalties paid for the emission of air and water pollutants. As yet, though, few old power stations are fitted with anti-pollution equipment and the level of pollution, both for air and water, remains high. The key to ensuring further improvements in air quality, which currently imposes a welfare cost estimated to lie between 3% and 8% of GDP, will be the effective enforcement of laws by local environmental bureaux and ensuring that pollution emissions from major sites are carefully monitored.

Overall, a sound strategy for development is in place

A marked evolution in economic polices over the past two decades has led to a long period of sustained economic expansion. National income has been doubling every 8 years and this has been reflected in the reduction of the poverty rate to much lower levels. Indeed, by some accounts, over half of the reduction in absolute poverty in the world between 1980

and 2000 occurred in China. At the other end of the scale, average incomes in major coastal areas are on a similar development path to that seen in other East Asian countries one generation ago. Considerable challenges face the economy, not the least of which is a rapid increase in the age of the population, but continued evolution of economic policies, especially in the areas of the allocation of capital, labour mobility, urbanisation and the creation of a improved framework for the development of the private sector of the economy, should ensure that this development momentum is sustained.

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Chapter 1

Key challenges for the Chinese economy

China's economy has grown rapidly so far this decade. Government policies have moved markedly towards allowing market forces influence economic activity. Polices covering the price determination, foreign trade, exchange rates, foreign investment, entry barriers, internal markets, the operation of state-owned enterprise and the financial system have all been changed. These reforms have boosted growth that stems, in an accounting sense, mainly from a rapid pace of capital accumulation, relying on a level of national saving that is approaching half of GDP. The policy changes have allowed a much increased role for the private sector and substantial foreign investment. Sustaining the recent pace of growth will require further reform to ensure that there is a continued improvement in the framework for the private sector, to complete the reform of the banking sector and ensure a stable macroeconomic environment. There are also a number of imbalances in the economy whose resolution would help improve growth and wellbeing. In particular, policy changes are needed to reduce the disparities between rural and urban incomes and increase the pace of urbanisation. Welfare would also be improved by further reductions in the high level of pollution.

Assessing the past growth of the economy

The policy framework

The past twenty-five years have seen a remarkable transformation in the Chinese economy. Average incomes increased almost eight-fold with major increases in many elements of material well-being. While recent years have seen a widening in income differentials, there has nonetheless been an improvement in incomes at the lower end of the income distribution, with only 3% of the rural population being below the national absolute poverty line by 2003. Other measures of well being have also improved as can be seen by the tripling in the size of accommodation available to city dwellers, an increase in life expectancy, a major fall in the illiteracy rate and the very rapid increases in the output of many items of discretionary expenditure (Table 1.1).

Table 1.1. **Selected indicators of economic change**

		1985	2003	1985-2003	1997-2003
		Level		Average annual growth	
Household refrigerators	units per 100 households	1	46	21	6
Colour television sets		4	94	19	10
Computers		. .	12	. .	54
Air conditioners		. .	28	. .	29
Washing machines		1	59	26	4
Students in higher education	1 000 000 persons	2	11	11	23
Fixed line telephone subscribers		63	263	8	25
Mobile telephone subscribers		. .	270	. .	65
Air passengers		7	88	15	8
Length of paved roads	1 000 km	38	208	10	7
Length of sewer pipelines		32	199	11	9
Public transport vehicles	1 000 units	45	264	10	8

Source: National Bureau of Statistics Statistical Yearbook 1986, 1998, 2004.

The process of reform has been gradual but progressively advancing towards a market-based economy. The government has moved forward by experimenting with various policy options in different provinces before implementing programmes on a nationwide basis. Reforms started in the late 1970s with price and output decisions being liberalised in agricultural markets. A number of reforms were introduced beginning in 1978 (Table 1.2) and, by the early 1990s, almost half of industrial prices were deregulated (Table 1.3). Non-state enterprises had emerged in rural areas and foreign direct investment had begun in special economic zones. The incremental nature of reform did create a number of problems in this period, especially for state-controlled enterprises, whose profitability declined and for the newly created banks which continued to act as quasi-fiscal organisations.

Table 1.2. **Chronology of economic reforms in China**

Year	Policy change
1978	"Open door" policy initiated, allowing foreign trade and investment to begin
1979	Decision to turn collective farms over to households
	Township and village enterprises (TVEs) given stronger encouragement
1980	Special economic zones created
1984	Self-proprietorships (*getihu*) encouraged, of less than 8 persons
1986	Provisional bankruptcy law passed for state owned enterprises
1987	Contract responsibility system introduced in state owned enterprises
1988	Beginning of retrenchment of TVEs
1990	Stock exchange started in Shenzhen
1993	Decision to establish a "socialist market economic system"
1994	Company law first introduced
	Renminbi begins to be convertible on current account
	Multiple exchange rates ended
1995	Shift to contractual terms for state owned enterprise staff
1996	Full convertibility for current account transactions
1997	Plan to restructure many state-owned enterprises begins
1999	Constitutional amendment passed that explicitly recognises private ownership
2001	China accedes to the World Trade Organisation (WTO)
2002	Communist party endorses role of the private sector, inviting entrepreneurs to join
2003	Decision to "perfect" the socialist market economic system
2004	Constitution amended to guarantee private property rights

Table 1.3. **Share of transactions conducted at market prices**

Per cent of transaction volume

	1978	1985	1991	1995	1999	2003
Producer goods						
Market prices	0	13	46	78	86	87.3
State guided	0	23	18	6	4	2.7
State fixed	100	64	36	16	10	10.0
Retail sales						
Market prices	3	34	69	89	95	96.1
State guided	0	19	10	2	1	1.3
State fixed	97	47	21	9	4	2.6
Farm commodities						
Market prices	6	40	58	79	83	96.5
State guided	2	23	20	4	7	1.6
State fixed	93	37	22	17	9	1.9

Source: National Reform and Development Commission and Price Yearbooks.

Major changes to the functioning of the economy were introduced in the 1990s. The economy was decisively opened to world trade both through the encouragement of foreign investment, and the reduction of effective tariffs on imported inputs as well as through the abolition of multiple exchange rates and the introduction of convertibility for current account transactions. Domestically, a framework for private enterprises was created with a new company law. The state sector of the economy was also modernised through the introduction of public corporations and the listing of a number of these companies on a newly created stock market. The urban social security system was reformed, permitting some deregulation of the labour market. By the end of the decade, the role that the private sector could play in improving living standards had been acknowledged.

The major OECD study *China in the World Economy: the Domestic Policy Challenges* that examined the reforms undertaken by the government up to 2000 concluded that the process of reform of individual segments of the economy had reached its limits and that the emphasis needed to shift towards comprehensive economy wide reforms. It also recommended that a faster pace of reform be considered in some key areas (OECD, 2002). These changes were all the more necessary if the economy was to fully integrate into the world economy after entering the World Trade Organisation (WTO).

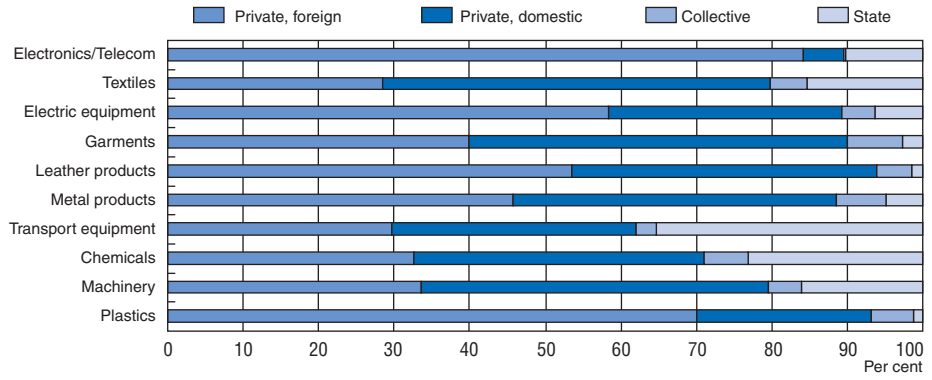
The study identified a critical need for market forces to be given a greater role, especially through systemic reforms to reduce barriers to labour and capital mobility and to facilitate inter-provincial trade. Framework policies in the business sector were found to be in need of strengthening. Financial markets were considered to be highly interdependent with other reform areas and could represent a bottleneck, if unreformed, for achieving overall favourable outcomes. Finally, government finances were considered to require bolstering in order to lessen the stresses that emerged between revenues and expenditure requirements. In addition, public governance systems needed to be changed.[1] The results in the rest of the study suggest that considerable progress has been made in starting to address most of these problems.

The extent of growth

The Chinese economy has been expanding very rapidly over three decades but only after 1999 has it come to exert a marked impact on the rest of the world. In 2005, OECD short-term economic projections suggest that the absolute value of Chinese GDP will have surpassed that of Canada and Italy when measured at current prices and exchange rates and will be exceeded by only three OECD economies by 2010 (OECD, 2005a). China's impact on the world economy has been accentuated by a very high and rapidly increasing degree of openness to trade, with the average of imports and exports representing 35% of GDP in 2004. With such a high degree of openness, Chinese exports of goods and services were only exceeded by those of the United States and Germany, despite the much larger size of GDP in those countries. The OECD's medium-term baseline for the evolution of the world economy suggests that exports from China will overtake those from Germany in 2008. The same scenario suggests that by the beginning of the next decade, Chinese exports may overtake those from the United States and may represent 10% of world trade in goods and services at that point.

This rapid integration into the world economy is, in large part, the result of foreign companies establishing manufacturing bases in China. Foreign-controlled companies dominate exports, accounting for over half of all overseas sales. In some industries foreign companies dominate foreign sales almost completely though they are less active in the garment and textile industries where domestic private companies supply most exports (Figure 1.1).[2] Foreign firms also serve the domestic market, though their share of the domestic market, at 13%, is much less than that of the export market (55%). However, the presence of foreign companies on the domestic market appears to enhance competition. It is in the industries where foreign competition is the greatest that domestic companies have increased the share of sales revenue devoted to research and development the most (Hu *et al.*, 2004).

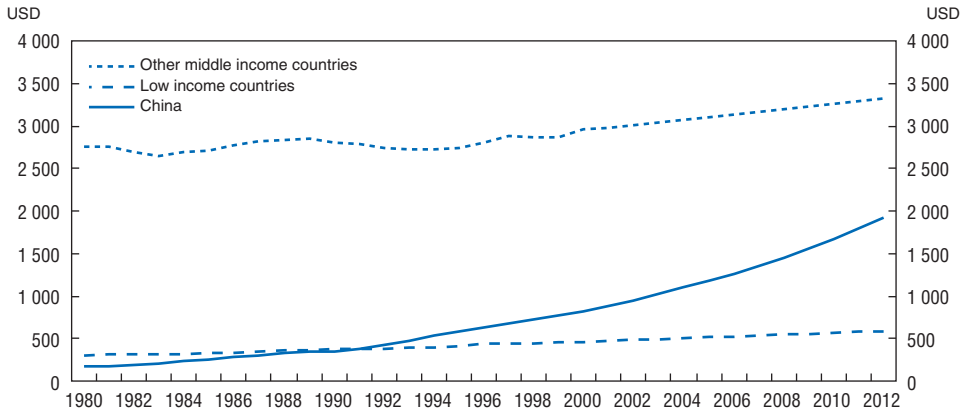
Figure 1.1. **Share of different sectors in principal export industries**



Note: The industries are ranked in order of descending importance in total exports.
Source: NBS Industrial microdata.

The prospective scale of GDP and foreign trade belie the fact that income levels are still low, even if the gap with other developing countries has been closing very rapidly. Measured at market prices, income per head in China is still less than 4% of that in the OECD area. Measured at purchasing power parity the gap would be much narrower, with the World Bank estimate suggesting that in China welfare per head is around 15% of the OECD average. But the exact parity to use for China has been a matter of debate (Annex 1.A1). Measured at constant 1995 prices and exchange rates, average incomes moved above those in low income developing countries in 1992, but are still some way from reaching the average income level of all other middle income developing countries (Figure 1.2). The government has a stated goal of increasing GDP four-fold between 2000 and 2020, which would imply an average annual growth of just over 7%. The analysis of growth prospects summarised below suggests that this goal is feasible.

Figure 1.2. **GDP per head: China and other developing countries**
1995 prices and exchange rates



Source: World Development Indicators and China Statistical Yearbook.

The sources of past growth

From a standard growth accounting framework, the accumulation of capital, financed for the most part by personal sector saving, has been crucial in driving the increase in *per capita* real incomes in China over the past two decades. (For details of the methodology used see

Annex 1.A1a.) Capital per employed person has grown at around 7½ per cent annually and has accounted for over half of the growth in income per head since 1988 (Table 1.4). Demographic factors also contributed to increasing incomes since the number of children has fallen relative to the working age population. Labour participation rates, on the other hand, slowly decreased with the expansion of education and, from the late 1990s onwards, as enterprises restructured their activities, making extensive use of early retirement programmes and placing people on special furlough pay. Official data do not count such people as unemployed, but as having withdrawn from the labour force. However, there is evidence that many are still seeking work; thus the true level of unemployment may be understated.

Table 1.4. **Sources of income and output growth 1983 to 2003**

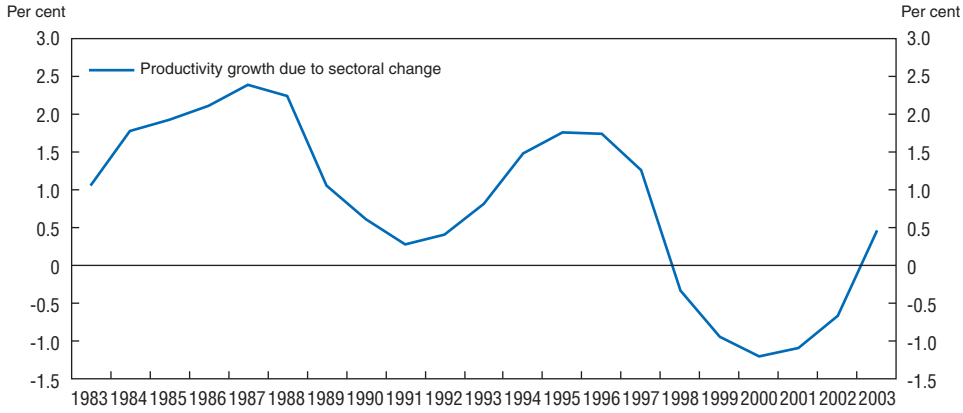
	1983-1988	1988-1993	1993-1998	1998-2003	2003	1993 to 2003 relative to 1983 to 1993
	Percentage points					
Income per capita growth						
GDP per capita	10.6	7.5	8.8	7.2	8.5	–1.0
Dependency	1.0	0.5	0.3	0.6	0.6	–0.3
Participation rate	0.6	0.3	–0.6	–0.7	–0.2	–1.1
Demography and participation	1.6	0.8	–0.3	–0.1	0.4	–1.4
Capital Intensity	3.3	3.4	5.1	4.5	5.0	1.5
Residual factors	5.6	3.4	4.1	2.8	3.1	–1.0
Output growth						
GDP	12.1	8.9	9.8	8.0	9.1	–1.5
Employment contribution	1.5	1.0	0.3	0.3	0.4	–0.9
Capital Contribution	5.0	4.5	5.5	4.9	5.5	0.4
Residual factors	5.6	3.4	4.1	2.8	3.1	–1.0
of which:						
Sectoral change	2.2	0.8	–0.3	0.5	0.7	–1.4
Education	1.0	0.9	0.9	1.1	0.8	0.0
Multi Factor productivity	2.4	1.7	3.4	1.3	1.6	0.3

Source: OECD analysis.

Two other factors account for the bulk of the remaining increase in income per head: better education and movement of labour from agriculture. The increasing average level of education is improving the quality of the labour force (see below).[3] Judged by the average number of years of education of the labour force, the annual increase in productivity due to the accumulation of human capital was about 1% over the past two decades. The impact of this quality improvement has likely been increasing since the mid-1990s as labour markets have started to reward skills to a much greater extent. An equal contribution to growth has come from a pronounced movement of labour from agriculture into the service sector of the economy (Figure 1.3). Most of the flow from agriculture into the manufacturing sector has been to replace laid-off state workers, with the aggregate share of employment in the industrial sector actually falling during the 1990s, though it has started to increase again this decade. Based on differences in the average level of labour productivity between these three sectors, about one-fifth of the change in income per head has come from this sectoral shift. But the contribution of the sectoral reallocation could be even higher, as the productivity of the marginal workers who leave agriculture is much lower – estimated at one-sixteenth that of marginal productivity in the rest of the economy.

Figure 1.3. **Labour productivity growth attributable to sectoral employment changes**

Five year moving average



Note: The labour producivity growth attributable to sectoral employment change is measured as the difference between actual economy wide productivity growth and productivity growth in agriculture, industry and services combined with constant 1990 employment weights.

Source: Statistical Yearbooks, CEIC database and OECD analysis.

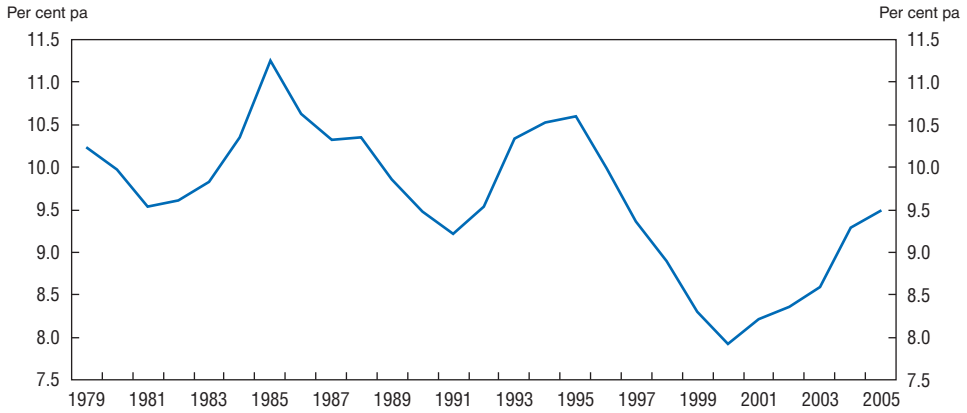
Over the past two decades, the remaining growth in output due to total factor productivity (TFP) improvements has averaged slightly above 4% per year but may have slowed down slightly since the late 1990s. Some relationship between the pace of economic reform and the movement of total factor productivity can be seen in the aggregate data, with particularly rapid increases in TFP as the economy moved away from reliance on planned prices in the first part of the 1980s and a similar increase in the period 1993 to 1998 as the economy opened to foreign trade.[4] Over the past five years, the movement of total factor productivity has been subject to two offsetting factors. Structural change in the industrial sector, notably the growth of the private sector, has tended to raise productivity but a depressed labour market has slowed outflows from the agricultural sector, so lowering productivity growth. There is some evidence that the flow from agriculture is picking up again which would tend to boost productivity growth again. Firm conclusions on the split of growth between capital formation and technical progress are also difficult because of the evidence that a considerable amounted of capital has been invested in uneconomic projects, as evidenced by the extent of non-performing loans.

China's potential growth rate

A longer-term estimate of China's potential growth would need to take into account the expected evolution of factors such as the growth of the private sector, foreign investment, the move out of agriculture and the development of education. However, over the next five years, many of these factors can be subsumed into time-varying trends as is done in OECD estimates of potential growth for member countries (see Annex 1.A1a). Applying the standard methods used by the OECD, the potential growth of the Chinese economy appears to have been increasing since 2000. However, a number of statistical problems, such as discontinuities in employment data and the need to estimate a capital stock in the absence of an official figure – make the exercise subject to greater than normal uncertainty. In 2003, the potential growth rate of the economy was estimated at 8½ per cent, based on the trend movement of the labour force and trend movement in total factor

productivity (Figure 1.4). Since then investment growth has been rapid, pushing the estimated annual growth of the total capital stock from 10½ per cent to close to 12% annually in 2004 and 2005. As a result, potential growth would appear to be as high as 9½ per cent in 2005. This rapid growth in capacity has prevented a significant output gap from emerging in the past two years despite actual growth of between 9 and 9½ per cent. As deviations of output from its trend level appear to be a significant factor in the determination of price increases (Granville and Mallick, 2003), this surge in investment may be one factor behind the relatively moderate pick up in inflation seen in 2004.

Figure 1.4. **The estimated potential growth rate of the Chinese economy**



Note: The potential growth rate is estimated using trend population, participation rates and actual capital stock. These variables are combined using the coefficients from an estimated Cobb-Douglas production function.
Source: OECD calculation.

The role of the private sector…

Previous reports have implied that the low level of private control of the economy has been a key weakness of the Chinese economy, as state controlled enterprises have performed poorly, exhibiting low productivity and profitability (OECD, 2000). Indeed, between 1978 and 1998, the reduction in the state sector, together with increased openness to trade and the change in the extent of urbanisation, has been seen as a contributor to the growth of total factor productivity (Heytens and Zebregs, 2003). Since then there has been progress in reducing the extent of direct government control over state-owned enterprises by transforming enterprises into corporations and widening the shareholder base of these corporations, even if many of the new shareholders were other publicly controlled corporations or local governments. At the same time, there has been a considerable divestment of state-controlled companies through selling, leasing or transferring shares to employees or managers. Overall the extent of change in the ownership structure of the economy has been substantial.

The private sector, including companies controlled both by domestic and foreign owners, has proved more than capable of offsetting the decline in the state sector. The private share of value-added in the non-farm business sector is estimated by the OECD to have increased by 14 percentage points; reaching 57% in 2003 (see Chapter 2 for details).[5] Moreover, if the remaining enterprises registered as collective enterprises, and nominally controlled by local governments but which empirically have similar productivity and profitability as privately controlled enterprises, are added to this, the share of the private sector in value added produced by non-farm businesses rises to 65%.[6] This is markedly

higher share than shown in Chinese official statistics where the private sector is shown as accounting for only one-third of economic activity due its focus on privately registered firms, a definition that understates the size of the private sector (Li, 2005). The definition used here includes all output from foreign-controlled firms as well as output from privately controlled limited companies and shareholding companies.

Within the industrial sector the private sector share has increased more rapidly than in the non-farm business sector as a whole and can be measured more precisely.[7] In the period 1998 to 2003, the private sector share of valued added has risen from 28 to 52% when companies that regularly produce statistical reports are considered (*i.e.* those with annual sales of over CNY 5 million).[8]

The change in employment has been even more marked than the change in value-added with the overall state-controlled business sector losing 22 million employees and the private sector gaining 18 million in the five years to 2003, of which 12 million were in the industrial sector. This movement continued in 2004 when almost 9 million jobs were created in the private sector, using the Chinese definition of the private sector. The number of state-controlled firms in the industrial sector has fallen by 57%. However, one survey of private enterprises suggests that only 7% of privately registered companies were the direct result of state-owned enterprise restructuring (see Box 2.2). By 2003, there were 11 industries in which the private sector accounted for more than three-quarters of value-added.

This period of rapid change has been accompanied by a significant improvement in the return on the capital used in the industrial sector, partially resolving the problem of low return on assets identified as a key weakness of the economy in an earlier report (OECD, 2000). The increase in returns has been the most marked in the private sector where the rate of return on capital rose to 15% by 2003.[9] In the overall state-controlled sector, the return on capital has risen by less but still reached 10%, on average. Moreover, amongst those companies that have been converted from state-owned enterprises to corporations and where the government exercises its control only indirectly, returns have risen to 12¾ per cent. In the private sector, the improvement in returns has been driven almost totally by a fall in the capital-output ratio.

The continued re-orientation of the economy towards the private sector could bring considerable gains to real incomes in China. Estimates of production functions for state controlled and private industrial firms show that the latter have a level of total factor productivity almost double that of companies controlled directly by the state. Between 1998 and 2003, the change in the ownership structure of the industrial sector raised total factor productivity in the industrial sector by 9½ per cent.[10] If the change in ownership patterns continued at the same pace for the next five years, then total factor productivity would be boosted by a further 8%.

... and foreign direct investment in raising growth

Within the private sector of the economy, foreign investment has played a major role in transforming the Chinese economy. Foreign direct investment (FDI) has not been necessary to counter insufficient domestic saving. Indeed, the current account (which measures the difference between domestic saving and investment) has been in surplus for all but one year since 1991. Rather, the role of foreign companies has been to use management skills and technology, together with local labour, to increase exports and improve the overall productivity of the economy. They have improved the overall efficiency with which resources are used. Their efficiency can be judged from the level of their overall

productivity, which was over 90% greater than that of directly controlled state companies (see Chapter 2). However, the role of foreign-controlled companies in raising productivity should not be overstated. Econometric estimates suggest that their overall productivity is slightly lower than that of privately-controlled domestic companies. Foreign-controlled companies in the industrial sector have shared in the general upswing of profitability between 1998 and 2003. By the end of the period, their pre-tax return on assets was 14%, almost three times profitability in 1998.

The scale of the inflow of FDI has been large, amounting to a 6% of GDP in the early 1990s, falling back to 3½ per cent of GDP since 2000 – though the absolute amount increased in that period (Table 1.3). Slightly more than one-quarter of this inflow represents retained earnings and this part has been declining in aggregate. In the industrial sector, though, retained earnings have been rising sharply in line with the rapid increase of profitability of these firms. It is difficult to be precise about the geographic origin of FDI flows. Official figures show almost half as coming from Hong Kong, China or tax havens (Table 1.5). A significant part of such flows presumably comes from third, unidentified, countries, including even Chinese capital that has been recycled through these areas in order to benefit from the advantageous tax treatment offered to foreign-based companies. Of the remaining identified inflows, two-thirds comes from other Asian countries.

Table 1.5. **Geographic origin of foreign direct investment inflows**

	2000	2001	2002	2003	Corporate tax rate of source country
	USD billion				Per cent
Hong Kong, China	15.5	16.7	17.9	17.7	17.5
British Virgin Islands	3.8	5.0	6.1	5.8	1.0
Japan	2.9	4.3	4.2	5.1	42.0
Korea	1.5	2.2	2.7	4.5	29.7
United States	4.4	4.4	5.4	4.2	40.0
Chinese Taipei	2.3	3.0	4.0	3.4	25.0
Singapore	2.2	2.1	2.3	2.1	22.0
Western Samoa	0.3	0.5	0.9	1.0	0.0
Cayman Islands	0.6	1.1	1.2	0.9	0.0
Germany	1.0	1.2	0.9	0.9	19.0
Total of above	34.5	40.6	45.6	45.4	21.0
Total	40.7	46.9	52.7	53.5	
Per cent of GDP	3.8	4.0	4.2	3.8	

Note: Countries are grouped in order 2003 inflows.

Source: CEIC database, KPMG (2004) and national governments.

Looking forward, the flow of FDI will be affected by two factors. The first is that Chinese labour is becoming more expensive, the second is that, following entry into the WTO, the government is committed to equalising the corporate tax rates on domestic and foreign controlled companies and so ending the discrimination against domestic entrepreneurs, favourably impacting on the allocation of resources. So far increases in labour productivity have meant that significantly higher wages have not resulted in a marked increase in unit labour costs. The competitiveness of China could be worsened if the unification of the corporate tax rate is not handled carefully. At present, most foreign-

controlled companies pay a corporate tax rate half that of domestic companies. Nonetheless, the corporate tax yield from foreign industrial companies amounted to 1.3% of GDP in 2003, with the total tax yield from all foreign-invested companies amounting to 3.6% of GDP in 2003. The authorities will need to judge the level at which the unified corporate tax rate is set carefully, weighing the possible losses from deterring incoming firms (or lessening re-investment) from some of the major suppliers of foreign capital to China (whose corporate tax rates average 21%) against the immediate loss in tax revenue from domestic firms. In any case, a considerable downward movement in the domestic corporate rate (33%),when a unified rate is set, would appear to be justified as it is the highest quartile of corporate tax rates amongst 44 major countries (KPMG, 2004), helping create a similarly favourable environment for entrepreneurs as has been achieved in many coastal areas. The revenues from corporate taxes are shared between the central and provincial governments so there would need to be an arrangement to compensate provinces that might lose tax revenues, in the short-term, notably those in the west where there are few foreign-controlled companies.

Sustaining growth performance while addressing imbalances

Getting the framework right for the private sector

The performance of private sector enterprises over the past five years has been excellent but the basic framework within which these companies operate still needs improvement. The government has amended the constitution to provide for the fundamental recognition of the inviolability of private property and to recognise the role of the private sector in the economy, though the enabling legislation is still being drafted. Nevertheless, the private sector still suffers from a number of impediments to its full development. Finance is difficult to obtain and, with this in mind, the government established a credit guarantee fund in the 2003 law for the promotion of small and medium enterprises. In addition, the requirement that companies have two shareholders may limit the willingness of entrepreneurs to establish companies, while the upper limit of 50 shareholders for limited companies may limit expansion.

In addition, the minimum capital (relative to average income) that is required to form a company with less than fifty shareholders is high – considerably higher than in other countries. Indeed, in many countries there is no minimum capital required to create a company. Moreover, the minimum capital required to establish a shareholding company is very large (see Chapter 2 for details). In addition, it is extremely difficult for domestic privately-owned companies to be quoted on the stock market – only 10% of listed companies can be regarded as privately controlled.

Company law also offers little protection for minority shareholders once a company is listed. There are no provisions for independent directors, nor provision for voting methods which would allow shareholders, when voting for directors, to concentrate their votes for all directors on just one director – a method adopted in some other countries to give minority shareholders a voice on boards of directors. Provisions do exist in the listing requirements for quoted companies that could usefully be incorporated into company law, but in any case the rules that determine whether a director is independent need change (see Chapter 2). Moreover, the existence of different classes of equity shareholders with different rights reduces the transparency of capital markets. For example, quoted companies can have classes of shares – whose ownership is restricted to residents, non-

residents, other domestic companies and the state – each with different rights. In particular, the shares held by the state and other domestic companies typically cannot be traded on the stock market and when they are exchanged they sell at a major discount (Chen and Peng, 2001). Nonetheless, each share has one vote. In these circumstances, minorities would be better protected if major decisions had to be approved by separate majorities in each class of share and such a reform is being considered. Such a reform is needed as the fiduciary duty of directors to shareholders is not clearly established in current law and class actions against directors or companies are difficult to organise.

While the creation of new companies has been made easier, China currently lacks a comprehensive procedure for restructuring and winding-up companies that fail. Existing legislation only applies to state-owned enterprises, while private companies are dealt with under the civil code that does not incorporate the standard provisions of modern bankruptcy legislation. A new bankruptcy law is well advanced in the legislative procedure and is assessed in Chapter 2.

Improving domestic product markets

Considerable progress has been made on reducing trade and investment barriers between domestic regions. There was evidence in the late 1980s and early 1990s, that there was growing price dispersion across provinces (Young, 2000; OECD, 2002; Poncet, 2002). However, as the reforms progressed and efforts were made to reduce barriers, the regional integration of product markets appears to have improved in the period to 1998 (Li *et al*, 2003, Fan and Wei, 2003) and has progressed further since (see Chapter 2). Indeed a number of studies suggest that the degree of price dispersion and the speed with which discrepancies are eliminated is not so different to that of the United States market. Some residual barriers to inter-provincial trade still exist and strict enforcement of existing competition legislation could lower these barriers. In particular, the use of price and quantity restrictions to limit competition from out-of-province suppliers was found to be relatively high in the tobacco, alcohol and car sectors (Li *et al*, 2003). In terms of other barriers, restrictions on hiring non-local residents were cited by businessmen as by far the worst deterrent to cross-province expansion.

Government authorities recognise the importance of the private sector for economic growth and job creation, and have moved to reduce a number of barriers that limit its expansion and to promote its equal treatment with publicly owned sectors. In February 2005, the State Council issued "Guidelines on Encouraging and Supporting the Development of the Non-Public Sector including Individual and Private Enterprises" that include 36 articles for improving the operating environment for private business. The new guidelines give much-improved market access to private companies in many industries that were previously restricted, including those that are dominated by state monopolies and heavily regulated sectors such as public utilities, financial services, social services, and national defence. The directives also mandate equal treatment of private and public business, calling for rescinding of rules that discriminate against private companies and instruct ministries and local governments to carry out implementation of the new constitutional amendment guaranteeing private property rights. In terms of access to financing, the new guidelines direct financial regulators to expand access to bank, equity and bond financing, through pro-active treatment of private companies under the recent interest rate liberalisation, and through impartial treatment of private companies in capital market access. A subsequent survey by the All-China Federation of Industry and

Commerce showed that entrepreneurs cited the new market entry and financing access articles to be the most important.

Continuing the reduction in the size of the state sector

The growth of the private sector will be hindered if the remaining state sector is able to absorb capital without being constrained to achieve a market rate of return. If returns are systemically below the cost of capital and yet new investment is undertaken, state-owned firms would, in effect, be receiving subsidies. Indeed, in the period 1999-2000, the low profitability of state-owned enterprises was seen a major problem (OECD, 2002). Concern in this area has eased as there has been a significant increase in the rate of return earned in the state controlled companies, with the return on physical assets in the industrial sector doubling from 5 to 10%. Moreover, a significant reduction in the size of state holdings has occurred in the industrial sector. A clearer strategy has been introduced into the remaining state companies, with the government establishing a holding agency to manage its investments. Its objective is to continue the transformation of state-owned enterprises into public corporations that will be subject to the normal rules of corporate law. The state will concentrate its holdings in the energy, metals, automobile, and defence industries: these are the sectors where state ownership is currently the greatest, though these sectors are open to private companies (Table 1.6). The analysis of industrial companies shows, however, that the performance of public corporations controlled indirectly by the state, while superior to the classic Chinese state-owned enterprises, is still inferior to that of private sector companies. Thus improving the governance of state-owned enterprises is unlikely to be the final answer to improving the use of capital in the public sector. A large number of these companies are already listed on various stock markets but around two-thirds of their shares are not tradable. The key to improved performance here is increasing the stake of the private sector and giving the various state institutions with holdings in these companies the right to transfer their shares both to other state institutions and to the private sector. In April 2005, the government announced measures that move in this direction. If the extent of sales is eventually permitted to result in over 50% of issued shares, a degree of contestability of control would then be introduced into these firms.

Table 1.6. **Industries with the highest degree of state-control**

	Value added		Fixed capital and inventory	Employment	Number of companies
	1998	2003	2003		
	State-controlled companies in an industry as per cent of the whole industry				
Tobacco processing	97.4	98.6	98.9	93.9	81.9
Petroleum and natural gas extraction	99.9	93.8	97.7	99.1	71.8
Production and supply of tap water	96.0	86.7	88.9	94.2	89.0
Production and supply of electric power	86.9	83.4	87.9	89.1	77.5
Coal mining	84.6	81.4	92.2	82.4	32.3
Production and supply of gas	92.7	77.5	88.6	89.7	65.7
Petroleum processing and coking	83.8	77.3	85.6	61.8	17.4
Smelting and pressing of ferrous metals	78.1	63.6	77.1	63.2	11.1
Transport equipment	69.5	63.1	71.3	54.8	22.2
Smelting and pressing of non-ferrous metals	57.2	46.8	64.8	55.6	14.3

Source: National Bureau of Statistics industrial microdata.

The major imbalance in the state industrial sector lies is the spread between the minority of companies that earn respectable returns and the majority that barely breakeven. The median company in the state-controlled industrial sector was still earning a rate of return of only 1½ per cent in 2003, hardly registering any change since 1998. Indeed, almost two-thirds of all firms in this sector failed to earn a return of 5% on capital. This tail of poorly performing enterprises extends to the service sector where the performance of state companies have not improved to the same extent as in the industrial sector but no detailed analysis was possible of this sector due to the absence of data. In the industrial sector about one-fifth of these poor performers have liabilities that exceed their assets. Most make a negative return on assets, indicating that if all their debt were written off they would still trade at a loss. Only about one third of the poor performers are in a position to continue trading without new borrowing (or asset sales) either to cover interest payments or to cover losses. Only a small minority (one-tenth) would appear to have a reasonable chance of survival through a recapitalisation, in that they earn a positive rate of return on their physical assets.

The state-owned enterprises in financial difficulties have typically over-invested and been financed by borrowing rather than equity investment. These poor-performing state firms are an insignificant proportion of total industrial enterprises but account for almost 40% of the net debt of all industrial companies (12% of GDP) and a similar proportion of fixed assets (Table 1.7). The poorly performing firms controlled by the central government are relatively capital intensive whereas those controlled at the prefectoral level and below are labour intensive. The latter are also relatively small and may have survived due to social pressure despite the government policy of "keeping the large and releasing the small". The poorly performing part of the state industrial sector is mostly oriented to the domestic market and does not appear to be distorting competition in export markets, as they represent less than 5% of overseas sales.

Table 1.7. **Share of state firms with financial problems in selected indicators of overall industrial activity**[1]

2003

	Problem state firms as per cent of total industry value for each indicator				
	All levels of government	By level of government			
		Central	Provincial	Prefectoral	County and other
Employment	20.5	4.8	6.2	5.6	3.9
Value-added	11.7	5.2	2.7	2.2	1.6
Fixed assets	30.5	13.8	7.3	5.9	3.5
Inventory	19.6	7.3	4.5	5.4	2.4
Sales	13.8	6.8	2.9	2.5	1.6
Exports	4.3	1.3	1.2	1.4	0.5
Long-term liabilities	40.1	19.9	8.9	6.9	4.4
Long-term liabilities and net short-term liabilities	37.3	15.2	8.6	8.6	4.9

1. Firms unit financial problems are defined as those with a rate of return of less than 5% on physical assets.

Source: National Bureau of Statistics industrial microdata and joint NBS-OECD analysis.

Improving the protection of intellectual property rights and dispute resolution

Companies maintain that the judicial system represented a barrier to expansion across provincial borders. A common concern is that local judges may be biased in favour of local companies and local governments biased in public procurement decisions. In particular, incoming Chinese firms fear that, if a local company were to imitate their products and sell counterfeit goods, the local government would not act decisively to stop infringements of their intellectual property rights (IPR). The position with respect to the enforcement of intellectual property rights may be improving. In December 2004, the Supreme Court issued a new interpretation of the IPR law. The ruling has clarified some contentious issues in the legislation. Notably, the threshold under which no prosecution is to be made for the sale of counterfeit goods was lowered to USD 3 700 or 1 000 units, when the offence is committed by an individual. A number of smaller offences can be aggregated to meet this threshold, but it is not clear how the counterfeited articles are to be valued (at the price of the fake or the price of the branded product). Moreover, if a company is found to have sold counterfeit goods, the threshold for prosecution has been set at a level three times higher than that which applies to individuals. End-users of pirated goods are unlikely to be prosecuted given that the criminal code requires demonstration that piracy has taken place for profit. Overall, a better level of IPR protection would help both further increase the pace of FDI and lessen the concern of foreign companies in granting licenses for advanced technologies. More fundamentally, it would stimulate domestic innovation.

The problem over the enforcement of IPR law appears to be symptomatic of weak enforcement of law through the courts. In commercial and civil affairs, the President of the Supreme Court has suggested that "the difficulty of executing judgements has become a major chronic ailment leading to chaos in the enforcement process" (Xiao, 2004). Cases in which the government is sued are relatively rare (less than 2% of all cases) and in recent years 30% of all cases were withdrawn before trial (Hung, 2004). In part, this is due to the local funding of the judicial system and the dependence of judges on local administration for their promotion and notation. In some jurisdictions, judges have been assigned targets for the amount of fines to be raised. Judges also tend to refer cases to their superiors to make sure that their decision abides by government policies. A number of factors are behind these referrals. Judges in basic courts have a low level of legal education. Moreover, they can be punished for intentionally or negligently interpreting laws that result in serious consequences, rather than have decisions reversed on appeal. In any case, decisions are made difficult by much Chinese legislation of an economic character being drafted in indeterminate language that declare policies, rather than being written in precise terms (Keller, 1996). Finally, there are also problems in determining the exact legal status of rules issued by government departments, as opposed to legislation.

Improving the ability of financial markets to support the private sector

Although it has been changing at an accelerating pace, the financial sector has lagged behind the transformation of the real economy both in terms of the profitability of the institutions, the extent of non-state ownership and the range of assets held by the public. A number of significant reforms have been introduced in the financial sector in order to improve performance and diversify financing sources. Some state-owned banks have been transformed into corporations, stock exchanges have grown, a government bond market has developed and a number of new savings products were introduced. Nonetheless, households and companies hold almost twice as much money in bank deposits relative to

GDP as the average of four major OECD economies, while holding less than one-fifth the amount of shares and one-tenth the amount of insurance and pension fund saving (Table 1.8). Households, until very recently had little debt, while the business sector's debt was some 50% higher than in the OECD countries; with its bank debt being almost double that seen in the OECD area. Although the stock market has developed considerably, its effective size measured in terms of shares that can be freely traded was under 9% of GDP at end 2004, a relatively low level compared to most advanced as well as emerging economies. The stock of outstanding corporate bonds was less than 1% of GDP at end 2004. The outcome has been a financial system that remains dominated by banks, most of which are state-owned. The banks, however, had accumulated large amounts of bad loans. Government action to address this problem has taken place in two stages. Between 1998 and 2003, banks began to restructure their loan portfolios by adopting a more commercial lending strategy. In that period, two-thirds of the growth in outstanding industrial sector debt was accumulated by privately controlled companies, whose new borrowing rose threefold – without a deterioration of their debt equity ratio.[11]

Table 1.8. **Financial assets and liabilities of the personal and business sector[1] of the economy, in per cent of GDP**

2002	France[2]	Germany	Italy	UK	US	China
	Per cent of GDP					
Debt	**103.1**	**140.2**	**84.9**	**183.6**	**194.6**	**125.3**
Total, business sector	66.1	67.8	60.7	93.0	81.1	111.1
Loans	49.6	64.4	57.1	64.2	55.2	110.7
Securities	16.5	3.4	3.6	28.8	25.9	0.5
Total, personal sector	37.0	72.4	24.1	90.6	113.5	14.2
Loans	37.0	72.4	24.1	90.3	67.7	14.2
Securities	0.0	0.0	0	0.3	45.8	0
Assets	**383.4**	**254.7**	**200.5**	**350.3**	**353.1**	**195.5**
Deposits and currency	69.6	78.1	67.7	97.4	53.5	154.3
Securities	15.4	29.1	53.2	10.4	46.9	3.8
Derivatives	1.3	0.0	0.0	. .	. .	0
Loans	12.1	5.0	3.8	19.2	1.5	0
Insurance and pension funds	53.8	55.3	7.9	155.2	85.0	6.2
Quoted equity	32.2	56.6	69.5	19.8	43.9	11.9
Mutual funds	29.5	24.0	0.0	11.4	25.1	. .
Trade (net)	–3.3	6.6	–1.5	21.2	4.5	. .
Other assets	172.6	0.0	0.0	15.6	92.9	19.4

1. For Italy and Germany quoted equity includes unquoted equity, elsewhere unquoted equity is included in other assets.
2. Refers to 2000.

Source: Eurostat NewChronos database, Board of Governors of the Federal Reserve System, National Bureau of Statistics.

By 2003, the government started to implement a new strategy for improving the health of the banking system. A key element is recapitalisation of the four major state banks (SOCBs) into companies that will eventually be listed on stock markets. The government hopes to attract major foreign banks as strategic investors. Such an approach has already worked amongst the second-tier of banks (accounting for almost 15% of deposits) that were already incorporated as companies. A number of these banks are quoted and minority interests in six banks have been sold to foreign interests. As a group these joint-stock

banks had gross bad loans of only 5% of their portfolio. The transformation of the four main banks is taking place in a phased process.

Efforts so far have focused on three of the banks, coming first for the banks that had made the greatest progress in improving their internal controls and reducing their non-performing loans. These banks benefited from a capital injection of USD 45 billion (CNY 373) billion at the end of 2003 and a sale of bad loans to asset management companies in June 2004. The government announced its intention to inject USD 15 billion into the third, and largest, bank in April 2005. Overall, the state banks will have received a total injection of CNY 2.3 trillion since 1998, almost 17% of 2004 GDP (Table 1.9). So far only 12% of this cost has appeared on the liability side of the government's balance sheet. One fifth has been handled through transactions that effectively reduce the asset side of the government's balance sheet. The remaining part of the financing has come through debt issued by the Asset Management Companies (AMCs) but which is not consolidated into the government's balance sheet. An official estimate of the remaining cost of recapitalisation is not available, however on the basis of published information about the size of the non-performing loans at the ICBC and in the remaining parts of the banking sector, at least a further CNY 1.6 trillion will required to complete the process, bringing the overall cost to 30% of 2004 GDP.

Table 1.9. **External financing provided to banks to write-off non-performing loans**

Actions undertaken or projected to be taken		Government borrowing	Government assets	Asset management company borrowing	Total financing provided to banks
		CNY billion			
Capital injection	1998	270	0	0	270
Sale of bad loans	1999	0	0	1 400	1 400
Capital injection: CBC, BOC	2003	0	373	0	373
Sale of bad loans by CBC and BOC	2004	0	0	128	128
Projected capital injection ICBC	2005	0	124	0	124
Total of above		270	497	1 528	2 295
Total as percentage of 2004 GDP		2.0	3.6	11.2	16.8
Actions still required:					
ICBC		. .	. .	. .	377
Agricultural Bank		. .	. .	. .	678
Rural Credit Cooperatives		. .	. .	. .	495
City Commercial Banks		. .	. .	. .	99
Total of above (on assumption that new financing follows old patterns)		2.8	400	1 231	1 649
Overall total		488	897	2 759	3 944
Overall total as percentage of 2004 GDP (on assumption that new financing follows old patterns)		3.6	6.6	20.2	30.4

Source: OECD estimates based on press reports of non-performing loans at the ICBC, the Agricultural Bank, rural credit co-operatives and city commercial banks. For the former two banks, the financing requirement is based on the total reported non-performing loans and does not take into account any provisions that the banks may be holding against these loans. For the latter two groups, estimates are still based on the old definitions of non-performing loans.

Eventually a large part of the financing for bad loans will move onto the government's balance sheet. Some part of this debt may be recovered from debtor companies but experience so far suggests that cash inflows are running at only 1% per year of their debt, perhaps just preventing a further increase in AMC debt. The central bank is heavily

involved in financing these loans as it effectively acquired 40% of the first CNY 1.4 trillion of AMC debt (Fing *et al.*, 2004). It also financed a portion of the 2004 sale of bad loans to AMCs. Such loans represent more than 10 times the capital base of the central bank and are unlikely to be repaid by the AMCs. Eventually, a long-term solution for the remaining AMC debt (nearly 11% of GDP at end 2004) will be required. At the same time, the central bank will have to be recapitalised due to its exposure to AMCs (Ma and Fung, 2002). Despite the large sums involved, the overall burden to public finances should be manageable. If all financing, including that undertaken by asset side transactions were unwound by government borrowing, government debt would rise by 28% of 2004 GDP. In practice, if AMCs continue to cover their interest payments by asset sales for another five years and are then wound up, then the eventual burden that the government needed to assume would fall to a projected 15% of GDP in five years time. Given that government debt was just 23% of GDP in 2004; such an increase would be manageable.

The banking system will need to continue to re-orient its loan portfolio in order to better serve the private sector. The new risk-based capital weightings issued by the banking regulator in February 2004 will give banks a greater incentive to lend to the private business and personal sectors. Already in 2003, there was a jump of 50% in lending to consumers, mainly in the form of mortgages, with even faster increases registered by some banks in 2004. Such a rapid increase is not without its own problems in that prices in the real estate market could be over-inflated, leading to eventual bad debts.

Some progress has been made in reforming the banking system and changes to date give a model for the resolution of the remaining solvency problems. But doubts must remain about whether the culture of the major banks can change without a much greater degree of private sector control. The experience of the joint stock banks suggests that changes in governance, coupled with a new regulatory process and improved internal operating procedures with regard to risk, can create sound banks. Further movement into the private sector is still required, both for joint stock banks, the SOCBS and the city commercial banks. The institutions involved in informal lending, which have been successful in financing smaller private enterprises could form the base for new market-oriented institutions to run the city banks. Overall, while a solution to the problems inherited from the past appears now to be in sight, the verdict on whether the banking system will remain healthy is not yet certain. The possibility of further problems arising from the existing portfolio of loans or from future loans cannot be ruled out.

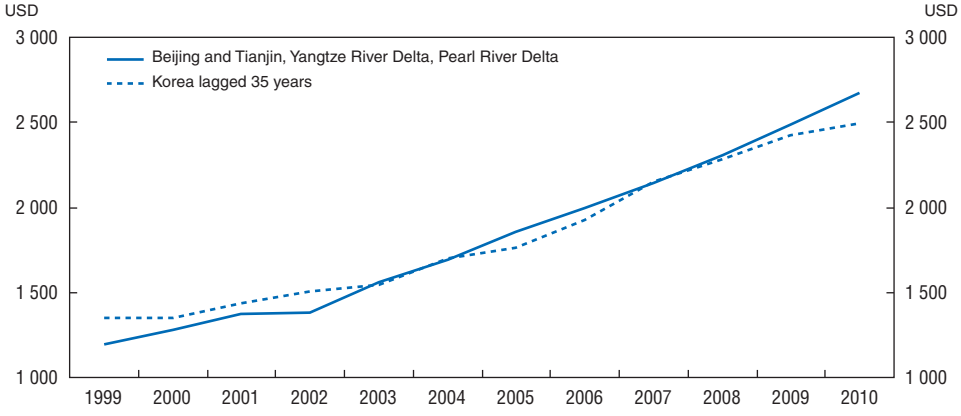
Providing a financial system that ensures that the best use is made of high saving in the period before ageing starts to reduce high savings levels will require that a greater portion of new finance is raised through competitive capital markets. The government issued a strategy document in February 2004 setting out the key principles to achieve such a goal. The authorities have placed considerable emphasis on the stock market as the preferred route and have modernised the regulatory structure. However, the functioning of the market has been impeded by the prohibition on the trading of state and legal person shares, barrier that is now being lowered. Moreover, although listing is open to private enterprises, the dominance of the market by state owned companies continues and is likely to change only slowly given the limited amount of new issues that have been allowed each year. The corporate bond market also requires considerable overhaul to stimulate efficient allocation of capital to the private sector. A move to a market-driven issuance procedure and away from one where a government department sanctions new issuance is also needed.

Imbalances in regional income

While growth has been rapid, there are major imbalances between incomes in different parts of the country. Economic activity is very unevenly distributed within China and reducing the extent of this imbalance has been a major goal of the government. The most developed areas of China (the Beijing-Tianjin corridor, the Yangtze River Delta and the Pearl River Delta areas) have income almost double the national average. Comparisons are complicated by the poor quality of provincial GDP data which, in aggregate, sum to more than the estimated level of national GDP. In these three areas, the current level and growth of economic activity resembles that in Korea some 35 years ago (Figure 1.5). The extent of the increase in inequality, though, depends on the measure of inequality that is used. The Theil index of inequality shows a relatively stable degree of inequality between provinces over the past 15 years (see Chapter 4), though the Gini index shows more of an increase. On the other hand, a number of western and central area provinces have incomes that are still below those seen in low-income developing countries. Moreover, the divergences between coastal provinces and the remainder of the country have been growing. However, even in the more prosperous coastal provinces, there are extreme differences of income. In the province of Guangdong, in the Pearl River Delta, the ratio between incomes in the administrative area with the highest and the lowest decile of *per capita* income is slightly more than 10:1. One city (Shenzhen) even has a GDP per capita almost three-quarters that of Hong Kong, China.

Figure 1.5. **Growth in the three leading areas of China compared to Korea with a thirty year lag**

GDP per capita in 1995 prices and exchange rates



Note: Provincial GDP numbers have been uniformly scaled so that the sum of provincial GDP is the same as national GDP.

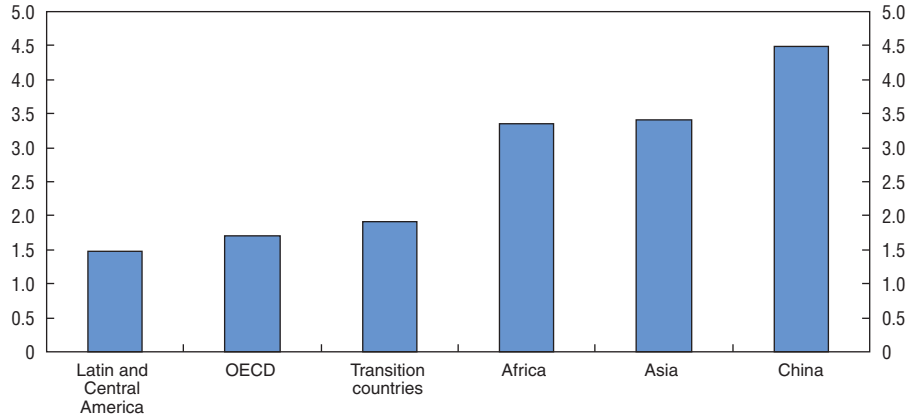
Source: Statistical Yearbooks, CEIC database and World Development Indicators.

More generally, the extent of inequality within provinces appears to be a significant driver of the overall level on inequality in the country. Using a decomposition of the Theil index of inequality for 2 165 counties, almost half of the inequality in GDP per capita can be attributed to within provinces differences, while for consumption the share rises to almost two-thirds (Heshmati, 2004). These differences are dominated by the inequality between rural and urban areas which far outweigh the contribution of the increasing coastal-inland disparities (Kanbur and Zhang, 1999). In rural towns, the average wage is only half that observed in an urban area (OECD, 2005b). The gap is higher for average

incomes, with those in rural areas being only one-third those in urban areas (Han, 2004). Similar measures of rural-urban income differentials are not available internationally. However, taking the ratio of agricultural labour productivity to non-agricultural productivity as a proxy for the ratio of rural to urban incomes, the differential in China is greater than that seen in transition countries and very large in comparison to those in OECD countries and Central and Southern America (Figure 1.6). For example, the excess of non-agricultural over agricultural productivity was over 90% greater than in Brazil in 2002.

Figure 1.6. **Ratio of non-agricultural to agricultural productivity**

2001, or latest year



Source: World Development Indicators.

The factors that generate such imbalances between the incomes in rural and urban areas are multi-faceted. One problem has been the perceived burden of taxation and fees in rural areas which, although low, averaging 4% of net income in 1999, may have become more unequally distributed over time, with the average tax and fee burden falling as incomes increased (Tao and Liu, 2004). To counter this, the government has decided to phase out the agricultural tax and reduce the number of fees, some of which were illegal, paid by farmers. Based on outcomes in pilot provinces, this programme may reduce taxes and fees paid by farmers by at least 30%. In addition subsidies to farmers were increased by CNY 30 billion (about 1¼ per cent of rural incomes). The differential provision of public education and health care in rural and urban areas is another factor resulting in inequalities (see below). Rural markets also respond to remoteness by lowering wages, as shown by evidence from the National Bureau of Statistics industrial micro data relating the average nominal wage paid by an enterprise to its distance from the coast. A more detailed approach suggests that effective geographical remoteness of an area (taking into account actual transport links and their quality) from the average foreign supplier or export market appears to lower wages and may account for 15% of the nominal rural-urban wage differential (Lin, 2004). In addition, there are significant differentials between rural and urban prices than can explain a further part of the differential (Annex 1.A1).

The negative impact of distance on development can be reduced by improving the quality of transport linkages. Over the past two decades, it would appear that the cost of inland transport has been falling less rapidly than that of sea transport, so reinforcing the natural advantage of the coastal areas (Luo, 2001). It is, however, transport cost rather than distance that is the barrier to trade. Consequently, the government has been improving the

transport infrastructure in the west of the country. However, the cost of shipping goods to the coast is also determined by the quality of the infrastructure in the central provinces (such as Anhui, Hunan, Henan, Shaanxi and Hubei). If spending here is neglected then barriers to western trade will not be reduced. Overall, one simulation suggests that rather than concentrating transport infrastructure in the west, a more balanced approach is needed that improves transport in the central provinces and this would improve the cost-effectiveness of infrastructure investment and might even benefit the west more than just concentrating on improving facilities in that area (Luo, 2004). The relatively low level of public spending in central provinces, even though per capita incomes are much lower than in high income areas,[12] is not limited to infrastructure spending. Redesigning the current system of fiscal transfers, so that the poorer central areas receive a greater proportion of funds, was identified as key problem for fiscal policy (OECD, 2005b).

The government has adopted a series of measures to tackle imbalances between rural and urban areas and across regions. Several of these measures aim at promoting growth and enhancing efficiency such as adjusting the structure of the economy, upgrading of traditional industries and developing high-tech industries and creating a favourable environment for the service industries. In addition, several regions have been targeted by specific government policies. The Western Development initiative launched in 1999 focuses on infrastructure development, training and the promotion of industry in 12 designated provinces (including Chongqing municipality) in the poorest part of the country. Key infrastructure projects undertaken include the Qinghai-Tibet railway and an electricity network to transmit western electricity to the east. A part of vocational training outlays is financed from the central budget. The Western Development programme also aims to promote rural development through its initiatives to provide electricity to all villages, connect rural areas with road networks and extend television coverage. A more recent initiative is aimed at revitalising the north eastern region which started to lag behind overall economic growth when its large state-owned sector was restructured entailing significant job losses. The policy has focussed on the upgrading of traditional industries, developing food processing industries and the service sector and diversifying the industrial structure of resource-based cities.

More recently, the government has emphasised the need to adjust policies to fit differences in economic structures across the country. In its March 2004 work programme, the government proposed a differentiated strategy for four areas of the country: for the east, development should be accelerated; for the west, catch up should be pursued under the Western Development initiative; for the northeast, revitalisation should be continued; while for the centre, targeted policies will be developed to encourage its take off. Such targeted policies would need increased central government financing. In addition to differentiated policies for the four major regions, a supplementary initiative to support a number of other selected areas has been put in place, financed by a special transfer item in the budget.

Many of the policies required for successful development of locally-based enterprises in regions are similar to those needed to improve the framework for the private sector economy in general. For example, a survey of Hubei province in the central area, which has an income level 10% below the national average, found that several initiatives by the provincial government to develop county-level economy had been successful and could serve as example for other provinces. These include the commercialisation of agriculture and enhanced participation of the private sector in production and more favourable policy

environment. More systematic specialisation based on comparative advantages was also found to be advantageous (NDRC, 2003).

Imbalances in labour markets

Another factor that has contributed to the imbalances in income between rural and urban areas has been policies that have segregated labour markets. The government has now realised that the movement of rural labourers into urban areas, or across administrative barriers is not a social problem that has to be minimised but a normal consequence of the movement to a market economy and that consequently no barriers should be placed on employment of rural workers in urban areas (State Council, 2003). In addition, it urged that the annual cost of all permits required by "temporary" workers that can amount to one month's pay in Beijing, should be reduced and that eventually migrants should only require a single temporary residence permit. In addition, the government also called for equal treatment of migrants in their access to education, health and social security.

In practice, there are still considerable restrictions on permanent migration that impact on rural-urban wage differentials. Policies have been eased in towns of below 100 000 habitants where urban status is now granted after one year's residence provided that the person is employed and has housing. There are factors other than administrative barriers that would result in rural-urban wage differentials: the cost-of living is different and there are economic and social costs to moving, especially when distances are long. However, the existence of differentials in an area such as that covered by the municipal government of Beijing is suggestive that regulations explain a significant part of the differentials. Rural inhabitants in this area do not have the right to obtain permanent resident status in the urban parts of the municipality. Analysis of survey data suggests that rural inhabitants would be able to raise lifetime earnings by up to one third if they were allowed to permanently relocate to urban area that in many cases are less than 30 kilometres away (Liu, 2004). While commuting would appear to be an option for such people, there are restrictions on the types of jobs that people with rural residence permits are allowed to undertake in urban areas, so limiting their mobility even over short distances. Facilitating the movement of labour would be a positive factor for economic activity. Some studies suggest that if 1% of agricultural population moved to the non-agricultural sector of the economy, overall average incomes would grow by 0.6% (Fleisher and Yang, 2004).

Imbalances in land-use rights

A further underlying factor behind the rural-urban imbalance is the land tenure system in rural areas. Agricultural land in China belongs to the village committee and its use is regulated by the Rural Land Management Act of 2003. In rural areas, the right to use land is seen as a fundamental guarantee against unemployment and poverty. Consequently, the farmer only owns a temporary use-right to the land (a lease). Moreover, the land used by a household can be re-allocated by the village committee according to variations in household size or to compensate farmers whose land is taken over by the committee. In theory, the use right lasts for 30 years but in practice in many areas such leases have not yet been implemented and leases are still for 15 years. In any case, if the farmer becomes a permanent urban resident, then the lease is forfeited to the village committee without compensation. Residence in a neighbouring rural township does not

involve loss of the lease – in principle, it can be rented. But, in practice, the rental market is weak often because the village committee imposes a relatively large fee on rented land. The barrier such terms pose to mobility is taken up in the chapter on the business sector.

In urban areas, by contrast, the role of the private sector in the ownership of long-term use-rights of residential land has been accepted and served as a significant stimulus to economic activity. Following a government decision in the early 1990s, the ownership of urban housing was transferred from the government and state-owned enterprises to the current occupants, by selling them a 70 year use-right at a concessionary price. This action has transformed the urban housing market in the past 10 years (Table 1.10).[13] In 1990 only 24% of urban housing was owner occupied. By 2000 this proportion had risen to 68% with a further 10% owned by private landlords (Wang, 2003).[14] This has led to a marked expansion of investment in housing, as the owners sold older property and bought new apartments.

Table 1.10. **Urban housing tenure by employment status 2000 Census**
Per cent of all housing tenures

	Government Official	Professional	Service sector employee	Production worker	All
Owner occupation	81	76	56	66	68
Self built	15	8	20	25	19
Commercial purchase	18	14	11	8	11
Subsidised purchase	48	54	25	33	38
Renter					
Public	11	16	18	18	17
Commercial	4	3	19	11	10
Other	3	4	7	6	5

Source: Feng (2003) using 0.1% sample of the 2000 census.

The ownership rights attached to urban land are less generous for commercial development than for residential use-rights. Commercial leases are generally sold for a period of 40 to 50 years. At the end of the lease, all construction on the land reverts to the state, with no compensation. Such leases can be transferred and mortgaged but changing the nature of the use may involve payment to the local authority.[15] Moreover, a newly purchased land-use right has to be developed within two years, otherwise the right is forfeited. These constraints result in banks being reluctant to make secured loans on commercial or industrial property, a problem that is sometimes compounded by the difficulty in ensuring that courts issue foreclosure orders, especially if the creditor is from a different locality (Randolph, 2004). Key issues for reform here, then, relate to bringing commercial land-use rights into line with those for housing where 70 years leases are the rule, improving the laws to protect secured creditors as well as ensuring their enforcement.

Managing the rural urban transition

The imbalances between rural and urban incomes might be further reduced by continued rapid urbanisation. The population of urban areas has grown by almost 5% annually in the five years to 2002. By 2003, 39% of the population lived in urban areas, according to the Chinese definition. The proportion of the population in towns of over 100 000 is, however, almost half of this level. An increase in the urbanisation is likely to raise overall productivity. Despite the growth in urban population, the concentration of population

in cities (as measured by the Gini coefficient) is low in China (Table 1.11). It is more in line with those found in formerly centrally planned economies and much below that seen in market economies (Henderson, 2004). Firms in larger cities are usually more productive than those in less-densely populated areas. Moreover, labour productivity usually rises when cities increase in size as costs can be reduced through better information and proximity to suppliers until, eventually, negative externalities limit expansion. Chinese cities follow this pattern with productivity following an inverted U-shaped curve.

Table 1.11. **Spatial inequality of cities**[1]

	1960		2000	
	Number of cities	Gini coefficient	Number of cities	Gini coefficient
World	1 197	0.585	1 673	0.564
Developed countries	523	0.613	480	0.582
Former Soviet bloc	179	0.515	202	0.446
All other countries	495	0.566	991	0.562
China	108	0.472	223	0.425
Brazil	24	0.666	64	0.654
India	95	0.556	138	0.582
Indonesia	22	0.524	30	0.614
Japan	106	0.604	82	0.656
USA	167	0.577	197	0.540
Russia	79	0.538	91	0.462

1. Date for the distribution of cities and total population in cities is limited to cities with a population over 100 000.
Source: Henderson and Wang (2004).

It will not be sufficient to just increase urbanisation, the average size of cities need to be increased. In China, 40% of cities are estimated to be below their optimal size (Au and Henderson, 2002). Indeed, these authors suggest that unrealised agglomeration economies could be as important a source of structural productivity improvements as switching labour from agriculture. It is important to reverse some of the factors that have led to the development of relatively small towns. In part, the ability of towns to raise significant funds by the sale of land-use rights may be one factor behind the low average size. City governments have an incentive to sell land-use rights as they retain 60% of the proceeds of use-right sales of land, boosting their revenues by an amount equivalent to 0.4% of GDP in 1996 (Ding, *op. cit.*). There are examples of cities where such revenues amount to between 25 and 40% of city budgets. Moreover, many local authorities have created state-owned development companies, using bank finance, and have often overestimated demand, leaving considerable unused developed land on the periphery of some towns. In 2004, the government audited such projects, notably the creation of industrial parks, and as a result work on large number of projects was halted and all are now subject to a stricter enforcement of planning laws. A more market driven policy would likely result in a concentration of development. One official report has recognised the likely gains from agglomeration effects and suggested accelerating the development of three major hub areas, creating seven city belts along the coast and major rivers, and developing centrally located cities in central and western areas. Of these, the report suggested that expanding the three hub agglomerations in the Pearl and Yangtze River deltas and the Beijing-Tianjin corridor should be the main priority (Urban Society and Economy Survey Group, 2004). Indeed, it has been recognised that favouring population movement to cities, in the

context of a rapid burst of urbanisation, is the only way to solve the problem of the gap between rural and urban incomes (Chinese Academy of Science, 2005).

Even within cities, the nature of urban land use rights may also give rise to a more extensive form of development than would be generated by market forces. The land use structure of cities in China differs markedly from those in market economies. In many Chinese cities, the proportion of land used by industry was between 25 and 30% in 1991 and rose to 35% in the case of Tianjin (Ding, 2003). In the case of market economies, the portion is much lower: in Hong Kong and Paris, the proportion is 5% while in Seoul it is 6% (Bertaud and Renauad, 1992). The portions seen in China are typical of those found in formerly centrally-planned countries. Moscow has 31% of its area in industrial use in the early 1990s. The right to use urban land in China can be either granted (*i.e.* sold) or allocated. Only the former is transferable. Most SOEs have been allocated land and cannot sell land-use right. As a result redevelopment may not follow optimal patterns, leading to relatively spread-out cities. To some extent this has appears to have occurred in Shanghai (Fu, 1999).

Increased urbanisation will require considerable movement from towns to cities. The extent of such migration is not overly high at the moment but has increased. Most migration in China is temporary. Such migrants remained registered in the area in which their mother was born rather than the new area in which they live and are subject to different sets of regulations to those that are registered to live in the area. The total number of temporary migrants living away from their place of registration rose during the 1990s. By the second half of that period, the annual flow to urban areas had risen to 0.6% of the population, up from 0.4% in the previous five years. By 2000, the stock of "temporary" migrants represented 17% of the urban population (Table 1.12), resulting in the rural population starting to decline from 1995 onwards, with the speed of the fall increasing in recent years.

Table 1.12. **Migrants with temporary residence permits in urban areas**

2000

	All migrants					
	Destination			Proportion of the urban population	Origin	
	City	Town	Urban areas		Migrants to cities	Migrants to towns
	Millions			Per cent	Per cent of total	
Origin of "temporary" migrants						
Outside province	23.1	8.4	31.6	6.5	40	31
Inside province, outside county	23.6	5.6	29.2	6.0	41	20
Town within same county	7.3	6.8	14.1	2.9	13	25
City to town in same county	0.0	1.1	1.1	0.2	0	4
Rural areas within same county	4.2	5.5	9.7	2.0	7	20
All origins[1]	58.2	27.6	85.9	17.7	100	100

1. Excluding people who moved within a city.

Source: Liang (2004) using the 2000 population census.

The new temporary migrants to urban areas suffer from discrimination in the access to public services, perhaps resulting form a lack of finances in the cities. The discrimination is extensive and affects access to social spending programmes (Table 1.13). In addition, the children of migrant have poorer access to education. One survey found that

Table 1.13. **Access to social benefits of temporary and permanent urban residents**

Per cent

	Beijing	Shijiazhuang	Shenyang	Wuxi	Dongguan	All 5 cities
Health insurance						
Migrants	3.6	1.7	10.3	26.7	26.3	12.4
Local residents	70.4	64.0	25.0	84.5	. .	67.7
Pension programme						
Migrants	3.1	0.9	8.9	9.4	24.0	10.2
Local residents	64.3	82.0	41.3	85.1	. .	74.4
Unemployment benefit						
Migrants	2.0	0.6	1.3	2.1	6.6	2.8
Local residents	57.3	10.7	22.2	43.2	. .	33.3
Workplace injury insurance						
Migrants	2.3	0.9	7.4	15.3	38.6	14.3
Local residents	46.3	8.7	8.2	34.1	. .	25.3
Maternity leave for females						
Migrants	8.8	16.1	11.3	28.5	52.6	31.0
Local residents	82.9	69.2	42.1	74.2	. .	71.1

Source: Guo *et al.*, (2004).

the enrolment rate in schools of migrants' children aged 6-14 was only 12.5% in the Beijing area. The costs of extending such benefits to migrants would not be large. Focusing on the major categories from which migrants tend to be most excluded – culture, education,[16] science and technology and public health as well as social relief and social assistance – the costs of providing access to these two broad categories of services for inter-provincial migrants would raise local government spending by 5.9%, 6.1% and 2.1% for the three municipalities, Beijing, Shanghai and Tianjin, respectively. Of course, the provision of these services will require both the right incentives (not only for governments to provide these and other services that will be needed as urban population expands and adequate resources to fund their provision. A proper redesign of fiscal relation not only between central governments and provinces but more particularly between provinces and lower levels of governments will be essential to realising the gains form increased urbanisation.

Maintaining the growth of human capital

Increasing the level of education of new entrants into the labour force will improve the prospects of those who move to towns as well as making their migration more likely and improving overall productivity. The government launched a major programme to improve the level of education of the population in the mid-1980s. Progress has been steady with a considerable increase in the average level of education of the population (Annex 1.A4). However, there are a number of areas where progress still needs to be made. Participation rates in secondary education are still lower in poorer parts of the country than in coastal areas. The programme to extend nine year education throughout the country has not yet been completed, though the government has policies in place that are aimed at ensuring that the goal is met by 2007. Currently, the participation rate in senior secondary schools (both general and vocational), which students enter after finishing the compulsory nine year programme, is still low. At the same time, over the longer term, more qualitative factors, such as better teachers' training, need to be addressed.

The difficulties in improving education in these areas partially stem from problems surrounding the financing and organisation of education. The 1986 law to expand

schooling did not specify which level of the administration was to finance compulsory education. The lower levels of government (the county level since 2004) that provide primary and secondary education have inadequate tax bases and do not necessarily receive sufficient transfers from higher levels of government. The government needs to design a system of fiscal transfers between the different levels of government that ensures that the money reaches the administrative bodies that are responsible for delivering such services.

The lack of adequate public finance results in all education institutions charging for their services to some degree. The extent to which individuals contribute to education costs is in marked contrast to the experience in other transition countries, where households contribute very little to the cost of education In the case of China, the proportion of the tuition revenue of universities raised from individuals is almost as large as that for public universities in the United States (OECD, 2001). Considerable reliance on private finance may be sustainable at the tertiary level where, indeed, the dependence on private financing is the greatest, with the fees accounting for 19% of outlays in 1999 (OECD, 2001). This proportion declines at lower levels of education. At the primary level, families pay just for textbooks, materials and the management expenses of the schools.

The rate of return on education has risen markedly in the past ten years as the urban labour market became freer following reforms in the employment practices of state-owned enterprises and the growth of private companies. By 1999, the return for an additional year of education had risen to over 12% (Zhang and Zhao, 2002), similar to that in the OECD area, and up from 3% in 1988 (Johnson and Chow, 1997). However at the primary and secondary levels, though charges are lower than for university education, such fees may still constitute a barrier to continuing secondary education especially in poorer rural areas. In part, charges at these levels of education reflect a level of public education spending that is about one percentage point below the OECD average and which is not distributed equally across the country.

Health care spending is another area of concern in itself and for its effects on productivity and income. In China, poor health, whether measured by observable physical characteristics or by self-assessment, has been found to reduce an individual's wage (Liu *et al.*, 2003). Indeed, the poorer level of health in rural areas relative to urban areas is one factor that increases rural-urban income differentials. Government spending in this area is even more limited than in education, with almost 60% of spending being privately financed. Moreover, private health insurance is undeveloped. A further problem is that the share of private financing tends to rise as income *decreases*, with 90% of health care privately financed in rural areas against 40% in the better-off urban areas (Gao *et al.*, 2002). Even within urban areas, poorer groups, notably "temporary" residents and the unemployed, finance a higher part of their health expenditure than the average person. For the country as whole, health care spending relative to GDP, at 5.3% in 2002, is lower than that in most OECD countries.

The worsening demographic imbalance

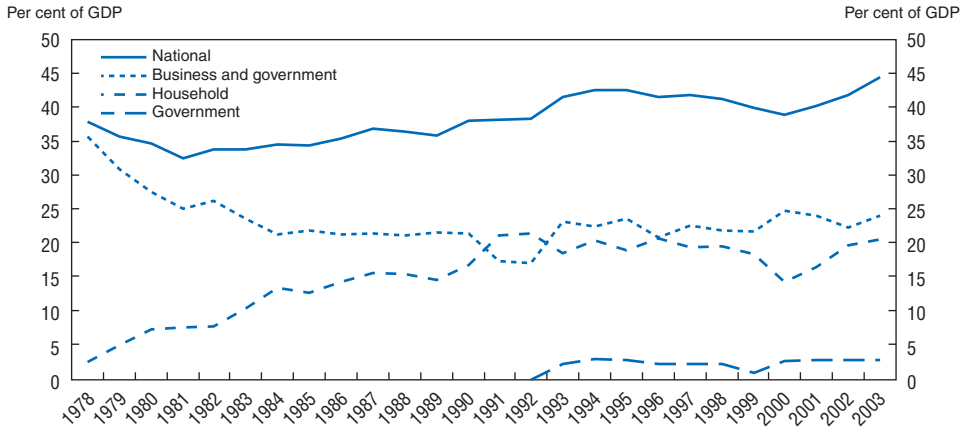
The economy is now poised to enter a period of demographic transition in which the number of people over the age of retirement will grow rapidly, suggesting that the saving rate may begin to decline. The impact of this demographic change may accelerate after 2010, with the result that the ratio of the number of employed people to the number of people over 65 may fall to around 4:1 in 2025 from close to 7:1 in 2005. The transition from a favourable to unfavourable demographic position will be one of the most rapid

shifts that have occurred in any country. Moreover, there are suggestions that the family planning policy that only allows a second child for urban dwellers on payment of a fine equivalent to six years average salary (and loss of employment in the case of civil servants) may be eased for couples both of whom are only children, so possibly bringing an increase in the number of young dependents in addition to the increase in number of elderly dependents, although over the longer term the growth of the labour force will be boosted.

Keeping savings high

The very rapid demographic change suggests that there is a need to maximise the use of saving during the next two decades before an ageing population starts to dis-save. The domestic saving rate remained high during the reform period and was able to withstand remarkable institutional changes. A marked increased in household savings offset the ending of artificially high enterprise profits and consequently lowered savings in the combined accounts of the government and state-owned enterprises (Figure 1.7). There is some evidence that this remarkable increase in household saving was driven by a combination of demographic factors and rising real incomes (Modigliani and Cao, 2004). In a 30 year period, the total fertility rate dropped from 6 in the late 1960s to around 1.8, bringing a fall in the number of dependents and an increase in per capita household incomes. In addition, the fiscal environment for saving has also been favourable. Prior to 2000 capital income was not taxed, while after that date interest income has been subject to a flat tax of 20% in general, only 10% if the income resulted from renting property, and being completely exempt from tax if held in government bonds or in saving accounts destined to be used for education or providing a supplementary retirement pension.[17] Given that the tax treatment of saving is already favourable, there is only limited scope for further change in this area. One possible change relates to dividends that are subject to both corporate tax and the flat tax on capital income. One way to help capital formation would be to exempt dividends paid to residents from the flat tax on capital income, so as to reduce the discrimination against risk-taking entrepreneurial activities.[18] In June 2005, a move was made in this direction for individual shareholder in listed companies.

Figure 1.7. **The national saving rate and its components**



Source: National Bureau of Statistics, Statistical Yearbook and Modigliani and Cao (2004).

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Pensions

The major area where the government can act is to try to offset the impact that ageing will have on government saving in the period to 2030. The social security system is likely to move into a substantial deficit over the next ten years, before a new generation starts to draw lower pensions. There is considerable scope for reform as the Chinese social security system is particularly generous to urban workers. Retirement is allowed between the ages of 50 and 60, depending on the occupation of the worker and on gender. Moreover, early retirement schemes are also commonplace. With considerable disincentives to continue work beyond the age of 50, participation rates at older ages are low and reform, notably of the age of retirement, is required to lower prospective pension outlays and generate a surplus that can be used to fund individual accounts. But reform of the pension system could also serve the broader goal of improving the functioning of capital markets. Already, the pension system is partially based on individual accounts, where contributions are accumulated in theory, but in practice only used to determine part of the social security pension. But, at present, these accounts are entirely notional. A phased reform of the pension system might allow the gradual accumulation of private-sector assets in these funds. A pilot scheme on these lines is being tested in some north-eastern provinces, based on different models that either use government contributions or changes in the method of calculating the basic pension (see Chapter 4 for details). Full implementation will likely require changes in a number of the parameters. While it is not clear from the experience of OECD countries that such a policy would raise overall national saving, it would certainly create a source of funds that could be invested outside of the banking system, so helping the development of capital markets, as has been seen in the reform of the Polish pension system (OECD, 2004). In addition, if the 2005 initiative to allow sale of state shares in quoted public enterprises comes to fruition, it may be possible to implement the policy of transferring 10% of money so raised to the social security fund to act as a buffer fund.

Imbalances in energy demand

In the quarter century following the start of economic reforms, energy efficiency has increased markedly. Real output has risen by more than a factor of nine in the period 1978 to 2003, while energy consumption has risen less than threefold in the same period. Even so, both overall energy intensity, and especially oil intensity, is still much higher than in the average OECD country. Much of this improvement has come through the increasing market-orientation of the economy, both through high pass-through of commodity prices to users and through economic restructuring that has enhanced the role of less energy-intensive industries (Fisher-Vanden *et al.*, 2004). In addition there is evidence that the role of prices in determining demand increased during the reform period (Lin, 2003). Overall, the decline in energy intensity was so large that the absolute level of energy consumption was lower in 2001 than in 1996.

By contrast during the current expansion, energy efficiency has declined, with a particularly large drop occurring in 2004. Oil demand was particularly strong in that year, increasing by 15%, with China accounting for 30% of the increase in world oil demand in 2004 (IEA, 2005). A number of factors were behind this surge in demand. The use of cars has been increasing but more important was the demand for oil to fuel standby electricity generators used to offset electricity shortages.

Power outages, that affected 24 provinces in 2004, were related to multiple factors. Since 2000, electricity demand has outpaced GDP growth, in contrast to the previous

decade when demand grew less rapidly than GDP. With relatively slow growth of demand expected, investment in between 1999 and 2003 was low. Installed capacity rose 31% but demand rose 56%. In addition, the interaction of deregulated coal prices and regulated electricity prices may also have contributed to shortages. Wholesale coal prices have been deregulated and rose 40% in 2004, drawn upwards by world market prices. However, the price of coal sold to electricity producers did not increased by as much and, as a result, some power stations were faced with coal shortages that reduced electricity production (BOFIT, 2005). As well, the regulated price for electricity was not raised as much as justified by input prices. As a result, in the first two months of 2005, the profits of power companies were one third lower than in the same period of 2004.

In 2005, the government changed the regulations governing electricity prices to allow faster pass through of input prices. The new regulation permits a 70% pass through of increased coal prices to electricity prices for industry once coal prices have increased by 5% in a six month period (but increase were not allowed for households or some companies producing fertiliser). Seasonal variations in power prices will also be allowed. The new price regulations may ease power shortages in 2005. Indeed, recent projections suggest that oil demand may moderate in 2005, increasing by 8% (IEA, 2005). Over the medium term, considerable investment in the power sector will be needed to keep up with demand and restore previous levels of spare capacity.

Imbalances between growth and the environment

The quality of the environment in China remains a serious cause for concern although there has been some slight improvement over the past two decades. There has been progress in introducing pollution control measures as the result of a number of government initiatives. Indeed, in the decade to 2003, emissions of polluting gases rose less rapidly than energy consumption which in turn rose less rapidly than GDP. But rapid overall economic growth has not prevented some improvement in the quality of the environment. However, the level of both water and air pollution remains high, while extensive use of resources, notably water, coupled with soil erosion, is beginning to pose problems for economic development in certain areas.

The major environmental problem is air pollution that stems from the use of a coal supply that has relatively high sulphur content. Since the 1980s, sulphur dioxide emissions have been growing less rapidly than GDP and starting from the mid-1990s the absolute level of emissions also started to decline only to increase once again in the current upswing. The situation for pollution from particles is much less reassuring even if the situation has improved. Emissions of particles (PM_{10}) are a major obstacle to overcome in order to improve air quality in cities. Pollution from nitrogen dioxide is not yet a major problem but may rise as the stock of cars is increasing rapidly. Overall, these trends have brought an improvement in air quality with only one quarter of major cities failing to meet the national air quality standards for sulphur dioxide – though these are above the WHO limits. Nonetheless, in 2000, 16 of the 20 cities in the world with the worst air pollution were located in China.

Water quality has, on balance, been improved somewhat but the level of pollution remains high. Emissions of industrial effluents have been reduced but increased emissions of untreated domestic wastewater are offsetting part of this decline. Overall, almost one-third of major water basins are classed as highly polluted and 75% of the water flowing in urban areas is unsuitable for drinking or fishing. In addition to being of poor quality, the

availability of water has started to emerge in a number of northern areas, with falling water tables in some provinces. Considerable scope for increasing efficiency in the use of water in agriculture exists, especially in the 85% of arable land in the north that is irrigated. Both in agriculture and in urban areas, there is considerable scope for using the price mechanism to ensure that scarce water resources are put to the most valuable use.

In the past decade, government policies towards air pollution have become markedly tighter, contributing to the decline in pollution. A two-pronged approach has been adopted based on controls on the total amount of emissions and system of fees on emissions. Nationwide ceilings have been set for sulphur emissions with targets broken down to the local level. The objectives for pollution reduction are stricter in two designated areas of the country. In the sulphur emission control area, the emphasis is on local air pollution while in the acid rain control area the emphasis is on reducing deposition of sulphur. The 10th five-year plan targeted a 10% nationwide fall in emissions between 2000 and 2005 and a 20% fall in the two controls zones. These plans have been backed by investment in relocating city-centre power stations, constructing washing facilities for high sulphur coal and opening low-sulphur coal mines. The authorities introduced an emission fee and this has been progressively raised, reaching CNY 630 per tonne of SO_2 in July 2005 (USD 76 per tonne), representing a 15 fold increase since the introduction of the fee in 1982. At this level the fee represents one-third of the cost of abatement (Finamore and Szymanski, 2002) but the goal of policy is to close this gap. The fee is designed to finance anti-pollution investment. However, in the past, it has served as means to finance local environment protection bureaux. A new regulation, introduced in 2002, has largely ended this practice. Moreover, there has been concern that the payment of the fees is subject to negotiation, depending on the financial situation of the enterprises concerned and few plants are equipped with continuous monitoring systems. The fees and other policy instruments provide little incentive for emitters to reduce pollution and consequently only 6 GW of capacity (less than 3% of thermal power capacity (the predominant source of sulphur pollution) was equipped with any form of desulphurisation equipment in 2000. To overcome the lack of incentives, new policy guidelines were introduced in 2002 that require new, expanded or retrofitted coal-fired power stations to install desulphurisation equipment. Given that the costs of abatement vary considerably across the country and so the scope for an emission trading scheme does exist and indeed there have been a number of pilot projects across the country but considerable improvement to measurement and enforcement would be needed before such a policy could be implemented.

The benefits from reduced air pollution are likely to be considerable and would likely exceed costs, though by a much smaller margin than in developed countries. Estimates of the benefits of reducing air pollution vary, with one estimate suggesting that bringing all major cities into conformity with WHO standards would generate health benefits of between 3 and 8% of GDP in 2001, with gains three to four times larger in a number of very highly polluted cities (Brajer and Mead, 2004). Other sources confirm such a range for the health costs of pollution (Development Research Centre, 2003). Information on the balance between the costs and benefits of achieving a reduction in air pollution in China are limited. However, the gap between marginal abatement costs and health benefits in the OECD area is sufficiently large (between 30 and 35 times) that even allowing for much lower income levels in China, it would seem that air pollution reduction should be a greater priority, especially in the power generation industry.

In other areas, policy has been moving towards the use of economic instruments. For example, cities that obtain central government funding for urban wastewater treatment are obliged to introduce full cost pricing. However, in general the price of providing urban water and sanitation services is held well below full cost which imposes an important financing constraint on the provision of these services. In the rural areas, there have been problems collecting irrigation fees and linking them to actual water consumption by farmers. A number of provincial projects have shown that making irrigation systems into enterprises, and giving them strong performance incentives can result both in better collection of fees and reduced water consumption, suggesting that greater use of economic instruments can help avoid incipient water shortages.

Providing a stable macroeconomic environment

For a market economy to work efficiently, the government needs to provide a stable macroeconomic environment (see Box 1.1 for an analysis of recent economic trends and prospects). Such a stable framework will enable entrepreneurs to have greater visibility of future economic events and so ensures that decisions are taken based on reasonable expectations about future economic developments. Many central banks have taken as their objective the achievement of stable and low inflation rate, though some have also an objective that includes both the inflation and the level of output and employment. The central bank in China also has an objective of providing a stable environment for the economy. In some respects, this objective is being increasingly achieved: the rate of inflation, as measured by the GDP deflator, has averaged 2% in the period 2000 to 2004, in the top third of OECD countries and almost exactly in line with the average rate of inflation in the same period in the United States. However, while the objective of low inflation has been met, the inflation rate has been much more volatile than in the OECD area (Figure 1.8) and markedly more so than in the United States, against whose currency the Renminbi has been extremely stable. Indeed between for the years 2000 to 2004, the volatility of the inflation rate was only exceeded by four OECD countries. On the other hand, volatility of GDP has been less marked than in the OECD area.

The pattern of volatility of inflation but relatively stable economic growth continued in 2004. GDP expanded by 9½ per cent, up slightly from the previous year, with a marked increase in the rate of inflation (see Box 1.1). Continued rapid growth came despite use of administrative controls to dampen growth. Controls over investment in selected industries were tightened and window guidance concerning the appropriate growth of lending was issued to banks. Given the growing importance of the private sector in economic activity greater recourse to market-related control instruments in the area of monetary policy would appear to be appropriate.

The variability of inflation may in part be linked to the conduct of monetary policy in China, though other factors such as the high weight of food in the consumer price index also played a role. The ability of the domestic authorities to run an independent monetary policy has been limited by the exchange rate policy of the country. Multiple exchange rates were abolished for current account transactions in 1994 and the currency was made convertible current account transactions two years later. In the subsequent three years, the authorities allowed a slight appreciation of the exchange rate. Following the Asian financial crisis the authorities adopted a policy of purchasing foreign currency according to market demand to keep the exchange rate almost constant, with the daily volatility of the Renminbi against the US dollar being kept in narrow band, with averaging 8 basis points

Box 1.1. **Recent economic trends and prospects**

Economic growth in China continued to gain momentum in 2004, averaging 9½ per cent for the whole year. Investment remained the driving force of economic expansion though private consumption growth also picked up slightly on the back of strengthening household incomes including in rural areas where it was supported by stronger food prices. There was also acceleration in exports and these two changes are estimated to have been more than sufficient to cushion the slight slackening in the growth rate of investment.*

The weakening in investment growth was limited, despite administrative controls on certain sectors, cuts in the growth of public investment and tightened credit conditions. In part this was due to a surge in profits that strengthened corporate balance sheets and limited the impact of credit rationing. It also reflected strong growth in areas where capacity is short such as power generation. In addition, real estate investment remained strong fuelled by strengthening household incomes and expectation for rising prices notwithstanding higher borrowing costs.

The pickup in export growth came as the result of measures to liberalise the exports licensing system and was helped by a fall in the effective exchange rate. The terms of trade deteriorated owing to oil and commodity price hikes. However, the dampening impact of rising energy prices on domestic demand was offset somewhat by surging exports to oil exporting countries. Overall, the current account surplus rose to 4% of GDP and there were capital inflows of similar amount. Faster economic growth, weak currency, higher food, commodity and oil prices led to a marked increase in the inflation rate in 2004 (see details below).

The policy stance will continue to be tight. Tax revenue is expected to remain buoyant and by keeping expenditure growth in control, the budget deficit will likely to decrease further. Monetary policy will also be tighter, with the central bank reducing its target for the growth of the money stock by two percentage points. Large foreign exchange inflows owing to surging current and capital account surpluses have only been partly sterilised. The central bank has lengthened the maturity of the bills issued for sterilisation purposes in order to increase demand. Nonetheless, there has been ample liquidity that has tended to lower rates in the inter bank market and resulted in the central bank lowering the rate on excess reserves. Window guidance was employed to ensure that bank lending growth was slowed and that lending was directed to less risky areas.

A very slight slowdown in growth is to be expected in 2005 as the result of further weakening of investment owing to continued administrative control in targeted industries and completion of projects that started before the tightening. Private consumption will likely remain robust owing to expanding disposable incomes and the increasing in household wealth brought about by rising house prices. Healthy household balance sheets provide room for increased borrowing that is likely to result in a growth in outlays on real estate. Measures such as the increase in the administered rate of interest on mortgages and in the hike in down payments may have only a small impact on demand. External demand is also likely to be strong, following the further fall in the effective exchange rate of the Renminbi and the phasing out of quotas on textile exports. Imports, on the other hand, are expected to slacken owing to weaker investment demand and rising domestic currency prices, bringing an increase in the current account surplus to 5¼ per cent of GDP.

Inflationary pressures may arise from the pass-through of depreciation in the effective exchange rate and the rise in intermediate goods prices, but the increase in capacity due to strong investment and hence rapid accumulation of capital stock will limit further acceleration in inflation. The following year, private consumption growth will continue to gain momentum bringing some rebound in import growth notwithstanding higher prices of imported goods owing to the weak currency. As a result, the current account surplus will not increase further.

Box 1.1. **Recent economic trends and prospects** *(cont.)*

Projections for China[1]

	2003	2004	2005	2006
Real GDP growth	9.5	9.5	9.0	9.2
Inflation	1.2	3.9	4.0	4.0
Fiscal balance (per cent of GDP)[2]	–1.9	–0.9	–0.4	–0.2
Current account balance ($ billion)	45.9	68.7	100.0	101.0
Current account balance (per cent of GDP)	3.1	4.0	5.2	4.6

1. The figures given for GDP and inflation are percentage changes from the previous year. Inflation refers to the consumer price index.
2. Consolidated budgetary and extrabudgetary accounts.

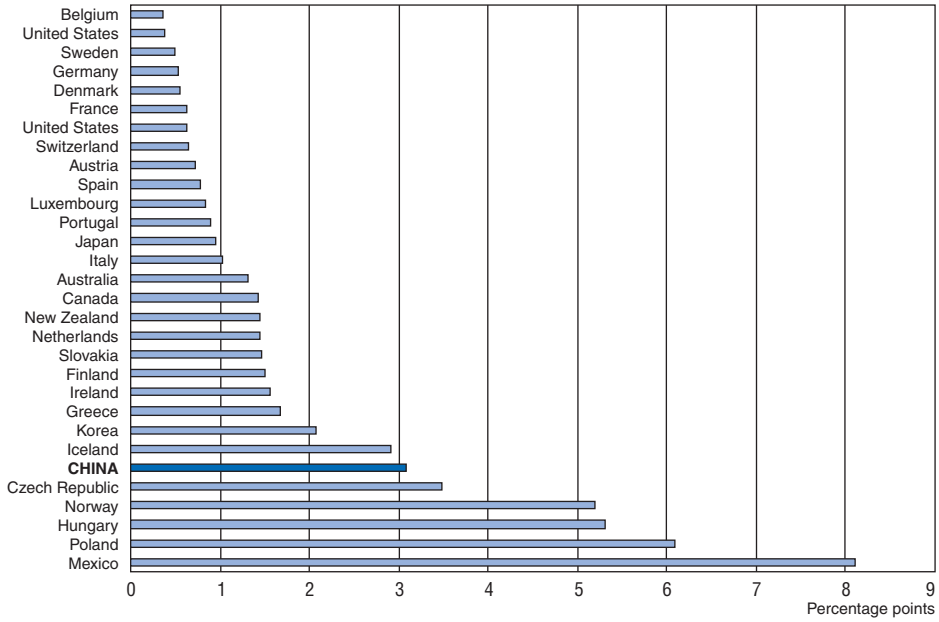
Source: Historic data are from national sources.

The risks to this outlook remain considerable. Growth could be markedly higher if government restrictions on investment ultimately prove ineffective in an economy increasingly driven by the private sector and if current efforts to restrain exports are unsuccessful. In such a scenario, inflation could accelerate. Downside risks are also present and stem mainly from the real estate market. At some point, purchasers may decide that prices have moved out of line with incomes and reduce purchases, a movement that might be amplified by investors who have been hoping for continuing price increases. Such a development would in turn weaken prices and erode household wealth. It might also lead to some resurgence of non-performing loans.

* Analysis of short-term trends in the economy is complicated by the complete absence of a constant price estimates for the expenditure components of GDP and the long delay in the publication of sectoral appropriation accounts. For example, household and enterprises accounts for 2002 were first published in April 2005. The analysis presented here uses estimates made by the OECD, based on partial data.

Figure 1.8. **Volatility of the inflation rate as measured by the GDP deflator**

Standard deviation of the inflation rate, 1996 to 2004



Source: *OECD Economic Outlook* database and Statistical Yearbook.

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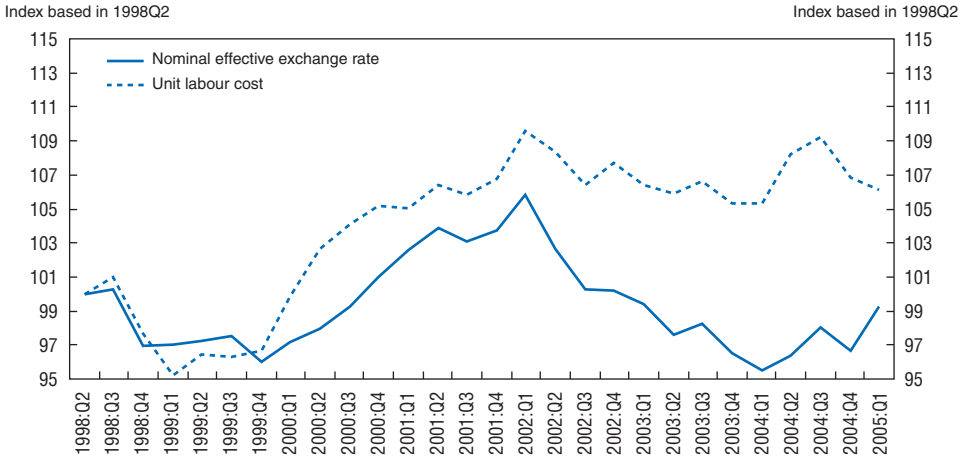
compared to 60 and 72 basis points respectively for the Euro and Yen in the period January 1994 to March 2005. Over this period, the effective exchange rate of the Renminbi has followed that of the dollar. Intervention to maintain a stable exchange rate against the dollar started in the middle of 2001 and has been large in scale, with reserves rising to 32% of GDP by end 2004, representing a doubling as a share of GDP from their mid 2001 level and a nominal increase of 2¾ times, even after reserves had been reduced by 3% of GDP through the purchase of recapitalisation bonds by the central bank. Intervention has been effective in stabilising the nominal exchange rate against the dollar, and hence allowing a depreciation of the currency in effective terms (Figure 1.9). There is some evidence, though, that the policy has been less effective in improving the real competitive position of the Renminbi. Nominal wage rates have been surging in the past three years with the result that the real effective exchange rate of the currency, measured in terms of unit labour costs, has not fallen as much as the effective exchange rate. Indeed, the real effective level of unit labour costs was at the same level at end 2004 as when intervention started in mid 2001, despite an 11% fall in the nominal effective exchange rate.

Figure 1.9. **Nominal effective exchange rate and relative unit labour costs**



Source: OECD exchange rate database.

Given the exchange rate policy, foreign exchange reserves have been accumulated at an increasing pace since 2000. With both the nominal effective exchange rate and relative unit labour costs falling (albeit less) since 2000, the current account surplus has been on a steadily rising trend, reaching 4¼ per cent of GDP in 2004. Foreign direct investment inflows have been relatively stable over the period 2000 to 2004 (Table 1.14). However despite strict capital controls both on inflows and outflows, other forms of capital inflows have increased markedly, notably for investments in securities, loans and both currency and deposits. By 2004, the net inflows in these categories amounted to 2¾ per cent of GDP. Moreover, there would appear to be some unrecorded capital inflows as is witnessed by the positive value of errors and omissions. Part of this inflow may represent a reversal of earlier undocumented outflows (Prasad, 2005). Overall, the total inflow of foreign currency amounted to almost 12½ per cent of GDP in 2004, up from 1% of GDP in 2000, illustrating the difficulty of stopping such inflows through regulations.

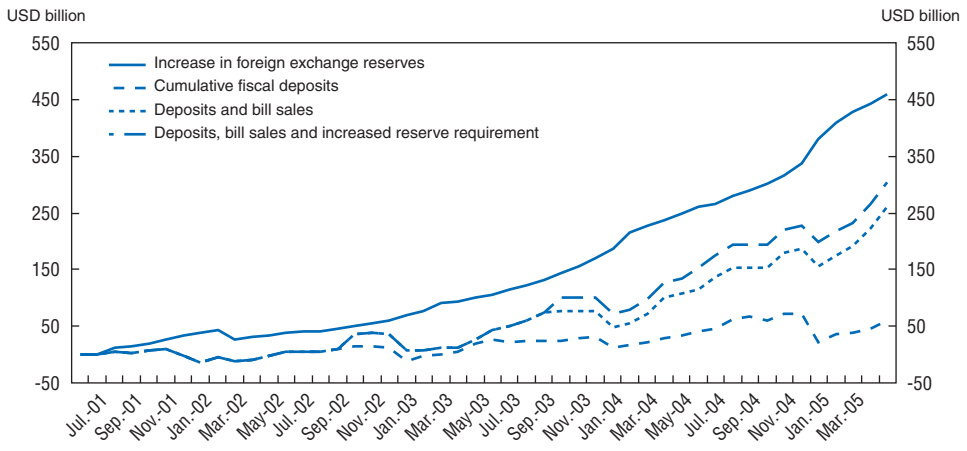
Table 1.14. **Current and capital account flows**
Per cent of GDP

	2000	2001	2002	2003	2004	Change 2000 to 2004
Current account	1.9	1.5	2.8	3.2	4.2	2.3
Capital inflows	0.2	3.0	2.5	3.7	6.7	6.5
of which:						
Direct investment	3.5	3.2	3.7	3.3	3.2	–0.3
Securities	–0.4	–1.7	–0.8	0.8	1.2	1.6
Trade credit	0.5	–0.1	0.3	0.2	0.2	–0.3
Loans	–1.9	1.2	–0.8	1.5	0.2	2.2
Other	–0.9	0.6	0.3	–1.7	0.6	1.5
Currency and deposits	–0.6	–0.2	–0.2	–0.4	1.3	1.9
Total measured inflows	2.1	4.4	5.3	7.0	10.9	8.8
Errors and omissions	–1.1	–0.4	0.6	1.3	1.6	2.7
Total inflow	1.0	4.0	5.9	8.3	12.5	11.5
Reserves	–1.0	–4.0	–5.9	–8.3	–12.5	–11.5

Source: State Administration for Foreign Exchange.

The authorities have attempted to isolate the domestic economy from the consequences of the combination of a fixed exchange rate and large capital inflow through sterilisation. In the Chinese case, the central bank has used two methods to sterilise the inflow: sales of central bank bills and changes in the reserve ratio of banks. At the same time, to some extent, changes in government deposits with the central bank have helped moderate the impact of inflows on the money stock (Figure 1.10). Bill sales and increased government deposits have, however, only offset half of the total inflow into the banking system, leaving a shortfall, notably from the middle of 2003 to the spring of 2004. During this period, the central bank also raised the reserve ratio for banks by a cumulative 1½ per cent, though to some extent banks have been able to offset increases in compulsory reserves by reducing voluntary deposits with the central bank. Overall, sterilisation has fallen short of complete neutralisation of inflows in the period since June 2001. Taking into account instruments on the central bank's balance sheet (fiscal deposits, bill sales and increased reserve requirements), the shortfall is estimated to amount to the equivalent to

Figure 1.10. **Increase in foreign exchange reserves and sterilisation**
Change since June 2001



Source: People's Bank of China Quarterly Statistical Bulletin.

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6% of broad money by end-2004. Indeed the difficulty of achieving complete sterilisation is apparent from the simple correlation between the movement in foreign exchange reserves and base money which was 0.6 in 2003 (Dean and Rajan, 2004).

The central bank has developed a number of markets over the past few years to allow a market-based strategy to reduce domestic liquidity. There is a well-developed inter-bank market; a repurchase market for government bonds has been developed that allows short sales, essential for developing derivative products. The government bond market is still segmented with separate markets for wholesale and retail participants (the inter-bank and stock markets, respectively), with banks only able to participate in the wholesale. More participants have been allowed into the wholesale market recently and its liquidity has developed considerably.

The instruments that would allow a complete market-based absorption of incoming liquidity have been developed by the authorities. In 2003, the central bank started issuing bills as an effective instrument to absorb liquidity and, in 2005, extend their maturity. Eventually, the authorities may feel that selling more bonds domestically to lower liquidity would raise interest rates and hence increase capital inflows to the extent that strict capital controls can be circumvented but so far this has not been a problem. Whatever the reasons, the consequence of the inflow was to result in the central bank failing to meet its target for a 17% increase in the money supply for 2003. Indeed, at one point, the money supply was growing at annual rate of over 19%, with lending to the non-financial sector expanding two percentage points faster. Some were concerned that, given the high indebtedness of many companies, higher interest rates, perhaps called for in this situation would worsen the ability of companies to repay bank loans.

With market-based instruments being eschewed, the authorities limited credit growth through administrative guidance, avoiding a significant increase in interest rates. The central bank convened monthly meeting to analyse economic and financial indicators with banks in which window guidance and "risk alarms" were provided to banks. The objective of the meetings was to urge the commercial banks to pay high attention to the excessively rapid expansion of credit while avoiding placing a hard brake on lending. The annual rate of credit expansion fell by 10 percentage points in four months following the introduction of this policy, helped by falls in the demand for credit from sectors subject to administrative control over their investment that were introduced for macroeconomic control purposes. Administered interest rates were left stable during this period but the banks were given the freedom to raise loans to up to 70% above the administered rate. In practice, a survey by the central bank suggested that banks have only taken limited advantage of this flexibility.

The use of administrative guidance has stopped market participants being aware of the true cost of credit and replaces price allocation by administrative decisions of the banks. Some idea of the scale of the implicit increase in interest rates can be seen from movements in the informal, but closely monitored, credit market in coastal towns. In this market, interest rates on loans rose by over 300 basis points in three months following the tightening of window guidance in April 2004. There is moreover anecdotal evidence, to some extent supported by balance of payments data that exporters turned to trade credit from abroad to replace domestic bank finance thus adding to capital inflows.

With lending restricted but with some liquidity being injected into the banking system in any case, the banks started to accumulate reserves with difference between deposits

with central banks and compulsory reserves rising to over 5% of banking deposits by end-2004. The consequence of this accumulation of reserves by the banking system has been that inter-bank interest rates have been pushed down to close to the rate on excess deposits at the same time as the central bank raised administered rates in the banking system. Progress has been made in the use of market-based instruments such as adjusting reserve ratios, increasing the loan rate charged by banks and using open market operations moving in the government's overall policy direction of "letting the market play its basic role in resource disposition and macroeconomic regulation and control", but further flexibility in the using inter-bank interest rates as the basic transmission mechanism for determining bank lending rates would enhance the changes that have already been made.

In order to resolve the current contradictions and inherent risks in monetary policy, an appreciation of the nominal effective exchange rate of the Renminbi is needed to lessen the danger of future instability and achieve a market based system of monetary control that provides price stability. In July 2005, to guard against such risks, the authorities announced a revaluation of the exchange rate against the dollar of 2.1 per cent, with the currency able to move in a range of ±0.3%. In addition, the central rate for the renminbi will be determined by a basket of currencies the composition of which was not revealed.[19] These changes should help lessen the risk that the required real appreciation occurs through higher inflation and are a commendable move in the right direction. However, given the need to maintain domestic price stability a greater degree of flexibility in the exchange rate will be necessary. There are however a number of problems with a move to greater but not total flexibility. Wider bands, by themselves, may not be sufficient to ensure that there is an equal probability of an appreciation or depreciation and so the market rate could just jump to the top of the new range. One alternative would be to introduce a form of crawling peg for the currency. Unless the combination of appreciation and wider bands results in the balance between the expectation of future upward and downward movements in the exchange rate being equalised, the Chinese authorities may continue to have difficulty in operating an independent monetary policy and, in the face of continued, inflows run the risk of higher inflation.

A completely freely floating exchange rate is unlikely to be possible with the current set of regulations in place in China but a modest set of reforms might make such a market possible. The flow of orders that can be submitted to the market is limited to foreign exchange transactions that are backed by actual trade and investment flows. In order to improve the functioning of the market, the government allowed the number of participating institutions to increase to 354 by the end of 2004. However, the central bank acts as a market maker, so limiting the scope for arbitrage. Such restrictions ensure that the exchange market is small, with daily transaction averaging USD 0.8 billion in the first 11 months of 2004. In the Czech Republic, Hungary, Poland, Slovakia and Turkey, for example, foreign exchange turnover was 18 times larger relative to the total annual flow of credit and debits in the current account in 2001. Allowing a greater range of participants (both banks and non-banks) into the market could improve its liquidity as would the withdrawal of the central bank as a market maker, letting participants trade between themselves. Day-to-day volatility might be greater under such a system but there is little econometric evidence that such volatility has an adverse impact on international trade, though prolonged changes in the real exchange rate are likely to result in the movement of resources between the tradable and non-tradable goods sectors of the economy.

Removing controls over the capital account is likely to be a much longer process than allowing a more flexible exchange rate. China has already been allowing a greater degree of convertibility for capital account outflows in an attempt to offset the impact of a high level of inflows that have occurred despite extensive controls. Amongst regulations that have been relaxed are those on direct investment abroad. In any case, controls are likely to become increasingly difficult to enforce as trade flows increase and as permitted capital inflows rise. Indeed, there is evidence that Chinese and US interest rates move together over the longer term despite controls (Cheung *et al.*, forthcoming). Experience of other developing countries suggests a cautious approach to liberalisation of the capital account.

Remainder of the report

The remainder of the report deals with the issues raised in this chapter in greater depth. Chapter 2 looks at the changing role of the private sector in the Chinese economy and the extent of the downsizing of the state sector. It discusses the principal policy changes that are needed to allow the private sector to play an even greater role in the development of the economy. Chapter 3 discusses the further reforms that are required in the financial sector in order that returns to the high level of savings in China are maximised. Finally, Chapter 4 looks at the fiscal system and its interaction with long-term growth. It considers the medium-term reforms necessary to deal with the ageing of the population. It also considers the need for reform of the allocation of tax revenues across the country so as to allow local governments to better fulfil their spending obligations notably in the area of health and education.

Notes

1. These challenges are dealt with in some detail in a forthcoming OECD study (OECD, 2005b).
2. Some of these companies are domiciled in Hong Kong, China. For example, the mainland operating assets of the LENOVO, the company that purchased the IBM PC business, are held in a listed Hong Kong company. The majority shareholder is a mainland state-owned company controlled by the Chinese Academy of Sciences. TCL International, the company that purchased the RCA and Thompson TV brands, has a similar structure.
3. The number of years of education of the labour force has been estimated using a perpetual inventory model. The average number of years of education of each age cohort has been estimated from the number of graduates from each level of education. Given the time taken to pass through each stage of education, the mix in the maximum level of education received by each cohort can be estimated. Given an assumption about the initial level of years of education at the end of the 1940s, the average level of education can then be calculated looking at the difference between those entering and those retiring from the labour force using the methodology of Wang and Yao (2001).
4. A series of studies have found similar results for the period up to 1998 (Dougherty, 2004).
5. These statistics are based on a tabulation of the National Bureau of Statistics database of industrial companies with sales of more than CNY 5 million.
6. It is necessary to estimate the share of the private sector in the economy because Chinese statistics do not split the non-industrial business sector into public and private components. More detail on the construction of this estimate is given in Chapter 2.
7. A breakdown of the type of shareholders is available for every enterprise with sales of more than CNY 5 million, independently of the particular type of law under which the enterprise is registered.
8. The private sector is defined to include all firms where 50% or more of the equity capital is owned either by individuals, foreign enterprises or, in the case of a non-state controlled corporation, where more than 50% of the equity is owned by another company. The definition is thus

considerably wider than the official definition of the private sector that focuses on companies registered as private. These measurement issues are explained in more detail in Chapter 2.

9. The rate of return is measured here as the ratio of the sum of operating profits to the sum of fixed assets and inventory. Operating profit is measured before the deduction of interest payments and so corresponds to the national accounts concept of net operating surplus. It should be noted that in Chinese statistical publications, operating profit is measured after the payment of interest payments. In order to bring the measure of return on capital in China closer to that used in the OECD area, interest payments have been added back to the Chinese definition of operating profits.
10. These estimates are based on an analysis of the National Bureau of Statistics microdata for the industrial sector. See Chapter 2 for more information.
11. It is not possible to identify the source of borrowing from the NBS microdatabase.
12. If the country is divided into three areas (western, central and remaining higher income provinces) in 2001, GDP per head in the western and central areas was 43% and 51% of that in the remaining higher income areas.
13. One analyst puts the share of the owner-occupied housing as high as 72% based on a 1% sample of the 2000 Census whose housing is located in city districts (not suburban districts, towns, or villages) as defined in the China 2000 Census and is for private use (not for productive or commercial use) (Bian, 2004).
14. This author based his analysis on tabulations of the 0.1% sample of the 2000 Census.
15. However, many state-owned enterprises own land use rights allocated to them but these rights are not transferable to the private sector.
16. The 2003 Report of the Survey on Migrant Population Trends in Beijing undertaken by the Beijing Statistics Bureau for instance stated that among the 100 000 migrant children aged between 6-14 the school enrolment rate is 12.5%.
17. Contributions to supplementary pension accounts are not tax deductible, the interest income accumulating in the account is exempt from capital income tax and withdrawals from the account are also tax exempt.
18. The tax administration would need to be able to discriminate between foreign and domestic shareholders.
19. At present, the OECD effective exchange rate index for China places a weight of 11% on the US dollar, whereas there is a 65% weight put on other Asian currencies, some of which are linked to the dollar.

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ANNEX 1.A1

Estimates of the purchasing power parity conversion rate for China

Price levels for the same or similar goods and services vary considerably across countries and there is a need to correct for these differences if an adequate comparison of relative income levels of different countries is to be made. The need for this correction is particularly strong if comparisons are made between countries at markedly different stages of economic development. Such differences arise because, although the prices of many manufactured products may be equalised by international trade, the price of labour is not equalised. Consequently, labour-intensive services will tend to be relatively cheap compared to manufactured goods in less-developed countries.

To correct for these differences in price levels, the OECD and other international organisations have collaborated in the International Comparisons Project (ICP) to provide estimates of purchasing power parities that can be used to compare real incomes across countries. Unfortunately, to date, China has never fully participated in this international programme. It intends to participate in the current round of the ICP project starting in 2004, but only for 11 urban areas, rather than for a nationwide estimate.

In the absence of ICP estimates, there have been a wide variety of alternative estimates of PPP conversion rates for China. Many of these estimates are now rather dated in that they use prices in years when China was not a market economy and when there was not a unified exchange rate regime for foreign trade transactions.

Two types of data sources have been used for estimates of PPPs. One uses price data which generally has to be taken from published sources rather than by undertaking surveys, the other uses the results of economic or industrial censuses to calculate parities based on output prices of a selection of industries. Since most studies have been conducted retrospectively, the items that can be matched internationally are not always representative of Chinese GDP. Moreover, such comparisons may not fully take account of the differences in quality that may exist between goods in China and comparison countries. The various studies that have been undertaken are summarised below.

The variation in estimated parities is extreme. The most widely used estimate is that of the World Bank that differs little from the most recent estimates in the Penn World Tables, shown below. However, both these estimates are updates of partial surveys that were undertaken many years ago, though the Penn study does give 50% weight to a bilateral study of prices in Hong Kong, China and Guangdong – as a neighbouring Chinese province. Given these drawbacks, Heston (2001) concludes that the "our earlier hopes

remain that the PPP estimates for China in the sixth version of the Penn World Tables will soon be superseded by better numbers".

Two more recent studies suggest that, at least for the manufacturing and urban sectors of the economy, the PPP is considerably higher than that commonly used in international comparisons. The study by Ren (2002) that was based on the 1995 Industrial Census uses an industrial output comparison method rather than an expenditure-based method. It concludes that the PPP for the manufacturing sector is over twice that generally used in internationally comparisons. As well, a retrospective examination of the PPP based on seven major cities in China was undertaken for 1999, by the OECD and the National Bureau of Statistics. This experimental study suggested that the urban PPP for China was much higher than the World Bank estimate. An urban PPP is relevant because almost two-thirds of Chinese GDP originates in urban areas. Since rural prices appear are estimated to be 28% lower than urban prices (Brandt and Holz, 2004), this would suggest only a 10% adjustment to an urban PPP. Overall, these various estimates suggest that Chinese income per head relative to that in the OECD area is subject to considerable uncertainty, although it is probably at least twice as much as it would appear at market exchange rates.

Nevertheless, while the level of income in China is higher when measured at a PPP conversion rate, the speed with which such a measure of income approaches that of developed countries will be slower. This is because as incomes rise, the gap between the PPP and the market exchange rate narrows. On the basis of the cross-sectional data in the Penn World Tables, about one-third of any reduction in the nominal gap in income between a country and the United States is offset by a rise in the PPP (through inflation). Thus, while China is closing the real income gap with the OECD by 5¾ per cent per year at constant prices and market exchange rates, the gap would only be closed at 3½ per cent annually if the income is evaluated at PPP – and these evolve over time as suggested by the systematic relationship between the PPP and market exchange rates and real income, when measured across a cross-section of countries at a specific point in time.

Table 1.A1.1. **Estimates of purchasing power parities (PPP) for China**

Alternative estimates of PPP[1]	PPP, yuan per dollar	PPP as a per cent of market exchange rate[2]	Ratio of GDP valued at PPP to GDP valued at market exchange rates[3]
Comparison in 1990			
Kravis (1981) for 1975	0.38	7.9	12.6
Maddison (1998) for 1990	0.88	18.4	5.4
Heston and Summers (1995)	1.06	22.2	4.5
Ren (1997) for 1985	1.10	23.0	4.3
Penn World Tables (PWT 5.6)	1.12	23.4	4.3
World Development Indicators (WDI)	1.25	26.2	3.8
Taylor (1991) for 1986	1.44	30.1	3.3
Comparison in 2000			
Penn World Tables (PWT 6.1)	1.92	23.2	4.3
World Bank WDI	1.83	22.1	4.5
Guangdong-Hong Kong, China study, 1993	4.46	53.9	1.9
Ren (2002) for 1990	4.25	55.9	2.0

1. The references for the alternative estimates are shown in brackets, from Wu (2000). The estimates for 1990 and 2000 have been updated to from the base dates of each comparison using GDP deflators. Studies without base dates combine multiple estimates.
2. The purchasing power parity conversion rate has been expressed as a percentage of the market exchange rate ("price level").
3. This factor is the inverse of the previous column and show the extent to which the PPP estimate of GDP exceeds an estimate of GDP based on market rates.

ANNEX 1.A2

Decomposition of growth and estimation of potential output

Methodology

The decomposition of sources of growth and the estimate of potential growth presented in Chapter 1 are based on estimates of the capital stock and employment that have been combined using the coefficients from a Cobb-Douglas production function.

The production function used in this analysis has been estimated subject to the constraint that the sum of the labour and capital coefficients is equal to unity. As ordinary least squares estimation showed serially correlated errors, the model was estimated using an ARIMA estimation method with one lag. The results of this estimation are shown in Table 1.A2.1.

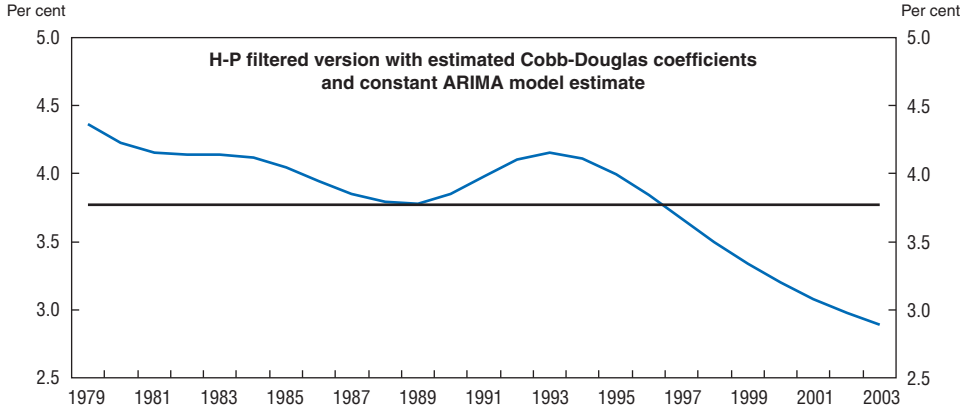
Results

Over the whole estimated period (1978 to 2003), the production function shows annual total factor productivity growth (TFP) of 3.7%. Compared to estimates in the literature this estimate is on the high side. Using provincial capital stock data, Li (2003) estimated annual TFP at 3.4%, while Chow and Li (2002) found total factor productivity growth in the 1979 to 1998 period as being equal to 3%, once allowance was made for serial correlation of errors. The lowest estimate was made by Chow and Lin (2002), whose employment series had a break in 1990 (see below) that may have lowered their estimate of total factor productivity.

In order to attribute past economic growth to inputs into the production process and to estimate potential output, it is necessary to estimate the shares of labour and capital in the income measure of output. The coefficients on labour and capital in a Cobb Douglas production function correspond to these shares and were estimated at 0.47 and 0.53. The estimated coefficient on capital was somewhat above the average capital share in GDP which averaged 0.40 in the period 1978 to 2002. However, the estimate is closer to the expected value than in the papers cited above where capital stock coefficients of 0.65 and higher have been found. The estimate is, for example, markedly lower than that found in the Chinese Academy of Social Sciences' quarterly economic model, where the capital coefficient is set at 0.85 (He *et al.*, 2004). The lower, and more realistic estimate of the coefficient on capital, may be the reason why the estimates of TFP shown here are higher than those discussed above. The estimated coefficients were used to determine the sources of growth as shown in Chapter 1.

The estimate of potential output is based a smoothed series for total factor productivity growth. The unsmoothed series was calculated using the estimated production function and was then smoothed using a Hodrick-Prescott (H-P) filter. The results suggest that overall total factor productivity has slowed since the period up to the mid-1990s when resource allocation was being improved by the deregulation of prices. Nonetheless, at the end of the period, total factor productivity growth remained high by international standards, showing an estimated annual growth of 2.8%.

Figure 1.A2.1. **Growth of total factor productivity**



Source: OECD calculation.

The labour input needed to calculate potential output is based on an estimate of the labour force participation rate for people aged over 15, smoothed with an H-P filter, together with data for the population over 15. The smoothed participation rate shows a decline after the mid-1990s. Two factors can explain this movement: the first is the much increased participation in education, both at the higher secondary level and in tertiary education; the second is the extent of employment restructuring that has involved large job losses with many of the affected people withdrawing from the labour force. The smoothed participation rate has then been applied to the actual population series for the same age group. In order to estimate the smoothed employment series, a smoothed unemployment series was deducted from the smoothed labour force series.

The smoothed series for total factor productivity and employment were then combined with an unsmoothed series for the capital stock using the coefficients on capital and labour taken from Table 1.A2.1.

Data used in the analysis

The quality of this estimate depends on the data which are subject to greater uncertainty than usual. The measurement of factor inputs in China has been a subject of intensive academic investigation due to the absence of official estimates of the capital stock, changing definitions of employment and the absence of nation-wide unemployment data.

Capital stock

Estimates of the capital stock are generally made through a perpetual inventory model in which new capital formation is added to the previous capital stock and depreciation is

deducted. One example of such an approach can be found in Koumanakos *et al*. (2003). In that paper, a perpetual inventory capital stock was estimated for the state-owned enterprise sector using several different asset classes for the period 1990 to 1998. The data in this paper can be used to calculate an overall depreciation rate for the state owned sector. The national accounts data for depreciation cannot be used as they are based on historical cost rather than replacement cost.

A longer period estimate of the capital stock was made by Chow (1993). This estimate was based on initial estimates of the capital stock, derived by a number of different methods, and was then projected forward using data from a variety of sources. Since this paper was published, considerable advances have been made in Chinese economic statistics, notably the publication of current expenditure based GDP since 1952, so enabling official sources for capital formation to be used.

The methodology of estimating the capital stock that is used here is to take the initial capital stock estimates for the stock of fixed capital, inventories and land from Chow (1993) and to roll them forward from 1952 using the current expenditure data for capital formation and prices for the period prior to 1978 and the comparable data after 1978. A constant deprecation rate of 2.3% is used in line with that found by Koumanakos *et al* (*op. cit.*). For the period until mid 1980s, the estimated data corresponds quite closely to that of Chow.

The estimate of the growth of the capital stock is sensitive to the estimate of the depreciation rate and to the inclusion or exclusion of inventory investment. A doubling of the depreciation rate would raise the growth rate of fixed capital in 2003 by half a percentage point. The inclusion or exclusion of inventory makes a greater difference as recently inventory investment has been low. However, during the less market oriented phase of development inventory investment was very significant and accounted for over one third of the total capital stock. This ratio has fallen since 1998 to less than 15%. Consequently, the exclusion of inventory from the capital stock would raise the growth of the capital stock by over 1½ percentage points. The reduction in the amount of capital devoted to holding inventory does represent a significant gain in productivity and so the stock of inventories has been included in capital, following Chow (*op. cit.*).

Employment data

Since 1990, two series for aggregate employment are available. The first is based on administrative returns and is disaggregated into a wide number of industries. The second is based on a 1% sample census that was conducted in 1990 and 1995 and annually since that date. The level of employment is significantly higher in this second series than in the first series for reasons analysed in Chapter 2. Given that the second series starts in 1990, the employment measure used in this analysis is the administrative series which goes back in time to 1978 without a break. Post 1990, however, the statistical yearbook only publishes the disaggregated data on this basis and so the total series has been calculated by summing the disaggregated industrial data.

In order to calculate aggregate potential output an estimate of the national unemployment rate would be needed. As no such series is available (see Chapter 1), the series for the number of registered unemployed in urban areas has been used.

Table 1.A2.1. **ARIMA estimate of production function**

Sample: 1978 to 2003	Number of observations	= 26
	Wald chi^2 (3)	= 813.6
	Log likelihood	= 62.26
	Prob > chi^2	= 0.0000
	Constraints:	[ln GDP] ln capital + [ln GDP] ln employment = 1

ARIMA regression

Dependent variable ln GDP	Coefficient	Standard error	T statistic	P>|z|	95% confidence interval	
ln capital	0.526	0.250	2.11	0.035	0.04	1.02
ln employment	0.474	0.250	1.89	0.058	–0.02	0.96
Trend	0.037	0.016	2.29	0.022	0.01	0.07
Constant	–0.845	0.285	–2.97	0.003	–1.40	–0.29
Autoregressive lag	0.701	0.168	4.180	0.000	0.37	1.03
Sigma	0.022	0.004	5.820	0.000	0.014	0.029

ANNEX 1.A3

The extent of urban unemployment

The labour force data that have been used in the estimates of potential output show a marked decline in the participation rate in period after 1998 at a time when employment was falling. The labour force data are based on the two administrative sources of data: the annual census of employment in which registered enterprises report employment totals to local government, and the number of people registered as unemployed with the Ministry of Labour. These two data series suffer from a number of serious drawbacks. The register of enterprises has been unable to keep up with the number of new enterprises in the rapidly changing economy. Moreover, a number of employees fail to be caught in the returns, especially if they are rural workers in areas that are classified administratively as urban. As to unemployment, the data excludes all workers laid off from state enterprises that since 1998 have been entitled to social welfare benefits but cannot register as unemployed.

A number of attempts have been made to improve unemployment estimates. A one per cent annual sample census was introduced from 1994 onwards. From 1995 onwards, this source has contained questions that enable an unemployment rate basically corresponding to international definitions to be calculated. This study put the urban unemployment rate at 7.6% in 1995 (Knight and Song, 2004). The 2000 Census included labour questions that correspond to standard unemployment definitions, though the census excluded a small number of people who had moved from their residence within the past six months. This census put the unemployment rate at 11.5%. Such a level was confirmed by an experimental five city labour force survey, conducted by the Chinese Academy of Social Sciences, which put the unemployment rate in these cities at 12.7% in November 2001 (Giles *et al.*, 2004).

The drawbacks of existing data have been recognised by the national statistical agency. Relying on annual sample census data to measure labour force results in long delays, consequently the NBS introduced an annual national labour force sample in 1997. As the sample size was 0.4 million, against 1.2 million for the annual population census, this survey can be analyzed quicker but still entails a considerable processing delay. Moreover, the results of the survey have never been published, though, in a speech, the Prime Minister did state that the survey revealed an unemployment rate of 7% in 2002.

The national statistical agency is now considering the use of a much smaller household labour market survey. It has undertaken a four year cooperation programme with the United Kingdom and Finnish Statistical Offices, funded by the EU, to establish whether a household survey that could measure labour market conditions. In December 2001, at the end of the preparation period, a trial survey was undertaken

covering 1 000 households in each of six provinces. In these areas, the unemployment rate averaged 7% (Laux, 2003). This pilot programme illustrated that a higher frequency household survey was feasible in China and could generate adequate national data with a sample of around 30 000 households and would clearly show that urban unemployment was a more significant problem that revealed by the registered unemployment rate.

ANNEX 1.A4

Progress in raising the average level of education in China

In 1986, the government decided that compulsory schooling should, in principle, last nine years. It raised the length of elementary education by one year to six years and made junior high school compulsory for a three-year period. In practice, compulsory school attendance was never strictly enforced and it was not mandatory for all education authorities to provide nine year school programme. Indeed, the original programme envisaged a phased introduction of longer schooling across the country. Already by 1986, 85% of the age group was receiving six years of primary education and this had risen to 100% by 2000. Most of the increase in educational output came from the increase in the graduation rate of junior secondary school which rose from 41% in 1986 to 85% in 2003. Participation in education after the nine year level, which is, in principle, compulsory, has been rising but not as rapidly as for junior secondary schools. The increase in graduation rate for senior secondary schools (both general and vocational) increased noticeably in the mid-1990s, though the graduation rate is still below that in a number of other developing countries.

In 1999, the government set out a plan to double the size of tertiary education institutes, especially in technical fields of study. This was successful with the number of graduates from higher education doubling between 2000 and 2003. A further 50% increase seems likely by 2006, given the jump in enrolment rates since 2002. There is a strong emphasis on technical subjects with the result that graduates in science and engineering amounted to 5¼ per cent of the relevant age group in 2003 and may rise to over 8% by 2006. At that point, the overall graduation rate for this type of education will be only one and half percentage points below that in the OECD area. The absolute number of such graduates will be almost twice the number in the OECD area.

The average length of time spent studying has been rising three months every year for the past decade, with the process tending to accelerate recently. On current trends, the average schooling of new entrants to the labour force will rise to 11 years by 2006. By contrast, those retiring from the labour have only four years education bringing a steady increase in the average qualifications of the labour force.

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Chapter 2

Improving the productivity of the business sector

This chapter appraises the performance of China's businesses, relying on new empirical analysis of an up-to-date panel dataset of almost a million observations of firms. China's privately controlled companies operate in very competitive product markets and are highly productive, creating most new jobs. However, their growth is still limited by various regulatory weaknesses that have yet to be fully addressed, even though considerable improvements in the regulatory framework have been made over the past few years. Key priorities include revising the company law, passing the new bankruptcy code, and proving greater regulatory support for protecting property rights. The state sector remains large and generally wasteful of resources; programmes that have transferred control of enterprises to outsiders and facilitated restructuring need to be expanded. If restructuring is combined with reforms in the factor markets for labour and land, growth will be made more sustainable and potential output growth raised.

The private sector has emerged as a major driving force in the economy

China's private sector has become its main driver of growth in productivity and new jobs. Output by privately controlled companies now represents at least half of business sector value added, and dominates many industries, making them increasingly market-oriented. The growth of the private sector has been facilitated by an increasingly tolerant (but not always very supportive) policy environment, and widespread structural reforms. Reforms are in turn reinforced by the high rate of private job creation. In order to take fuller advantage of the widespread entrepreneurship evident in the dynamic small business sector, further regulatory changes are needed. These moves should include strengthening the rule of law and the protection of property rights, reducing entry and exit barriers, increasing access to finance, banning anti-competitive conduct, encouraging efficient mergers and acquisitions, and reducing restrictions on labour mobility – especially through improving rural land rights. These changes are needed to sustain growth momentum, and to deliver it more equitably across Chinese society.

The private sector has grown rapidly

Private enterprise has outpaced the public sector

A considerable amount of uncertainty surrounds any estimates of the private sector in China due to the difficulty of determining which enterprises are controlled by private entities. Definitions of the private sector based on enterprise types in China are regarded as unclear and hard to interpret (ADBI, 2004). This difficulty is compounded further due to the large number of small firms in all parts of the economy – agriculture, industry, and services – that are outside the statistical reporting system and are only roughly estimated in the national accounts.[1] Due to these limitations, a wide range of estimates have been made about the extent of private ownership. Government estimates usually focus on a narrow definition of the private sector that is restricted to domestic enterprises formally registered as private, which does not include foreign-held firms, many private controlled companies, or the informal sector, and puts the private share at about one-third of GDP.[2] A widely cited outside estimate puts the private sector at approximately one-half of GDP in 1998 – and close to two-thirds if all non-state enterprises are deemed private (IFC, 2000; ADB, 2003a, 2003b). However, not all enterprises registered as non-state are indeed private: for instance, a significant number of joint ventures and shareholding corporations are controlled by the state.

For conceptual clarity, our estimates apply a relatively strict definition of private enterprise (see Box 2.1). Only firms that are *not* identified as being public-controlled (state or collective-controlled) are classified as forming the private sector.[3] As a result, these estimates of the size of the private sector include all non-mainland controlled companies as well as many joint-venture companies. In addition, the estimates used here focus on the business sector that includes all economic sectors up to distribution and commercial services but excludes government and non-profit services. In 1998, this sector was 94% of

Box 2.1. **Defining firm ownership**

Rather than using the official firm registration categories commonly shown in China's statistical publications to look at ownership, we separate firms by type of controlling shareholder: whether it is the state (directly or indirectly), a collective (local government), or a private entity (individuals, domestic legal persons, or foreign companies) that controls the firm.* Such a classification of share ownership is available from the NBS microdata. This classification allows us to look at the type of actual owner, since the official registered enterprise structure often does not reflect the real owner. This approach also overcomes the difficulties in interpreting the bewildering array of different ownership categories, many of which are not meaningfully distinct and overlap with legal forms (see Table 2.A1.2). This categorisation is especially important for limited liability and shareholding companies, whose ownership is heavily mixed between state and private control. The use of the National Bureau of Statistics industrial microdata for the analysis allows us to make careful estimates of ownership and performance for the industrial sector and well-informed estimates for the rest of the economy.

* Modern theories of the firm suggest that ownership should be defined in terms of who controls the "residual rights" of the firm (see Hart, 1995), in the sense of who dictates unforeseen contingencies.

GDP (at current prices), and its non-farm component 76% of GDP. Economic activity included in GDP that takes place outside the official reporting system is assumed to be in the private sector (except for a small share of infrequently tracked and increasingly privatised collectives). As a result, the definition adopted here is broader than the official Chinese definition (see Annex 2.A1).

On the basis of these assumptions, the Chinese economy is now characterised more by private rather than public ownership (Table 2.1). For the commercial business sector, the private share is estimated at 63% in 2003, up from about 54% in 1998. Setting aside

Table 2.1. **The private sector outpaces the public sector**

Per cent of value added by firm ownership[1]

	1998	1999	2000	2001	2002	2003	Change
Non-farm business sector							
Private sector	43.0	45.3	47.7	51.8	54.6	57.1	+14.1
Public sector	57.0	54.7	52.3	48.2	45.4	42.9	–14.1
State-controlled	40.5	40.1	39.6	37.1	35.2	34.1	–6.4
Collectively controlled	16.5	14.7	12.7	11.2	10.1	8.8	–7.7
Total (79% of GDP)	100.0	100.0	100.0	100.0	100.0	100.0	
Business sector							
Private sector	53.5	54.9	56.3	59.4	61.5	63.3	+9.8
Public sector	46.5	45.1	43.7	40.6	38.5	36.7	–9.8
State-controlled	33.1	33.0	33.1	31.2	29.9	29.2	–3.9
Collectively controlled	13.4	12.1	10.6	9.4	8.6	7.5	–5.9
Total (94% of GDP)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Economy-wide							
Private sector	50.4	51.5	52.8	55.5	57.4	59.2	+8.8
Public sector	49.6	48.5	47.2	44.5	42.6	40.8	–8.8
State-controlled	36.9	37.1	37.3	35.7	34.6	33.7	–3.2
Collectively controlled	12.7	11.3	10.0	8.8	8.0	7.1	–5.6
Total (100% of GDP)	100.0	100.0	100.0	100.0	100.0	100.0	

1. See Annex 2.A1 for more details.

Source: National Bureau of Statistics and OECD estimates.

agriculture, which has been composed primarily of individual farmers since the 1980s, the private share of the non-farm business sector moved ahead of the public share for the first time in the period 1998 to 2003, with its share of output rising to 57% in 2003 from 43% in 1998. About one-third of the increase in the private sector share is mirrored in a decline in the number and output of collectives, with the remaining two-thirds reflected in closure and divestment of solely state-owned firms. The directly government-owned share of value added fell from 58% in 1998 to 43% in 2003 with about half of this decline being the result of the injection of minority stakes from the private sector. For the economy as a whole, the private share of GDP has risen from 50% of value added in 1998 to 59% in 2003.

There were 3 million domestic private enterprises and 24 million sole proprietorships (*getihu* enterprises) registered in the non-farm sector in 2003. Most firms in China are extremely small in scale and have relatively low output per worker. In 1995 (the last available industrial census), the smallest class of firm (employing 15 workers on average) accounted for 63% of output and 74% of employment in industry. In the private enterprise sector (that consists of firms with eight or more employees), the average number of employees is just 24 according to the 2001 Unit Census.[4] Sole proprietor units are even smaller, employing just two people. Overall, the average private enterprise has 18 employees. Some idea of the background of these private entrepreneurs can be obtained from survey data (see Box 2.2). Such data is a necessary complement to official statistical sources which usually cover few firms with less than 25 employees. Moreover, the State Administration for Industry and Commerce (SAIC) estimates that its register of firms misses as many firms as it captures.

Private business increasingly spread across the economy

The structure of the private sector has become increasingly diversified. The private business sector was dominated until the early 1990s by agriculture. However, private industry rose rapidly and now dominates private sector activity. In the industrial sector, the state is dominant only in mining and utilities. In the service sector progress has been less rapid, especially in banking and finance. In 1998, the private sector produced the higher share of value added in only 5 out of 23 "non-core" manufacturing industries.[5] By 2003, this was true for all 23 of these industries. Moreover, in half of them, private firms produced more than three-quarters of output. Overall in these 23 industries, the private sector employs two-thirds of the labour-force, produces two-thirds of these industries' value added and accounts for over 90% of their exports. Over a quarter of all industrial output is now produced by private foreign-owned companies, notably in the telecom equipment industry. Domestic private firms have expanded in textiles and steel.

Outside of industry the experience has been mixed. Distribution (wholesale and retail trade) has also become increasingly private, as the share of privately-owned output doubled in the past five years, to represent two-thirds of large-enterprise sales and an even larger share of overall distribution if small-scale private distributors are included. The expansion of private distribution is important for the development of integrated and competitive markets for products in goods-producing sectors. In construction, the changes have been more moderate, in part because the sector underwent privatisation earlier, making room for small firms that produce about three-quarters of sectoral value added. Nevertheless, among larger firms in construction, the growth of privately controlled firms has been very rapid. The penetration of the private sector in the rest of the tertiary sectors has lagged behind, particularly in financial services where only about one-seventh of value

Box 2.2. **Who are China's entrepreneurs?***

The typical entrepreneur in China is better educated and somewhat older than the average employee. The skills that these individuals bring to their activity result in them having a relatively high income that, at CNY 55 000 per year in 2002 (USD 6 600), was almost 7 times higher than that of their typical employee, who earned slightly more than the national average per capita income. The survey reveals that the most important motivating factor for starting a business was for individuals to increase their income and to "realise their full worth". Such a motivation mirrors that found in many other countries, where studies have shown that entrepreneurship is something that people either possess or do not, and is difficult to acquire (see OECD, 2004). Most had substantial prior experience in the private sector and were neither unemployed nor laid-off from a state-controlled enterprise prior to founding their business.

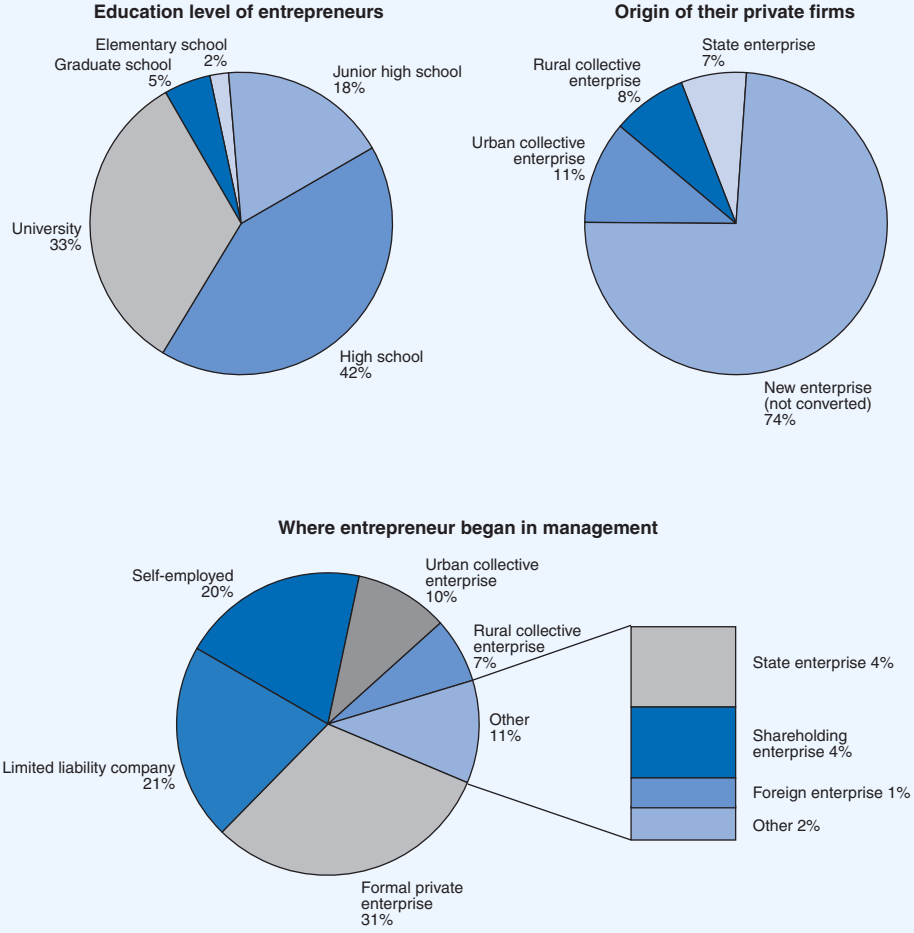
Analysis of the survey data suggests that the private firms that expand are more likely to be managed by a college graduate (Figure 2.1). Indeed, one-third of entrepreneurs in China have at least some college education, compared to only one-tenth of the general population. In addition, the greater the prior management experience, the more likely a firm is to expand. The typical entrepreneur has at least a decade of management experience in the non-state sector. Such results conform to the experience in OECD countries where human capital and relevant experience are closely linked to the success of micro enterprises.

As yet, women are under-represented amongst entrepreneurs. Less than 10% of entrepreneurs are women, lower than in all OECD countries. In addition, minorities (*i.e.* non-Han groups) are under-represented. Programmes to target women, minorities, and young people have been used elsewhere to improve opportunities for disadvantaged groups, especially in access to finance. Finance is a particularly acute problem for these groups, since Chinese entrepreneurs rely almost exclusively on savings, retained earnings and informal credit to start and expand their businesses.

Private sector firms included in this survey grew rapidly – 23% a year on average – with 1 in 10 firms able to double in size every 2 years. Yet the median firm took 7 years to double in size, and grew only 9% a year, having started with only 25 employees. Still, the growth rate of the typical firm compares favourably with European experience, despite Chinese firms starting much smaller and facing considerable difficulties in expanding beyond a relatively moderate size. In part this size limitation is a result of the frequently family nature of these businesses with limited access to capital. Fewer than 5% of the firms had more than 500 employees. The founders also find that expansion is limited by the difficulty in finding "trusted" managers – a concern that stems in part from the relatively weak rule of law. Those that have been successful often start with multiple investors, form limited liability companies, and engage in a diversity of productive activities to minimize risk in an uncertain regulatory environment. Increasingly, they operate in business services, consulting, legal work, real estate and tourism. Expansion is also facilitated by the presence of a trade union, that can help with hiring of workers, and the availability of migrant labour and laid-off state employees, although the latter have a negative impact on productivity.

Box 2.2. **Who are China's entrepreneurs?*** *(cont.)*

Figure 2.1. **Profile of Chinese entrepreneurs**



Note: The category self-employed refers to business units with between zero and eight employees.
Source: All-China Federation of Industry and Commerce private firm survey microdata.

The regulatory environment presents a serious obstacle for many entrepreneurs. They cite poor property rights, fake products, and arbitrary fees as presenting major challenges for their operations. While poor property rights and inadequate protection against fake products are attributed to the lack of adequate legislation, arbitrary fees are linked to inadequate enforcement of existing laws – and are symptomatic of more general government interference and weak legal institutions. In this environment, the ruling Communist Party has broadened its reach and invited private entrepreneurs to join its ranks, with more than 1 in 4 private firms forming internal Party committees.

* This box is based on analysis of the data from a survey of domestic private firms registered with the government, and their managers, conducted biannually by the All-China Federation of Industry and Commerce from 1993 to 2002, provided by the University Service Centre of the Chinese University of Hong Kong. The recent surveys were designed to be a nationally representative 0.2% sample (about 3 000 firms) and are stratified by province, urban-rural area, and sector. While the response rate to the survey was over 90%, the mean respondent firm is five times larger in employment than the mean registered firm, so the respondent firms may have a bias toward more established players.

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added comes from the private sector. In real estate and the hotels/restaurant sector, the private sector accounts for half and two-thirds of output, respectively.

The growth of the private sector has not been even across the country. An overwhelming share of private industrial output is produced in the eastern coastal region (especially Zhejiang, Guangdong and Jiangsu provinces) that has been at the forefront of all types of reforms. In this region, the share of industrial value added from the private sector is 63% against only 32% in other regions. These other regions are about five years behind in the development of the private sector. However, the central, western, and north-eastern regions' private sectors are growing faster than the coastal areas, suggesting that catching-up is underway.

More private domestic than foreign owned

Non-mainland controlled companies took an early lead over domestic private companies. In 1998, such overseas companies produced almost half of private sector value added in industry. Their growth was supported by foreign direct investment inflows that ranked second only to the United States over much of the past decade, and reached 17% of gross capital formation (by expenditure approach, at current prices) in 1994 (OECD, 2003a).[6] However, by 2000, this share had fallen to around 10%, and has declined since. In the meantime, due to the faster growth of the individually owned companies, the non-mainland sector now represents only a third of private value added in industry (although their share of exports is twice as large).

Due to WTO-driven liberalisation, the nature of foreign investment has changed in a favourable direction over the past five years. There have been ongoing improvements in market access following China's WTO commitments: in 2004, the Ministry of Commerce issued new rules that liberalise access to the distribution services sector, and a new catalogue of encouraged, restricted, and prohibited sectors was published at the beginning of 2005 that increases the number of service sectors open to investment. Moreover, virtually all of the growth of foreign enterprises from 1998 to 2003 has come from an increase in the share of wholly foreign-owned enterprises (WFOE), rather than joint ventures, a result of lessened restrictions on the WFOE structure. For instance, in the 2001 revision of the WFOE law, limits on access to domestic markets through certain procurement and export requirements were dropped and technology transfer requirements were relaxed. In addition, the number of cross-border mergers and acquisitions has increased (see further below). In manufacturing, foreign enterprise growth has been in the electronics and telecom equipment sector, while they are much less active than domestic enterprises in sectors such as textiles and smelting (steel).

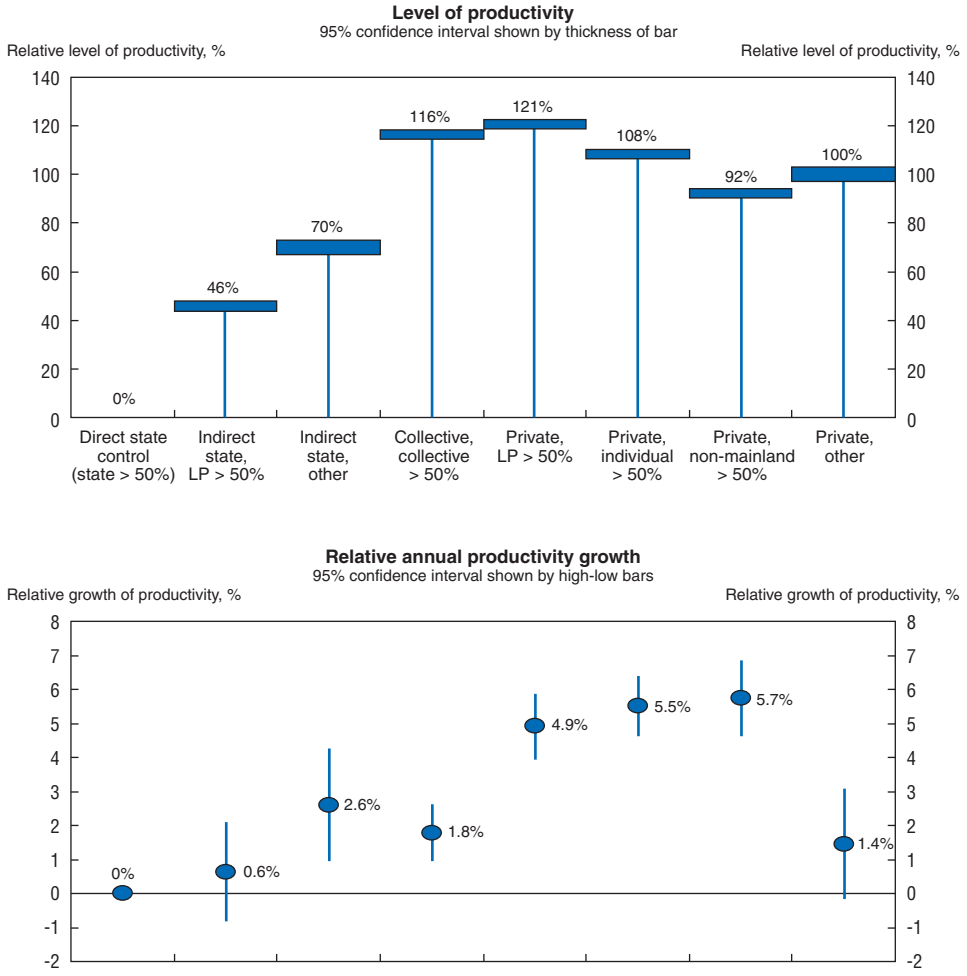
Private firms are more efficient

The movement of resources to the private sector has improved economic performance, as the sector is more efficient than the state-controlled sector. While labour productivity in the private sector, outside the resource-based sector, is 2% lower than that in the state sector that uses almost twice as much capital per worker. In the industrial sector, capital intensity in the private sector is one-third that of the public sector as a whole but labour productivity is just 15% less. Factors other than capital intensity such as the choice of location or industry, types of inputs or production processes, scale of production, or even the age of a firm might influence overall productivity. However, a statistical analysis of total factor productivity (TFP) – taking into account differences in technology,

input intensity and scale, based on panel data containing 850 000 observations for Chinese industrial companies over the period 1998 to 2003[7] – confirms that the overall productivity is markedly higher in private sector companies be they owned by non-mainland shareholders, other private sector companies or individuals (Figure 2.2). Overall, on the basis of a value-added measure of output, TFP in private sector companies, after taking into account the impact of firm size, location, and industry, is double that in directly state-controlled firms.[8] Moreover, TFP has been increasing more rapidly in privately held firms whether they are controlled by non-mainland owners, individuals or other companies.

Figure 2.2. **Differences in total factor productivity by firm ownership**[1]

Relative to directly state controlled (state > 50%), in units of value added



1. See Table 2.A2.1 for full regression parameters.

Source: National Bureau of Statistics industrial microdata and joint NBS-OECD analysis.

Financial performance of private firms is excellent

In spite of increasing liberalisation and market competition, private companies have been able to maintain earnings before interest, depreciation and tax at a fairly constant share of their value added (Tables 2.2 and 2.3). Their growing TFP has fed through into declining capital output ratios that allowed a fall in depreciation charges even though the

Table 2.2. **Key financial operating indicators for privately-controlled industrial companies**

	1999	2000	2001	2002	2003
	Per cent of value added				
Earnings before interest, depreciation and taxation	37.3	39.4	37.9	38.3	37.6
Depreciation	15.2	13.5	13.1	12.5	11.6
Interest	7.9	6.3	5.2	4.4	3.8
Profit	14.2	19.5	19.6	21.5	22.2
Profit plus interest[1]	22.2	25.9	24.8	25.8	26.0
	Profit plus interest as per cent of physical capital stock and inventories				
Rate of return on physical assets	8.8	11.5	11.9	13.4	15.0
Individually controlled companies	12.2	13.0	13.8	14.8	16.3
Companies controlled by companies	10.6	13.0	12.9	14.4	15.2
Non-mainland controlled companies	6.9	10.2	10.5	12.0	14.2
Other forms of control	8.7	10.5	11.2	12.0	13.9
	Profit as a per cent of equity				
Rate of return on equity (pre-tax)	8.6	11.9	11.8	13.0	14.4
	Per cent of value added				
Capital output ratio	1.8	1.6	1.5	1.4	1.2
Inventory output ratio	0.8	0.7	0.7	0.6	0.6
Intangible and deferred assets ratio	0.6	0.6	0.6	0.6	0.6
Total capital	3.2	2.9	2.7	2.6	2.4

1. Excludes investment income.

Source: National Bureau of Statistics industrial microdata and OECD calculations.

speed with which assets were written off increased. As a result, the net operating surplus of private industrial companies increased as a share of value added, bringing a marked increase in rates of return on physical capital. There has also been a slight reduction in the proportion of companies making losses, from one in six to one in seven. At the other end of the earnings distribution, almost a quarter of private companies earned a rate of return of over 25% in 2003 and almost 30% of companies had no net debt. Most impressively, private companies controlled by domestic individuals and companies have performed even better than those controlled by non-mainland agents.

There is evidence that in China, an increase in the average size of a private sector company enhances productivity. For example, in the industrial sector, the productivity of firms with over 500 employees is one-third higher than that of smaller companies. Analysis of even the smallest private firms (from the survey mentioned in Box 2.2) also suggests that TFP rises with firm size, but firms face obstacles to increase scale. This situation is symptomatic of the overall insufficient level of concentration of some industries (see section on competition policy below), and regulatory issues that make it difficult for many businesses to expand beyond a very small scale with relatively low capital and output per worker. Indeed only two per cent of private industrial firms (with over CNY 5 million in sales) had more than 1 000 employees in 2003.

Private sector employment has been growing, together with the profitability of the private sector. The pace of change has been such that private industrial sector employment has almost tripled in the past five years and in 2002 and 2003 was growing so rapidly, in

Table 2.3. **Key financing indicators for privately-controlled industrial companies**

	1999	2000	2001	2002	2003
	Per cent of value added				
Sources of funds (flow)	42.9	50.4	46.9	46.3	56.4
Total net borrowing	12.5	17.1	7.9	10.7	17.1
Long term borrowing	5.2	7.5	3.7	5.0	6.3
Short term borrowing (net)	7.3	9.6	4.2	5.7	10.8
Change in creditor equity	30.4	33.3	39.1	35.6	39.3
Retained earnings	9.0	12.8	12.4	13.1	. .
Other changes in creditor equity	21.4	20.5	26.6	22.5	. .
Uses of funds (flow)	44.0	49.9	47.4	46.0	57.6
Change in physical assets	33.1	35.0	36.3	35.3	43.2
Change in net fixed assets	29.8	24.7	25.3	26.0	26.3
Change in inventories	3.3	10.3	11.0	9.4	16.9
Change in deferred and other assets	10.9	14.9	11.1	10.6	14.4
Residual	1.2	–0.5	0.4	–0.3	1.3
Total net debt (stock)	122.7	108.0	92.0	80.1	72.7
Outstanding short-term debt	49.8	44.4	38.2	33.9	29.8
Outstanding long-term debt	72.9	63.7	53.7	46.2	42.9
	Per cent of fixed assets, inventory and other capital				
Financing of assets (stock)					
Total net debt	38.7	37.9	34.2	32.2	31.5
Outstanding short-term debt	15.7	15.6	14.2	13.6	12.9
Outstanding long-term debt	23.0	22.3	20.0	18.6	18.6
Equity	60.4	61.5	65.2	67.5	67.6
Other liabilities	0.9	0.6	0.6	0.4	0.8
	Per cent of equity				
Debt to equity	64.0	61.6	52.4	47.7	46.6

Note: The flow figures are derived from differences in year-end stocks.

Source: National Bureau of Statistics industrial microdata and OECD calculations.

absolute terms, as to offset the continuing decline in state sector employment. A similar, though somewhat dampened pattern emerges from the economy-wide data on urban employment derived from administrative returns (Table 2.4). Data from the sample population census presents a somewhat broader picture, although no employment or industry breakdown is available from this survey.[9] A study by the Ministry of Labour and Social Security (MOLSS) found that about half of the difference between the sample census and administrative returns represents workers in the informal sector, totalling about 20% of urban employment in 2003.

Increasingly favourable policy stance toward private enterprise

The past six years have seen a marked change in the attitude towards private enterprise as it is now seen as an essential part of the socialist market economy. In 1999, the national constitution was amended to explicitly recognise private property rights as more than a supplement to the socialist economy for the first time, deterring expropriation. Implementation of commitments made on entry to the World Trade Organisation in 2001 has led to a reduction in entry barriers in many industries and a levelling of the playing field for both foreign and domestic business. Private entrepreneurs have been solicited to join the Communist Party and property rights principles were

Table 2.4. **Non-farm business sector employment**

From administrative returns

	1998	1999	2000	2001	2002	2003	Change
	Millions of persons employed						
Public sector	73.5	65.9	59.0	52.4	46.6	42.3	–31.1
State	54.7	49.7	44.9	40.4	36.2	33.2	–21.5
Collective	18.3	15.8	13.6	11.6	9.9	8.7	–9.6
LLC and shareholding[2]	8.9	10.2	11.4	13.2	16.2	18.5	9.6
Private sector	162.5	173.5	172.6	180.1	185.6	196.6	34.1
Private firms	43.3	48.7	56.6	64.1	69.1	78.8	35.5
Self-employed	112.0	117.2	108.0	107.8	107.3	107.5	–4.5
Non-mainland firms	5.9	6.1	6.4	6.7	7.6	8.6	2.8
Total (administrative returns)	245.0	249.7	243.0	245.8	248.3	257.5	12.5
Difference from sample census[3]	57.0	68.4	81.6	91.6	96.4	99.1	42.1
Total (census based)	302.0	318.1	324.6	337.4	344.7	356.6	54.6
	Per cent of total						
Public sector	30.0	26.4	24.3	21.3	18.7	16.4	–13.5
State	22.3	19.9	18.5	16.4	14.6	12.9	–9.4
Collective	7.5	6.3	5.6	4.7	4.0	3.4	–4.1
LLC and shareholding[2]	3.6	4.1	4.7	5.4	6.5	7.2	3.5
Private sector	66.4	69.5	71.0	73.3	74.7	76.4	10.0
Private firms	17.7	19.5	23.3	26.1	27.8	30.6	12.9
Self-employed	45.7	47.0	44.5	43.9	43.2	41.7	–4.0
Non-mainland firms	2.4	2.5	2.6	2.7	3.1	3.4	1.0
Total (administrative returns)	100.0	100.0	100.0	100.0	100.0	100.0	0.0
Difference from sample census[4]	23.3	27.4	33.6	37.3	38.8	38.5	15.2

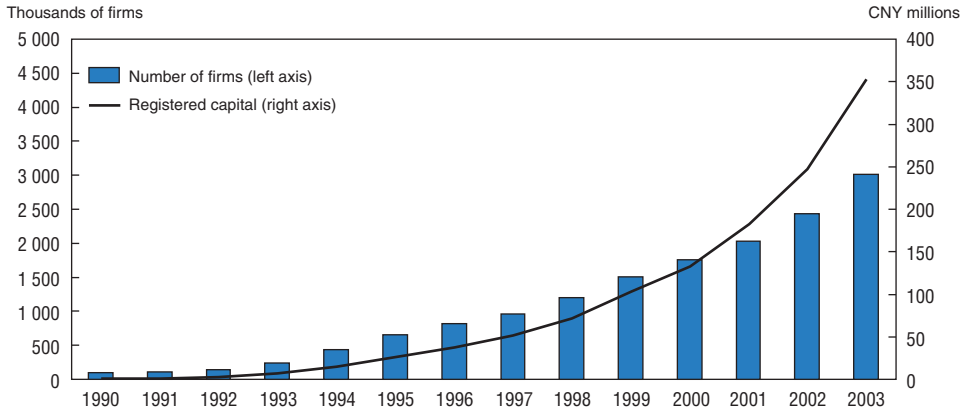
1. State, collective, and private ownership based on enterprise registration status (for wholly-owned firms).
2. LLC (limited liability companies) and shareholding includes both publicly and privately-controlled companies.
3. Shows the difference in employment between the administrative returns and sample population census. No sectoral breakdown is available.
4. As per cent of employment based on administrative returns.

Source: China Statistical Yearbook and OECD calculations (see Table 2.A3.1).

introduced into the Party constitution (in the form of the "Three Represents"), raising the political influence of the private sector. Building on these changes, two clauses were added to the national constitution in 2004. The first decrees that "the state encourages, supports, and guides the private economy", a stronger formulation than in the 1999 amendment. The second clause states that "legal private property is not to be encroached upon". These amendments have symbolic importance, although they have less practical weight due to the rarity of successful constitutional challenges, and will need to be followed by supporting legislation and regulation. Work has started on a Property Rights Act to be incorporated into the forthcoming Civil Code. Furthermore, the State Council issued guidelines in February 2005 that encourage ministries and local governments to further improve the regulatory environment for private companies by facilitating their entry into many sectors that were previously heavily restricted,[10] easing their access to capital markets and bank financing, and promoting non-discriminatory treatment under the law.

The improved environment for the private sector may have been one reason for businesses increasingly moving into the formal sector of the economy (Figure 2.3). In the industrial sector, formalization has been particularly striking as the shares of output produced in the reporting and non-reporting part of the private sector have reversed.

Figure 2.3. **Growth of domestic private firms registered with government**



Source: State Administration of Industry and Commerce (SAIC)

In 1998, two-thirds of value added was produced in the non-reporting sector of the economy (broadly corresponding to firms with less than 25 employees). By 2003, the non-reporting sector had fallen to one-third of industrial value-added. This trend is partly the result of a decrease in the attractiveness of individual proprietorships (*getihu*, limited to 8 employees or fewer) relative to private enterprises, particularly evident since the 1999 constitutional amendment that improved private property rights.

A reform of investment controls in 2004 illustrates the seriousness of the authorities in giving more support to the private sector and moving towards a greater market-based allocation of capital. Amidst an overheating economy at the beginning of 2004, quantitative cooling measures were introduced that appeared to disproportionately affect investment in the private sector.[11] Shortly thereafter (in July 2004), a new policy was approved that exempted private business projects from most investment controls, requiring only registration, although certain ones (in restricted industries and over specific thresholds) are subject to *ex post* inspection.

But barriers to entry, operation and expansion remain in place

Despite the various improvements in the regulatory environment in the past several years, significant problems remain for entrepreneurs. These include a range of barriers to operation and expansion, lack of access to finance, difficulties in entry and exit, and major impediments to the proper functioning of labour markets.

Entry barriers remain

Business entry is a major problem for private entrepreneurs in China. Problems encountered include long delays, lack of transparency in decisions, favouritism by local governments, and pressure to pay unauthorised fees. Access to business licenses was until recently the top complaint by Chinese entrepreneurs (IFC, 2000). Such obstacles are among the most detrimental to business entry, according to studies of firm demographics in the OECD (Brandt, 2004).

Since then improvements have been made to facilitate entry. In 2001, unincorporated firm registered capital requirements were abolished, and at the same time various bureaucratic hurdles such as the requirement for bank certificates were dropped (ADB, 2003b). A surge in

private firm registrations soon followed. Still, China's domestic private entrepreneurs have faced more stringent restrictions than foreign-invested enterprises, although the situation should improve with the State Council decision (in early 2005) to open more sectors to domestic private enterprises. Long delays in registering a company had been typical until 1999. In the following five years, estimated registration times (on a comparable basis) dropped from over 100 to 41 days (World Bank and IFC, 2004). Such a response time places China slightly behind the median performance of high-income OECD countries. These registration times are declining further with the implementation of the new administrative licensing law (Ladegaard, 2005). While there remain a large number of procedures required in the registration process, some regions have introduced a one-stop administrative procedure and shorter registration times. Entry nonetheless is limited by a requirement of high start-up capital. In China, the minimum capital to start a company is 11 times average income in 2003, whereas there is no minimum in one-third of OECD countries. The minimum capital requirement varies according to the activity of the company. If the company engages in production or large-scale wholesaling then the minimum capital rises to 55 times average income. To form a shareholding (or joint-stock) company (the only structure available to an enterprise wishing to have more than 50 shareholders) the minimum capital is far higher, at a sum equivalent to 1 100 times average income.

Limiting arbitrary intervention on the part of local authorities is one of the most important aspects of the new administrative licensing law. This law shifts the burden from the enterprise to the authorities in applying for business licenses, potentially easing entry barriers considerably. Authorities are now required to grant a license unless one of a specified list of valid reasons can be cited (health, safety, environment, national security, and "other" laws and regulations). The last category is potentially problematic, but it has been clarified that only regulations promulgated by provincial authorities can be cited again, limiting interference from lower levels of government. National training and information efforts have been made by the Legislative Affairs Office of the State Council to ensure that its mandates are known nationally and consistently applied.

Easing business entry is important not only for economic efficiency and growth but also for reducing poverty and reducing informality. The poor are much more likely to bear the brunt of heavy regulation, often forcing them into the informal sector (UNDP, 2004). Evidence from household surveys in China shows that a large proportion of China's rising inequality is within regions, and that this is directly linked to access to entrepreneurial opportunities (Benjamin *et al.*, 2004). Thus, better opportunities for entrepreneurs could improve social equity as well.

A new bankruptcy code is needed

Current bankruptcy procedures have a number of drawbacks that prevent the efficient reallocation of resources and also inhibit the provision of finance to companies. The procedures vary according to whether the company is state-owned or privately-owned and, to some extent, on the geographical location of the company. In some cases, the permission of the government is required before a case can be brought before the courts. In addition, the bankruptcy law does not give adequate protection to creditors (OECD, 2002). Rather, the employees are seen as the highest ranking claimants of a bankrupt state-owned company with their claim extending to pay for their resettlement and transition to new employment. Such laws reflect the economic structure in the years prior to 1988, when the still-provisional state-owned enterprise bankruptcy law was introduced: the

government was the sole shareholder, banker and provider of social security, creating a mix of responsibilities that no longer meets the needs of a market economy.

Given that creditors have difficulty enforcing rights under current legislation, they are reluctant to use bankruptcy proceedings, so procedures need to be improved. Few bankruptcy cases are heard each year (around 5 000 per year in the period 1992 to 2004, with half concerning private enterprises, as compared with 40 000 business cases filed each year in the United States). Many of the largest cases (3 377 as of April 2004) have been so-called "policy" bankruptcies, in which the dissolution is not rules-based. This process has involved the allocation of CNY 50 billion (USD 6 billion) as subsidies to the bankrupt companies, in order that they could finance the resettlement of 6 million workers and write-off CNY 225 billion (USD 27 billion) of debt (PWC, 2004). Such policy bankruptcies are to end in 2008.

A new bankruptcy law that will potentially make Chinese law compatible with international best-practice has now received two readings in the National People's Congress. The draft law specifies the conditions under which a petition for bankruptcy can be filed by a creditor or debtor as they relate both to cash-flow measures and balance sheet measures. However, since there is no minimum set for the failure to pay, even a small claim could provoke a claim for bankruptcy, in contrast to procedures in many other countries. It introduces a bankruptcy administrator who will oversee the process. Finally, the law specifies how creditors are to be involved.

The new act still has to receive its third reading and so considerable changes could be made before it becomes law. The key to the impact of the legislation will lie in its implementation. At present, there is little experience in implementing bankruptcy in a

Box 2.3. **The new bankruptcy law**

The draft law covers all enterprises (with legal person status: partnerships, individual proprietors and other profit-making organisations), though about 1 800 state-owned enterprises (mainly in the defence and mining sectors) would be exempt from the law for a transitional five-year period during which policy bankruptcy rules would apply. Bankruptcy procedures can be started by any creditor when the debtor fails to meet payments due. The draft law sets very strict deadlines for the courts to issue rulings and for debtor information submissions. Once a petition has been accepted, creditors (or shareholders representing one-third of the share capital) can ask the court to authorise a possible reorganisation. Notably, the first proposals for dealing with the bankruptcy will be made outside the court and submitted to creditors for approval but the administrator is appointed by the court – not by the creditors – and has limited power to dispose of assets without court approval.

The priority order for payment under the draft new law is similar to that found in many other jurisdictions, with the potential exception of wages. The first claim is for the costs of managing the bankruptcy; followed by post-bankruptcy borrowing necessary to maintain the value of assets for creditors; employee claims are next; followed by secured and unsecured claims. Some jurisdictions limit the employees preferred claim to overdue wages and benefits and compensation for termination of contract with an overall cap on the payment by the enterprise. The draft law does not fully specify the extent of the employees claim and does not set a cap, although the issue of whether secured claims should come before wages is apparently an issue that the drafting group in the National People's Congress Legal Committee is deliberating on.

market-based fashion. No doubt experience will be gradually built up but its accumulation could be expedited by creating a special bankruptcy court and by specifying minimum professional qualifications for administrators. Similar concerns emerged about new bankruptcy provisions in other transition countries (OECD, 2000). The creation of a government office to oversee and regulate bankruptcy practitioners may also be required. Specialised bankruptcy regulators exist in many countries where the court does not take decisions (Australia; Hong Kong, China; Mexico; and the United States) and could be an important step for improving transparency.

Company law needs reform

In China, there is no uniform company law that governs all enterprises. A number of different enterprise structures co-exist with governing corporations, state-owned enterprises, solely state-owned corporations, collectives, co-operatives foreign enterprises and joint ventures (see OECD, 2000 and Annex Table 2.A1.2). The basic company law dates from 1994 and was focused on giving a new framework for the state and private sectors. However, the law sets high minimum capital requirements on the formation of limited liability and stockholding companies, and does not allow single-owner firms to be incorporated. China is now in the process of revising company law to reduce these limits.

Commercial legislation is being revised to meet market demands but gaps remain

A large number of commercial laws and regulations have been changed in the past decade. China's entry into the World Trade Organisation has accelerated this process, fostering the modernisation of national laws in many areas of commerce and forcing revisions of contrary local regulations. More changes are forthcoming. The Standing Committee of the National People's Congress has scheduled 59 draft laws and 17 "optional" draft laws on its 2003-07 legislative plan, including laws on property rights, commercial registration, torts, taxation, social security, and civil procedures.

Entrepreneurs' greatest concerns relate to the security of property rights and the pervasiveness of counterfeiting (see Box 2.2). A property rights act is now under review as part of the new Civil Law Code. This law will give legal weight to the recent constitutional amendment, creating a uniform legal framework for state, collective, and individual property, and guaranteeing for the first time the right of farmers to transfer, lease and sell land use rights. Secondary legislation is planned by the Legislative Affairs Office of the State Council, and will be essential to ensure that compensation for compulsory purchase by the government (eminent domain) is fair and the security and transferability of land use rights is further strengthened.

Enforcement of intellectual property rights (IPRs) remains a major concern for both foreign and domestic firms, as discussed in Chapter 1. A negative consequence is that foreign companies limit the R&D that they do in China. While R&D intensity for Chinese companies has surpassed one per cent of value added, it is still low by international standards. Both private and state companies perform more R&D per unit of value added than foreign companies do. While substantial legislative changes have been made, low penalties and weak legal enforcement of IPRs make deterrence ineffective (Hors and Zhang, 2005).

Legal system and contract enforcement

A developed system of laws requires an effective legal system for enforcement. At present the system has a number of drawbacks. The time required for a contractual dispute to be resolved appears to be long. Estimates by Chinese lawyers put the delay for settling a relatively small claim, amounting to half of average income, at over 8 months, almost 70% longer than in high income OECD countries. Moreover, the legal costs associated with the claim are over twice as high as in the OECD area. The enforcement of court decisions is also a major concern, with government interference in businesses still extensive in many regions and industries. Firms operating in regions with lower risk of government expropriation and more reliable contract enforcement tend to have higher rates of reinvestment, and therefore generate more rapid growth (Cull and Xu, 2004).

The main weakness in law enforcement is that the judiciary is insufficiently independent in a number of areas, as funding for and promotion of judges is determined locally, and the courts are subordinated to the local people's congresses (Lo and Tian, 2005). As a result, court decisions can be biased in favour of parties in their own locality (Li *et al.*, 2004). In addition, generally poor education and training of judges at the "grassroots' level make even-handed decisions especially difficult. Inconsistent interpretations of laws and regulations are common and corrective mechanisms are frequently weak due to the considerable decentralisation inherent in the *de facto* federalist Chinese governance system. Informal out-of-court dispute resolution systems have complemented the courts to some extent (OECD, 2002; Davies, 2005) – with arbitration widely used in resolving commercial disputes involving international investors (Cohen, 2005). However, due to difficulties with enforcement especially, such alternative dispute resolution mechanisms can only play a supplemental role.

The state business sector remains large and some parts waste resources

The state sector has withdrawn significantly from many parts of the economy. Pricing and output decisions in many industries are determined by market interactions with a substantial private sector. Increasing competition, a strong macroeconomic environment, and ongoing state enterprise governance reforms have led to a better capital structure and performance. Indeed, about one-fifth of state sector industrial companies now have rates of return above 10%. Among listed companies, the vast majority of which are state-controlled, average return on assets is comparable to returns on listed companies in the OECD area, though significantly below those in other emerging markets. Nonetheless, state enterprises in the industrial sector compare poorly with private companies in terms of productivity, and there remains a large tail of enterprises that continue to waste investment and drain financial resources from the economy.

While the liabilities of the most distressed companies have been contained, there still remains a persistent share of state-controlled industrial companies either having negative equity or earning returns below their cost of capital. These companies need to be restructured. To increase productivity and profit among healthy state-held firms, fledgling initiatives to trade state and legal person shares of state-owned enterprises need to be expanded: greater outside share ownership should stimulate these companies to improve their performance. In addition, the regulatory framework for corporate governance and insolvency needs to be strengthened.

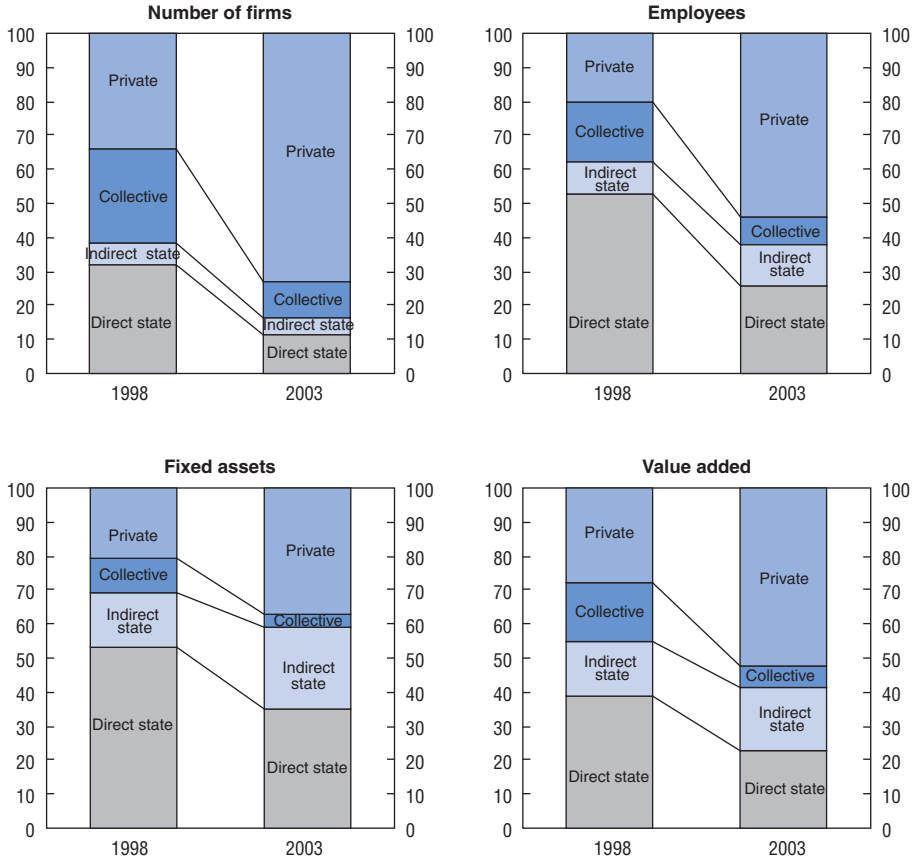
Government has withdrawn from business, but still retains a large presence

Exit from the state sector has increased

The number of state controlled companies (state owned enterprises and companies controlled by the state) in China has fallen remarkably over the past decade. From a peak of over 300 000 in 1995 (the first year state "control' was assessed), state controlled companies in all industries are less than 150 000 in 2005. Although the drop reflects a combination of closure, sale, and consolidation – offset in some cases by new entry – the withdrawal of the state by nearly any measure has been substantial.[12] Restructuring has been most rapid in the industrial sector – representing 57% of non-farm business sector value added – as discussed below (Figure 2.4):

Figure 2.4. **Shift of the scope of the state in business**

Per cent of industrial sector, by type of controlling shareholder[1]



1. Direct state refers to firms where the state shareholding is greater than 50% and indirect state to other state controlled firms. See Annex 2.A2 for more detailed breakdowns.

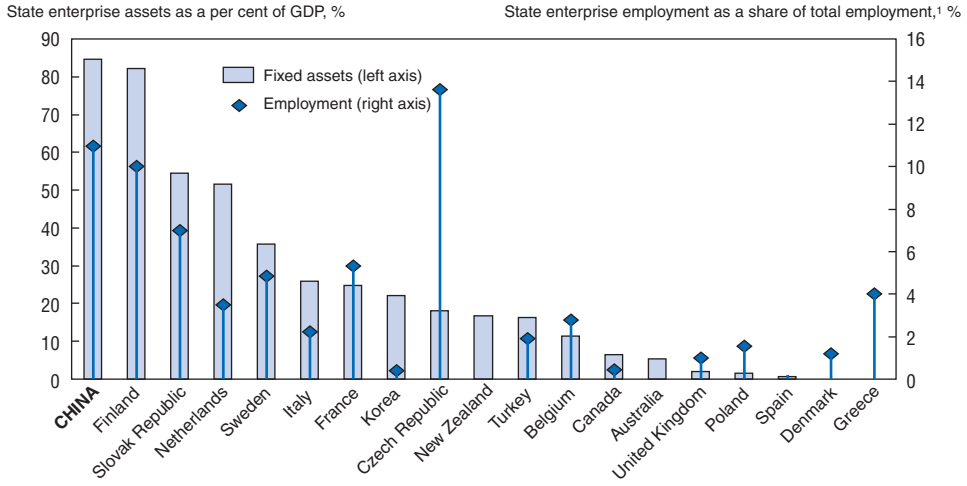
Source: National Bureau of Statistics industrial microdata and joint NBS-OECD analysis.

Employment in state controlled industrial companies fell by almost 40% from 1998 to 2003, as 16 million workers were laid off. Since three-quarters of state *companies* have fewer than 500 employees, most of the companies that exited were comparably small in scale. However, since over 80% of state workers (and assets) are in firms with more than 500 employees, laid off *employees* typically belonged to larger companies. Yet the size

distribution of state controlled firms in terms of employment after this massive shaking-up has remained virtually unchanged, suggesting that state divestment was across-the-board.[13]

Despite the social costs involved, the drop in state firm employment has been much more rapid than for assets or output. Although the share of employment in state controlled enterprises has declined by 24 percentage points – from 62% in 1998 to 38% in 2003 – the share of state controlled assets in industry declined by only 10 percentage points from a two-thirds share over the same period with the result that state sector output maintained a similar share to that of assets. Value added per worker has grown three-fold over the same period. However, labour productivity in state-owned manufacturing can be estimated at only 4% of the United States in 1995, using the Ren Ruoen study illustrated in Annex 1.A1. The state share of assets and employment in China remains well above that found in OECD countries (Figure 2.5).

Figure 2.5. **Comparison of state controlled companies: fixed assets and employment**



1. Data for China is based on state owned enterprise employment as a share of total employment excluding farming.

Source: OECD Questionnaire on Corporate Governance of State Owned Enterprises; China Financial Yearbook and OECD estimates.

There has been considerable restructuring even in the firms that have remained under state control. Many state firms have reorganised into limited liability companies (LLCs) and shareholding corporations, often with outside shareholders. While in 1998 only 15% of state employees worked in enterprises that had shareholders that were indirectly controlled by the state (rather than being directly controlled by the state), by 2003 more than 30% worked in such firms. The state share of assets in this type of enterprise has risen even more quickly.

Collective enterprises controlled by local governments have restructured and exited even more rapidly than state held firms. These enterprises' number, employment, and assets have dropped by more than 60% over the past six years, going well beyond the already substantial exit from township and village enterprises that took place in the mid-1990s (OECD, 2002).

Withdrawal of the state has been more rapid in areas outside of the *core* public utility and resource-based industries where the central government has identified companies in

which it intends to retain control. In the remaining non-core industries – that represent more than two-thirds of industrial output – state firms only produce about one-quarter of value added, and are subject to competitive forces. In contrast, in the predominantly resource-intensive and public utility sectors, the state produces over three-quarters of value added. The dichotomy in terms of assets and employment is almost as stark.

Local governments have been very active in divesting from their state and collective enterprises, and have been more aggressive than the central government in exiting from the state sector. Eighty-seven per cent of the decline in the number of state held industrial firms in the period 1998 to 2003 came from the prefecture and county levels, with two-thirds of this decline at the county level.[14] Although the decline in the number of local firms entailed a very large decrease in employment (70% of the 16 million net decrease), the decrease in local assets was twice as large proportionately, and contrasts with a net increase in assets for the central and provincial levels. This has left many local governments with enterprises that have high employment and comparatively few assets.[15]

Why has the state withdrawn?

Much of the rapid state withdrawal can be traced to a rise in competition that has ensued as China implemented increasingly aggressive market reforms and a fiscal system that has put growing budgetary pressures on local governments. The rising prevalence of market prices in both upstream and downstream markets in the early 1990s (Table 1.3) combined with the growth of the non-state sector brought about intense competition and depressed margins in many sectors. Lower margins and smaller market shares meant that less efficient state enterprises faced increasing financial difficulties, and local governments were forced to subsidise the loss-makers (OECD, 2000).

Simultaneously, an increasing gap between local expenditure responsibilities and revenues imposed a hard budget constraint on many local authorities, forcing them to restructure, sell, or shut down loss-makers (Li, Li, and Zhang, 2000). This sequence of pressures led townships and villages – the lowest levels of government – to close or privatise many of their collective or TVE enterprises (OECD, 2002).[16] Many of these initiatives were taken at local levels, making the reforms very much a bottom-up initiative (Mako and Zhang, 2003; Ho *et al.*, 2003). Moreover, with the deterioration of state enterprise performance over the course of the 1990s, similar pressures were faced by county, prefecture, and provincial governments that are the *de facto* owners of sub-national state enterprises, leading many of these jurisdictions to restructure or divest holdings as well (Dougherty and McGuckin, 2002; The Conference Board, 2002).

Increasingly hard budget constraints in the context of deteriorating financial performance were a strong incentive for restructuring and privatisation, but they have been held back by several factors: excess employment, outstanding debt, and ideological pressures (Guo and Yao, 2004). Concerns about potential unemployment and the inadequacy of the bankruptcy framework have delayed further restructuring. And since firms with more assets can more easily compensate their workers that are laid off, the better performing firms are more likely to be privatised,[17] leaving behind many enterprises with inadequate assets (Jefferson and Su, 2005). Concerns about ideology have had less of a direct impact on divestment among local governments, yet they have restrained efforts to privatise more rapidly, especially for larger firms under the jurisdiction of the central government (Li and Lui, 2004).

Reforms were introduced to improve internal incentives in those firms that remained in state hands, such as various types of performance contracts during the 1990s, but for the most part studies have shown that these policies were not very effective in bringing about major improvements in performance (Sun and Tong, 2003). For the larger firms overall, the focus has been on corporatisation and shareholding reforms. Under the "modern enterprise system", the largest state enterprises are restructured under the company law (without their social service activities), to give the enterprise a board of directors, as well as a supervisory board if it is open to non-state shareholders. When the latter come in, the state only retains a one-third direct stake, with the remainder split between legal person shares that are indirectly controlled by the state and individual shares that may be held by management, employees or outside investors (Green and Liu, 2005).

Productivity for state companies is much lower than for private firms

Productivity gap is large compared to firms with outside participation or control

Total factor productivity of directly controlled state firms is less than half that of privately controlled firms, based on the estimates using comprehensive industrial microdata (see Figure 2.2). This gap is evident not only in the private-public difference in productivity levels, but also in productivity growth rates, suggesting that the state controlled sector not only lags behind the private sector, but is falling increasingly behind it as time progresses.[18] Nevertheless, there have been improvements in some parts of the state held sector, and the absolute (albeit not relative) degree of efficiency has steadily increased over the past few years.

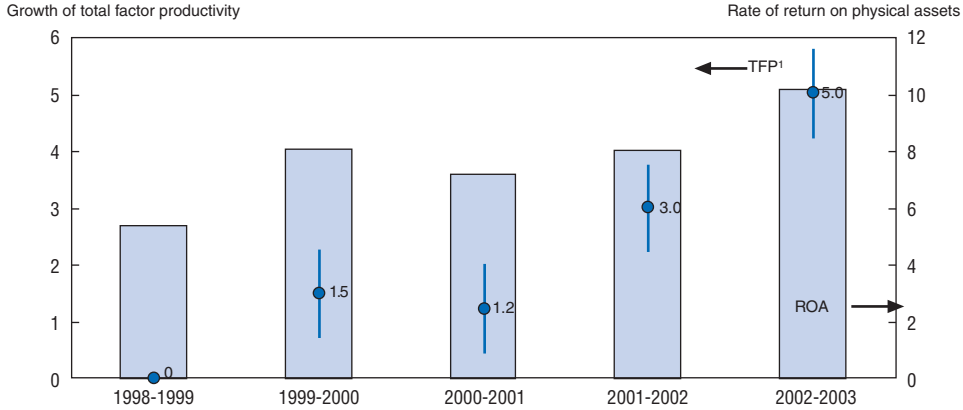
Parts of these gains have come from firms that have shifted to majority shareholding by legal person (LP) and other institutional shareholders (still indirectly controlled by the state). State companies with this structure perform significantly better than firms under direct state control. Moreover, LP companies' productivity lies halfway between that of the state and the privately controlled firms, suggesting that corporatisation does make a difference, even though full privatisation would yield a greater and more sustained improvement. These empirical results for the 1998 to 2003 period are consistent with earlier findings from sample surveys and cohort studies, implying that large gains result from the process of privatisation regardless of whether the best or worst firms are selected first (Song and Yao, 2004; Jefferson and Su, 2005; Aivazian *et al.*, 2005).

The number of collectively-owned enterprises has fallen rapidly over the past five years. The productivity of the remaining firms controlled by collective owners is impressive, and raises further questions. While they have not been counted as part of the private sector, their productivity is nearly as high as domestic and non-mainland private firms, and is consistent with the contention of a number of case studies that argue many operate as *de facto* private firms. Such firms may operate under leases or other informal arrangements, despite their residual property rights belonging to local governments (IFC, 2000).

Productivity improving, helping profits

Gains in productivity have occurred even in the segment of the public business sector that is directly controlled by the state, with gains increasing after 1998 – 99, and most significantly in 2002-03. These jumps in state firm productivity correspond quite closely in time to improvements in the rate of return to assets, suggesting a strong pass-through of efficiency gains to profitability (Figure 2.6).

Figure 2.6. **Growth in total factor productivity and return on assets**



1. Ranges show 95% confidence interval around TFP regression estimate. See Table 2.A2.1 for full regression parameters.

Source: National Bureau of Statistics industrial microdata and joint NBS-OECD analysis.

State sector profits are rising, but large pockets of weak firms remain

Trends in profitability

Financial indicators for state controlled industrial companies (Tables 2.5 and 2.6) show that they have made significant improvements in performance from the relatively low level at the end of the 1990s.[19] The improvements shadow those made in the private sector (see

Table 2.5. **Key financial operating indicators for state-controlled industrial companies**

	1999	2000	2001	2002	2003
	Per cent of value added				
Earnings before interest, depreciation and taxation	51.4	59.2	56.2	56.8	59.4
Depreciation	28.1	26.3	27.6	26.6	24.8
Interest	15.3	11.8	10.3	9.5	7.6
Profit	7.9	21.1	18.4	20.6	27.0
Profit plus interest	23.2	32.9	28.6	30.2	34.6
	Profit plus interest as per cent of physical capital stock and inventories				
Rate of return on physical assets	5.4	8.1	7.2	8.0	10.2
State direct control with holding greater than 50%	4.8	8.0	7.4	6.6	8.2
State indirect control with legal person shareholders holding greater than 50%	6.1	7.0	5.1	9.9	11.7
Other state held	9.1	10.5	10.0	11.0	15.6
Memo: Collective units holding greater than 50%	10.8	11.7	12.6	14.6	16.5
	Profit as a per cent of equity				
Rate of return on equity (pre-tax)	3.4	7.6	6.9	7.5	10.2
	Per cent of value added				
Capital output ratio	3.8	3.5	3.5	3.3	2.9
Inventory output ratio	1.0	0.9	0.8	0.8	0.7
Intangible and deferred assets ratio	1.7	1.3	1.4	1.3	1.1
Total capital	6.4	5.7	5.7	5.3	4.7

NB: See note to Table 2.2.

Source: National Bureau of Statistics industrial microdata and OECD calculations.

Table 2.6. **Key financing indicators for state-controlled industrial companies**

	1999	2000	2001	2002	2003
	Per cent of value added				
Sources of funds (flow)	33.3	15.0	23.7	13.0	29.1
Total net borrowing	–3.5	–9.3	–0.5	4.2	10.1
Long term borrowing	4.5	2.3	–3.4	1.1	7.4
Short term borrowing (net)	–8.1	–11.5	2.9	3.1	2.7
Change in creditor equity	36.8	24.3	24.2	8.8	18.9
Retained earnings	3.6	15.2	13.6	14.4	. .
Other changes in creditor equity	33.2	9.0	10.7	–5.6	. .
Uses of funds (flow)	34.1	16.4	23.7	12.3	29.9
Change in capital	38.3	16.0	22.9	13.5	25.6
Change in net fixed assets	29.8	25.3	12.5	11.3	22.9
Change in inventories	8.5	–9.4	10.4	2.2	2.7
Change in deferred and other assets	–4.2	0.4	0.7	–1.2	4.3
Residual	0.8	1.4	–0.1	–0.7	0.9
Total net debt (stock)	302.2	252.2	238.9	222.9	193.9
Outstanding short-term debt	190.7	167.3	155.4	143.3	125.6
Outstanding long-term debt	111.6	85.0	83.5	79.6	68.3
Financing of assets (stock)					
	Per cent of fixed assets, inventory and other capital				
Total net debt	47.0	44.0	42.1	41.9	41.4
Outstanding short-term debt	29.6	29.2	27.4	26.9	26.8
Outstanding long-term debt	17.3	14.8	14.7	15.0	14.6
Equity	52.5	55.2	57.2	57.5	57.9
Other liabilities	0.6	0.8	0.7	0.6	0.7
Debt to equity	89.5	79.7	73.6	72.9	71.5

NB: See note to Table 2.3.

Source: National Bureau of Statistics industrial microdata and OECD calculations.

Table 2.2), but at a dampened pace.Earnings before interest, depreciation and taxation have increased as a share of value added. Modest improvements in total factor productivity have allowed depreciation charges to fall, in spite of a rise in the rate at which assets are written off. As a result, operating surplus has risen markedly, bringing about a near-doubling in the rate of return to physical assets.[20]

A decomposition of the rate of returns on physical assets shows that this large increase has come about primarily through improvements in the allocation and use of capital (Table 2.7). In part this is because of the improvements in productivity, but more broadly reflects a more market-based allocation of state capital. Improved allocation of capital is partly reflected by the increase in regional concentration indices and specialisation without large increases in industry concentration levels. This change was likely motivated by an easing of pricing pressures from the declining number of debt-ridden companies with low or negative rates of return that effectively held down margins. Indeed margins have improved in the period 1998 to 2003. It is also illustrated in changing firm investment patterns that have yielded declining capital-output and inventory-output ratios. As a result of improvements in the returns to physical capital, returns on equity have also risen, with the increase attributable primarily to changes in gearing (leverage), helped by lower interest payments.

Table 2.7. **Decomposition of rates of return on capital**

	1998	Rate change due to increase in			2003
	Rate of return on physical capital	Profit margin	Capital-output ratio	Depreciation rate	Rate of return on physical capital
Rate of return on physical assets[1]					
All enterprises	6.1	+2.1	+5.3	–1.3	12.2
State-controlled companies	4.8	+3.6	+3.3	–1.6	10.2
Controlled directly by the state	3.9	+2.9	+2.8	–1.4	8.2
Controlled by state held companies	7.4	+5.8	–0.9	–0.6	11.7
Other forms of state control	8.5	+3.4	+6.0	–2.3	15.6
Collectively controlled	11.2	+0.0	+5.6	–0.4	16.5
Private companies	7.8	+1.2	+6.7	–0.7	15.0
Non-mainland controlled	4.7	+2.7	+8.0	–1.1	14.2
Controlled by individuals	12.7	+0.7	+4.0	–1.1	16.3
Controlled by non-state companies	10.9	–0.1	+4.8	–0.3	15.2

	1998	Rate change due to increase in			2003
	Rate of return on equity	Return on physical capital	Growth of intangible capital	Impact of gearing	Rate of return on equity
Rate of return on equity[2]					
All enterprises	3.8	+6.2	–1.8	+4.0	12.2
State-controlled companies	2.0	+5.4	–1.7	+4.4	10.2
Controlled directly by the state	0.4	+4.3	–1.2	+4.4	7.9
Controlled by state held companies	6.1	+4.3	–1.6	+3.0	11.7
Other forms of state control	7.8	+7.1	–2.7	+4.2	16.5
Collectively controlled	10.8	+5.3	–1.6	+2.1	16.5
Private companies	6.0	+7.3	–2.3	+3.3	14.4
Non-mainland controlled	2.9	+9.5	–2.0	+3.7	14.0
Controlled by individuals	12.4	+3.6	–2.3	+1.4	15.1
Controlled by non-state companies	9.3	+4.4	–1.9	+2.6	14.4

1. Rate of return on physical capital calculated as operating surplus divided by fixed assets plus inventories.
2. Rate of return on equity calculated as profit divided by creditor's equity.

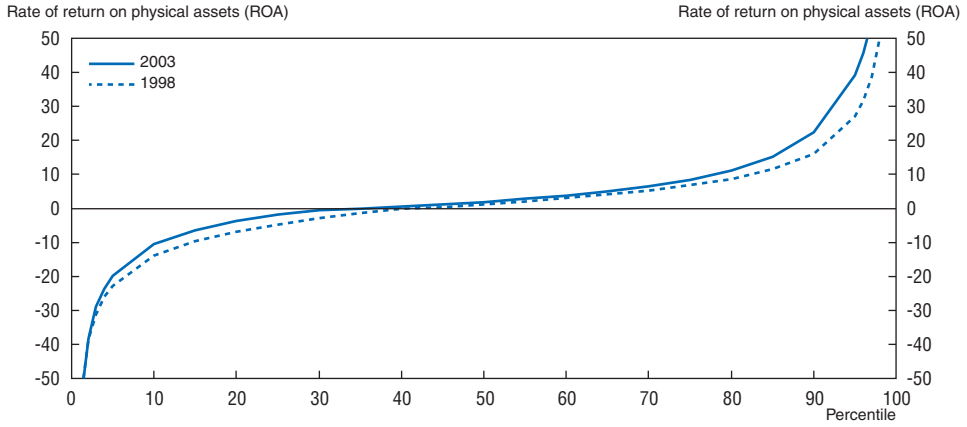
Source: National Bureau of Statistics industrial microdata and OECD analysis.

Differential rates of return on assets for firms with different types of (state) control suggest that ownership restructuring has had an important role in improving state controlled firm performance. Return on assets for firms with state legal person controlling shareholders (*i.e.* indirectly state controlled firms) have fluctuated, but in the last couple of years were nearly 50% higher than those with direct state shareholder control. There are a small number of firms (one per cent of all firms) where the state controls the company through a large minority stake. These companies performed even better, so far as to exceed the returns on assets for private enterprises in 2003.

Improvements in the rate of return have not been even across all state controlled companies, even though they have been fairly widespread across industries.[21] The biggest improvements have come from the upper end of the distribution, where the top 20% of state controlled firms contribute over 80% of the net overall increase in returns, with the remaining improvements spread across the low end of the distribution (Figure 2.7). However, changes in the middle of the distribution have been quite modest, with the rate of return for the median firm remaining in the 1% to 2% range, and the proportion of loss-making firms declining from 42% in 1998 to 35% in 2003. Overall, two-thirds of state held firms in the industrial sector earn less than a 5% rate of return on assets prior to payment of interest.

Figure 2.7. **Distribution of rates of return on physical assets**

All state-controlled firms



Source: National Bureau of Statistics industrial microdata and joint NBS-OECD analysis.

An international comparison of enterprise rates of return on assets puts the apparently impressive improvements of the Chinese industrial companies into context (Table 2.8). Although the (weighted) *average* return on assets for listed and unlisted state controlled companies is now above that for listed industrial companies in the worst-performing OECD or non-OECD economies, the *median* firm return is by far the lowest of any of these economies. In contrast, the returns for private Chinese companies compare quite favourably. It should be noted that listed Chinese companies (most of which are state controlled) do perform better, but these are made up of many of the more profitable state-held enterprises.

Overall financial performance has improved, but a dangerous tail remains

Financing indicators show that state enterprises reduced their debt loads and are increasingly relying on equity financing. Despite an increase in borrowing in 2002 and 2003, improvements in productivity and capital structure have been sufficient to lower short and long-run debt relative to value added. Nevertheless, there are a significant number of under-performing firms with high debt burdens.

Nearly 15% of state controlled industrial companies trade with negative equity funds. The long tail of the distribution of performance means that a significant group of state firms are insolvent despite improvements in the aggregate state sector indicators. For many, returns on assets are also negative suggesting that even conversion of debt to equity would not save them. Although this may not be surprising given the weak framework for insolvency, it is a serious problem. Restructuring appears to be only a partial solution. While only about half as many state legal person as directly controlled state firms have negative equity, firms with other state shareholders have almost as many such technically insolvent companies as the directly controlled do.

Concentration of bad debt among unsustainable firms

A significant group of distressed state held companies with financial problems remain at all administrative levels. These include companies with negative equity, negative value added, or sub-zero rates of return on assets. Distressed companies now represent 7% of firms, 11% of workers, 23% of assets, and 22% of outstanding debt. If the group is expanded

Table 2.8. **International comparison of industrial company performance**

Rates of return on physical assets (ROA) for 2002

	Rate of return on assets[1]		Rate of return on equity[1]	
	Average[2]	Median	Average[2]	Median
Total OECD,listed companies[3]	10.5	7.1	10.1	6.0
Australia	7.2	9.4	2.3	8.2
Austria	19.9	10.9	13.2	8.6
Belgium	20.5	9.9	16.8	9.9
Canada	10.8	6.0	5.7	5.7
Czech Republic	9.9	7.5	8.5	7.6
Denmark	12.7	9.5	9.8	8.8
Finland	17.5	9.5	14.4	10.2
France	19.1	14.0	15.3	13.6
Germany	21.3	8.6	16.2	8.7
Greece	15.3	14.3	11.5	16.3
Ireland	17.2	7.5	11.5	10.2
Italy	16.1	9.0	9.0	7.5
Japan	5.5	3.9	3.3	3.4
Korea	18.5	11.9	13.3	12.6
Netherlands	20.2	8.7	17.0	8.3
New Zealand	8.3	16.8	4.8	15.3
Norway	2.7	5.5	29.3	1.9
Poland	5.9	8.0	1.7	8.3
Portugal	15.1	6.7	6.8	4.7
Spain	23.8	9.1	15.8	11.9
Sweden	9.8	7.4	5.0	7.0
Switzerland	19.7	10.1	16.5	9.6
United Kingdom	17.9	9.5	12.5	6.1
United States	19.1	10.0	11.3	9.0
China, all listed companies[4]	10.4	11.5	7.4	7.1
China, listed and non-listed[5]	10.1	7.2	9.8	. .
State-controlled firms	8.0	1.4	7.5	. .
Private held firms	13.4	9.5	13.0	. .
Total Non-OECD, listed firms[3]	13.7	12.1	13.1	9.6
Brazil	23.4	30.6	8.3	12.6
Chile	5.9	10.6	4.1	7.9
Hong Kong, China	25.6	12.8	18.2	6.6
India	19.3	16.6	18.3	15.3
Indonesia	12.5	20.6	12.0	25.8
Malaysia	9.2	8.3	7.6	7.5
Mexico	18.6	17.5	21.5	25.8
Philippines	15.6	13.8	8.9	8.2
Singapore	10.1	8.4	4.4	6.4
South Africa	29.2	24.6	31.8	21.7
Chinese Taipei	11.1	9.7	6.1	5.9
Thailand	18.9	15.5	22.1	13.9

1. Rate of return on assets is calculated as earnings before interest and taxes divided by fixed assets plus inventories; rate of return on equity is calculated as pre-tax profits divided by net equity.
2. Averages shown are weighted by physical assets or equity of each firm.
3. Only economies with at least 25 listed industrial companies from Compustat Global are included.
4. Listed Chinese companies shown here are the 1 300 non-financial firms in the TEJ Databank.
5. Listed and non-listed Chinese companies shown are the 160 000 industrial firms in the NBS industrial microdata.

Source: Compustat Global, TEJ Databank; and National Bureau of Statistics industrial microdata and OECD analysis.

to include state controlled companies with sub-par (below 5%) rates of return, the group expands significantly, to 10% of firms, 20% of workers, 30% of assets, and 40% of outstanding debt. While analysis of debt associated with distressed firms shows that the burdens have declined over time, a substantial number of firms hold debt that is, or is likely to become, non-performing (see also Geng, 2004).

Ninety per cent of these distressed state firms are at sub-central levels (69 000 firms), along with three-quarters of their employment (9 million workers). Potential liquidation of the most problematic firms raises significant employment concerns. County-level firms tend to be the smallest, so they do not represent the largest share of problem firm employment (although they represent almost half of the problem firms). The largest share of such employment is at the prefecture level, which also has a share of debt that is out of proportion to its assets. In fact, all of the sub-central levels compare unfavourably with central companies in their proportion of assets to liabilities.

Equity rising

An overall trend toward increased equity financing compared with debt is encouraging. In part this is a result of declining borrowing, but equity has also risen significantly, with retained earnings of all state forms rising from 2.7% to 14% of value added of the sector and also probably reflecting a combination of informal share trading as well as ongoing debt-equity swaps, some of which were initiated by asset management companies (see Mako and Zhang, 2003). Despite the decline in the debt to equity ratio and the rise in equity, the increase in profits has been large enough to sustain a rise in returns on equity, both before (and after) taxation (Table 2.12).

Outside the industrial sector performance has not improved

Looking at the economy as a whole, the performance of state companies outside of the industrial sector is well below that in industry (Table 2.9). Returns to equity in the whole non-industrial sector were only a quarter that for industrial companies in 2003, and have not exceeded half in the past six years. The non-industrial sector represents more than half of the net assets of the state enterprise sector, and just below half of its net equity.[22] (The largest segment is in financial services, discussed in depth in Chapter 3) However, they do show an (albeit dampened) upturn from the low of 1998, similar to the trend in the industrial sector.

Policy reforms are ongoing to improve the performance of the state sector

Before 2003, the supervision of many state enterprises – even in a single level of government – was highly decentralised, in that the function was performed by multiple institutions and agencies. As a result, there was no agency charged with preserving and increasing the value of state assets. This severely affected the efficiency of state-owned enterprises and their ability to reform.

Creation of SASAC is clarifying policies

During 2003, the State Assets Supervision and Administration Commission (SASAC) was created as a new agency to address the problems of the state sector, following the limited success of earlier reforms in substantially improving state held enterprises' performance or reducing outstanding debt (see OECD, 2000, 2002). SASAC has the responsibility for directly monitoring and supervising central government controlled non-financial state owned enterprises. In provincial, prefecture, and district-level cities, local

Table 2.9. **Economy-wide state-controlled enterprise asset and equity indicators**

	1998	1999	2000	2001	2002	2003
	Thousands of units					
Number of companies						
Economy-wide	238	217	191	174	159	146
Industrial	65	61	53	47	41	34
Non-industrial[2]	173	156	138	127	118	112
	CNY trillion					
Net fixed assets						
Economy-wide	6.3	6.9	7.5	8.0	8.8	9.5
Industrial sector	3.0	3.2	3.5	3.6	3.7	4.1
Non-industrial sector[2]	3.3	3.6	4.0	4.4	5.1	5.4
	Per cent of GDP					
Economy-wide	81.9	85.1	84.6	84.6	84.7	81.5
Industrial sector	38.6	40.0	39.4	38.2	35.9	34.8
Non-industrial sector[2]	43.3	45.1	45.2	46.4	48.8	46.6
	CNY trillion					
Net equity						
Economy-wide	5.0	5.4	5.8	6.1	6.7	7.1
Industrial sector	2.6	2.9	3.1	3.4	3.5	3.7
Non-industrial sector[2]	2.5	2.5	2.7	2.8	3.2	3.3
	Per cent of GDP					
Economy-wide	65.4	66.8	65.7	65.1	64.0	61.1
Industrial sector	33.5	35.9	35.5	35.9	33.6	32.3
Non-industrial sector[2]	31.9	30.9	30.2	29.2	30.5	28.8
	Profits as a per cent of equity[1]					
Rate of return on equity[1]						
Economy-wide	0.4	2.1	4.9	4.6	5.7	6.7
Industrial sector	2.0	3.4	7.6	6.9	7.5	10.2
Non-industrial sector[2]	–1.3	0.6	1.7	1.7	3.7	2.8

1. Rate of return on equity is calculated as profits prior to income tax divided by net equity.
2. Non-industrial amounts are calculated as a residual.

Source: China Financial Yearbook; National Bureau of Statistics microdata and OECD calculations.

SASACs are authorised by respective governments to perform the same roles for locally owned companies.

SASAC is entrusted by the state to carry out capital provider responsibilities independently from the government. In this role, it concentrates authority, obligations and responsibilities in a single body. The reforms that it has pursued have followed the principle of separating the government from enterprises and separating state enterprise shareholders from management. As a controlling (and minority) shareholder, it has sought to behave primarily as a capital provider, avoiding directly interfering in enterprise production and management activities. This should in principle allow enterprises to act as legal person entities based on market principles.

The creation of SASAC offers the potential for greater transparency in the operation and divestment of state assets, but it will need to clarify whether it will behave solely as an

institutional investor acting as a fiduciary for the Chinese state or more as an instrument for enforcing industrial policy (Bouchez and Mesnard, 2005). OECD corporate governance guidelines for state-owned enterprises suggest that a state asset management authority should make its objectives as explicit as possible, because it may have objectives other than profit maximisation (OECD, 2005b). The government has stated that SASAC is the main body responsible for preserving and increasing the value of state assets.

SASAC has created a series of rules and regulations designed to strengthen transparency in the restructuring process. For instance, the transfer of assets now has to be carried out in designated property rights transaction markets. Plans to change the ownership of state owned companies have to be submitted to and discussed by an employees' conference. In terms of operational guidance, SASAC has set up a new performance review system in large-scale central government enterprises, to improve operating performance.

SASAC has begun to clarify the strategic core sectors in which it will concentrate its state holdings. Sixty-two company groups have been identified in the energy, defence, metals, motor vehicles, transport, and telecom industries. The government considers these areas to be the lifelines of the national economy. While the choice of most of these industries would not have been surprising in many OECD countries several decades ago, the inclusion of the motor vehicles and metal industries in the list is more unusual given the high degree of competition that already exists in these sectors. State control is expected to be kept for these company groups, with additional rounds of designated companies expected in a broader set of industries. While there have been various messages about the extent of private control that will be encouraged, a significant degree of non-state shareholding will now be allowed. Indeed, the government has announced that secondary offerings of state owned shares can be made, subject to certain restrictions (see Chapter 3).

At the central level, the focus has been on restructuring the 196 central enterprises and their almost 20 000 subsidiaries. In 2004, nine of these non-financial groups were included in the *Fortune 500* list of companies with the highest global revenues. By May 2005, the number of holding groups has been reduced to 172, with the intention that at least 30 internationally competitive companies will be formed through mergers, acquisitions and restructuring.[23] SASAC aims for this process of consolidation to improve the rationality of investment and strengthen core competencies – in part by requiring enterprises to focus on no more than about three main industries.[24] The purpose of limiting the number of central enterprises' business lines is to prevent enterprises from unprofitable diversification. SASAC has plans in the future to carry out a system of registering new investment projects to ensure that they conform to an enterprise's main lines of business; a system of examination and approval will be carried out for projects that fall outside of the main lines.

A new framework has been established for local state enterprise management. All 31 provinces have established SASAC branches and over 200 municipalities (45%) had local affiliates at the end of 2004. Many local governments are anxious to restructure the ownership of companies in their jurisdictions and some have taken their own initiatives. While SASAC has encouraged enterprise restructuring, it has sought to halt certain types of transactions due to fears that sale prices were too low. The most recent example of an intervention of this type related to management buy-outs (MBOs), where there have been concerns that assets are sold for below their market price to insiders. After a holdup of several months while SASAC formulated new rules, MBOs are now allowed for small and

medium firms, subject to provisions that ensure greater transparency and accountability on the terms of sale. However, for larger firms they are banned.[25]

Share trading has started, but it is still in relative infancy

Perhaps the most promising initiative that SASAC has taken is to foster a more open property rights trading system. Three major trading centres have been created nationally that will facilitate the auction, sale, and transfer of state company shares and assets. The Shanghai United Assets and Equity Exchange Centre has the highest liquidity, and can trade state assets of many localities nationwide (Box 2.4). While the majority of

Box 2.4. **Shanghai United Assets and Equity Exchange**

Following a Party central committee decision in October 2003 to support "regulated development of China's property rights market", the State Assets Supervision and Administration Commission (SASAC) set up three pilot property rights exchange centres in Shanghai, Beijing, and Tianjin. These centres are designed to be the principal platform for trading central government state assets, and can also trade in local assets if authorised. SASAC intends for them to gradually take over the unsupervised activities of the 100 or so informal trading centres that have developed around the country (see Green and Liu, 2005). The new centres are designed to standardise trading in state enterprise assets and avoid the one-to-one deals that are common currently.

The Shanghai United Assets and Equity Exchange (SUAEE) has the largest transaction volume of the centres, and in 2004 had 5 155 share deals with CNY 361 Billion in turnover. Of these deals, 2 689 involved private investors (including foreigners), although they only represented about 10% of volume. A large share of the turnover stays within the state sector, and is facilitating ongoing consolidation and rationalisation of industries. Although at present, the bulk of transactions are in the Shanghai area, SUAEE has 20 branches throughout the country and is seeking to form alliances with many of the property rights centres that previously operated "without rules".

Property rights transactions are brought to SUAEE by up to 1 000 qualified deal-makers that include institutional investors, such as security houses, investment companies, and auditing firms. Various types of property can be traded: in addition to enterprises, also physical property and intangible assets. The average commission is 0.2% to 0.3% of the transaction, with the fee split with the deal-makers.

List prices are based on appraisal value. All transactions posted on-line at *www.suaee.com*. Whether or not there is a reserve price is determined by the seller, but the sale price cannot be less than 90% of appraisal price. A 20 workday period for is allowed information dissemination. If there is only one bidder, then the buyer and seller try to settle through one-to-one agreement. If there are two or more bidders, the sale is open to auction or another method. More time may be given for due diligence as necessary after 20-day period. On average, the sales prices are 10% higher than listed prices.

In early 2005, a new regulation was issued that smoothes the procedures and encourages more non-state property transactions, including to foreigners. A 15 workday response time is guaranteed upon receipt of an application to change property ownership. However, sales must still be pre-agreed by a meeting of the employees – and public enterprises must submit certificates to prove that their staff consents. Transaction contracts must also include detailed plans dealing with the welfare of retired employees, to ensure the security of pension funds.

transactions are within the state sector, a growing number of private companies are also active. Even listed companies' legal person shares are traded on these exchanges and transfer of control to domestic or foreign private companies has been documented for over 100 listed companies (Green and Liu, 2005).

Such property rights trading centres appear to be working well and should be expanded. Their operation follows many of the principles that come out of a review of OECD privatisation experience (OECD, 2003b). In particular the principle of transparency is a vital one. More open sales of state assets ensure that the highest possible prices are obtained and reduce the risks of fraud or corruption in the process. In addition, the staging and timing of the sales should reflect commercial considerations, with as few restrictions as possible.

Two weaknesses of the current trading system should be addressed. The first is that a strong emphasis is being placed on asset value in the pricing of sales, when the preferred approach should be to estimate potential yield by estimating the present discounted value of future cash flows. Given the potential uncertainties in future cash flows, an open bidding process with an accurate disclosure is the most effective way to achieve this objective and avoid collusion between buyers and sellers, rather than regulating minimum prices. A second weakness is that property rights centres have tended to give considerable weight to employees of companies, potentially giving them the right to block sales. Such veto rights are not consistent with the efficient use of the assets and should be resisted. Instead, employee welfare should be addressed more through labour regulations and the social security system.

More aggressive reforms are needed

Further diversify ownership through share trading, focusing on non-core sectors

Now that the core industries in which the state plans to retain control have been decided, a rundown of state-control can and should be pursued in remaining industries. The current strong macroeconomic environment should make this process relatively painless. This effort needs to focus especially on the provincial and prefecture levels, where poor performers are concentrated. Local officials in many regions are already convinced that a substantial reduction in state ownership would remove a key obstacle to further development (Qu, 2005). Restructuring of ownership should deal with companies in both industrial as well as non-industrial business sectors – the latter being where some of the poorest performers are located.

In order to improve performance among the substantial number of enterprises with financial difficulties, it is important to enhance the market for control. This entails giving broader authority to local governments and enterprises to sell their shares, initially through the property rights exchanges. The most immediate step would be to further expand tradability of state and legal person (LP) shares. While LP shares have been traded for some time in off-market one-on-one transactions, broader support of open exchange-based trading is the most promising way forward. The previous lack of a competitive market in these shares reduces the potential price that can be obtained, by as much as 80% according to one study (Chen and Xiong, 2001). This discount points to the dangers of allowing different, non-substitutable classes of shares in listed companies. Effective control of listed companies can be transferred through sale of LP shares, with holders of the listed shares thus deprived of a control premium.

A key advantage of a trade sale over other forms of ownership sale (such as public offerings or vouchers) is that it allows for blocks of shares to be sold at once, so that control can be more easily transferred.[26] International studies of state enterprise restructuring suggest that transfer of control is the key to improving ownership, with outside owners being most effective (Megginson and Netter, 2001). Since the typical conversion to a limited company involves the setting aside one-third of shares as legal person shares, these shares can often mean effective transfer of control.[27] As a result, the priority for reform should be on transferring control of the legal person shares for more firms, with transfer of "state" shareholdings a longer-term objective. (Moreover, since new companies are likely to perform better after the transfer, the state's shares will be worth more.)

Foreign participation in the form of cross-border mergers and acquisitions (M&A) of Chinese companies is also a useful option to facilitating restructuring. Rules issued in late 2003 allowed for considerable foreign participation in M&A activities of state enterprises, but the pre-approval of numerous government departments is still required. If procedures were simplified, even more overseas capital could potentially be realised (OECD, 2003a).

Further liquidation

Not all state companies are suitable for sale or infusion of outside stakes: nonviable companies need to exit the market and sell their assets. Companies with negative equity in particular are in need of liquidation or at least substantial reorganisation.[28] The current bankruptcy framework as mentioned earlier is based on a "tentative" law that went into force in 1988 and has numerous weaknesses. Principal among these weaknesses is the difficulty in actually carrying out bankruptcy. Creditors are not able to fully participate and there is no option for restructuring. The draft bankruptcy law that is near finalisation addresses these key concerns. However, it may still not give secured creditors adequate priority over employee claims, which could undermine its positive effects on the health of the banking system.

The largest state enterprises have been liquidated under special provisions allowing for "policy" bankruptcy for certain state enterprises, granting even greater protections than the tentative law does for the resettlement of employees (Zhang, 2003). SASAC announced in early 2005 that it intends to phase-out such policy bankruptcies over a four-year horizon. While concern about potential unemployment from bankruptcy is understandable, an even greater reliance on market bankruptcy in the near term is advisable in order to reduce risks to the banking system and improve the competitive environment.

Corporate governance – depoliticise and make more independent

Ensuring that enterprises have good corporate governance is a vital component of improving their performance, especially for large companies since they face principal-agent problems. This is especially important for state enterprises since many of them still have not been turned into corporations, and thus do not even have boards of directors to monitor management.[29] Currently, SASAC is developing experiments to set up boards of directors in solely state-owned enterprises. The basic thinking behind this experiment is to separate the policy-making level from the executive level through the introduction of an outside board of directors. SASAC plans to assign significant authority to the board of

directors, so that it can operate enterprises more effectively, according to market rules. SASAC plans that, by the end of 2007, except for a small number of enterprises that mainly carry out the state's assigned tasks, all central government solely state-owned enterprises will have established a board of directors.

However, it should be noted that the longstanding reluctance to corporatise these state-owned firms suggests that the objective of many of these enterprises may not be solely wealth creation, but something else, such as maintenance of employment, control over certain industries, or political authority (Clarke, 2003). Regardless of the merit of these goals, experience in the OECD suggests that it is important that the objectives be made explicit, especially if they are not expected to be privatised (OECD, 2005b). More long-term, if authorities really only aim to act as fiduciaries to maximise returns on state assets, then these assets could just as well be managed by the private sector.

Widespread concerns have arisen in China about exploitation of minority shareholders as a result of their lack of influence on boards of directors. Only since January 2005 have major investment or fundraising decisions by listed companies been required to be approved by shareholders.[30] There is evidence among listed companies of conspicuous earnings management, potentially caused by "tunnelling" profits to majority shareholders, widespread in part due to the lack of effective enforcement of the IAS-based accounting rules (Qiao and Zhou, 2004). The controlling shareholder in most listed companies is the state and one of the commonest abuses has been the channelling of money raised by IPOs back to parent companies, involving as many as 75% of such offerings (International Institute of Finance, 2004).

A stronger role for private monitoring could reduce tunnelling possibilities and deter other abusive practices as well. The Supreme Court has moved towards greater private enforcement. In its new private security litigation rules, it has allowed joint actions by shareholders for financial misrepresentation by companies, reversing its previous temporary ban on such actions (OECD, 2003c). However, when such actions were previously tried before the ban, no case had ever succeeded (OECD, 2002). Moreover, the new rules still require that administrative or criminal action has previously been taken against the company involved. One major case is in underway.[31] Encouraging the role of private monitors such as institutional investors, could also play a useful role (Tenev and Zhang, 2002).

Placing such requirements in company law would enable the development, over time, of a private-enforcement system for shareholder rights rather than relying exclusively on administrative and criminal action by regulators. The current company law, in combination with an ownership structure that is very concentrated, is likely to raise the cost of capital for enterprises. Minority shareholders are often poorly treated by company directors that on occasion act in the interest of the major shareholders rather than the interests of the company. While there are codes of practice issued by the China Securities Regulatory Commission and designed to protect minority shareholders, these do not have the force of law. Such protections should be incorporated into the revised company law.

For listed companies in particular, company law changes are needed to improve minority shareholders treatment. Desirable changes include stronger requirements for independent directors; the possibility for minority shareholders to transfer their votes for board members to one candidate (so-called cumulative voting) – improving the likelihood that minority groups will get board representation; a fuller definition of the loyalty that

directors owe to a company by imposing on them a fiduciary responsibility to maximise shareholder wealth; and requiring companies obtain a majority vote of holders of listed shares (and specify the necessary quorum) before certain actions such as a merger, new share or bond offering are undertaken.[32]

The framework for corporate governance of unlisted companies relies solely on a patchwork of administrative clarifications of the company law that are in need of revision. Key priorities from the perspective of state owned enterprise governance include giving the board of directors primary governance responsibility and clarifying the role of the supervisory board. Companies also need clearer criteria for eligibility of members of the board of directors as well as greater guidance on how to exercise their functions. In addition, stronger requirements for disclosure of company financial information are needed, as transparency is a key component of best practice for corporate governance (Bouchez and Mesnard, 2005).

In the absence of a reform of company law, stock exchanges have moved to raise the bar on corporate governance for listed companies. Codes of conduct adopted by the Shanghai Stock Exchange in 2000 and by China Securities Regulatory Commission in 2002 are relatively advanced and broadly follow the principles of the OECD Corporate Governance Principles. Yet the preferred approach would be to have a unified framework specified by the Company Law, facilitating better enforcement. Looking forward, a specialised set of OECD corporate governance guidelines have recently been developed for state owned-enterprises, and should be considered for those companies that are retained by the state (OECD, 2005b). These guidelines emphasise the need to better identify the ownership function, improving the transparency of state enterprises' objectives and performance, and to strengthen boards – especially to limit political interference. The latter area of political interference is a major weakness in Chinese firms' corporate governance.

Most enterprises in China have Party committees. Their stated objective is to support rational policy making, promote democracy, maintain stability, and improve cohesiveness. In practice the role of the committees has changed with the growing corporatisation of enterprises and their listing on stock markets. Empirical studies have shown that on balance, the power of Party committees (especially in personnel matters) has become detrimental to the performance of listed enterprises, although the existence of substantial legal person or non-state shareholders has a partially mitigating effect (Chang and Wong, 2004; Wong *et al.*, 2004). Since 2003, the methods through which the Party committee plays a role have undergone significant changes, and it must now play its role within the new company legal person governance structure, as specified in company law. In 2004, SASAC began recruiting high-level operations and management personnel for state enterprises from the open market, instead of allowing Party committees to appoint them. Further moves along these lines should help improve performance.[33]

Factor markets are only partly reformed

Restrictions in both labour markets and rural land markets restrict mobility

While the responsiveness of urban labour markets to the forces of supply and demand has improved, there is still evidence that the restrictions on labour mobility drive a wedge between urban and rural labour markets. After allowing for observable personal characteristics such as education level, work experience, age and gender, there remains a

difference of 80% between rural and urban wage rates (Sicular and Zhao, 2000). The differential between observed wage rates is somewhat lower at about 50% (Shi, 2002). Of course prices may be lower in rural areas, but these income differentials have widened in the past five years despite the rapid growth of the urban population, which has risen by 21 million annually in the past five years. It is not possible to decompose the population growth in urban areas into different types of migration due to changes in the definition of urban areas over time. As in other countries most migration is short-distance with only 30% of movers changing province (Chan, 2003). Models of intra and inter-provincial migration suggest that there are very strong barriers to migration across provincial borders, apart from those due to differences in distance and social costs such that if these barriers did not exist, inter-provincial migration flows could be ten times greater (Poncet, 2004).

Government labour market polices are in part responsible for these wage differentials. The restrictions on obtaining permanent urban residence status constitute the most obvious barrier (Box 2.5).

Box 2.5. **Changing one's residence**

On birth, a Chinese citizen is assigned an area of residence based on that of his mother. It is difficult to subsequently change this assignment other than through higher education or service as an officer in the military. Local governments are free to discriminate between people assigned to their area (residents) and others (migrants) both in the provision of local services and in the number of permits that have to be obtained to work and rent property in a given locality. Overall, these policies make permanent migration very difficult (not just between the countryside and towns but also between towns) and make temporary migration costly. As a result, the extent of officially-sanctioned changes of residence amount to only 1.3% of the population annually, with the annual official rural-urban flow likely to amount to just 0.4% of the total population.

The government has been relaxing these polices. In 2001, the government announced the phasing out of these restrictions on change of residence over a five-year period for people who move to towns with a population of less than 200 000. However, these are not the most attractive spots for migrants, though it will, presumably, affect the 40% of migrants who move within their county of origin (Chan, 2000). In larger towns, there have been examples of complete abolition of restrictions on settlement but some of these have been reversed. In some cases, the reason for the reversal has not been the influx of new migrants but the loss of fiscal revenue, notably in schools, from lowering the user fees from non-residents to those from residents. Two provinces that were at the forefront of liberalisation in foreign trade and investment (Guangdong and Zhejiang) are to abolish the distinction between urban and rural households in 2005 and will allow people who have moved from a rural area to participate in local social security systems that are normally restricted to long-term residents. Rural land tenure policies also raise the cost of moving away from a village (Box 2.6).

Continued urban expansion would require the release of a significant amount of agricultural land for construction purposes, raising the problem of the balance of compensation between the existing users and the owners of land. The 2003 Rural Land Law

Box 2.6. **Rural land tenure policy**

Rural land is owned by the village collective which then allocates land to households depending on their size. The scale and frequency of these adjustments has been variable across the various provinces and, indeed, in some regions only half of the land was allocated to households, with the remainder being allocated through a competitive auction process on an annual basis. In the current land allocation system, permanent migration of a member of the household results in a loss of land. A series of laws have been introduced over the period 1984 to 2003 aimed at establishing the right of farmers to 30-year use-leases on the land they farm. In practice, the implementation of these laws up to 2003 has been variable both in the degree of flexibility of the contracts and in the actual extent of implementation. In 1999, for example, almost two-thirds of farmers in a random sample of 11 provinces lived in villages that had not implemented the 30-year lease system (Prosterman *et al*., 2000). Where leases had been issued, half of the villages in the sample adjusted land holdings before issuing new leases and only 13% of the leases expressly forbid land adjustments during the course of the lease. Only half of leaseholders were allowed to retain the use-right lease if they changed their place of registration and some of those would be subject to increased fees in the event of change of registration, effectively allowing the village to capture part of the value of the land. A 2003 law eased the restrictions on migration slightly, in that it is only in the case of complete migration to a city with administrative districts that the household has to surrender its lease. The village committee has to pay compensation for long-term investments made during the course of the lease. In the case of migration to a township, the land-lease can be retained or transferred.

allows two categories of expropriation: the state can take-over land in the public interest, while the collective landowner can terminate leases for the construction of utilities or public welfare purposes. The definition of "public interest" is not given explicitly and as a result the use of expropriation for commercial interests is not uncommon. Compensation is paid to farmers based on the current crop yield of their land when it is the state that acquires the land. In the case that the collective authority expropriates land then there is no set rule, rather the payment must be "appropriate". In many cases, the collective unit retains all of the compensation paid by the new owner of the land on the ground that it is the ultimate owner of the land. The remaining land is then, sometimes, redistributed across all members of the collective. Such policies have created considerable unrest amongst farmers on the peripheries of towns as they fail to take into account that a new thirty year lease has a market value equal to about three-quarters of the value of the underlying land, if a discount rate of 5% is assumed. Moreover, current practice suggests that new leases will be granted at the expiration of the current leases, so further raising the real value of the lease. Some sharing of the development value of farm land between the community and the existing user would create a significant constituency in favour of changing land use.

The combination of migration restrictions and land tenure restrictions appears to contribute significantly both to the rural urban differential and to the overall extent of income inequality. Using the standard of changes in welfare that are observed in simulations of market liberalisation, the result of easing these two policies appears to be large (OECD, 2002). Output might rise by 2% and the inequality of the distribution of income

would drop to a significant extent, with unskilled rural incomes increasing, though unskilled urban wages would drop (Hertel and Zhai, 2004). Greater investment is likely as well, since business says that these restrictions on labour movement are the most significant barrier to the inter-province expansion of their firms (Li *et al*., 2004).

National product markets are emerging

In contrast to labour markets, there is considerable evidence that the domestic product markets have become less subject to local regulatory control. During the initial period of economic reform, there were considerable incentives for provincial and local level governments to protect local industries. Profit rates of local state enterprises were high, as were employment and tax yields. Regulations in force for the sharing of tax revenues meant that provinces were able to retain all marginal tax revenues above contracted limits while the dual-track pricing system gave rise to significant locally-retained rents. Overall, "provincial, county and even city governments found it expedient to erect barriers to trade so as to maintain high local final industrial goods prices" (Young, 2000).

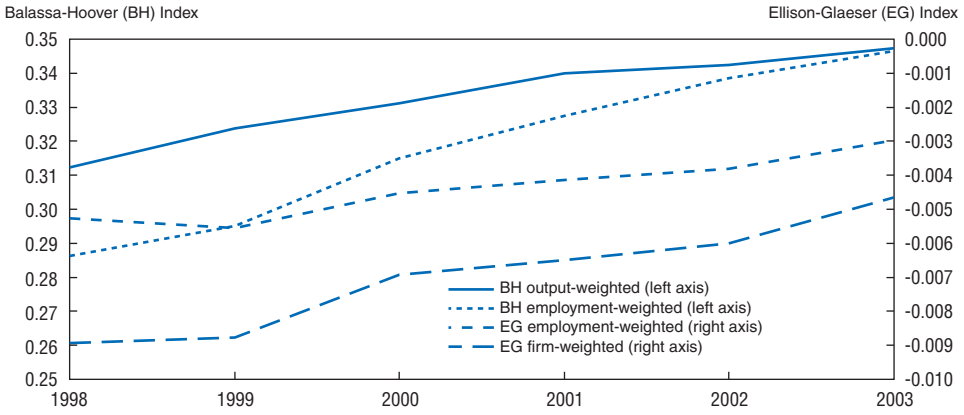
Direct observation of prices across provinces suggests that barriers have been falling. The impact of shocks to the price level that are specific to one province has been declining during the 1990s (Xu and Voon, 2003), while the provincial prices of easily transported grains increasingly move with the price of major coastal markets, with differentials depending on transport costs (Huang *et al*., 2003). In addition, a study of a wider set of prices covering consumer, intermediate goods and agricultural products suggests that the extent to which prices deviate across provinces in China is no greater than in the United States or Canada and the speed with which inter-province differentials are eliminated appears similar (Fan and Wei, 2003). As in the United States and Canada, some products and many services will continue to operate in regional and even local markets due to transportation and other factors, but this evidence of reduced government-imposed barriers is confirmed by surveys of businessmen who suggest that price and quantity controls are of little importance in restricting inter-provincial trade.

Some indicators point to an increase in geographical specialisation that is also not consistent with arguments that there are substantial barriers to trade. There is, moreover, evidence that these barriers have been falling over the past decade. The extent of geographical specialisation in production has been increasing since the early 1990s as judged by an index of geographical dispersion based both on a four-sector, multi-province measure (Zhang and Tan, 2004) and by more detailed analysis of the industrial sector in the period up till 1997 (Bai *et al*, 2004).

Detailed calculations using the National Bureau of Statistics industrial microdata suggest that this process has continued in the five years to 2003. The Balassa-Hoover Index of specialisation has been calculated across 38 industries and 30 provincial-level regions using the 160 000 firms annually in the micro-database. This index shows sustained and continuing increase in the regional specialisation of industrial firms (Figure 2.8). This increasing regional concentration is robust to adjustments for firm and industry heterogeneity, as shown by the Ellison-Glaeser Index (Dougherty and Herd, forthcoming).

Trade between provinces is significant. Inter-province trade amounted to 48% of provincial GDP on the basis of input-output tables and local production amounted to 62% of total sales in 1992 (Naughton, 2003). By 1997, the share of provincial production in total sales rose by almost 2 percentage points, with inter-provincial trade being displaced by

Figure 2.8. **Indexes show increasing regional specialisation of industry**



Note: The "BH" index refers to the Balassa-Hoover index of geographical specialisation; the "EG" index refers to the Ellison-Glaeser index. For more details refer to Bai *et al.* (2003), Hoover (1936) and Ellison and Glaeser (1997).

Source: National Bureau of Statistics industrial microdata and joint NBS-OECD analysis.

international trade (Poncet, 2003). Indeed, the author argues that such data imply inter-provincial tariff barriers of 53% but a similar methodology found that the level of barriers was only slightly lower in the European Union in 1990.The growing cross-sectional correlation of output movements through 2001 is also suggestive of growing trade linkages between provinces (Byström *et al.*, 2005).[34]

Policy efforts to reverse the trend of increasing barriers appear to have been useful. The Law on Unfair Competition in 1993 and the reform of the fiscal system in 1994 considerably improved behaviour of local governments. These efforts have been reinforced more recently by authorities' moves to improve market integration based on China's commitments under the WTO. Numerous laws and regulations that were deemed inconsistent with free trade have been amended or abolished, and directives such as the "State Council Stipulation to Forbid Regional Blockades in Market Activities" (2001) were promulgated. Nevertheless, regional integration is still incomplete, but the remaining barriers (as seen by entrepreneurs) reflect more a local bias in the legal system and barriers in the labour market, rather than price and quantity barriers. Of course, even in the absence of government-imposed barriers to commerce within China, some products and many services will continue to operate in regional and even local markets due to transportation and other factors.

Foreign trade policy is increasing competitive pressures

International openness is helping to improve the functioning of markets as well. The Foreign Trade Law adopted in 2004 enables all firms – private included – to directly engage in importing and exporting. This early fulfilment of a WTO commitment enables firms to trade internationally without going through Foreign Trading Companies, giving them much easier access to global markets, and reduces their transaction costs. And since more productive firms export – in OECD countries and China – this will aid these firms' growth and promote healthy competition.

Competition policy should be strengthened

Other aspects of competition still need improvement. The Unfair Competition Law (1993) deals primarily with a number of practices that are best described as unfair trade practices (bribery, misleading advertising, deception, defamation, use of trade secrets) rather than anti-competitive practices. Some anti-competitive practices (predatory pricing, tie-in sales and bid-rigging) are banned by the law while a further law makes a number of price-setting practices illegal, but many anti-competitive practices are not covered by these laws. The new anti-monopoly law (drafting of which started in 1994) is approaching its first submission to the NPC, and it should cover a much wider range of practices. Drafting is continuing, in consultation with the OECD, amongst others.

The delay is in part due to misplaced sentiment that low levels of concentration preclude anti-competitive practices and concerns that a competition law could complicate mergers (OECD, 2002; Owen *et al.*, 2004; Winslow *et al.*, 2005). Previous measures of concentration (such as those used in the current draft of the Anti-Monopoly Law) have focused on the market share of the four or eight largest companies. A better measure is the Herfindahl-Hirschman Index (HHI) which is itself based on the sum of squared market shares. The United States' Merger Guidelines use the HHI measure of concentration to identify potentially problematic mergers. The approach is based on the application of various thresholds to the HHI, and is thus little-affected by second-tier mergers that do not result in a single dominant firm (US DOJ-SEC, 1992).[35] Using the NBS industrial microdata to compute the HHI, the result does show that overall concentration in the industrial sector is indeed not very high by international standards (Table 2.10), but this does not mean that there is no potential for abuse. In assessing the likelihood of anti-competitive practices, one must examine "market" concentration, which is different from "industrial" concentration (OECD, 2002). Moreover, a similar number of moderately and highly concentrated industries exist in Chinese manufacturing as in the United States, and the US has significantly lower and fewer barriers to entry; yet few would argue that the US does not need antitrust legislation. High market concentration levels facilitate anti-competitive practices, but such practices can cause serious economic harm even when concentration is not high.

In many markets in China, concentration-increasing mergers could well produce important efficiencies without creating a competition problem. As a result of past laws and policies, many Chinese firms are undersized by many measures (OECD, 2002), and the lack of a mid-tier market segment is a particularly serious weakness (Mihalca, 2003). Although China has fifteen *Fortune 500* companies (in 2005), most other companies are small and are unlikely to have market power. According to estimates based on the NBS micro database, higher concentration in many Chinese industries actually enhances the productivity of incumbent firms. These gains could be obtained through efficiency-enhancing mergers that permit the realisation of scale economies, which to a certain extent are already happening.

The merger control provisions in a well-designed anti-monopoly law do not prevent efficient mergers such as these, but rather will bar only the relatively few mergers whose efficiency benefits are likely to be outweighed by anti-competitive effects. At the same time, eliminating some of China's current restrictions on mergers and acquisitions (M&A) would be beneficial for this scaling-up. Currently takeovers require the consent of the target company and its workforce, as well as multiple government departments. Such

Table 2.10. **Extent of industry concentration**

Number of industrial sectors in selected ranges of the Herfindahl-Hirschman concentration index,[1] grouped by the United States Department of Justice merger thresholds

	Mining, manufacturing and utilities					
	1998		2000		2002	
	Number of industries	Per cent	Number of industries	Per cent	Number of industries	Per cent
China						
Highly concentrated (over 1 800 points)	82	14	91	16	83	14
Moderately concentrated (1 000-1 800 points)	72	12	72	12	79	13
Not concentrated (under 1 000 points)	428	74	423	72	425	72
Total number of industries	582	100	586	100	587	100
with more than 100 point annual increase			53	9	56	10
	Manufacturing only[2]					
	US in 1997		China in 1998		China in 2002	
	Number of industries	Per cent	Number of industries	Per cent	Number of industries	Per cent
China compared to the United States						
Highly concentrated	37	8	65	12	63	12
Moderately concentrated	89	19	75	14	83	16
Not concentrated	332	72	383	73	380	72
Total number of industries	458	100	523	100	526	100

1. The Herfindahl-Hirschman Index is defined as sum of squared market shares, out of 10 000; Industrial sectors used correspond to 4-digit ISIC industries for China, 6-digit NAICS for the United States.
2. Calculated for 50 largest firms in manufacturing sectors, corresponding to US Census Bureau method.

Source: US Census Bureau; China National Bureau of Statistics industrial microdata and joint NBS-OECD Analysis.

requirements are a major deterrent for takeovers, and limit the role that they can play in increasing the scale of Chinese firms. Regulations for foreign M&A are even more restrictive, although they have been clarified in the case of state enterprises through the "provisional rules on mergers with and acquisition of domestic enterprises by foreign investors" and the "regulations on the transfer of state assets", both issued in 2003 (Davies, 2005).

Another serious problem for competition in Chinese industries is the extent of state ownership, especially in the area of public utilities. Since the function of the regulator is not independent, conflicts of interest arise that inhibit competitive behaviour. Competition policy carried out in conjunction with an anti-monopoly law could aid in policing this behaviour, and considerable experience in OECD countries shows that this can be effective even in natural resource and infrastructure sectors. While authorities have been formed for regulating the insurance, banking, and electricity sectors, less effort has been made in other sectors – there is still a need for effective regulation of infrastructure industries such as telecom, as identified in previous studies (OECD, 2002, 2003d).

Financial markets still do not allocate credit efficiently

While China's overall investment environment scores reasonably well in comparison with countries at a similar stage of economic development (*e.g.*, India and Thailand), it is very weak is in the area of access to finance, especially for small and medium enterprises (Dollar *et al.*, 2003). However, in part this is a result of the small scale and lack of collateral

for many (undersized) small private companies, since among the largest private companies bank credit is prevalent (two-thirds of private companies with more than 250 employees use bank credit). Many small companies also rely on informal finance, such as revolving credit associations, pawn shops, and personal loans, where they pay much higher interest rates.

There have been several efforts to improve the financing environment for small enterprises, but access to debt and equity finance is still viewed by enterprises as a problem (Wang, 2004). The Law on Promotion of Small and Medium Enterprises (SMEs) that took effect in January 2003 provides a basic framework for various types of support for SMEs; a high-level Leading Group on Supporting SMEs has been leading this effort and has proposed additional measures, including expanding the credit guarantee companies (CGCs) nationally (ADB, 2003b). Unfortunately, experience with these CGCs has been mixed, and they have not resulted in significantly greater availability of credit for SMEs.[36] Hence shifting toward equity finance, especially through private-sector venture capital, should rather be the priority.

A contrasting problem exists in the state sector where, if anything, access to bank credit may be too easy. This problem is directly related to the condition of the financial sector, which is discussed in considerable detail in the next Chapter.

Summary and recommendations

China's business sector has undergone substantial changes over the past five years. The private sector now represents the dominant player in many industries, and creates most new jobs. At the same time, the state sector has withdrawn significantly from non-core industries. Nevertheless, the private sector remains encumbered by a regulatory framework that does not yet meet all its needs, and the state sector contains segments of poorly performing companies that are in dire need of restructuring.

In order to strengthen the role of the business sector in sustaining growth and delivering it more equitably across society, a number of structural reforms are needed. Many of the changes to the regulatory framework have long been under consideration, but have yet to be implemented. The most important are summarised below:

- The revision of corporate law has been delayed too long and should be a higher priority. The present corporate law was designed to meet the needs of the state sector and sets unnecessary obstacles to the expansion of private business through stringent demands on the number of shareholders and the minimum capital for incorporation and listing, posing problems for firm expansion and financing. The new law should also address weaknesses in the corporate governance framework, providing more effective protection for minority shareholders especially.
- The draft bankruptcy law covering all types of companies should be passed expeditiously; it needs to be rigorously implemented to strengthen the financial system and put unviable assets to more productive use through restructuring. Specialty courts might be considered given the complexity of many bankruptcies.
- Improving the quality of the judicial system is critical to making the regulatory framework (that is quite advanced in many areas, such as for IPRs) more effective. Moving towards a more independent funding and recruitment model could help promote more impartial judgments and make enforcement more effective.

Constitutional changes that have strengthened private property rights protections are important, but supporting legislation is still essential.

- While product markets function increasingly well, labour markets are still very rigid, posing heavy restrictions on labour mobility and resulting in unequal treatment of geographically mobile workers, especially in public service delivery. Weaknesses in rural land rights also pose a strong deterrent to permanent migration.
- SASAC needs to further clarify its objectives as a custodian of state assets, moving swiftly to maximise their value. This can be done most effectively by strengthening exit mechanisms such as property rights trading centres and promoting good corporate governance with independent directors. Further easing the restraints on transferability of shares and market-based mergers and acquisitions should be a priority, while at the same time accelerating rules that restrict anti-competitive behaviour.

Notes

1. Difficulties in estimating the output of small private firms and the size of the service sector especially is the prime motivation behind the first economy-wide enterprise census that is being conducted by the National Bureau of Statistics during 2005.
2. However, China's semi-official All-China Federation of Industry and Commerce (ACFIC) estimates that 60% of GDP was produced by the private sector in 2003, using a wider definition of the private sector.
3. The ownership of collectives can be ambiguous (IFC, 2000). Until the late 1990s, many private firms deliberately registered as collective in order to avoid difficulties with government. This phenomenon has declined as many of the TVEs have changed their registration to private, especially after the mandate in 1997 that required it be done before the end of 1998.
4. The SAIC private enterprise register, based on administrative data rather than census data, suggests that the private average enterprise is smaller, at only 14 persons.
5. The excluded manufacturing industries are petroleum, smelting, tobacco, and transport equipment. These industries are a subset of the "core" sectors where the state continues to dominate, described later in this chapter.
6. Some estimates have suggested that as much as a third of Chinese FDI may originate from the mainland itself, invested via offshore holding companies in Hong Kong, China and elsewhere, that enable these companies to enjoy foreign-investment preferences such as tax breaks.
7. This analysis was done with using the comprehensive microdata of all industrial firms with more than CNY 5 million in annual sales, with the cooperation of the National Bureau of Statistics (NBS). This includes 140 000 firms in 1998, growing to 180 000 firms in 2003. See Annex 2.A2 for more details. These firms report their data directly to the NBS (since 1998) and the information they provide is less subject to quality problems than earlier data aggregated through local administrative channels (Holz, 2005).
8. Gross output production functions that account for intermediate material intensity confirm these results. See Dougherty and Herd (forthcoming).
9. The difference between the census and the administrative figures has risen from 26% to 38% of urban employment over 1998-2003. This residual category has been interpreted by some authors as representing growing employment in the informal sector (Guo, 2004) and by others as a reflection of the failure of the enterprise register to pick up all small-size firms (Cai and Wang, 2004).
10. The State Council's "Guidelines on Encouraging, Supporting and Guiding the Development of the Individual, Private and Other Non-Public Economic Sectors" clears the way for private sector access to all of the sectors that foreign firms are allowed in under WTO as well as ones they are not, including utilities, health and education, and national defence.
11. For instance, in May 2004, year-on-year fixed asset investment growth for non-state investments nearly ground to a halt, while for state investments, it remained at approximately the same pace

as the previous month. Numerous complaints from private firms of their inability to conduct business were described in the press.

12. See Garnaut *et al*. (2004) for a detailed discussion of the numerous ways that Chinese firm have exited and restructured.

13. These results occurred in spite of the official policy summarised in the slogan "hold onto the large, release the small" (*zhuada fangxiao*). Initially, the policy applied only to firms officially classified as "small" but in 1999, it encompassed "medium" scale firms as well.

14. More broadly, 85% of small and medium local government state enterprises, across all industries, had been restructured by 2003, according to SASAC.

15. This comparison refers to business enterprises only; public service units that are also staffed by state employees are widespread and are currently undergoing reforms (see Pilichowski, 2005).

16. According to 2003 rural statistics, most rural collective township and village enterprises (TVEs) have been formally privatised, but most still operate under a regulatory framework that was designed for local government owned enterprises (with a high degree of ambiguity), making these private TVEs something of an anachronism.

17. The empirical study supporting this contention constructs a subgroup of firms that have been privatised and contrasts them with a comparable subgroup of firms that have not been privatised (Jefferson and Su, 2005). Better-performing firms are easier to privatise than poor performers (which may instead be liquidated), even if the intention of the government is to divest from poor performers first.

18. The gap may be somewhat less than it appears, depending on whether better firms are privatised first, but even with elaborate adjustments for various selection biases (in the Chinese context and elsewhere), the empirical evidence shows that there are large benefits from transferring control, especially to outsiders (Megginson and Netter, 2001; Li and Lui, 2004; Jefferson and Su, 2005).

19. A late 1990s trough in performance was described in the OECD report *Chinese Enterprises Restructure* (OECD, 2000).

20. Both income and turnover taxes are higher for state-owned enterprises, leading some observers to point out that their performance is much improved if their higher tax burden is taken into account (OECD, 2002; Holz, 2003). However, in the past several years, the gap in performance of the private and state sectors has grown to exceed an amount that tax differentials could explain.

21. While state controlled companies in the core industries had the largest increase in profits and are about 50% more profitable, overall state ROA increased significantly from 1998 to 2003 in all but the most competitive industries (garments, electronics and telecom equipment).

22. As much as a third of state assets are considered unhealthy, and there have been various attempts to revalue them, but without independent audits it is difficult to determine the extent of exaggeration.

23. The State Grid (*Fortune* rank #46), China National Petroleum (#52), Sinopec (#54), and China Mobile Communications (#242) operate in areas with limited competition. Only two companies, Shanghai Baosteel Group (#372) and Shanghai Automotive (#461) are in industries with non-restricted entry.

24. For example, Sinochem (*Fortune* rank #270) – one of the four oil companies – is restricted to the following areas: 1) trading, distribution and logistics for oil, fertiliser, and chemical products; 2) crude oil, fuel oil, and natural rubber futures' business; 3) exploration of overseas oil and gas resources, oil processing, mining and milling of chemical minerals, and production of fertiliser and chemicals; 4) development and operation of hotels and real estate.

25. A ban on large firm MBOs may be a useful measure to the extent that it encourages outsider buyers. International experience suggests that sale to outsiders generally results in much better post-privatization performance than sale to insiders (Djankov and Murrell, 2002). However, for small companies, purchase by insiders can be optimal if there is lack of reliable market information, as long as the transaction takes place in an open process (Li and Rozelle, 2004).

26. Initial public offerings (IPOs) are the most common method for privatization in OECD countries, and may be appropriate in the case of large well-known and well-run companies. However, trade sales to strategic investors are likely to yield higher returns as a result of the control premium (Mako and Zhang, 2003).

27. The other two-thirds are typically split between state shares and individual shares (Green and Liu, 2005).

28. If an enterprise has a business that is viable but is over-indebted, it may alternatively be usefully restructured via a debt-for-equity swap.

29. The largest firms are converted to shareholding companies with unlimited shareholders, while smaller firms are reestablished as limited liability companies (LLCs) with 2 to 50 shareholders. The shareholding company option has been used most at the central level, where 15% of central firms have been converted, representing about one-third of central government state enterprise assets. At sub-central levels, the establishment of LLCs has been more common; about 40% of provincial and prefecture assets are now in state-held corporations.

30. However, the decision by the China Securities Regulatory Commission (CSRC) does not offer the option of voting by mail or electronic proxy.

31. The suit involves the company Guangxia. Another case involved the Daqing Lianyi company and plaintiffs won the case but the judgement has not been made public.

32. The CSRC issued new regulations on this subject in January 2005 that require companies obtain a majority vote of holders of listed shares before certain actions such as a merger, new share or bond offering are undertaken. Such guidance should be incorporated into company law.

33. The state's role as a controlling shareholder in many companies can be exercised in a direct way through its representatives on the board of directors. (While the company law originally restricted the role of government officials to sit on the board, later clarifications have allowed this practice.)

34. The 2002 input-output table is not yet available.

35. According to US Horizontal Merger Guidelines' criteria, mergers that increase a concentrated industry's HHI index by more than 100 points are subject to review. About 1 in 10 Chinese industries had such an event in each year, 1998 to 2002.

36. The new 2005 guidelines for support of the non-public sector may help to improve the availability of financing.

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ANNEX 2.A1

Construction of private sector estimates

The estimates of private and public ownership follow a sector-by-sector approach based on shares of GDP, similar to that of studies by IFC (2000) and Wang (2004). A major difference between these estimates and the earlier ones are in the treatment of mixed-ownership limited liability and shareholding corporations, and collectives. More cautious assumptions about their ownership structure are made here. Some limited liability and shareholding corporations are controlled by the state, so instead of always treating the output of these companies as private, we attribute the share of output produced by state-controlled firms to the public sector where it can be identified, in the industrial sector, as described in Box 2.1.[1]

In our default estimate, collective owners are considered part of the public sector. While private firms were known to register as collectives until the mid-1990s, from 1997 this type of masquerading was prohibited and with the improving regulatory environment there has been much less incentive to do so.[2] Moreover, our analysis of collective firms in the industrial sector found that the bulk of firms remaining registered as collectives in the 1998 to 2003 period were also *controlled* by collective shareholders.

Table 2.A1.1. **Private sector estimates: shares in GDP**

Sector	1998			2003		
	Share in GDP	Private economy		Share in GDP	Private economy	
Agriculture[1]	18.6	x 96% =	17.9	14.6	x 96% =	14.1
Industry above cut-off[2]	24.8	x 28% =	7.0	35.1	x 52% =	18.4
Industry below cut-off	17.8	x 78% =	13.8	10.2	x 90% =	9.2
Construction	6.7	x 50% =	3.3	7.0	x 76% =	5.3
Transport, post, telecom	5.3	x 5% =	0.3	5.7	x 16% =	0.9
Distribution	8.4	x 58% =	4.9	7.7	x 80% =	6.1
Misc. commercial services	12.8	x 26% =	3.3	13.3	x 39% =	5.2
Government services[3]	*5.7*	x 0% =	*0.0*	*6.4*	x 0% =	*0.0*
Economy-wide total	100.0		50.4	100.0		59.2
Commercial Business Sector only[3]	94.3		53.5	93.6		63.3
Non-Farm Commercial Business Sector only[1, 3]	75.7		43.0	79.0		57.1

1. Agriculture excluded from non-farm commercial business sector
2. Industrial firms with over CNY 5 million in annual sales directly reporting to the National Bureau of Statistics.
3. Government and non-profit service sectors excluded from commercial business sector

Source: National Bureau of Statistics and OECD estimates.

Table 2.A1.1 shows the private sector-by-sector estimates for the years 1998 and 2003. The estimates are constructed by taking the share of GDP in each relevant sector of the economy and estimating the proportion that is private. The result totals to the private share of GDP. The estimates are made for the economy as a whole, the commercial business sector, and the non-

farm commercial business sector. The commercial business sector excludes services that are performed by government and non-profit organisations in most OECD economies, and gives a more balanced portrayal of the extent to which China's economy is private.

Each industry uses a specific set of assumptions:

- *Agriculture*: gross output produced by non-state and non-collective farms is considered private. The share of state farms is estimated from their share of agricultural gross output at slightly less than three per cent ([China Statistical Yearbook] CSY 2001: 12-27; CSY 2004: 13-29). The less than one per cent share of output by collective farms is estimated from primary sector township and village enterprises (TVE) value added, using the collective share of overall TVE output (CSY 2003: 13-31).
- *Industrial direct reporting*: value added produced by industrial firms directly or indirectly controlled by the state or local governments is considered public, with the remainder – controlled by individuals or non-public entities – considered private (Table 2.A2.2). Control is determined by comparing shareholder's shares of paid-in equity capital (see Box 2.1). In cooperation with NBS, the 180 000 industrial firms with annual sales of CNY 5 million or more were analyzed annually by the type of controlling shareholder. These data include all mining, manufacturing, and utility firms who report directly to the National Bureau of Statistics (NBS) at least annually. This information is used to reclassify the data that is published according to standard registered ownership types (and legal forms), for the non-industrial sectors where less detailed data is available.

Table 2.A1.2. **Mapping of registration status to controlling shareholder**
By per cent of value added among industrial firms in 2003

Registered type of ownership[1]	State controlled		Collective controlled	Private controlled	All	Share of Total
	Direct	Indirect				
State-owned Enterprise	73.6	26.4	0.0	0.0	100.0	13.8
Collective-owned Enterprise	0.1	1.3	61.6	36.9	100.0	6.3
Joint Ownership Enterprise	45.9	15.9	12.7	25.5	100.0	0.7
Solely State-funded Corporation	80.3	19.7	0.0	0.0	100.0	5.0
Other Limited Liability Corporation	19.7	19.7	6.2	54.4	100.0	14.1
Shareholding Corporation	26.4	47.4	2.0	24.3	100.0	15.0
Cooperative Enterprise	1.2	2.8	15.6	80.3	100.0	2.2
Private Firm[2]	0.0	0.2	2.7	97.1	100.0	13.3
Other Domestic-funded Firm	1.6	2.0	12.7	83.7	100.0	0.1
Non-mainland Joint Venure[3]	9.1	20.6	3.0	67.3	100.0	17.6
Solely Non-mainland Firm[3]	0.0	0.7	0.1	99.2	100.0	12.0
All types	22.9	18.5	6.4	52.3	100.0	100.0

1. At present, companies may be set up under a number of separate laws, or sections of the same law. Their registration status depends on how they were set up and is not necessarily a guide to the sector from which their shareholders are drawn. See OECD (2000) and ADBI (2004) for a more detailed list of the legal basis for each enterprise type.
2. Domestic private firms registered with the government.
3. Non-mainland is an aggregation covering investors from: Hong Kong, China; Macao, China; Chinese Taipei and all other economies.

Source: National Bureau of Statistics industrial microdata with joint NBS-OECD analysis.

- *Industrial non-reporting*: the estimated output of non-collective (and non-state) firms is considered the private sector among these small industrial firms. The non-reporting portion of national accounts industrial value added declined from 40% in 1998 to 20%

in 2003, as the reporting sector expanded. Since small industrial firms (under CNY 5 million annual sales) are outside of the NBS reporting system, little data exists on them. Small scale surveys suggest that the bulk of these firms are private enterprises and sole proprietorships. Data from the 1995 industrial census and administrative records for the intervening years were used to estimate the average size and output of these firms in 1998-99 (China Industrial Statistical Yearbook 1997; CSY 2000). This estimate is then brought forward to 2003 using the firm counts of the registry of the State Administration on Industry and Commerce (SAIC). Results suggest that the collective share of the non-reporting industrial sector declined from about 23% in 1998 to 10% in 2003 (CSY 2003: 5-4; SAIC 2004).

- *Construction*: value added produced by firms with non-state and non-collective registration is considered private. The estimates rely upon ownership breakdowns of urban construction enterprise output (CSY 2004: 15-2). Coverage includes "Class 4" and above construction contractors, and all general and professional contractors starting in 2002. They represent around 60% of construction value added. The remaining firms for which limited data is available are made up of rural construction teams (two-thirds) and very small firms (one-third). For these firms, we use the estimates for the non-reporting industrial sectors.
- *Distribution*: sales of wholesale and retail trade by firms registered as non-state and non-collective are considered private. In the distribution sector, ownership is broken down in to multiple ownership categories. Sales of firms registered as state-owned, collective-owned, joint owned state and/or collective, and state solely owned corporations represent the public sector. These estimates rely on data from firms that report to the NBS (CSY 1999: 16-17; CSY 2000-2003: 16-21). Remaining firms are likely to be very small (yet represent roughly half of sales), so we rely upon the non-reporting industrial stare estimates. Broad sector-specific employment data appear to be confirmatory of these estimates.
- *Transport, post, and telecom and miscellaneous commercial services*: no comprehensive ownership data exists on these service sectors. The ownership of output in these sectors was estimated based on employment data that integrate small private firms (China Statistical Abstract [CSA] 2000: 3-38; CSA 2002: 3-44). Weights for individual sectors come from value added in the national accounts (CSY 2003: 3-5). Transportation, post and telecom were estimated as about one-sixth private for 2003. The real estate and social services (hotels and tourism) sectors are estimated to be about half and two-thirds private, respectively; financial services are about 10% private. The remaining sectors, scientific services and geological prospecting appear to be nearly all public, while farm and other services are assumed to be private. Private ownership in the miscellaneous service sectors is estimated to have increased by half since 1998.
- *Government services*: heath care, education, and government agencies were assumed to be held by the state and local governments, as confirmed by employment data.

Notes

1. In the construction and distribution sectors, not all of the corporations that are controlled by the state can be identified.
2. Regardless of the extent to which private firms disguised or disguise themselves as collectively-registered "red-hat" firms, the number and output of collectives has declined markedly in all sectors over the past six years – especially among township and village enterprises (TVEs).

ANNEX 2.A2

Industrial microdata estimates

Detailed financial data and estimates of total factor productivity rely upon analysis of industrial microdata undertaken in collaboration with the National Bureau of Statistics (NBS). These data cover the 1998 to 2003 period and include all industrial enterprises with CNY 5 million or higher in annual sales.* We exclude from analysis 10% of the firms that have implausible values for gross output, intermediate inputs, employment or fixed assets. In each year there are approximately 160 000 firms with valid data (rising to 180 000 in 2003), or about 850 000 annual observations in total. For estimates that rely upon growth rates, 80% of the firms in a given year have a valid observation in the previous year.

Rather than using the official firm registration that is commonly shown in statistical publications to look at ownership, we separate firms by type of controlling shareholder. In the NBS microdata, firms report whether they are state held: that is, they are controlled directly or indirectly by the state. In order to distinguish between direct and indirect control, firms with a paid-in *state* share capital greater than 50% are classified as directly state controlled, with the remainder of state held firms treated as indirectly controlled. Amongst the non-state held firms, collective controlled firms are identified if they report paid-in *collective* capital share greater than 50%. The remainder of the non-state firms are subdivided among various types of private ownership depending on whether they are controlled (share capital greater than 50%) by a company (a legal person), individuals, non-mainland agents, or other shareholders. This classification allows us to look at the *type* of actual owner, since the official enterprise structure often does not reflect the *de facto* owner. This also overcomes the difficulties in interpreting the bewildering array of different ownership registration categories, many of which are not meaningfully distinct. This categorisation is especially important for LP shareholders, who may be state or privately controlled.

Estimates of total factor productivity are based on value added production function regression estimates using ordinary least squares with heteroskedasticity-adjusted standard errors, estimated in levels and in differences (growth rates). A log-linear form of the equation was estimated with dummy variables for ownership categories, years, size classes, and industries. Confirmatory estimates were conducted using a gross output specification (with intermediate inputs) and using an instrumental variables estimator. The alternative specifications support the results shown.

Financial and financing data come from the balance sheets of companies that meet the quality criteria. Underlying data for the total of industry are shown in Table 2.A2.2. Separation of firms by controlling shareholder allows for more detailed breakdowns. A

* In principle these data also cover state-owned enterprises even if they do not meet the threshold, but this small number of firms were excluded from the analysis.

sample breakdown of the share of value added by size of firm, jurisdiction, official registration type, and region is shown in Table 2.A2.3. Table 2.A2.4 shows the breakdown of value added by industrial sector.

Table 2.A2.1. **Firm-based production function regression estimates**[1]

Differences from comparison group are calculated as exp(coefficient) minus one

Regression of log(real value added) on	Levels			Growth rates		
	Coeff.	Std. Err.	Robust t-stat.	Coeff.	Std. Err.	Robust t-stat.
log(net fixed assets)	0.229	0.00108	212.2	0.065	0.00239	27.3
log(employees)	0.632	0.00297	212.6	0.423	0.00410	103.1
log(average wage relative to mean)	0.457	0.00226	201.9	0.204	0.00266	76.5
Relative to direct state control (state > 50%)						
Indirect state, LP > 50%	0.378	0.00768	49.2	0.006	0.00734	0.9
Indirect state, other	0.530	0.00847	62.6	0.026	0.00823	3.1
Collective, collective > 50%	0.772	0.00417	185.0	0.018	0.00422	4.2
Private, LP > 50%	0.792	0.00459	172.4	0.048	0.00473	10.1
Private, individual > 50%	0.734	0.00429	171.1	0.054	0.00432	12.4
Private, non-mainland > 50%	0.654	0.00528	124.0	0.056	0.00539	10.4
Private, other	0.694	0.00799	86.9	0.014	0.00821	1.8
Relative to under 51 employees						
51-100 employees	–0.157	0.00427	–36.7	0.015	0.00422	3.6
101-500 employees	–0.216	0.00599	–36.1	0.028	0.00385	7.4
501-1000 employees	–0.125	0.00963	–13.0	0.039	0.00511	7.7
over 1000 employees	0.151	0.01264	12.0	0.060	0.00552	10.8
Relative to 1998						
year 1999	0.045	0.00414	10.9	0.015	0.00396	3.7
year 2000	0.146	0.00409	35.7	0.012	0.00397	3.1
year 2001	0.242	0.00401	60.3	0.030	0.00381	7.8
year 2002	0.323	0.00401	80.5	0.049	0.00379	12.9
year 2003	0.405	0.00393	103.1			
Dummies for provincial regions		Significant			Significant	
Dummies for 2-digit industries		Significant			Not significant	
Dummies for age of firm		Significant			Significant	
Constant term		Significant			Significant	
Number of observations (pooled)		852 354			526 550	
F-statistic (d.f. = 98; 97)		10 085			196.48	
Adjusted R-squared		56.6%			6.0%	
Root means squared error (MSE)		1.004			0.822	

1. Regressions estimated on unbalanced panel of all industrial firms with sales of CNY 5 million or higher; estimates use ordinary least squares estimator with heteroskedasticity-adjusted standard errors.

Source: Chinese National Bureau of Statistics (NBS) microdata with joint NBS-OECD analysis.

Table 2.A2.2. **Profile of industrial microdata (all firms meeting criteria)**[1]

	1998	1999	2000	2001	2002	2003
			Units			
Basic data						
Number of firms	144 112	140 559	141 956	150 948	160 969	180 146
			Millions of persons			
Employment	59.2	55.5	53.0	51.7	52.6	55.5
			CNY Billion			
Value added (including VAT)	1 842.8	2 046.9	2 413.4	2 693.1	3 154.3	4 069.2
Value added tax payable	270.4	298.6	352.0	384.8	431.6	535.4
Sales tax and extra charges	121.2	128.3	140.4	151.9	172.3	202.4
Gross output comparable (1990) prices	4 946.1	5 242.9	6 170.0	6 861.9	7 978.5	10 345.4
Gross output current prices	6 518.5	6 991.1	8 231.4	9 170.2	10 701.2	13 879.1
Intermediate input	5 556.7	6 260.0	7 300.7	8 365.4	9 965.6	12 591.8
Exports	1 049.4	1 124.5	1 413.8	1 587.5	1 964.6	2 647.0
			CNY Billion			
Income statement						
Sales Revenue	6 168.0	6 713.5	8 090.4	9 008.7	10 577.5	13 966.8
Cost of sales	5 072.5	5 499.1	6 589.2	7 405.6	8 692.7	11 557.6
Sales charge	219.4	248.1	288.7	338.3	394.2	484.4
Sales tax and extra charge	121.2	128.3	140.4	151.9	172.3	202.4
Sales profit	754.9	838.1	1 072.2	1 112.9	1 318.2	1 722.4
Other business profits	41.3	36.3	45.0	47.9	52.3	69.8
Administrative fees and charges	466.6	487.0	541.9	572.6	640.9	780.1
Memo: R&D	. .	. .	. .	26.2	34.9	43.8
Financial charges	232.5	210.3	188.9	181.6	192.7	206.9
Memo: Interest outlay	214.4	194.5	177.8	168.2	172.8	181.7
Operating profit	97.1	177.1	386.4	406.6	536.9	805.1
Subsidies	27.6	27.5	32.5	35.1	38.3	46.5
Investment income and adjustments	–16.7	–19.2	–8.4	–21.2	4.5	30.1
Profit[2]	141.4	223.8	427.3	462.9	570.7	821.5
Tax on profits	51.1	60.6	74.9	87.0	108.6	141.3
Dividends	56.2	63.0	87.6	96.2	114.3	. .
Retained earnings	34.0	100.1	264.9	279.7	347.8	. .
			CNY Billion			
Balance sheet						
Assets	7 367.9	7 843.4	8 291.3	8 902.0	9 569.9	10 947.8
Net fixed assets	4 117.4	4 516.4	4 909.8	5 231.7	5 657.0	6 406.4
Inventories	1 470.9	1 470.3	1 557.0	1 642.8	1 743.2	2 040.4
Deferred and intangible assets	1 779.6	1 856.7	1 824.6	2 027.4	2 169.7	2 501.0
Liabilities	7 367.9	7 843.4	8 291.3	8 902.0	9 569.9	10 947.8
Long term liabilities	1 951.3	2 005.5	2 065.8	2 053.4	2 119.1	2 319.3
Net short term liabilities	1 612.2	1 547.4	1 472.9	1 506.3	1 585.1	1 787.9
Equity	3 768.9	4 241.5	4 694.3	5 280.7	5 816.3	6 755.8
			Profit plus interest[3] as a per cent of fixed assets plus inventories			
Performance indicators						
Rate of return on physical assets	6.1	6.7	9.2	8.9	10.1	12.2

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Table 2.A2.2. **Profile of industrial microdata (all firms meeting criteria)**[1] *(cont.)*

			Profits as a per cent of equity			
Rate of return on equity	3.8	5.3	9.1	8.8	9.8	12.2
			CNY Billion			
Profit plus interest[3]	339.1	399.1	596.7	609.8	748.0	1 033.3
Net fixed assets plus inventories	5 588.3	5 986.7	6 466.8	6 874.5	7 400.2	8 446.8
			Per cent of net fixed assets			
Depreciation rate	. .	8.1	8.1	8.5	8.7	9.3

1. Missing observations and those with inconsistent data are not included.
2. Referred to as "Total Profits" in most Chinese publications.
3. Excludes investment income.

Source: National Bureau of Statistics with joint NBS-OECD analysis.

Table 2.A2.3. **Breakdown of value added by controlling shareholder and region, size, jurisdiction and registration**[1]

	State controlled				Collective controlled		Private controlled								All	
	Direct		All				Legal persons		Individuals		Non-mainland		All			
	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003
Total	38.9	22.9	54.8	41.4	17.3	6.4	7.4	13.3	5.8	17.2	12.6	19.2	27.9	52.3	100.0	100.0
By Region																
Total	38.9	22.9	54.8	41.4	17.3	6.4	7.4	13.3	5.8	17.2	12.6	19.2	27.9	52.3	100.0	100.0
Eastern	16.6	10.7	25.5	19.5	12.1	4.6	5.2	9.0	4.0	12.6	11.4	17.4	22.0	40.9	59.6	65.0
North-Eastern	4.6	2.6	8.5	6.4	0.9	0.3	0.4	0.7	0.3	0.7	0.5	0.8	1.3	2.4	10.6	9.1
Central	8.8	5.0	10.4	7.7	3.2	1.1	1.1	1.9	1.0	2.4	0.5	0.6	2.9	5.2	16.5	14.0
Western	8.9	4.6	10.5	7.7	1.1	0.4	0.7	1.6	0.6	1.5	0.3	0.5	1.8	3.8	13.3	11.9
By Employment Size																
Total	38.9	22.9	54.8	41.4	17.3	6.4	7.4	13.3	5.8	17.2	12.6	19.2	27.9	52.3	100.0	100.0
0-50	0.3	0.2	0.5	0.3	1.1	0.4	0.4	0.7	0.5	1.4	0.4	0.5	1.4	2.7	3.0	3.4
51-100	0.7	0.3	1.0	0.5	1.8	0.7	0.8	1.3	0.8	2.3	0.9	1.1	2.7	4.8	5.5	6.0
101-500	5.0	2.3	7.2	4.7	7.9	2.6	3.0	5.3	2.8	7.6	5.1	6.3	11.7	20.0	26.8	27.3
501-1000	4.4	2.0	6.3	4.0	2.9	1.0	1.3	2.3	0.9	2.5	2.2	3.4	4.8	8.5	14.0	13.4
Over 1000	28.4	18.1	39.7	31.9	3.6	1.8	1.9	3.7	0.8	3.5	4.1	8.0	7.4	16.3	50.7	49.9
By Jurisdiction																
Total	38.9	22.9	54.8	41.4	17.3	6.4	7.4	13.3	5.8	17.2	12.6	19.2	27.9	52.3	100.0	100.0
Central	12.9	8.7	20.0	18.1	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.2	0.2	0.5	20.2	18.6
Provincial	8.6	6.5	11.5	10.0	0.2	0.1	0.3	0.4	0.1	0.1	0.9	1.0	1.4	1.5	13.1	11.6
Prefectural	9.4	4.4	12.4	7.5	1.1	0.7	1.0	1.3	0.3	0.9	2.6	3.4	4.3	6.0	17.8	14.2
County and equivalent	7.1	2.5	9.0	3.8	2.5	0.7	1.0	2.0	0.9	2.1	1.5	1.6	3.7	6.3	15.2	10.8
Township and below, other	0.9	0.7	2.0	1.9	13.4	4.9	5.0	9.4	4.5	14.2	7.6	13.1	18.4	37.9	33.8	44.7
By Registration																
Total	38.9	22.9	54.8	41.4	17.3	6.4	7.4	13.3	5.8	17.2	12.6	19.2	27.9	52.3	100.0	100.0
State-owned enterprise	29.1	10.2	37.3	13.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.3	13.8
Collective-owned enterprise	0.4	0.0	0.5	0.1	12.8	3.9	2.8	1.1	1.3	0.9	0.3	0.1	5.1	2.3	18.3	6.3
Joint ownership enterprise	0.2	0.3	0.4	0.4	0.3	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.3	0.2	1.1	0.7
Solely State-funded Corporation	3.2	4.0	3.9	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	5.0
Other limited liability corporation	1.1	2.8	1.7	5.6	0.5	0.9	0.5	3.6	0.6	3.5	0.0	0.1	1.4	7.7	3.6	14.1
Shareholding corporation	2.4	4.0	4.7	11.0	0.6	0.3	0.9	1.6	0.5	1.5	0.0	0.1	1.8	3.6	7.1	15.0
Cooperative enterprise	0.1	0.0	0.1	0.1	1.1	0.3	0.5	0.5	1.3	1.1	0.0	0.1	1.9	1.7	3.1	2.2
Private firm	0.0	0.0	0.0	0.0	0.3	0.4	0.7	3.3	1.7	9.2	0.0	0.2	2.4	12.9	2.7	13.3
Other domestic-funded firm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Non-mainland joint venture[2]	2.3	1.6	6.0	5.2	1.7	0.5	1.6	2.8	0.3	0.8	6.5	7.3	9.0	11.8	16.8	17.6
Solely non-mainland firm[2]	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.1	5.7	11.4	5.9	11.9	5.9	12.0

1. Missing observations and those with inconsistent data are excluded.
2. Non-mainland is an aggregation covering investors from: Hong Kong, China; Macao, China; Chinese Taipei and all other economies.

Source: National Bureau of Statistics and joint NBS-OECD analysis.

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Table 2.A2.4. **Breakdown of value added by controlling shareholder and industry**[1]

	State controlled				Collective controlled		Private controlled								All	
	Direct		All				Legal persons		Individuals		Non-mainland		All			
	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003
By Industry[2]																
Total[3]	38.9	22.9	54.8	41.4	17.3	6.4	7.4	13.3	5.8	17.2	12.6	19.2	27.9	52.3	100.0	100.0
Subtotal[3]	21.2	16.1	29.8	27.9	3.1	1.5	1.2	2.9	0.7	2.7	0.8	1.8	2.4	7.9	36.1	37.7
Coal mining and dressing	3.0	2.1	3.0	2.3	0.4	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.3	3.6	2.8
Petroleum and natural gas extraction	2.6	1.8	6.4	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4	6.4	5.9
Ferrous metals mining and dressing	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.3	0.4
Non-ferrous metals mining and dressing	0.4	0.2	0.4	0.2	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.7	0.5
Non-metal minerals mining and dressing	0.3	0.1	0.3	0.1	0.2	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.6	0.4
Tobacco processing	1.5	1.3	1.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.4
Petroleum processing and coking	0.7	0.6	1.7	1.9	0.2	0.1	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.5	2.0	2.5
Smelting and pressing of ferrous metals	3.8	3.6	4.1	4.2	0.7	0.4	0.2	0.7	0.2	0.8	0.1	0.3	0.5	2.0	5.3	6.7
Smelting and pressing of non-ferrous metals	0.9	0.7	1.0	1.1	0.4	0.2	0.1	0.4	0.1	0.5	0.1	0.2	0.4	1.0	1.8	2.3
Transport equipment	2.7	2.0	4.0	4.4	0.8	0.3	0.4	0.8	0.2	0.7	0.3	0.7	1.0	2.3	5.8	6.9
Production and supply of electric power	4.3	3.2	6.3	6.0	0.2	0.1	0.3	0.5	0.0	0.1	0.3	0.4	0.8	1.1	7.2	7.2
Production and supply of gas	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Production and supply of tap water	0.8	0.4	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.5
Subtotal[3]	17.3	6.7	24.6	13.1	13.8	4.8	6.0	10.2	5.0	14.2	11.4	17.1	24.8	43.5	62.4	61.1
Food processing	1.3	0.4	1.6	0.6	0.8	0.5	0.3	0.9	0.4	1.1	0.6	0.6	1.5	2.8	3.9	3.9
Food manufacturing	0.4	0.1	0.7	0.3	0.3	0.1	0.2	0.3	0.1	0.3	0.4	0.5	0.7	1.1	1.8	1.5
Beverage manufacturing	1.0	0.3	1.3	0.6	0.3	0.1	0.1	0.2	0.1	0.2	0.4	0.4	0.7	0.9	2.3	1.6
Textile industry	1.6	0.5	2.2	0.8	1.7	0.4	0.5	1.0	0.5	1.8	0.6	0.8	1.9	3.7	5.8	4.9
Garments and other fibre products	0.2	0.0	0.3	0.1	0.9	0.2	0.4	0.5	0.2	0.7	0.9	0.8	1.7	2.1	2.8	2.4
Leather and related products	0.1	0.0	0.1	0.0	0.4	0.1	0.2	0.3	0.2	0.5	0.7	0.6	1.1	1.4	1.6	1.5
Timber processing, bamboo and related products	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.5	0.6	0.7
Furniture manufacturing	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.5
Papermaking and paper products	0.4	0.2	0.6	0.3	0.5	0.2	0.2	0.3	0.2	0.4	0.2	0.4	0.6	1.1	1.7	1.7
Printing and record medium reproduction	0.4	0.2	0.5	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	1.0	0.8
Cultural, educational and sports goods	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.0	0.2	0.4	0.4	0.6	0.6	0.8	0.7
Raw chemical materials chemical products	2.6	1.1	3.4	2.3	1.1	0.4	0.4	0.8	0.4	1.3	0.5	1.2	1.5	3.4	6.0	6.2
Medical and pharmaceutical products	0.9	0.4	1.3	0.9	0.3	0.2	0.3	0.6	0.1	0.4	0.2	0.3	0.7	1.3	2.3	2.4
Chemical fibre	0.5	0.1	0.5	0.2	0.2	0.1	0.1	0.1	0.0	0.3	0.1	0.1	0.2	0.5	1.0	0.8
Rubber products	0.4	0.1	0.5	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.6	1.0	0.9
Plastic products	0.2	0.1	0.3	0.1	0.6	0.2	0.3	0.4	0.3	0.5	0.6	0.6	1.1	1.6	2.0	2.0
Non-metal mineral products	1.5	0.5	1.9	0.9	1.5	0.6	0.5	0.9	0.4	1.3	0.4	0.5	1.5	2.8	4.9	4.3

Table 2.A2.4. **Breakdown of value added by controlling shareholder and industry**[1] *(cont.)*

	State controlled				Collective controlled		Private controlled								All	
	Direct		All				Legal persons		Individuals		Non-mainland		All			
	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003	1998	2003
Metal products	0.3	0.1	0.6	0.3	0.9	0.3	0.3	0.5	0.3	0.8	0.6	0.7	1.4	2.1	2.8	2.7
Ordinary machinery	1.2	0.6	1.9	1.2	0.9	0.3	0.3	0.5	0.3	1.1	0.4	0.7	1.1	2.3	3.9	3.8
Special purpose equipment	0.9	0.5	1.4	0.8	0.7	0.2	0.2	0.3	0.2	0.6	0.2	0.4	0.7	1.4	2.8	2.4
Electric equipment and machinery	0.9	0.3	1.5	0.6	1.1	0.5	0.8	1.1	0.5	1.3	0.9	1.4	2.4	4.0	5.0	5.2
Electronic and telecom equipment	1.7	1.2	2.9	2.4	0.4	0.1	0.3	0.9	0.2	0.5	2.4	5.5	3.1	7.0	6.4	9.5
Instruments, etc. and office machinery	0.2	0.1	0.3	0.2	0.2	0.0	0.1	0.1	0.0	0.2	0.4	0.6	0.5	0.9	1.0	1.1

1. Missing observations and those with inconsistent data are excluded.
2. Chinese industrial classification codes changed in 2003. The new classification was mapped to the earlier one for comparability.
3. Total does not match sum of subtotals due to exclusion of Weaponry and Ammunition, Other Minerals Mining and Dressing and Other Manufacturing for reasons of national security.

Source: National Bureau of Statistics and joint NBS-OECD analysis.

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ANNEX 2.A3

Employment breakdown

Data for employment come from the labour force survey, benchmarked to the population census.

Table 2.A3.1. **Employment by registration status and establishment type**

	Economy-wide[1]	1998	1999	2000	2001	2002	2003
		Millions of persons employed					
	Total	706.4	713.9	720.9	730.3	737.4	744.3
	Urban	216.2	224.1	231.5	239.4	247.8	256.4
	State-owned	90.6	85.7	81.0	76.4	71.6	68.8
I	Business (estimated)[2]	54.7	49.7	44.9	40.4	36.2	33.2
	Collective	19.6	17.1	15.0	12.9	11.2	10.0
I	Business (estimated)[2]	18.3	15.8	13.6	11.6	9.9	8.7
I	Joint ownership	0.5	0.5	0.4	0.4	0.5	0.4
II	LLC	4.8	6.0	6.9	8.4	10.8	12.6
II	Shareholding	4.1	4.2	4.6	4.8	5.4	5.9
III	Private (registered)	9.7	10.5	12.7	15.3	20.0	25.5
III	HKMT	2.9	3.1	3.1	3.3	3.7	4.1
III	Foreign-funded	2.9	3.1	3.3	3.5	3.9	4.5
III	Cooperative	1.4	1.4	1.6	1.5	1.6	1.7
III	Self-employed	22.6	24.1	21.4	21.3	22.7	23.8
IV	Residual (incl. informal)	57.0	68.4	81.6	91.6	96.4	99.1
	Rural	490.2	489.8	489.3	490.9	489.6	487.9
	TVE[3]	125.4	127.0	128.2	130.9	132.9	135.7
I	Collective	48.3	43.7	38.3	33.7	38.0	*38.8*
III	Private (registered)	26.2	28.5	32.5	36.9	35.0	*35.8*
III	Self-employed	50.9	54.8	57.3	60.2	59.8	*61.1*
III	Private (registered)	7.4	9.7	11.4	11.9	14.1	17.5
III	Self-employed	38.6	38.3	29.3	26.3	24.7	22.6
	Residual (primarily farming)	318.9	314.8	320.4	321.8	317.9	312.1
	Non-farm business sector only			Millions of persons employed			
I	Public sector	73.5	65.9	59.0	52.4	46.6	42.3
	State	54.7	49.7	44.9	40.4	36.2	33.2
	Collective	18.3	15.8	13.6	11.6	9.9	8.7
II	LLC and shareholding	8.9	10.2	11.4	13.2	16.2	18.5
III	Private sector	162.5	173.5	172.6	180.1	185.6	196.6
	Private (firms)	43.3	48.7	56.6	64.1	69.1	78.8
	Self-employed	112.0	117.2	108.0	107.8	107.3	107.5
	Non-mainland	5.9	6.1	6.4	6.7	7.6	8.6
	Total	245.0	249.7	243.0	245.8	248.3	257.5
IV	Memo: undesignated	57.0	68.4	81.6	91.6	96.4	99.1

Note: Roman numerals correspond to aggregates in lower half

1. Figures for employment by ownership from China Statistical Yearbook (CSY, 2004: Table 5-4); except for urban, rural, and overall totals (in italics), that are adjusted by NBS using labour force survey estimates.
2. Excludes government institution and agency employment (CSY, 1999-2004: Table 5-9).
3. Breakdown from township and village enterprise statistics from CSY (2003: Table 12-30).

Source: National Bureau of Statistics and OECD Calculations.

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Chapter 3

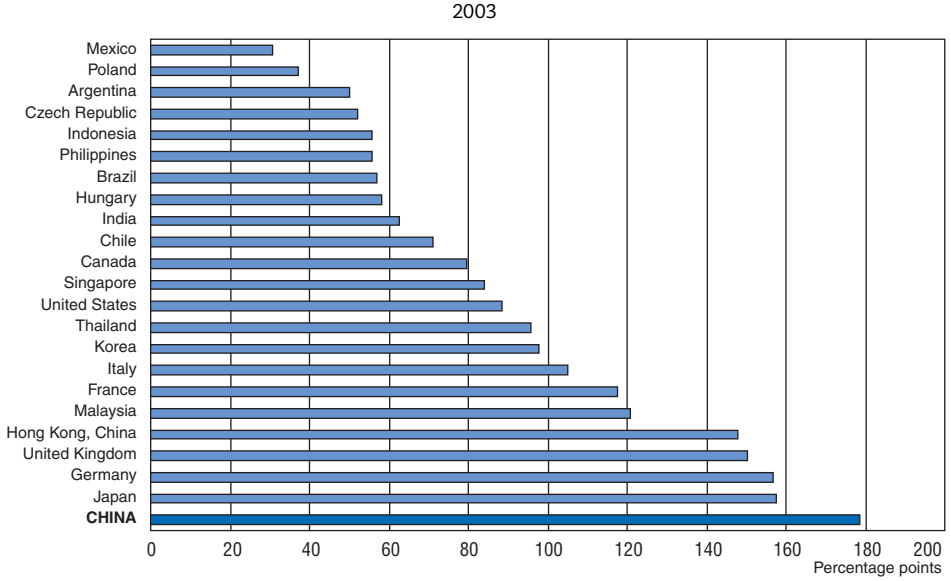
Reforming the financial system to support the market economy

This chapter considers the changes that are needed to the financial system in China before it can adequately serve the growing private sector of the economy and provide diversified saving vehicles for individuals. Much progress has been made toward developing market oriented financial institutions and improving their internal capabilities to assess and manage risks and the stock and government bond markets have been developing rapidly. The basic institutions for an effective regulatory system have been put in place, and regulatory authorities are making good use of international standards and practices in their policies. Going forward, financial reform involves five main and related challenges. The first is to deal with the legacy of the banking system: a very high stock of non-performing loans and low capitalisation. The second is to reform the structure of the banking system so that it can better support the real economy. The third is to further develop the capital markets and foster the growth of institutional investors. The fourth, and ultimately the most important, is to strengthen the ability of financial institutions to behave commercially and manage risks prudently, while the fifth is to continue improving the supervisory structure so that systemic risks are contained. These issues are all the more daunting given that the business environment is still evolving away from a state administered towards a market economy.

A financial system that is developing rapidly but still lags the real economy

After 25 years of reform, China's financial system comprises a mixture of elements ranging from the highly modern to vestiges of the central planning era. Financial deepening, measured by the ratio of domestic credit to GDP, is relatively high compared to most developing economies and indeed OECD countries (Figure 3.1). This deepening reflects China's high level of savings but also the relative absence of alternatives to the formal banking system in gathering most savings.

Figure 3.1. **An international comparison of domestic credit**



Source: IMF, International Financial Statistics.

Many of the features of China's financial system are typical of developing countries generally. Most credit in the economy is extended through financial institutions. Capital markets are much less important, although the portion of funds raised through foreign direct investment (12.5% for non-financial businesses in 2003 and nearly 20% in 2002) is comparatively high. Loans from financial institutions accounted for 76% of the funds raised by non-financial businesses in 2003, and 93% of those from domestic sources (Table 3.1). More than in many emerging economies, commercial banks (comprising the four State Owned Commercial Banks, the Joint-Stock Banks, the City Commercial Banks and the foreign banks) dominate the financial institutions sector (Table 3.2), accounting for almost three-quarters of total assets, with rural credit cooperatives, the next largest segment, accounting for slightly less than 10%.[1] Institutional investors, notably insurance companies, securities investment funds and particularly pension funds, are in an early stage of development although they are growing rapidly. Financial instruments for long-

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Table 3.1. **Funds raised in the domestic economy**

in RMB Billion	*Item No.*	Domestic non-financial sectors[1]				*of which:* Non-financial corporations			
		1998		2003		1998		2003	
		Sources	*Shares*	Sources	*Shares*	Sources	*Shares*	Sources	*Shares*
Total Funds Raised	*1*	1 920	*100.0*	4 261	*100.0*	1 354	*100.0*	3 120	*100.0*
Deposits and currency	*2*	0	*0.0*	0	*0.0*	0	*0.0*	0	*0.0*
Loans	*3*	1 099	*57.2*	2 886	*67.7*	1 015	*74.9*	2 374	*76.1*
Securities	*4*	579	*30.2*	701	*16.5*	88	*6.5*	180	*5.8*
Bonds	*4a*	496	*25.8*	557	*13.1*	4	*0.3*	36	*1.1*
Shares	*4b*	84	*4.3*	144	*3.4*	84	*6.2*	144	*4.6*
Foreign Direct Investment	*5*	362	*18.9*	390	*9.1*	362	*26.7*	390	*12.5*
All others and errors and omissions[2]	*6*	–120	*–6.3*	284	*6.7*	–110	*–8.2*	176	*5.7*

1. The domestic non-financial sectors are the sum of the government, household and non-financial corporations sectors.
2. Includes errors and omissions and other categories not explicitly indicated in this table.

Source: The People's Bank of China Quarterly Statistical Bulletin.

Table 3.2. **Assets of the financial system**

Domestic claims in local and foreign currencies

	Number of institutions[1]	Total assets		Share of total assets	
		CNY billion		Per cent	
	2004	2004	2003	2004	2003
Commercial banks	195	23 917	20 870	71.1	71.8
State Owned Commercial Banks	4	16 932	15 194	50.3	52.2
Joint Stock Banks	12	4 697	3 817	14.0	13.1
City Commercial Banks	112	1 706	1 462	5.1	5.0
Foreign Banks	67	582	397	1.7	1.4
Policy Banks	3	2 412	2 125	7.2	7.3
Rural Credit Cooperatives and Rural Commercial Banks	33 142	3 133	2 689	9.3	9.2
Urban Credit Cooperatives	681	179	147	0.5	0.5
Other financial institutions[2]	378	4 021	3 256	11.9	11.2
Postal Savings Bank	1	1 080	898	3.2	3.1
Trust and Investment Companies[3]	59	278	218	0.8	0.7
Finance Companies	74	585	496	1.7	1.7
Insurance Companies	69	1 185	912	3.5	3.1
Fund Management and Securities Companies[4]	175	893	732	2.7	2.5

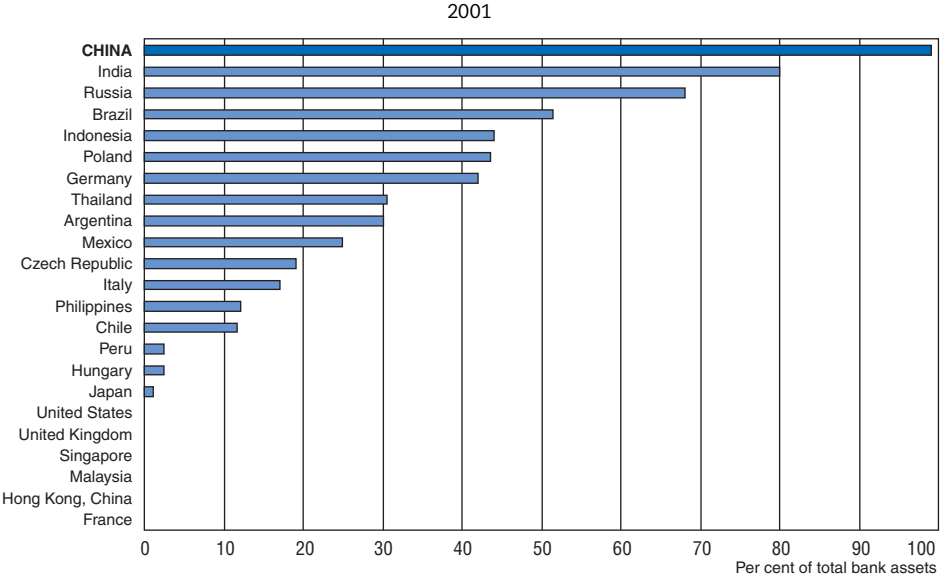
1. For foreign banks, the number of institutions refers to the number of distinct parent institutions. These institutions own a total of 211 subsidiaries and operating branches.
2. Other financial institutions exclude 15 domestic leasing companies for which figures on total assets are not available.
3. Figures include 45 fund management companies and 130 securities companies.
4. Data for Trust and Investment Company include their own assets and entrusted funds.

Source: Banks and credit cooperatives: China Bank Regulatory Commission submission and web site for 2003. Postal Savings Bank: Almanac of China's Finance and Banking and a press report for 2004. Trust and investment companies: China Bank Regulatory Commission. Finance companies: China Bank Regulatory Commission. Insurance companies: China Insurance Regulatory Commission. Fund Management and Securities Companies: China Securities Regulatory Commission and a submission from the Ministry of Finance for 2004.

term savings and for managing liquidity and risk are quite limited compared to more advanced economies. Rural and urban credit facilities are distinct, and have if anything become even more so as a result of the withdrawal of the branches of the four major banks from townships earlier in this decade.

The extent of state ownership in China's financial system is exceptional. All but one of the major commercial banks are controlled by central or local governments, as are virtually all smaller commercial banks. The banking sector is also relatively concentrated: although their share of total assets has been declining, the four largest banks, wholly owned by central government and known as the state owned commercial banks (SOCBs), still account for almost three-quarters of commercial bank assets. Most other domestic financial institutions, including the major life insurance companies and the majority of trust and investment companies and securities companies are also owned or controlled by local governments. The main exception is the foreign financial institutions sector, whose overall share of their respective markets is small. Thus the privatisation trend observed in the most of real economy has been virtually absent in the financial sector. This stands in stark contrast to other emerging economies, where state ownership of financial institutions has been declining over the past decade (although this was interrupted in some by the 1997 Asian crisis) and in the majority of cases is below 50% in the banking sector (Figure 3.2).

Figure 3.2. **An international comparison of the share of the assets of state-owned banks in total bank assets**



Note: A bank is considered state-owned if the government owns half or more of the share capital.
Source: Worldbank's Barth, Caprio and Levine database.

Government control and a dominant focus on SOEs have traditionally characterised the system

The high degree of state ownership of financial institutions has been accompanied by a dominant emphasis on lending to state owned or controlled enterprises (SOEs) while non-state enterprises have poorer but growing access to external credit (OECD, 2000; OECD, 2002b). The four SOCBs are particularly heavily concentrated in lending to SOEs, while joint stock and city commercial banks are somewhat more oriented toward non-state

enterprises. The capital markets are even more the preserve of state enterprises: nearly all of the currently listed companies were state controlled at the time of their initial public offering;[2] and non-state enterprises are also virtually excluded from the corporate bond market.

Important vestiges of the central planning era remain in the formal relations between the government and the financial system. Traditionally, SOCBs have functioned as government agencies whose principal mandate was to support government economic and social objectives. The chief executives of the head offices of the SOCBs are government appointed and the party retains significant influence in their choice. Moreover, the traditionally close ties between government and bank officials at the local level have created a culture that has given local government officials substantial influence over bank lending decisions.[3]

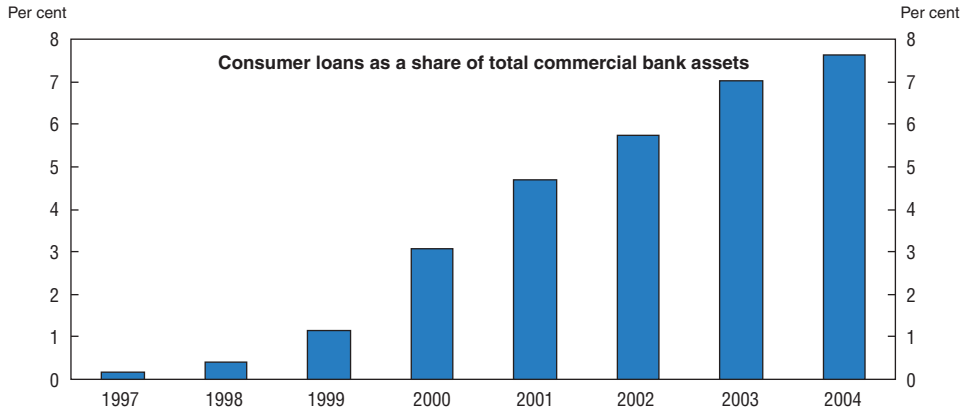
While effective in gathering savings, China's financial system, has been seriously weak in other key aspects of its functioning-, due largely to its central planning legacy. There has been widespread and extensive inefficiency in the allocation of credit, as manifest in the high level of non-performing loans. This reflects a traditionally weak credit culture, in which lending institutions had limited incentives and ability to assess and enforce rigorous credit standards while state backed borrowers were often able to avoid repaying their debts. Financial discipline has also been uneven, with smaller SOEs and non-state enterprises often facing harder lending standards than large SOEs. Limited financial outlets other than banks have contributed to burdensome debt loads of businesses and make the payments system more vulnerable to credit risk than it would be in a more diversified system. Partly because of their relatively early stage of development but also because of government-imposed restrictions, facilities and instruments for business reorganisation, such as mergers and acquisitions, are still limited and constrained. The rapid ageing of the population, the growing international exposure of many Chinese businesses and other rapid changes are increasing the need for more sophisticated financial products that the system is not yet able to provide.

The system is rapidly changing but important vestiges of the past remain

China's financial system has progressed considerably toward the market economy since the 1990s, and the changes are becoming increasingly rapid and self-reinforcing (Xie, 2001). Competition in the banking sector has risen markedly as the SOCBs have moved away from their traditional specialisation and as the joint-stock banks have developed. As discussed further below, credit quality appears to have improved significantly and accounting practices and internal systems for managing risk are rapidly becoming modernised. Activities that hardly existed a decade ago, notably home finance and consumer credit, have become important business lines and are growing very rapidly. (Figure 3.3) The regulatory authorities have taken a number of steps to reduce interference by local governments in operations of bank branches. The financial regulatory system has been extensively reformed and modernised, and its practices have been brought substantially in line with international norms. The stock and government bond markets have developed impressively since the early 1990s.

However, as rapidly as the financial system has been evolving, the real economy has been changing even more rapidly and this has aggravated some traditional problems. Although lending by SOCBs and other banks to non-state enterprises has been growing rapidly, private enterprises still seem to have less access to credit than

Figure 3.3. **Consumer lending**



Source: China Economic Information Center.

SOEs. The joint OECD-China National Bureau of Statistics empirical study discussed elsewhere in this Survey indicates that in the outstanding borrowing from all sources of industrial sector private companies amounted to 45% of the total borrowing of that sector although they account for 59% of sector value-added.[4] The situation does appear to be changing as these companies received 67% of the increase in outstanding borrowing by the industrial sector between 1998 and 2003. Nonetheless, small and medium sized businesses, which account for more than half of GDP, receive less than 10% of total bank loans (PBC, 2004).

Smaller private companies rely significantly on informal finance. Survey data indicates that domestic private companies, including the very small companies, have low debt equity ratios, supporting the view that they have limited access to credit (Table 3.3). Indeed 40% of such companies have no debt. The very smallest private industrial companies and private service sector companies rely extensively on informal credit. Over 90% of the private firms had difficulty in accessing bank credit, though large firms had fewer problems. Over half of the respondents named their lack of collateral as a major barrier to bank borrowing though one-fifth considered outright discrimination as an important factor. Considerably fewer firms felt interest rates or stringent loan requirements were a reason for not borrowing (Box 3.1). The informal sector also accepts receivables as collateral, which may help explain why some larger firms rely exclusively on the informal market for external finance.

While commercial banks are now free, in principle, of the obligation to extend policy loans that would not satisfy strict commercial criteria, various indications, including the continued operation of large numbers of chronically loss-making SOEs, suggest that bank lending remains influenced by non-commercial policy considerations to some extent. The National Development and Reform Commission continues to regulate issues on the corporate bond market and to apply officially formulated industrial policy criteria. Fundamental changes in the functioning of the financial system continue to be impeded by unresolved issues concerning the extent of state ownership of businesses and property rights, and by the extensive financial problems of banks and other intermediaries.

Table 3.3. **Use of credit by domestic private sector companies**

	Size category (Sales volume, CNY million)						
	0-1	1-3	3-10	10-20	20-50	50+	All
	Per cent of firms						
Extent of access to borrowing							
No credit	54.2	43.4	39.5	36.1	28.6	42.4	41.1
Credit	45.8	56.6	60.5	63.9	71.4	57.6	58.9
Bank finance only	13.8	23.3	28.3	34.8	43.7	36.1	29.3
Informal finance only	20.2	18.3	15.0	11.6	9.6	7.6	14.0
Bank and informal finance	11.8	15.0	17.2	17.5	18.0	13.9	15.6
	Per cent of equity						
Firms with any borrowing							
Manufacturing	51.8	32.3	36.5	39.9	36.5	28.9	32.5
Services	43.6	40.9	49.9	30.3	63.8	31.1	39.9
All	47.6	36.9	38.8	36.6	43.8	29.5	34.7
	Per cent of total borrowing						
Share of informal borrowing in total borrowing							
Manufacturing	23.3	24.3	19.5	26.4	9.4	3.9	17.6
Services	44.2	35.1	8.7	12.1	11.6	8.7	21.4
All	35.7	28.2	15.6	20.9	10.3	6.3	10.9
	Per cent						
Pre tax rate of return on equity	6.1	10.6	11.5	15.1	16.6	15.5	14.8
Investment relative to (previous year) equity plus debt minus investment	11.8	19.8	24.8	29.9	32.0	30.6	29.0
Proportion of firms in each size group	14.5	18.7	25.3	12.3	12.6	16.7	100.0

Note: Sample size is 2 460 companies (with available data).

Source: University Service Centre of the Chinese University of Hong Kong.

Resolving the burdens from the past

By the late 1990s, it was evident that much of China's financial institutions sector was effectively insolvent. A large portion, by some unofficial estimates as much as one-half or more, of the outstanding loans of the SOCBs had become non-performing (although they were not yet fully recognised at that time),[5] the balance sheets of many city commercial banks were reported to be in nearly as bad condition and even the more market-oriented joint-stock banks had NPL ratios ranging from 10 to 20% (OECD, 2002a). Rural credit cooperatives had also accumulated large amounts of NPLs, with some unofficial estimates suggesting their NPL ratios (based on the traditional classification system) were comparable to those of the SOCBs. The high level of non-performing loans were partly the result of conditions outside the banks' control, notably the problems of many of their SOE customers, outside interference, particularly by local governments, in bank lending decisions, and the limited legal or other means available to banks to enforce loan agreements. However weaknesses in banks own internal loan assessment and risk management systems and poor corporate governance were also important contributors to the problems. China's antiquated loan classification system, in which loans even to obviously insolvent enterprises were treated as performing as long as payments were not overdue, tended to obscure and understate the extent of the problem. Financial

Box 3.1. **China's informal financial markets**

As with other Asian emerging economies, China has substantial informal financial facilities that operate outside of the formal regulatory frameworks. Although they have existed throughout the reform period, growth in informal financing has been stimulated in recent years by the difficulties of SMEs and farmers in getting credit from the formal sector.

At the end of 2003, the size of the informal financial sector stood between CNY 740-830 billion according to the first nationwide survey on informal finance in 20 provinces (Central Finance University of China, 2005). While in absolute terms Guangdong province and Wenzhou City in Zhejiang province have the largest outstanding stock of informal finance (CNY 500 and 150 billion, respectively), the highest shares of informal finance in total finance are found in northeast provinces of Heilongjiang and Liaoning, at around 30%. The survey indicates that in the least developed western provinces, over 60% of SME financing comes from informal sources (sometimes over 70%) while in coastal areas the corresponding share is 30%. Informal finance is particularly important in rural areas, where it supplies the bulk of credit to farmers.*

Informal lending can take various forms: funds can be lent by individual money lenders, enterprise mutual lending networks, pawnshops or underground financial organisations such as the *hehui,* the *biaohui* or the *taihui*. The customers and hence the type of lending differ between northeast and south. In the south (defined as the area south of the Yangtze River) informal finance is demand driven by the dynamic private economy (many consider these informal finance institutions as future private banks) and the People's Bank of China regularly reports the interest rates on such loans, which stood at 12% at end 2004. In the northeast, where the private economy is less developed, the most common form is re-lending by SOEs to members of firm associations, the so-called *duifeng*. The member pays 10% interest on the amount borrowed and pledges inventories as a way to address the risk of non-repayment. Members can borrow only once or twice a year, the maximum amount is CNY 1-2 million and most loans are for 3-months or 6-months. In rural areas, similar revolving credit systems exist with interest rates being set by competitive bidding by participants.

While many informal financial associations such as the rotating savings association-type *hehui,* the *biaohui,* the *taihui* or the *duifeng* are illegal as they charge usury interest and are hard to control, some forms of informal lending are accepted and enjoy legal protection. Borrowing by private enterprises from individuals is accepted as long as it is done from specified individuals rather than from the general public and legal protection is extended up to an interest rate equal to four times the rate charged on comparable bank loans. Many banks commission loans between private firms and individuals and collect the commission fee in return for monitoring the loan. Small firms in urgent need for short-term loans often borrow from pawnshops.

Informal financial facilities pose dilemmas for China's financial regulatory authorities. Such facilities can (and have on a number of occasions in the past) lead to abuses that the government is forced to deal with. However, suppression of informal markets also sacrifices their benefits, particularly by shutting out legitimate borrowers who lack access to banks or other formal institutions. The Chinese authorities have sometimes sought, as they did in the late 1990s with informal stock exchanges, to transform informal facilities into formal financial outlets. In other cases, informal financial facilities that do not take deposits nor commit abuses appear to have been allowed to operate outside of formal regulation in recognition of the useful role they play. Authorities are also making efforts to ensure that smaller borrowers are better informed about the services they can obtain from banks and other formal financial facilities. Ultimately, development of the formal financial system and removal of unnecessary and distorting regulatory barriers are likely to be keys to ensuring that informal markets do not compromise other legitimate objectives.

* In 2001, the agricultural sector received about 5% of total loans from the financial sector, about one-third of its contribution to GDP. Rural enterprises received a further 5% of total loans, but again this is below their overall contribution to GDP.

institutions' low capital adequacy ratios – typically well below the BIS minimum of 8% even by official figures – and very limited loan provisions, were wholly inadequate to deal with the losses entailed by the non-performing assets. Financial institutions were further handicapped by their relatively low, in some cases zero or even negative, profitability. The Chinese authorities started tackling some of these problems beginning in the mid 90s and made some progress in dealing with them (see Box 3.2).

Box 3.2. **Initial efforts to solve the banking crisis**

Initial efforts led to some improvement

In their first attempts to deal with these problems, the Chinese authorities put in place a strategy to deal with bank balance sheets in a phased manner over time while bolstering efforts underway since the 1995 banking act to improve lending standards and the accountability of bank management. The authorities injected fresh capital into the SOCBs in 1998 (and subsequently provided funds to help JSBs improve their balance sheets, in some cases in preparation for listing on the stock exchange) and, in 1999, transferred CNY 1.4 trillion of NPLs originated before 1996 to the four newly created bank asset management companies. However the SOCBs were held responsible for dealing with NPL incurred after 1996 from their own resources. To improve banks' internal loan assessment and monitoring capabilities, a new five part loan classification more in line with international standards began to be introduced on an experimental basis, loan officers were made individually responsible for new NPLs incurred under their tenure, and SOCB Presidents were held responsible for achieving government mandated targets for reduction in the ratio of NPLs they retained. The authorities repeatedly emphasised that there would be no further bailouts. Listing – of the remaining JSBs and ultimately the SOCBs – was set as the ultimate goal that would firmly establish the banks as sound commercially oriented institutions.

These efforts yielded some important successes. The financial conditions of the JSBs have improved markedly and most now have NPL ratios below 5%. Overall credit quality improved significantly. All of the SOCBs (and earlier the JSBs) had implemented the new five-part loan classification system by 2003 and the transparency and extent of disclosure of their financial conditions and operations contained in the 2002 and 2003 Annual Reports were a marked improvement over the past.

Nevertheless, the strategy turned out to be insufficient to accomplish its ultimate goals. By official estimates based on the old classification system, the NPLs left with the SOCBs were still more than 25% of their total loans at the end of 2002 (Table 3.4). Until fairly recently, SOCBs made only limited progress in reducing the level of their NPLs due to the low level of their own profits together with tax disincentives to increased provisions and Ministry of Finance constraints on the banks' ability to write off loans. Most of the reduction in NPL ratios of the SOCBs achieved between 1999 and 2003 was due to increases in their loans.[6] It became clear that SOCBs would not be able to restore their solvency on their own for many further years or be ready for listing, and then only if their loans continued to grow more rapidly than GDP.[7] With no capital of their own at risk, the reforms to internal controls rested more on government fiat than on improved internal incentives. The financial distress of CCBs and RCCs remained severe.

Table 3.4. **Non-performing loans and capital adequacy of banks**

	2004	2003	2002	2001
	Five part classification		Old classification	
	Per cent			
Non-performing loans ratio				
State owned commercial banks	15.6	20.4	26.1	31
Joint stock banks	4.9	7.9	11.9	. .
City commercial banks	14.1[1]	15.0[2]	. .	. .
	CNY billion			
Non-performing loans level				
State owned commercial banks	1 575	1 917	2 077	. .
Joint stock banks	142	188	202	. .
City commercial banks	119[1]	116	. .	. .
	Per cent			
Memorandum:				
Capital adequacy ratio				
State owned commercial banks	6.8[1]	6.7	5.2	5.4
Joint stock banks	7.6[2]	7.4	. .	. .
City commercial banks	. .	6.1	. .	. .

1. End-June.
2. End-September.

Source: China Bank Regulatory Commission for NPL ratios and level figures for SOCBs and JSBs in 2002-2004. Other figures are taken from alternative sources.

Recent reforms have improved prospects but risks remain

Beginning in 2003, the authorities have taken a more comprehensive approach to putting SOCBs on a firm financial footing that represents a significant improvement over the earlier approach in several respects. The major step was the injection of USD 45 billion of government funds into the capital base of two "pilot" SOCBs, the Bank of China and China Construction Bank, announced at the end of 2003. This injection together steps taken earlier and afterwards by the banks themselves and sales of NPLs to the asset management companies, financed in part by the central bank, has restored their financial solvency, if to a minimal level. The NPL ratios of the Bank of China and China Construction Bank had fallen to 5.16% and 3.74% respectively by December 2004, and provisions against the remaining impaired loans had been increased considerably. The capital ratios of the two banks, along with those of 28 other banks (mainly JSBs and some CCBs), have been increased to 8% or in some cases above. The capital of the two pilot banks will be further bolstered by issues of subordinated debt.[8] The authorities have also made more effective use of conditionality by indicating that the initial capital injections, and first stock exchange listings, would go to those banks making the most progress in their own efforts to clean up their balance sheets and further improve their internal controls. This has spurred major efforts to write-off loans by the two pilot banks and considerable progress at the largest of the SOCBs (the ICBC). The government provided a USD 15 billion capital for the ICBC in April 2005 and intends to turn the bank into a corporation in the not too distant future. Finally, the authorities have made some changes to regulatory provisions and practices to give banks greater freedom and incentives to write down or sell off non-performing assets.[9]

Prospects for the banking sector as a whole have become brighter as a result of noticeable increases in their operating income and progress toward improving their cost structures. The operating income before provisions of the two pilot SOCBs more than doubled between 2000 and 2003 and rose a further 20% in the first 3 quarters of 2004, and has also increased substantially amongst other banks (Table 3.5). The increase was due mainly to a rise in net interest income, as fee and commission income remain relatively low. The SOCBs also continue to make aggressive efforts to cut costs, having reduced their workforces by nearly 250 000 (by roughly one-sixth) over the past four years, and have invested heavily in computer systems and other modern infrastructure. The profitability of all banks has been further boosted by the progressive lowering of the business tax from 8% to 5% during 2000-2003. However despite these positive developments, the profitability of Chinese banks has generally been low by international standards (Table 3.A1.1) and SOCBs are noticeably less profitable than most JSBs.[10]

Table 3.5. **Bank income and profitability**

	All State Owned Commercial Banks	Agricultural Bank of China	Bank of China	China Construction Bank	Industrial and Commercial Bank of China	Five Joint Stock Banks
	CNY Billion					
Profits before tax						
2000	43.9	6.3	17.2	15.1	5.3	4.1
2002	44.5	8.0	17.2	9.6	9.7	7.3
2003	28.9	6.8	13.6	5.9	2.7	9.5
Net interest income						
2000	210.1	40.1	53.3	50.1	66.6	9.2
2002	256.6	52.8	54.1	65.0	84.8	15.7
2003	303.6	61.8	64.4	79.0	98.5	24.0
Operating income before provisions[1]						
2000	74.1	6.5	40.5	21.8	5.3	6.3
2002	123.0	16.5	36.0	35.0	35.5	18.0
2003	166.8	22.8	45.1	49.0	50.0	24.4
	Per cent					
Return on assets, before tax						
2000	0.38	0.28	0.54	0.64	0.14	0.70
2002	0.32	0.29	0.49	0.33	0.21	0.59
2003	0.25	0.21	0.36	0.18	0.05	0.56
Return on assets before provisions and tax[1]						
2001	0.73	0.27	1.05	1.06	0.55	0.51
2002	0.87	0.55	1.03	1.14	0.78	0.40
2003	. .	0.65	1.17	1.48	1.00	0.38
Memorandum:						
Fee and commission income/net interest income						
Per cent						
2000	9.53	2.09	23.47	4.47	4.80	3.94
2002	9.62	3.78	22.05	6.32	6.05	4.13
2003	. .	5.04	19.87	6.00	. .	4.01

1. For some of the joint-stock banks, provisions may have been deducted and so figures are not precisely comparable

Source: Annual reports of the individual banks and OECD calculations.

Important as is the progress that has been made, there remains much to be done before the SOCBs can be said to be financially healthy. Most of the remaining bad loans are with the two banks that have not yet been converted into companies. The ICBC NPL ratio was nearly 19% at end 2004 while that of the ABC was 27%. Furthermore, emerging economy banks usually need to have significantly higher capital adequacy ratios (CARs) than the BIS minimum to deal with a higher level of risk in their economies. Banks in most other Asian emerging economies typically have CARs above 10% for this reason. Accordingly, the SOCBs along with the JSBs and CCBs are likely to need to raise their capital ratios further over the next several years.

Moreover, the SOCBs face two major risks to the progress they have made to date. The first is the possibility that more of the loans that were made prior to the most recent reforms will turn out to be non-performing. Special mention loans (those that are performing but whose borrowers are subject to circumstances that could threaten their full repayment in the future) for the CCB are still 13% of their total loans, while special mention loans for the BOC rose to 19.8% at the end of 2004 compared to 14.6% at the end of 2003.[11] Outside analysts at several rating companies (which have access to loan book data of the Chinese banks that are their customers) have suggested that NPLs of the SOCBs could be as much as twice as high as officially estimated.[12]

The second serious risk concerns the incidence of non-performance on recent and future lending. The major banks estimate that less than 2% of loans made since 1999 have since become non-performing. But the ultimate incidence of non-performance could be higher, in part because average loan maturities have increased and because banks may be rolling over loans to troubled SOEs. Moreover, even with greatly improved credit assessment tools, credit booms of the magnitude of that experienced in 2002 and 2003 have often led to a subsequent increase in the incidence of NPLs in other countries.[13]

The banks are also likely to need greater capabilities to resolve the NPLs that remain on their books. Until now, nearly the entire burden of disposing of non-performing assets has fallen to the four bank asset management companies. By mid-2004, these companies had dealt with nearly 45% of the book value of assets acquired in 1999 with a cash recovery rate of nearly 20%, a record that represents a slower workout process and lower recovery rate than in some other Asian emerging countries that experienced crisis in 1997, notably South Korea (Fung *et al*., 2004). SOCBs transferred the NPLs to the asset management companies at book value and have had little role in their recovery. Now, however, the pilot SOCBs (and in principle other banks) must deal with any NPLs that remain on their books. Constraints on bankruptcy proceedings and other obstacles greatly limit banks' ability to recover NPLs loans directly from the borrower and banks have also been severely restricted in their ability to sell off assets directly to outside investors. Authorities appear to be relaxing these restrictions, having recently authorised the BOC and CCB to auction off a modest portion of their non-performing assets to the public.[14] Consideration may also have to be given to more active measures to encourage delinquent business borrowers to reach agreement with banks on debt restructuring.

In addition to the SOCBs, the authorities are facing the task of resolving substantial financial problems in other key segments, notably the RCCs and CCBs.[15] The most serious are those of the RCCs, whose NPLs were 23% of their loans at the end of 2004. As discussed later in this section, the government has given high priority to reforming the RCCs but the efforts so far have sometimes been impeded by inadequate financial resources of provincial and lower level governments. The central government may need to take on more

of the burden in order to ensure that the problems of RCCs, as well as those of the CCBs, are resolved more quickly.

Overall, the financial problems of the banking sector have been significantly reduced by the recent reforms and, as indicated in Chapter 1, they do not presently pose a serious risk to the government's fiscal solvency. Nevertheless, the substantial additional cost the government may have to bear as a result of the problems of banks and other financial institutions that remain to be recapitalised underscores the critical need to contain future NPLs.

Improving the structure and capabilities of the banking system

Restoring the financial solvency of banks is a necessary but not sufficient condition for improving the capabilities of the financial system to support the development of the real economy. There needs to be a greater role for those banks and other lenders that are better suited to serve private businesses, particularly SMEs. Banks' abilities to assess and price the risks involved in lending to these businesses need to be improved and supporting institutions need to be developed. Addressing the problems in the rural credit system is likely to require even more extensive reforms.

The banking sector needs to be diversified

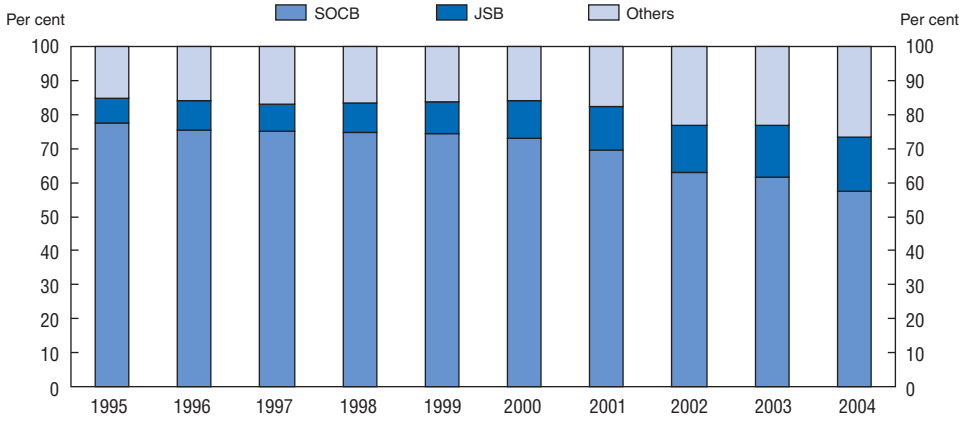
A banking system in which SOCBs are as dominant as they are now *and* remain in their present form is unlikely to be able to adequately serve the needs of China's private businesses. Despite efforts to improve SME financing within the SOCBs, their business strategies – not surprisingly in view of their heritage – continue to be focused on lending to larger enterprises, while expanding credit in newer areas, noticeably housing and consumer credit, where profit margins are relatively high and their nationwide presence and large urban branch networks give them an advantage. In contrast, the JSBs and CCBs are already more oriented toward SMEs and over the longer-term should have greater incentives to develop the specific knowledge of individual smaller business customers that are needed for SME lending.

There has been a moderate decline in the SOCB share of commercial bank assets, from 76% of depository institution loans to non-financial sectors in 1998 to just under 60% of the total in 2004 (Figure 3.4). The largest part of this reduction is due to the growth in assets of the JSBs, whose share of loans more than doubled (from 6.1% at the end of 1998 to 15.1% in mid-2004).[16] The growth of the JSB segment is one of the most positive developments for the overall competitiveness of the banking sector in recent years. However, although permitted nationwide scope in their operations, most of the JSBs have a heavy focus on coastal provinces and, with the exception of a few, have much more limited presence in interior provinces.

Although still considerably smaller in size than the JSBs or SOCBs, CCBs have also been growing rapidly in recent years.[17] Despite their strictly regional scope, these banks have considerable potential to further improve competition and enhance the effectiveness of the banking system as whole. Several of these banks, such as the Bank of Shanghai and the Bank of Nanjing, have achieved a scale rivalling that of some of the JSBs. Among the commercial bank segments, CCBs are the most focused on SME lending (which accounts for nearly 70% of their business loans) and are likely to be particularly important to improving access of SMEs to credit in interior provinces.

The financial conditions, performances, and capabilities of the CCBs to operate commercially vary widely and will need to improve if they are to realise their potential. In November 2004, the CBRC issued a set of regulations for the CCBs aimed at strengthening

Figure 3.4. **Distribution of the assets of deposit money banks by type of bank**



Note: Significant changes were made in the coverage of the data in 2002. Prior to that date, the data for state-owned commercial banks includes three policy banks but after 2001 it includes only one. Foreign banks were excluded from the data before 2002. In addition, some assets were shown on net basis prior to 2002, but on a gross basis afterwards. As a result, the shares in 2001 and earlier and those for 2002 and after are not comparable.

Source: The People's Bank of China Quarterly Statistical Bulletin.

their regulation, improving their business capabilities, and facilitating their recapitalisation where necessary. The authorities are encouraging local authorities to further diversify the ownership of these banks, aimed partly at diminishing local government interference in their lending decisions. However although the banks have access to the inter-bank market, the regulatory restriction of their lending and deposit-taking to the city in which they are established remains an important constraint on their development, as well as on competition within the banking system as a whole. The authorities' reluctance to abolish the restrictions stems in part from concern that the CCBs will take on excessive risks, although there are recent reports that they are now drafting rules that would allow the banks to branch into other cities at some point.[18] A phased policy of allowing them nationwide scope, conditioned on improvements in their governance, management, and internal controls, could provide a strong impetus to their reform, thereby helping realise their potential.

Foreign banks can make important contributions

Experience so far suggests that the market impact of foreign banks may be more limited than many observers thought before China entered the WTO.[19] The authorities have been gradually relaxing restrictions on foreign bank activities in line with China's WTO agreement. However, the foreign banks' share of the loan market has changed little since 2001 and the profits of domestic banks have risen more rapidly than they did in the several years before entry. Foreign banks have generally proceeded cautiously in expanding their China business, and have not sought to appreciably expand their domestic currency lending to businesses, which have high borrowing ratios and lack financial transparency. This, together with the strong relations of domestic banks with businesses, suggests that the foreign banks' share will stay fairly modest, more in line with the pattern in other Asian emerging economies (where foreign banks' share of the market is usually 10% or less) and well below that found in some Eastern European and Latin American countries, even if some gain may occur as they are allowed to expand the geographic scope of their activities and gain better access to Renminbi funds (Table 3.6).

Table 3.6. **Foreign Banks' share of the banking market**
2003

Country	Share (per cent)
China[1]	2.0
Korea[2]	6.6
Hong Kong, China	33.0
Chinese Taipei	7.5
Malaysia	24.4
Thailand	10.3
Indonesia	6.6
Brazil	20.7
Mexico[2]	17.3
Czech Republic[2]	48.3
Poland[2]	68.8
Russia	8.1

1. Refers to 2004.
2. Refers to 2001.

Source: National statistics and OECD *Bank Profitability*.

Experience in other countries indicates that foreign banks can contribute significantly to the development of domestic banking systems, by increasing competition, transferring technology, and improving human capital (Ferri, 2003; Matheison and Roldes, 2001), and the record in China thus far seems consistent with that experience. The prospect of greater competition with foreign banks has been an important motivation behind the efforts of the larger domestic banks to improve their products and raise their efficiency (Bhattasali, 2004). Foreign banks are making further positive contributions to the domestic banking system in China through their investments and alliances with domestic banks. Foreign financial institutions have taken equity interests in more than ten Chinese joint stock and city commercial banks (Table 3.7) and a number of further deals are in progress or rumoured. While the investments are aimed in large part at facilitating expansion of the

Table 3.7. **Foreign investments in Chinese Banks**

Chinese company	Foreign Investor(s)
Initiated or completed prior to 2003	
China Everbright Bank	IFC
Bank of Shanghai	International Finance Corporation; HSBC
Nanjing Commercial Bank	International Finance Corporation
Minshen Bank	International Finance Corporation
Xian City Commercial Bank	International Finance Corporation; Scotia-Bank
Shenzhen Development Bank	Newbridge Capital
Shanghai-Pudong Development Bank	Citigroup
Initiated or completed in 2003-2004	
Bank of Communications	HSBC
Jinan City Commercial Bank	Commonwealth Bank of Australia
Bohai Bank (private- Tianjin)	Standard Chartered Bank
Industrial bank of East China (Fujian)	Hang-Seng bank

1. List includes investments that have been completed or approved and does not include a number of deals that have been reported, such as the preliminary agreement for ING Group to invest in the Bank of Beijing announced in March 2005.

Source: CBRC.

foreign investor's activities (for example Citibank's credit card business joint-venture with Shanghai Pudong Bank), they have brought outside expertise to the boards of directors of several joint-stock banks as well as afforded access to new technologies and business methods to their Chinese affiliates.

Other steps will be needed to improve access by smaller private enterprises

A more diverse array of banks is important but not sufficient to ensure that SMEs have adequate access to credit. Limited information, lack of collateral, high risk, and transactions costs make SME finance difficult in all countries. As highlighted in a recent survey, private firms in China face all of these problems and they have been further aggravated by ambiguities over private property rights and the added conservatism in bank lending policies arising from high NPLs. As elsewhere, ensuring adequate SME finance requires a range of measures, not only to improve the capabilities of lenders but also to provide supporting facilities to help them bear the risk and acquire the necessary information. Equally important, SMEs themselves need to improve their performance so that they become more creditworthy than they are now.

Collateral or loan guarantees, or both, have become an essential precondition for most SME lending in China.[20] Local governments have been organising dialogues between financial institutions and SMEs that have produced a series of arrangements that are innovative for China such as providing collateral through pledged inventory, VAT refunds, fixed assets, bank drafts or receivables, and by the provision of unlimited guarantees from the director or major shareholders, joint guarantees from a group of firms and factoring (People's Bank of China, 2004). The choice of these arrangements however, differs by region. In western regions, for example, unlimited guarantees by a shareholder or joint guarantees by several firms tend to be the only way to obtain loans.

Nearly all provincial governments have also established credit guarantee institutions but the institutions have had mixed performances. Following a pilot programme begun in 1998, 30 provinces established credit guarantee institutions. The number of such institutions reached 2136 by June-2004, with the amount of loans carrying guarantees amounting to nearly CNY 200 billion. Many of the institutions are reported to be badly managed, with a large portion making losses. The credit guarantee institutions are highly diverse: some are funded from the government budgets, others by fees on participating businesses, or by private investors, or a mixture of these sources. More than 57% of the funds of the institutions originate from non-government sources. The organisational form of the institutions varies from public service units, to state or privately controlled shareholding enterprises, to fund management companies. Further, they can be non-profit or for-profit and their business scope can be limited to guaranteeing firm borrowing or can cover a wider range of activities. The institutions tend to be concentrated in less developed regions and are less prominent in those coastal areas where private firms have been well established for some time and have relatively better access to other financial outlets. Given their poor performance, it is not surprising that the scope of the credit guarantee funds is presently quite limited. Less than 2% of total bank loans carry guarantees. The effectiveness of the funds is further limited by the tendency of some lenders to demand that the full amount of a loan be guaranteed, whereas in other countries it is more normal for only a portion to be secured in this way (OECD 2002b).

The present dependence on collateral and guarantees is indicative of the fact that banks now have limited capabilities to assess, process, and price loans to smaller customers. Improvement of these capabilities is the ultimate key to ensuring adequate access to credit for SMEs and will require substantial upgrading of internal systems for assessing and managing risk and considerable training of staff. However it is particularly important that lenders have the necessary flexibility to charge lending rates that adequately compensate for the risks and costs of their loans. As in other countries, SMEs typically have a relatively high business failure rate, and in China a greater incidence of non-performance on loans, than larger borrowers. Risks of lending to SMEs are further increased by their relatively poor information systems, which makes it difficult for banks to assess their creditworthiness, while the smaller scale of SME loans makes them proportionately more expensive to make. Official restrictions on banks' flexibility in setting lending rates were an increasing impediment to SME lending as banks' became more conservative in the effort to avoid further NPLs.[21]

The recent decision in October 2004 to remove the ceiling on lending rates for commercial banks is thus a very important step toward providing financial institutions with the ability to adequately price risk. Together with the removal of the floor on bank deposit rates, this step represents major progress toward full flexibility for interest rates, although the ceiling on deposit rates and floor on lending rates remains in place. Banks also appear to have become more willing to exploit their ability to charge higher rates on riskier loans, with nearly half of bank loans now carrying interest rates stightly above the benchmark.[22] The ceiling on lending rates should also be removed for rural and urban credit cooperatives that were exempted from October liberalisation as soon as they have put in place adequate systems for pricing risk, as it is these institutions which particularly need maximum flexibility in setting loan rates.

Reforming the rural credit system will require a comprehensive approach

Some of the greatest challenges to the reform of financial institutions lie in China's rural economy.[23] Apart from their financial difficulties, the capabilities of RCCs to serve farmers and rural businesses are seriously impaired by their small size and fragmentation, ambiguous ownership, the mixing of commercial, industrial-policy, and other objectives, and antiquated and inefficient internal systems (Watson, 2002). There have been periodic attempts to reform the RCCs since the 1960s, but the policies have suffered from unresolved questions about the proper role of the institutions (whether they should be true cooperatives focused mainly on serving their members or commercial banks) and the responsibilities of various levels of government for them. Inadequacies in the formal rural financial system have contributed to a heavy dependence on informal and sometimes illicit facilities, especially by peasant farmers who are estimated to receive the bulk of their outside credit from such sources.

The problems of the RCCs and overall shortage of credit in the rural sector have been further aggravated by some broader financial reforms. Commercial banks largely withdrew from lending to rural areas in the late 1990s, leading to an expansion of the Postal Savings System, where rural deposits now account more than half of its total deposits. Only a portion of these deposits, which are placed with the People's Bank and re-lent to a broader range of financial institutions and the inter-bank market, come back to the rural sector as loans. The overall result of these changes has been a substantial increase in the movement of savings from the rural to the urban economy. Beginning in 2003, authorities removed the

preferential rate paid by the central bank on deposits from the postal savings system and broadened the placement of those deposits in an effort to reduce the flow of funds from rural areas.

A more comprehensive approach to rural financial reform than has been taken so far is needed (Han, 2004; Zhang, 2004). Experiences in other transition countries (Van Empel *et al.*, 2004) suggest that efforts are needed to focus on developing commercially oriented rural financial institutions that can profitably make an adequate return in lending. A variety of financial facilities, ranging from banks and other traditional financial institutions to micro finance and crop and other agricultural insurance, are required. The authorities need to have and implement a clear strategy to close failing institutions that cannot be made viable, rather than merging them with other institutions in the hope that they will recover. Rural lending institutions need to be linked to supporting institutions that can provide financial backing in case of temporary problems as well as technical expertise. As with SME lending generally, complementary entities to improve information and reduce transactions costs also have to be developed. One promising step that has been proposed in China is to develop a collateral registry system that would assure lenders of the integrity of property pledged by borrowers on loans.

The authorities have been moving toward a more comprehensive approach. In 2003, a pilot programme to experiment with alternative means to restructure RCCs, reform their ownership structures, and resolve their NPLs was begun in eight provinces. (This follows an earlier experiment in Zhejiang province). This programme has since been expanded to 29 provinces and in 2005 authorities began experimenting with means to restructure unviable RCCs. Authorities have provided nearly 200 billion CNY in overall support for RCCs, including nearly 165 billion CNY from the central bank. Since the inception of the new programmes, the NPL ratio of RCCs has fallen to 23%, due in part to the exchange of some of the RCCs' NPLs for central bank bills. RCCs are also expected to be included in the deposit insurance system that authorities are now considering. Until the most recent change, rural financial institutions were given greater flexibility in setting interest rates than urban institutions in recognition of the greater risks they faced. Local authorities together with several multilateral institutions and non-governmental organisations have been carrying out experiments in the development of micro-finance and other reforms to rural financial institutions.

International experiences cautions against certain policies that have often been used to improve lending to difficult segments and which have either been used, or are being considered, in China. In particular, subsidised credit tends to be an inefficient means of improving credit access, since most such credits tend to go to relatively qualified borrowers (Scott and Druschel, 2004), and should be confined to cases of overriding social needs. The authorities have also sought to increase credit availability through non-market rules such as "community investment" type guidelines mandating that a minimum portion of funds available to financial institutions be lent to entities within their main business area. Such measures can be counterproductive by lowering the return on an institutions' loan portfolio and thereby its capacity to pay a competitive return to those supplying its funds.

Developing the capital markets and the supporting institutions

China's capital markets are becoming increasingly important to the growth and development of the real economy and are likely to be even more important in the future.

Further development of the capital markets will help to lower enterprise debt loads, reduce the exposure of the banking sector to commercial risks, facilitate restructuring and ownership change of enterprises, and improve market discipline over business behaviour. Financial derivatives will be needed to allow businesses to hedge interest rate, currency, and other risks that they are likely to become increasingly exposed to over time. Development of insurance companies, pension funds, and other institutional investors is essential to meet retirement and other longer-term savings needs, as well as for the development of capital markets. The Chinese authorities well recognise the critical importance of capital market development, as indicated by the issue in February 2004 by the State Council of the landmark document on "Reforming and Developing the Capital Markets in China" that sets out an ambitious and coherent programme to achieve this objective.

Regulatory impediments to stock market functioning need to be addressed

The Chinese government has placed considerable emphasis on development of the stock market as a means of improving corporate governance, facilitating the eventual sale of state assets, and providing higher yield assets for longer-term savings. Much progress has been made in developing the key elements of the stock exchanges, including modern infrastructure, a reformed supervisory structure, and basic commodity and futures markets. Nevertheless, the market remains smaller than in most other Asian emerging countries when measured in terms of the shares that can be freely traded (Table 3.8).

Table 3.8. **International comparison of stock markets**

End-2004

	Market capitalisation (USD billion)	Capitalisation Per cent of GDP	No. of listed companies (Units)	Turnover Per cent of capitalisation
China	448	27	1 377	114
Traded shares only	141	9	1 377	362
United States	16 323	139	5 225	113
Japan	3 558	77	2 276	90
Germany	1 195	45	660	118
UK	2 926	139	3 391	101
Korea	390	58	683	125
Hong Kong, China	870	535	1 290	50
Singapore	221	211	608	48
Thailand	115	71	463	101
Indonesia	73	30	331	38
Malaysia	189	160	1 296	37
Chinese Taipei	441	145	697	163
Philippines	29	34	246	13

Note: Data refers to domestic companies only, except for Singapore where foreign companies are included. The Osaka exchange has been excluded from the Japanese data to avoid double counting.

Source: World Federation of Exchanges Annual Report and Statistics 2004, China Securities Regulation Commission.

The ability of the stock markets to perform their key functions has been hampered by factors that are in large part government imposed. For some time, authorities rationed new listings partly on the basis of non-commercial criteria such as the province the firm was located in. Although this practice was officially ended several years ago and replaced with a more objective and market based system, the market is still dominated by companies

that were chosen by the older system. The limitation on the categories of shares that can be traded continues to prevent the exchanges from providing a market for corporate control and so limits the incentives they can provide for good governance and effective operations. This barrier to effective operation of markets has been eased somewhat since the government announced, in April 2005, that state shares could be sold or transferred to other owners. At least in some cases, financial discipline may even have been weakened because the stock markets have been mainly open to large SOEs, which have tended to view listing mainly as a cheap source of funding.

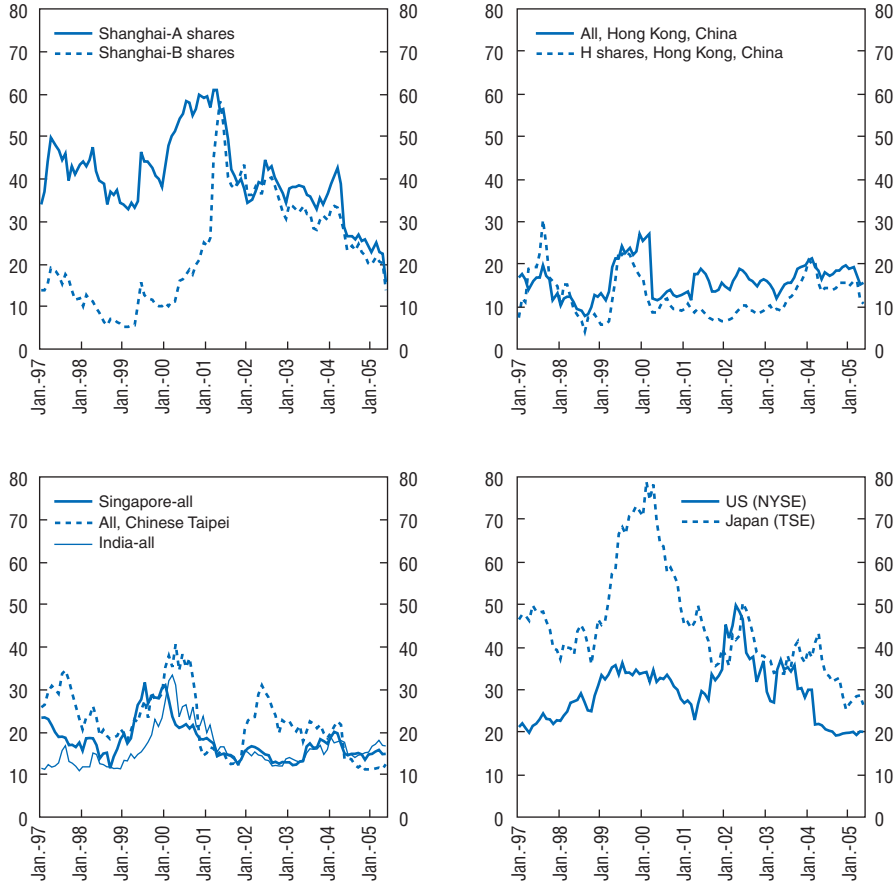
Another impediment to the efficient functioning of the stock markets is the relatively restricted access to the market by financial institutions, with the result that individuals own most of the tradable shares. Banks are prohibited from owning or trading equities and the authorities have also limited the portion of their portfolios that insurance companies and pension funds can invest in equities to a level that is significantly below that of similar institutions in OECD countries. While these limits are motivated by prudential concerns, they also deprive the markets of those investors who, elsewhere, typically have the greatest capacity and incentives to evaluate the fundamental worth of listed companies. The resulting lack of such expertise increases the probability that equity prices will deviate substantially from those implied by underlying fundamentals. Indeed, until fairly recently, price-earnings (P/E) ratios on Chinese A-shares were noticeably higher than those in most other international markets, as well as above the ratios for equities of Chinese companies traded in Hong Kong (H share market) (Figure 3.5). Largely for this reason, such shares were widely regarded as seriously overvalued. The elimination of this over-valuation has been one reason for the poor performance of Chinese stock markets in recent years.

The Chinese authorities have taken a number of important steps over the past several years to improve the functioning of the stock markets. The old system of "rationing" new listings has been replaced by a much more objective procedure under which companies that meet the objective economic criteria of the CSRC become eligible to list. The delegation of responsibility for evaluating listing applications and making recommendations to the State Council to a committee dominated by qualified outsiders has been an important step toward ensuring that objective criteria are applied in a transparent manner. Beginning in 2005, decisions on listing applications will be made public, which should help to enhance the disciplinary incentives of the process. However the effects of these changes on the composition of the stock market are likely to take some time to be manifest, given that number of new initial public offerings allowed has averaged less than 70 per year and the time between approval to list and the actual IPO can be quite long.[24] The restructuring in mid-2004 of the Shenzhen exchange to include a facility for listing and trading of smaller companies is a potentially very important step toward giving developing private companies greater access to equity finance and exposing a much broader segment of the business sector to stock market discipline. This exchange could also help to spur the development of China's venture capital industry (Box 3.3).

Other key reforms needed to improve the effectiveness of the stock markets are being explored but remain to be implemented. The authorities' stated intention several years ago to increase the tradable portion of SOE shares has not yet been carried out[25] and the proposal to divert 10% of the proceeds of such sales to fund the Social Security System was cancelled following vehement protests by individual stock holder associations concerned about the possible effects on market prices. Fears of depressing market prices also may be partly responsible for the regulator limiting the number of new IPOs and for the delayed

Figure 3.5. **Comparison of Stock Market Price-Earnings Ratio**

Average ratio of share price to earnings per share



Source: Datastream, China Economic Information Center.

integration of the B with the A share market. However allowing such concerns to delay otherwise beneficial measures can also foster overvaluation by encouraging market expectations that the authorities will support prices. Overall, the effectiveness of the stock exchanges would be significantly improved if the possibilities offered by the recent policy changes concerning the sale of state-owned shares are fully utilised.

Given the problems that have occurred in the past, when government-owned securities houses shorted government bonds and were unable to cover their positions when prices rose, the authorities' prudential concerns over direct access by financial institutions to the stock market are also understandable. However the substantial progress that has been made in strengthening the financial supervisors should make it possible to allow institutions that have thoroughly reformed their governance, management, and internal controls to have greater access to the market more in line with that afforded to such institutions in other emerging economies. Indeed, allowing such access on a conditional basis would help to improve incentives for such reforms. More generally, the ban on short sales in the stock market reduces liquidity and makes it difficult, if not impossible, to introduce a range of derivative securities. Particularly given the recent relaxation of this restriction for government bonds, this ban should be lifted and replaced by prudential rules specifying rules for such sales and their disclosure brought in line with international norms.

Box 3.3. **Developing venture capital facilities in China**

As has proved to be the case in other countries, venture capital facilities are seen as an important element in the development of high technology firms in China. Venture capital facilities began to develop in the 1990s and local governments have been particularly active in setting up or fostering government-owned investment firms to promote high technology businesses. According to official statistics, there were 253 venture capital firms in China in 2004* and funds raised on the venture capital market reached the equivalent of USD 1.27 billion. However many of these firms do not operate as true venture capital enterprises in the same sense as the term is used in OECD countries. Venture capital in China remains relatively underdeveloped because of a number of key factors that are departures from international best practices in this area. (See Sood, 2004; Xiao; OECD 2002b).

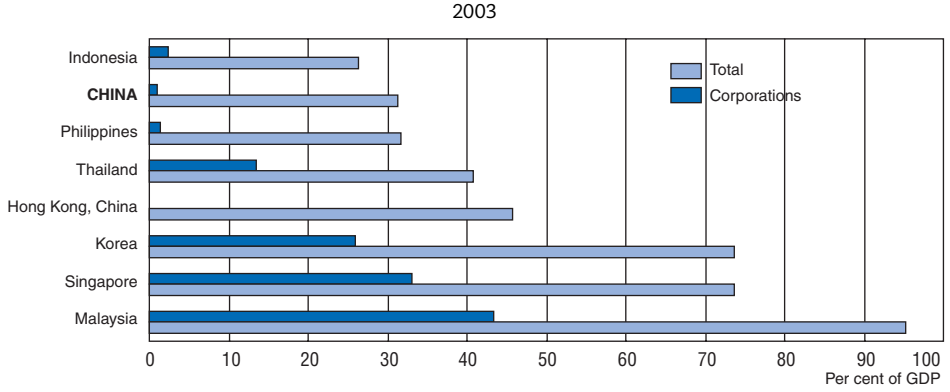
- A large portion of Chinese venture capital firms are government controlled (nearly half of the capital of such firms comes from government entities- Sood, 2004) and managed by government officials who often have little experience with high technology industries. In contrast, firms in countries where venture capital has thrived, notably the United States, typically are private firms managed by individuals with technical expertise and experience. Venture capital firms in China also tend to be more passive investors than in the United States, where the firms typically take an active role in guiding the businesses they invest in.
- China's company law does not allow for limited liability partnerships, the main form of organisation of venture capital businesses in the United States. Organisation of a venture capital firms as a limited liability company in China is discouraged by the minimum number of investors required, and the relatively high minimum capital each is required to provide (Xiao, 2004). It is appropriate though that China's tax laws also do not provide the tax subsidies often given to foreign and domestic venture capital investments in other countries.
- Venture capital firms lack an exit route for realising profits. Investors must have the ability to recoup their investment in a company and reinvest it elsewhere. Normally a specialised stock exchange for smaller companies with less stringent listing requirements than the main exchanges, such as the NASDAQ over-the-counter market in the United States, provides this exit facility. In May 2004, a special facility for the listing of smaller companies was created as part of the Shenzhen stock exchange. However this facility is subject to most of the restrictions applying to other exchanges. There were 42 listed companies on the SME board by the end of April 2005, and the number was expected to reach 50 by shortly after the middle of the year.

* Chinese statistics do not precisely distinguish between true venture capital firms and more traditional investment firms so the official statistics may include some non-venture capital activities. However the statistics also exclude unregistered venture capital businesses, which may be a substantial segment of the market.

Bond market development should be given greater priority

China's bond market is composed of three segments: government bonds; bonds issued by certain financial institutions, notably the policy banks; and corporate bonds. The bond market has grown rapidly in recent years but its overall size in relation to GDP is still at the lower end of those in other Asian emerging economies (Figure 3.6). The government bond market is the largest and best developed segment and has been the main focus of reforms. Considerable effort has gone into modernising market standards to better alignment with

Figure 3.6. **Comparison of Asia's Bond Markets**



Source: Asian Development Bank.

those in other countries. Maturities and other issue terms have gradually been liberalised and an issue calendar has been established, steps which will also help in establishing a benchmark yield curve for the bond markets as a whole. As preliminary steps toward the development of derivative instruments to hedge risks, short sales of government bonds have been authorised through the repurchase market. The institution of interest rate swaps is being considered.

The effectiveness of the government bond market would be further improved if it were to become fully integrated. At present, the market is segmented, with trading taking place both in the inter-bank market, where banks are the main players but other financial institutions are also present, and on the stock exchanges, where trading is dominated by securities and insurance companies and from which banks have been excluded since 1997. This division of the market, along with the buy-and-hold strategy banks (who are the dominant holders) tend to follow, has somewhat limited trading activity and liquidity in the market as a whole.[26]

The corporate bond market has remained relatively less developed than China's other capital markets. Outstanding issues are less than 1% of GDP, making it the smallest market in relative terms in Asia. The market's development has been stunted by continued imposition of antiquated regulatory policies, mainly over issuance. Although there has been some consolidation of regulatory responsibilities for the corporate bonds, control over primary issues remains with the National Development and Reform Commission while the secondary market (on the stock exchanges) is subject to the CSRC. In contrast to practices in other countries – as well as in China's stock market – regulatory policy over the primary market has focused mainly on determining the features of the bonds that are issued rather than on ensuring that the issuers are making adequate disclosure of their conditions. Virtually all issuers are SOEs and new issues are rationed and subject to industrial policy criteria. While maturities and other characteristics have been somewhat liberalised over time, they are still strictly subject to regulation, as is the permitted initial interest rate, which cannot be more than 40% above the bank long-term deposit rate for the same maturity and corresponding period. Because of past problems, the authorities have sought to virtually avoid credit risk by allowing only the financially strongest companies to issue and by insisting that all bonds carry an unconditional and irrevocable bank guarantee. Market development has been further held back as domestic bond rating agencies are

relatively unsophisticated and sometimes subject to influences of companies or local governments that impair their effectiveness. Participation of more sophisticated (including foreign) rating agencies is likely to require a greater range of issuers and credit risks.

Overall, bond market development needs to be given further attention. A unified government bond market will become increasingly necessary as it would allow the government to lower its borrowing costs. The authorities have taken a number of steps to integrate the market, notably by issuing government bonds in both segments, but have so far stopped short of allowing banks to participate on the same terms as other financial institutions in the stock market or allowing all institutions to participate in the inter-bank market. However, banks' internal control systems and the oversight mechanisms of regulators have, or soon should have, progressed far enough to allow them to enter the stock market.

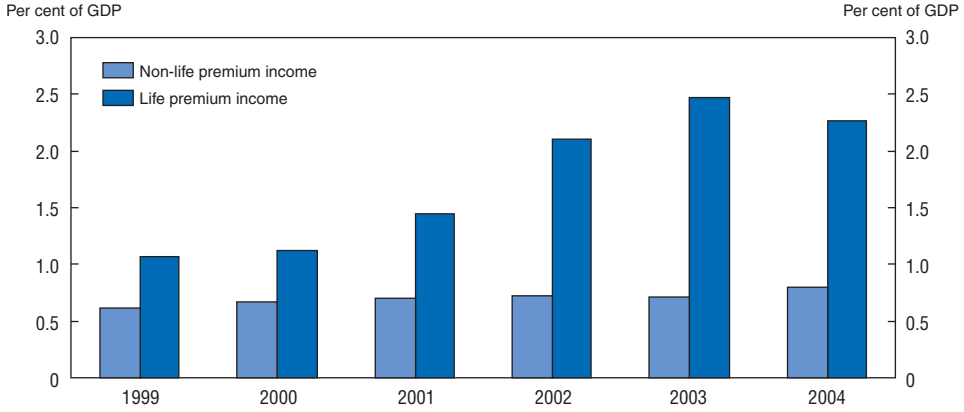
Particular priority needs to be given to development of the corporate bond market. Institutional investors as well as individuals will have increasing need for fixed income investments that allow for risk and return to be efficiently traded-off and these instruments cannot fully develop under the current regulatory approach. The basic principles for regulation of the primary and secondary markets need to move toward those applying to stock market issues. Regulation should not focus on risk or price but on ensuring adequate financial disclosure. It would help if regulatory responsibility for the primary and secondary bond markets were consolidated. At the very least, industrial policy considerations should be removed from the issue approval process and the primary market opened to a much wider range of companies, including private businesses.

Development of institutional investors will be critical over the longer term

Over the longer term, development of capital markets is unlikely to occur without the growth of insurance companies and pension and mutual funds. The importance of establishing institutional investors as the "leading force" in the capital markets has been explicitly endorsed in the February 2004 State Council document, following the adoption of the framework law on securities investment funds in 2003.[27]

All the institutional investor segments are at an early stage of development. Although growing rapidly, the size of the insurance market, measured by total premiums to GDP, was 3.3% in 2003, at the lower end of the range found in other Asian emerging economies and well below the ratio (8-12%) found in more advanced economies. (Figure 3.7) Despite the break-up in 1999 of the People's Insurance Company of China (PICC), which had a virtual monopoly well into the reform period, and the progressive entry of new foreign and domestic insurers, the market remains highly concentrated, with one offshoot of PICC controlling the majority of the life insurance market and another offshoot accounting for the bulk of the non-life market. The capitalisation of the state-owned insurance companies has been relatively low by international standards (ADB, 2003b). Pension funds are in an embryonic stage, as are collective investment funds, which allow for diversified investment in the stock markets by individuals and institutions for a variety of purposes, including retirement. Products institutional investors can offer are quite limited and, in the case of insurance companies, traditionally have been regulated through a system of approved contracts and prices.

Figure 3.7. **The life and non-life insurance market**



Source: China Economic Information Center.

Traditionally, insurance companies and pension fund investments were confined to bank deposits and government bonds. The authorities have been relaxing these restrictions but cautiously. By 2004, insurance companies were allowed to invest 5% of their assets directly in equities, although a further 7% are indirectly via securities investment funds. Their permitted holdings of corporate obligations have been raised from 10% to 20% of their total assets. Only funds from the fourth, voluntary and smallest, tier of the pension system can presently be invested in the stock market. However the authorisation given to the National Social Security Fund to invest in the market in 2000 represents a potentially important step: although the funds involved are now modest, they will become much larger if and when authorities engage in larger scale sales of state assets.[28]

The regulators' conservatism is understandable given the early stage of development of institutional investors and their governance structures and internal controls but, as in other countries, too much caution also carries risks. The financial difficulties encountered by a number of insurance companies in the late 1990s, when falling interest rates lowered the yields on their assets below the rates they had contracted to pay on some of their liabilities, underscores the problems that lack of access to longer-term higher yielding assets can cause for institutions with inherently long-term liabilities. In addition to progressively expanding access to domestic capital markets, the authorities' have issued guidelines for allowing insurance companies to invest in overseas assets as a means of improving their portfolios.

The CIRC has also relaxed its rules to allow health, accident, and some other products to be offered to the public after a short notification to regulators and is considering expanding this to additional products. This relaxation is a positive step: international experience suggests that approved contract/price regulations tend to more harm than good in restricting competition and inhibiting innovation; and the system has been discarded in many advanced economies.

Perhaps even more than for the banking sector, the potential benefits from opening the domestic institutional investor and security houses sector to foreign investors are high. Apart from offering new products and expertise that will gradually diffuse to the broader market, including domestic institutions, foreign institutions can provide capabilities that domestic counterparts are presently unable to provide. Despite this, China committed to somewhat less opening of the insurance and other institutional investor segments under

the WTO agreement than in the banking sector.[29] Given the potential benefits, the authorities' may want to consider further liberalisation of foreign access in these areas in the future.

Strengthening governance and the internal incentives and capabilities to support it

Probably the greatest challenge to China's reformers is to transform financial institutions that have long functioned as extensions of the government into profit-oriented commercial institutions. In addition to ensuring that institutions' have adequate capital to risk in the market, this involves radical reforms to internal management and control systems and creation of formal corporate governance structures that, for the most part, have not been present until recently in China. Since the mid-1990s, the regulators and financial institutions' management have devoted great effort to these reforms, and have sought to draw on experiences from abroad and to align Chinese structures and practices with international norms. These efforts have undoubtedly led to considerable improvements in the capabilities and commercial incentives of many financial institutions. However there remain questions about the degree to which reforms that have so far been applied mainly to smaller financial institutions will work as well for the nation's largest, notably the SOCBs, at least long as they remain in their present form. Moreover, the ultimate success of the reforms will depend on the degree to changes in structures and formal procedures result in a change in the traditional culture that has governed internal operations of financial institutions and their relations to the central and local governments in China.

Impressive progress has been made in modernizing internal systems for credit assessment, loan monitoring, and risk management within the SOCBs, JSBs, and some CCBs. These include the separation of loan origination and assessment; the introduction of objective criteria and procedures for assessing credit worthiness; and the implementation of a new loan classification system based on international best practice. In principle, at least, new loans as well as loan extensions are granted only to borrowers with a good credit record and which, based on meaningful credit-worthiness criteria such as cash flow and business prospects, are deemed to be likely to be able to meet their loan commitments.[30]

The new five-part loan assessment system represents a major improvement over China's traditional loan classification system. The new system incorporates forward looking indicators relating to a borrower's ability to repay and requires reassessment in the event of a significant change in those conditions.[31] There has been an attempt to reduce the influence of local governments over lending decisions by moving the authority to grant large loans to higher levels. Accountability for loan decisions has been buttressed by making individual loan officers responsible for loans they have approved which later go bad, and by subjecting the Presidents of the major banks and their branches to potential sanctions if they fail to meet CBRC specified targets for reduction in their NPLs. It would also help to improve the commercial orientation of major banks if the practice of rotating their senior management into high-level government posts were ended, or at least reduced, and compensation of senior bank executives were brought more into line with the standards prevailing elsewhere in the business sector.

The major reform of capital requirements set out in the "Regulation governing capital adequacy of commercial banks" issued by the CBRC in February 2004 represents a very important step toward international best practice by making Chinese banks primarily

accountable for preserving their capital and should considerably strengthen banks' incentives to focus on profitability and risk management rather than simply expanding their balance sheets. The reform brings the calculation of capital adequacy ratios into much better alignment with BIS standards by raising the risk weight on loans to SOEs other than those directly owned by the central government to 100%; by setting the weighting on mortgages at 50% and by including off-balance sheet items as well as credit risk. Other key provisions include: a requirement that all commercial banks disclose their capital adequacy ratios beginning in 2006; a clear definition of the responsibilities for bank directors and management for maintaining capital adequacy; and specification of corrective actions to be taken when a bank fails to meet minimum capital standards.

These reforms have gone a considerable way towards giving the major banks the incentives and tools needed to make sound credit decisions and to effectively monitor and manage risks. However the changes are at an early stage and have been implemented most fully at the headquarters and higher level branches of the major banks. Implementation at lower levels, and among CCBs and rural and other smaller financial institutions, will require extensive training of staff and will take some time.

Corporate governance will be critical

Ultimately, the effectiveness of internal controls will depend critically upon China's success in establishing high quality governance of financial institutions. Effective governance of financial institutions, especially banks, typically presents formidable challenges in all countries, beyond those faced by non-financial institutions (Levine, 2003; OECD, 2005), and is likely to be particularly difficult in China given the continued importance of government ownership.

The authorities' strategy to improve the corporate governance of banks and other financial institutions rests on the modern paradigm of effective corporate governance that has been established internationally and is embodied in the *OECD Principles of Corporate Governance*. This entails the endowment of companies with structures (notably boards of directors and/or supervisory boards and the shareholder's general assembly) that align management incentives with the interest of owners; and subjecting companies to market discipline over their performance via some combination of stock market listing, bond issuance, and monitoring by lenders and stakeholders. Major banks are being converted into companies. The second step will be to diversify the ownership of the institutions, including to private interests, to be followed in most cases by listing on the stock markets, a critical element in ensuring that state-controlled banks remain focused on their commercial objectives.

The Chinese regulatory authorities have made considerable progress toward strengthening the governance structures for incorporated financial institutions beyond those specified in the 1995 Company Law applying to all corporate businesses. A series of directives and guidance issued by the banking regulator, notably the "Guidance for Joint Stock Banks" (*Guidance*) issued in 2002, better defines the responsibilities of the major governance parties – the boards of directors and supervisors, the shareholder's general meeting, and company management, specifies requirements for disclosure and transparency and for the obligations of controlling shareholders toward minority interests and depositors, and sets out the limits on related party transactions. In addition, companies that are listed are subject to the CSRC "Code of Corporate Governance for Listed Companies" (CCGLC) that specifies further requirements, including the establishment and

responsibilities of specialised board of directors' committees for audit, remuneration and management appraisal, related parties transactions control, and risk management, and requires that independent directors chair and constitute the majority of several of these key committees. On the whole, the codes for listed companies are in line with international standards, and in some respects, such as the qualifications for independent directors, go beyond those imposed in some OECD countries (OECD, 2005).

However a number of other measures that could further strengthen governance structures for financial institutions merit consideration. In particular, it would be useful to require financial institutions that are not yet listed to establish board audit committees, to give that committee to consult outside experts as has been done in some other countries, and to mandate the disclosure of internal audit results to the board of directors (and not simply the company President as is presently the case).[32] Moreover, many countries have adopted general codes of conduct for company directors (including in some cases special codes for bank directors) that specify their rights and responsibilities in specific terms. Development of such a code could be especially useful in China.

The results of the efforts to improve governance of financial institutions have been somewhat encouraging. The institutions that are most advanced in the reforms, the JSBs, all have diversified ownership structures (although, except in one case, they remain controlled by local governments), and have been the best performing segment of the banking sector (Shih *et al*, 2004).[33] The experience with foreign strategic investors in a number of JSBs and CCBs is also reported to be positive. However as noted earlier, the performance of these institutions is still at best fair by international standards and the question is the degree to which the success that has been achieved so far can be increased and extended to other financial institutions.

The current strategy has some limitations

The ultimate role for private ownership remains an important question mark surrounding the strategy to improve the governance of China's banks. From a governance perspective, state ownership or control of banks is a distinctively "second-best" solution as it is very difficult to end government interference in their lending decisions or to avoid the weakening of their commercial incentives entailed by their government backing. Chinese authorities are committed to establishment of banks as market based institutions and are encouraging private investment in the smaller banks, but the extent to which they, particularly their local governments, are prepared to allow private parties to attain control is unclear. While there have been extensive discussions about the creation of new privately owned banks, only one such bank has been authorised and then only recently.[34] The announcement, February 2005, that the financial services industry is to be opened to entry by private companies may represent and easing of policy in this area. A potentially more rapid and effective means of increasing the influence of private interests in the banking system would be to progressively reduce the state ownership share in existing JSBs to a minority non-controlling level over a relatively short time span.

State ownership together with the market dominance of the SOCBs presents especially difficult governance problems. Transformation of these institutions into privately controlled banks (which would require a change in law) is not on the official reform agenda at this point. In any case, conversion to private control in their present form might have only limited benefits for the SOCBs governance, given that they would remain "too big to fail' and likely retain their central role in government economic policies.

Experience in other countries suggests that the requirements for effective governance structures of state owned businesses are more demanding than those for private companies and that the results are usually inferior (Levine, 2003; Ferri, 2004). Indeed, that has been the experience of industrial companies in China. International experience indicates that, at the least, the state ownership function needs to be strictly separated from its other, non-commercial, responsibilities and lodged in a separate organisation that is focused strictly on maximising the return of the state companies under its control. There are indications that the company created to hold the state equity in the BOC and CCB may carry out that role for the SOCBs.[35] In any case, it will be very important that the body exercising the state's ownership role in the banks have detailed and explicitly defined responsibilities and the authority, *vis à vis* other government organs, to carry them out. Otherwise, international experience suggests, state owned companies can continue to be subject to non-commercial mandates imposed by other government agencies while, at the same time, the exercise by the government as owner is weakened and the company CEO responds to political pressures, or may come to dominate decisions with little in the way of effective oversight.

However it remains uncertain how much even "state of the art" governance structures will be able to break with the traditionally close ties between the government and the SOCBs, and the influence of government mandates on lending decisions. This is particularly the case given the central importance these institutions are likely to continue to play in the economy. Much will depend on the strength of market incentives for SOCBs to exclusively pursue their commercial objectives. For a number of reasons, these disciplines are likely to remain significantly weaker than they have been for smaller banks. As long as they remain in their present form, the SOCBs are effectively too big to fail and markets will inevitably expect the authorities to bail them out if they encounter major financial problems in the future. The fact that the SOCBs typically receive higher ratings from major credit rating agencies than the JSBs confirms that market judgements are based not only on actual performance in such cases but on perceptions about official backing.[36] Ownership diversification may also have less impact on SOCB governance than the authorities hope given the limited influence that minority shareholders have been able to exert on companies in China. In India, for example, state-controlled banks' performance improved following ownership diversification but continued to lag behind that of private banks (Arun and Turner, 2002).

Similar considerations suggest that introduction of strategic investors may also have less impact than now hoped for. It may be difficult to find foreign strategic investors with the resources and capacity to take major stakes in any of the SOCBs, and the more so now that several leading candidates have already made significant investments and have commitments to some of the smaller banks if strategic investors were to take relatively modest stakes (5% or less) in the SOCBs in support of business alliances in certain areas and they may have neither strong incentives to monitor overall bank performance nor the influence with senior management and the board of directors as they have with larger shares in smaller banks. However, sales of minority stakes in the major banks have been on a larger scale than this: 9% for the China Construction Bank and 10% for the Bank of China, suggesting a stronger role for the foreign shareholders.

These considerations do not mean that the governance reforms that have been undertaken will have no positive effects for the governance of SOCBs, only that they are may be insufficient to achieve the success similar reforms have attained in other countries.

The considerations do suggest that the gains would be considerably greater if non-government entities were ultimately allowed to achieve a controlling interest in the SOCBs.

Bolstering the prudential framework to maintain financial stability

Creation of a modern regulatory/supervisory system is one of the most important accomplishments of China's financial reforms and is proving to be a major catalyst to financial development. The basic institutions and legal frameworks of the regulatory/supervisory system have largely been established. Notwithstanding the trend in many advanced economies toward a unified financial regulatory body, the adoption in China of distinct regulators for banking, securities activities, and insurance is appropriate given the state of development of the financial system and consequent need to gain experience in these activities.[37] On paper, at least, the regulatory agencies have been given the necessary formal authority to carry out their tasks.[38] The legal frameworks defining the scope and powers of various types of financial institutions has largely been completed with the recent adoption of the law on collective investment schemes. Prior regulatory gaps and conflicting jurisdictions have been addressed,[39] or are in the process of being addressed, most recently with the agreement among the three major regulatory authorities on responsibility for regulation of financial holding companies.[40] The regulatory authorities have been actively developing and enhancing the mechanisms for ongoing coordination (both among the regulatory authorities and with the People's Bank of China) that are essential when boundaries between various types of financial institutions are becoming blurred. While China's regulatory apparatus is now well established in structural terms, ongoing efforts and considerable time will be required for its officials and staff to acquire the experience necessary to be fully functional.

Chinese regulators have made extensive and skilful use of international best practices and experience in designing their strategies toward financial system development. Regulators are devoting considerable effort to improving the governance and internal controls of financial institutions and are gradually moving, as markets and institutions develop, toward a regulatory regime that emphasises the monitoring of financial institutions' own risk management systems rather than on formal compliance with rules governing activities and products.[41] The authorities are increasing and refining their use of conditionality in granting financial institutions expanded powers, a tool which is likely to prove particularly effective given the increasing competition these institutions are facing. More effort, however, might be given to enhancing the capabilities of special regulatory organs, such as the governing bodies of the stock exchanges and insurance associations, since these bodies have proved to be very helpful in promoting regulatory goals in other countries (OECD, 2002c).

Daunting challenges are ahead that will require support from broader economic reforms

The Chinese regulatory authorities face several daunting challenges in seeking to transform traditional financial practices into those suitable to a market based economy. One such challenge concerns failing financial institutions. Chinese bank supervisors have faced this challenge on a number of occasions in the past, notably in the late 1990s in dealing with the failure of a major development bank (Hainen) and several international trust and investment companies (ITICs), and have developed procedures for dealing with such cases (Liu, 1999; Zhu, 1999). An important lesson learned from the ITIC experience is

the need to ensure that the extent of government guarantees to depositors or investors in failing financial institutions is clear *ex-ante*. To this end, the regulatory authorities have been developing more systematic guidelines for such cases (most recently with the promulgation in October 2004 of the *Guideline for Purchase of Individual Claims and Securities Investors' Settlement Funds*) that seek to increase investors' awareness of and responsibility for the risks they take on. The authorities now face the daunting task of dealing with many potentially unviable smaller financial institutions, notably RCCs but also possibly a number of CCBs and securities firms. While the regulatory agencies have the legal authority to close institutions if necessary and to compensate depositors and other claimants, present bankruptcy law significantly constrains the capacity of financial institutions to recover their investments, so raising the potential costs to the government in the event of their failure (ADB, 2003). For this reason, the Chinese bank regulatory authorities have publicly stressed the need for bankruptcy reform in order to improve their tools in this area (see Chapter 2).

A broader challenge is to contain and manage conflicts and abuses between economic agents and ultimate owners. The potential for such problems is likely to be greatly heightened as the transition from state to private ownership proceeds amid persistence of traditional implicit power relations among government and business officials. China's regulators are already devoting considerable effort to detecting and prosecuting insider trading, asset stripping, and other abuses – but these efforts also suggest that such abuses are fairly widespread. Ultimately, the solution of these problems is likely to require broader changes, to improve information available to market participants, to better define property rights, and to more strictly define the regulatory and other powers of government agencies, particularly local governments, *vis à vis* businesses within their jurisdiction.

Greater transparency in financial transactions will be essential to containing abuses and to bolstering the credibility of financial institutions and policies to the markets. It cannot be stressed too much that financial markets are essentially information-processing systems and the lack of information and data seriously impairs their operation. Financial transactions in China have traditionally been very opaque, both in terms of the detail and amount of data available to the public and the information disclosed about financial policies and conditions of specific institutions. Information that is disclosed is often revealed in an ad-hoc fashion – for example in speeches by senior officials – that can make it difficult for a wider audience to access or to monitor performance systematically. There have been important improvements in transparency over the past several years. The regulatory authorities have made strong efforts to increase the amount and accessibility of information they disclose via their web sites and other means and have issued numerous circulars and regulations over the past two years aimed at improving information disclosure. China now participates in the Financial Sector Assessment Programme of the International Monetary Fund and World Bank and under that programme has specified a number of measures to bring its own practices further in line with international standards. Major financial institutions have greatly improved the information they disclose in their annual reports and periodic statements. However in terms of detail and ease of use, China's publicly available financial data is still generally less than that available even from most other emerging market economies. Efforts to bring financial information standards and disclosure closer to international norms therefore need to continue.

A third important challenge facing China's regulators is to further insulate lending decisions from non-commercial government mandates, including those in support of

macroeconomic policy. As noted earlier, industrial policy considerations continue to be applied in certain areas, notably the "guidance" on bank lending to restrain investment during 2004. Given the constraints on raising interest rates, this guidance was seen as needed to prevent overinvestment and overheating of the economy. However such policies also pose a risk of undermining incentives for financial institutions to rely on and improve their internal systems for credit assessment and monitoring rather than on official mandates.

Regulators face some important questions

In addition to these general challenges, regulators face several important decisions over the medium term. One important decision concerns the introduction of deposit insurance for banks. A formal system of deposit insurance is increasingly needed to contain systemic risk and to level the playing field between SOCBs, which enjoy an implicit but unspecified state guarantee, and other banks, whose government backing is less clear. The authorities are now reportedly considering a system that would cover smaller deposits and be financed jointly by premiums on the banks and by the government. However, if SOCBs are included, this could present special problems due to their large financial problems and close relationship to the government. A partial system that left SOCBs outside would still reduce risks to financial stability and help to redress the present competitive disadvantage of smaller banks. But it would not clarify the extent of the commitment of the government to back the SOCBs. Overall, considerations of financial stability, competitive equity, as well as the commercial incentives of SOCBs, all argue strongly for including these banks from the beginning.

The regulators also face important decisions about the extent and pace at which financial institutions, particularly banks, are allowed to expand beyond their traditional activities. To a limited extent, China is experiencing the same blurring of traditional financial activities and the resulting erosion of profitability in banks' core lending activities that has occurred in other countries. The Chinese authorities have so far taken a cautious approach in balancing the need to allow financial institutions greater scope to increase profitability against the need to contain the risks that such expanded activities can involve. Following the practice in the United States, financial institutions are allowed to set up or acquire financial businesses outside their traditional scope only through their holding companies, rather than directly as in much of Continental Europe. The authorities are planning to allow banks to establish affiliated securities intermediaries but have made it clear that this opportunity will be conditional on improvements in the governance and internal controls of individual institutions. This cautious but balanced approach is well justified in view of the limitations in financial institutions' capabilities and in financial discipline in China.

Further consideration should also be given to the participation of non-financial interests in financial conglomerates that involve banks. Chinese law, in principle (by not prohibiting in law or regulation), allows non-financial businesses and other entities to own substantial and even controlling interests in financial institutions including banks, either directly or through holding companies. China's law is also more liberal in this regard than what has been allowed, until at least recently, in many other OECD countries (ADB, 2003). In practice, the Chinese regulatory authorities have not allowed a non-financial entity to control a bank, and this practice should continue, as corporate governance is weak, information disclosure limited, and supervisory capabilities are still developing.

Summary and recommendations

China's financial reforms have accomplished a great deal over the past ten years. The principle that the financial system must be market based and serve all segments of the economy on an equal basis has become the basis for financial reform and much progress has been made toward that goal. In most areas, the authorities have put in place coherent strategies that make good use of international experiences and have developed the regulatory/supervisory capacities to carry them out. Nevertheless, much remains to be done before the financial system catches up with the real economy and is fully adequate to support the needs of the increasingly dominant private sector.

The priorities now are largely to deal with gaps in reform policies and to resolve some issues that have so far been undecided. To this end, this chapter has highlighted a number of suggestions for improving the effectiveness of reforms, the most important of which can be summarised as follows.

- Private interests will need to be given much greater scope in the financial system than they now have if the financial system is to adequately serve the needs of the real economy and if governance is to improve. Privatising most JSBs and CCBs and non-bank financial institutions within the medium term would help greatly to achieve this goal. For SOCBs, the introduction of private investors with substantial minority interests (including board representation) should be regarded as a positive step but one that is likely to go only part way to making these institutions effective commercial entities.
- Current efforts to restore financial institutions to solvency could be broadened further, with a goal to largely resolving the financial problems of CCBs and RCCs within the next several years. Central and local government authorities may need to reach more explicit agreement on financial and other burden sharing for these institutions.
- While China has opened considerably to foreign financial institutions, further liberalisation in those sectors where China's WTO commitments do not call for full national treatment, notably in the insurance sector, should be considered in view of the potential benefits to the financial system as a whole.
- Removal of a number of important regulatory restrictions that are no longer justified and hinder market development could yield substantial benefits. In the near-term, the authorities could lift restrictions on the trading of legal person and state shares in the stock markets, fully integrate the government bond market, and move as rapidly as possible to merge the A and B share markets. Increasing the number of qualified companies that are allowed to list each year should be considered and priority given in any case to increasing the number of private companies that are listed. It would also be useful to lift the restrictions on the geographic scope of CCBs for those of the institutions that meet prudential norms.
- Development of the corporate bond market should be given much greater priority. Rules for primary issues should be revised to remove industrial policy considerations and to open issuance to all qualified businesses. Regulatory policy in the primary market should move away from control over issue terms toward ensuring adequate disclosure and transparency.
- Further efforts need to be made to separate government non-commercial mandates from financial decisions and regulatory policy. Controls on lending to particular sectors

should be confined to prudential objectives, while standard macroeconomic instruments are relied on for macroeconomic stabilisation efforts.

- It would be useful to review current laws and regulations to consider whether further measures are needed to control potential abuses from controlling or substantial investment interests of non-financial businesses or other entities in banks or groups that include banks.
- Introduction of a deposit insurance system within the next several years would help considerably to ensure more even regulatory treatment and reduce systemic risk. However to achieve its objectives, the system should include all segments of the domestic banking system.
- It would be beneficial to continue and strengthen efforts to increase transparency in the financial system by improving the availability and quality of financial data, both from the government and financial institutions.

Notes

1. Non-bank financial institutions, mainly trust and investment companies, finance companies, and leasing companies, have played a very limited role in the economy except for a brief period during the latter half of the 1990s when the trust and investment companies gained prominence and were widely used by banks and local governments as vehicles to raise funds for infrastructure investment as well as in real estate and the stock market. See Kumar *et al*., 1997. The speculative activities of these funds and the failure of a number of prominent institutions owned by local governments in the late 1990s led authorities to close nearly two-thirds of the trust and investment companies.
2. A significant number of these companies have since passed into private control through sales of legal person shares outside of the formal exchanges. See Green, 2003b.
3. Local government officials have traditionally had an important role in evaluating the performances of senior officials of SOCB branches and in determining their future career path within the broader government service. While these practices are changing and bank management becoming much more professionalised, local officials still have strong incentives to stay in good standing with local governments.
4. Antiquated statistical classifications, which have become even more outdated as enterprises with mixed ownership have become more prominent, make it increasingly difficult to determine precisely from official data exactly what proportion of lending goes to state owned or controlled enterprises *versus* collective or private enterprises. In official statistics, less than 2% of outstanding short-term loans, about two-thirds of total loans, are classified as going to private enterprises (no detailed breakdown is given for medium-term loans), while the share of all non-state enterprises was less than 10%. The actual figure is very likely higher because some loans to former state enterprises that are now controlled by non-state interests are probably not included in the figures for short-term loans to private firms.
5. See OECD (2002a and 2002b) for further discussion. As another indication, the CNY 1.4 trillion of NPLs transferred to the Bank Asset Management Companies in 1999 plus the nearly 1.7 billion in NPLs remaining with the SOCBs at the end of 2002 according to official figures represents nearly 40% of outstanding SOCB loans at the end of 1999. Moreover, these official figures are based on the old classification system, which typically gives a lower estimate of NPL than the new system.
6. The steps also created some adverse incentives. Banks responded to the tighter individual accountability for bad loan outcomes by virtually shutting out smaller and medium sized state and non-state SME who were no longer officially backed by central and local governments. At the same time, the targets for reduction in the NPL ratio encouraged banks to continue to expand loans rapidly, but toward outlets that were perceived to be state backed (lending to larger SOEs and state infrastructure projects) and housing and consumer credit, where delinquencies were expected to be lower than in business lending.

7. Such rapid growth would be inconsistent with the necessity, and likely inevitability, of diversification of China's savings to other institutions and the capital markets. See Bhattasali, 2002.

8. China Construction Bank has been authorised to issue up to CNY 40 billion of subordinated debt (China Daily, September 14, 2004) and Bank of China up to CNY 60 billion (China Daily, June 29, 2004). CCB issued the first tranche of this, CNY 15 billion, in July 2004 with another 10 billion in September. By August 2004, BOC had issues 14.07 billion of the amount authorised (*http://english.epochtimes.com/news/4-7-11/22365.html* China economic net).

9. A key step was the change in MOF rules in 2002 to allow banks to write off or write down impaired loans up to the level of their provisions.

10. As indicated in the Table 3.A1.1, Chinese banks return on assets in most cases is below one-half of 1%, *versus* the 1% or higher attained by the majority of banks in other Asian markets, as well as the United States. Chinese banks profitability measured in terms of return on equity is relatively more favourable, but partly because the banks capital adequacy ratios are lower than those of many other banks in Asia.

11. See the *Annual Reports* for CCB and BOC for 2004. The CBRC reported special mention loans of 12% of the total for SOCBs, Policy Banks, and JSBs combined at the end of 2003.

12. For example, Standard and Poor's analysts have put bank NPLs at nearly 35% of total loans, more than double official figures ("S&P Says Declines in China Banks' Bad Debt Ratio Too Slow", Dow Jones, November 17, 2004). Estimates by Fitch Ratings are also well above official figures.

13. The resort to direct credit controls in housing, automobiles, and other boom sectors in 2003 suggests that loan standards were weakening and the risk of future non-performing loans increasing. The lax standards and high NPL ratio that have been reported for auto loans (for at least one major bank) are a further indication and undermine hopes that rapidly expanding consumer credit would be a safe alternative to business lending (See "Banks toughen auto loan policies", China Daily, July 12, 2004; and "Soaring defaults hit car loans", Hong Kong Standard, November 17, 2004). (*www.thestandard.com.hk/stdn/std/Front_Page/FK17Aa02.html*). However, the stock of outstanding auto loans is still relatively modest and most are guarnateed by insurance companies so they do not pose a serious threat to the banks.

14. "Bank of China plans to sell non-performing loans", *http://english.epochtimes.com/news/4-7-11/22365.html*. In the first such offering, China Construction Bank planned to auction off CNY 4.2 billion of NPLs and BOC was planning a similar sale of around CNY 6 billion. The sales are open to foreign bidders as well as domestic asset management companies and other entities. This represents a significant break from the long-standing prohibition on sales of bank (or other state) assets at a discount to their book value.

15. The central government is also likely to incur additional costs in resolving the extensive problems of the securities companies, nearly half of which are estimated to be in serious financial difficulty. "CSRC writes off half of the securities houses", *China Business News,* October 20, 2004 (*www.cbiz.cn/NEWS/showarticle.asp?id=2174*).

16. Fostering the growth of JSBs was one of the recommendations made in *China in the World Economy, OECD 2002*. See "Challenges to China's Banking Industry" in that volume. The rapid growth of the JSBs has been financed in part by borrowing from SOCBs and facilitated by relaxation of restrictions on borrowing in the interbank market.

17. CCBs total assets grew at an annual average rate of 31% between March 2002 and March 2004, about the same rate as for the JSBs and more than twice the asset growth rate of the SOCBs.

18. The CCB of Hefei (capital of Anhui province) will reportedly be the first bank to be allowed to expand under these rules.

19. For further discussion, see OECD, 2002a, which argues that the fate of domestic banks will depend mainly on their own efforts and the success of domestic financial reforms.

20. According to a recent survey (Li, 2005), more than half of SME queried in Zhejiang province, where the private sector is relatively highly developed, cited lack of collateral as their chief difficulty in obtaining bank loans.

21. Nearly 80% of bank loans reportedly go to customers with rating equivalents of double A or above, whereas 60% of SMEs nationwide, as much as 80% in some provinces, are considered to have a credit rating of triple B or below.

22. Reported by Xinhua news agency (February 15, 2005), apparently based on the PBC 2004 survey. However there apparently has been little further change in the proportion of loans made above the benchmark since the lifting the ceiling in October 2004.

23. For detailed discussion of problems and reforms to the rural financial system, see the papers presented in OECD (2004), *Rural finance and credit infrastructure,* proceedings of a workshop held in Paris, October 13-14, particularly the papers by Han; Scott and Druschel; Thompson; and Zhang.

24. This refers to listings on the Shanghai Exchange; new listings on the Shenzhen were essentially frozen from 2000-2003 but have since been reopened as part of the effort to transform that exchange into one specialising in smaller companies.

25. OECD (2000c), p. 510. The legal framework for sales of additional state shares was established by regulations issued by the State Council in 2001, notably the *Reduction of state shares to raise social security funds*.

26. See Asian Development Bank, 2004, especially p. 7. Liquidity, measured by the ratio of turnover to outstanding volume was about the same in China's market as in Malaysia, Thailand, and Korea but below that in Korea and only a fraction of that in the United States. Turnover in the inter-bank segment has recently overtaken that in the stock exchange segment.

27. This is the *Securities Investment Fund Law of the People's Republic of China,* enacted on October 28, 2003 and which became effective on June 1, 2004. This was followed by implementing regulations promulgated in a series of Circulars from the CSRC in August ("Issues relating to collective asset management business by securities' companies") and October ("Pushing forward innovations in the securities' industry") 2004.

28. Some CNY 20 billion of the fund's CNY 120 billion in assets was designated in 2003 for stock market investment. *China unlocks pension fund, South China Morning Post*, May 9, 2003.

29. In particular, under the WTO terms foreign life-insurers are permitted to enter only through joint-ventures, with a maximum stake of 51%. Foreign non-life insurers are permitted to operate as branches of their parents or in joint-ventures with a domestic partner with a cap of 51% ownership.

30. Loan assessments unavoidably involve some discretionary judgement; for example as to whether insufficient recent cash flow stems is a chronic problem or the result of temporary factors, in which case a loan might be granted. Enterprises that have a long-standing relation with the bank and are dependent on it seem to be given some greater benefit of the doubt in such decisions.

31. For example, in accordance with normal international practice, non-payment of interest or principle due on one loan to a business typically would trigger reassessment and reclassification of other loans to that business even if they were currently performing. While initially applied to business loans, the new system has been extended in the major banks to cover consumer loans, credit card debt, overdrafts, interbank claims, letters of credit, and other credits. The Bank of China has introduced a formal scoring system based on objective indicators as the basis for its loan classification procedures.

32. As discussed further in OECD, 2005, the audit function for non-listed companies is now lodged with the Board of Supervisors, which plays a somewhat more limited role (focusing on compliance with government regulations and policies) in governance than in OECD countries, such as Germany, with dual board structures. Listed companies are also adopting outside audits of their conditions, and the BOC and CCB are doing so as part of their preparations for listing.

33. However this needs to be tempered by the fact that JSBs built up substantial NPLs during the 1990s and received substantial government assistance to boost their capital and cleanup their balance sheets. Moreover, it is difficult to tell whether the superior performance of JSBs reflects the fact that local governments have tended to be more profit oriented than the central government authorities or their ownership diversification.

34. This is Zheshang bank, in Zhejiang province, a new privately controlled joint-stock bank created from the old Zhejiang Commercial Bank. See "Zhejiang unveils first privately-controlled bank", Caijing, September 6, 2004 (*www.chinastudygroup.org/index.php?type=news&id=6940*).

35. This is the Central Huijin Investment Company, formally owned by the State Administration on Foreign Exchange (which is turn is owned by the PBC). See "China's banks get Mr. Fix-It", *Wall Street Journal,* January 5, 2005.

36. For example, the BOC, CCB, and ICBC have received BB+ ratings from Standard and Poors while the JSBs were rated as BB or below.

37. OECD, 2000b. The domestic regulators are the China Bank Regulatory Commission, established in 2003 from the bank regulatory departments of the People's Bank of China, the China Securities Regulatory Commission established in 1992, and the China Insurance Regulatory Commission, established in 1998. Foreign exchange transactions are regulated by the State Administration for Foreign Exchange (SAFE). Although this is changing, the activities of bank, securities, and investment firms are still more distinct in China than in most countries that have adopted a single financial regulator.

38. The *Law of the People's Republic of China on banking supervision and regulation* enacted in December 2003 gives the CBRC wide ranging power and responsibilities, including the power to intervene in or close banks that failure to meet key regulatory requirements. The CBRC along with the two other financial supervisory agencies reports directly to the State Council, which is about as close to "independent" as China's current institutional arrangements allow. The separation of the bank regulatory functions formerly with the PBC, although most often cited as beneficial to the PBC's ability to conduct independent monetary policy, may also help to reduce interference in prudential policies from local governments or other extraneous considerations.

39. For example, primary regulatory responsibility for the securities exchanges, which for much of the 1990s was divided between the major exchanges, the CSRC and the China Securities Commission, and a number of local governments, was given to the CSRC in 1998 under China's first Securities Law (under which the CSRC and China Securities Commission were merged). See OECD, 2000, Box VI.2, p. 82.

40. Under this agreement, the appropriate regulatory authority is determined by the activity of the core business of the holding company. As noted later in the text, the agreement does not completely specify authority for holding companies with a mix of non-financial and financial subsidiaries.

41. Partly to this end and also to help in identifying serious problems, the CBRC has recently unveiled a formal system of rating banks under its jurisdiction based on the CAMEL approach taken in many advanced economies. The CIRC has issued guidance on insurance companies' risk standards and is developing a solvency index system for insurance companies that draws from international experiences.

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ANNEX 3.A1

Table 3.A1.1. **Profitability of selected Chinese and international banks**

End 2003

	Total assets	World rank in assets	Return on assets	BIS capital ratio	NPL/total loans
	USD billion		Per cent	Per cent	Per cent
China					
Bank of China	464	29	0.3	7.0	16.3
Industrial and Commercial Bank	638	25	0.1	5.5	21.2
China Construction Bank	429	21	0.0	6.5	9.1
Agricultural Bank of China	360	36	0.1	. .	30.1
Bank of Communications	115	101	0.0	7.4	13.3
Everbright Bank of China	48	273	0.2	4.7	9.3
China Merchants Bank	45	214	0.7	. .	. .
CITIC Industrial Bank	51	202	0.6	8.9	. .
Shanghai Pudong Development Bank	45	261	0.6	8.6	2.5
Hua-Xia Bank	29	348	0.5	10.3	4.2
Hong Kong, China					
Hongkong and Shanghai Banking Corp	277	. .	1.6	12.1	2.3
Bank of China (Hong Kong, China)	98	. .	1.1	15.2	5.8
Bank of East Asia	26	201	1.2	17.2	2.5
Singapore					
DBS Bank	94	91	0.9	15.1	. .
United Overseas Bank	67	90	1.4	18.2	8.1
Oversea-Chinese Banking Corporation	50	110	1.5	21.8	6.9
Malaysia					
Maybank	42	127	1.7	15.3	12.7
Bumiputra-Commerce Bank Berhad	19	312	0.9	14.4	6.3
Public Bank	17	193	2.3	19.4	3.0
RHB Bank Berhad	17	341	0.7	13.4	15.7
Thailand					
Bangkok Bank	34	167	0.9	15.9	24.7
Krung Thai Bank	29	266	0.8	. .	. .
Kasikornbank	21	272	1.8	17.5	16.9
Siam Commercial Bank	19	376	1.7	12.9	17.5
United States					
Citigroup	1 264	1	2.1	12.0	2.7
JP Morgan Chase and Co	771	5	1.3	11.8	1.5
Bank of America Corp	736	4	2.2	11.9	1.1
Wachovia Corporation	401	19	1.6	11.8	0.8
Japan					
Mizuho Financial Group	1 285	6	0.7	11.4	4.8
Mitsubishi Tokyo Financial Group	975	7	0.9	13.0	3.1
Sumitomo Mitsui Financial Group	950	9	0.4	11.4	5.6
UFJ Holdings	754	24	–0.4	9.2	8.5

Source: The Banker.

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Chapter 4

Reforming public finances to better serve growth

Fiscal policy in China has followed an extremely prudent path, keeping the level of government debt low and stable but following counter-cyclical polices when needed. Public expenditure relative to GDP is lower than in the OECD area largely owing to much less developed social transfer spending. Public spending may need some restructuring away from capital expenditure towards education and health spending. Social transfer spending also needs reform, which should build on the existing system of individual retirement accounts. Taxation has been kept low and has taken, on the whole, a pro-growth stance. But domestic corporate tax rates need to be lowered significantly as do the higher marginal tax rates on earned income. At the same time the base of the value-added tax needs to be widened partially making up for revenue losses elsewhere. Expenditure is to a greater extent decentralised than revenue, making a large part of sub-national governments dependent on transfers. There is scope to reform the inter-governmental fiscal system including bringing expenditure responsibilities at each level of government in line with financial resources and improving accountability. Finally, the budgetary system in China needs to be made more comprehensive and transparent.

The fiscal position appears stable

Government finances are in sound shape

China has only allowed a small increase in public spending relative to GDP over the past 5 years, after a period when expenditure rebounded from the low levels of the mid 1990s. Social transfer spending has been kept low. While the share of capital expenditure relative to GDP is still high by international standards, with some evidence of wasteful spending on infrastructure projects, capital spending has, nonetheless, been falling relative to GDP since 2002. The general government deficit has remained low and on a national accounts basis was less than 1% of GDP in 2004. As a result, public debt is very low at 23.5% of GDP. The transparency of the budget process has also been improving with a significant reduction in the amount of fund raising and spending activities falling outside of the formal budget. This effort has been accompanied by efforts to curtail illegal off-budget activities. A reduction in the delay in reporting accounts that conform to international standards would further improve transparency. Authorities have been undertaking important initiatives in recent years to bring extra-budgetary accounts onto the formal budget. Reducing the scope of contingent liabilities, and increasing their transparency, is also important but depends on progress on enterprise and financial reforms that are likely to take more time.

China's public expenditure and revenue increased much faster than nominal GDP during the past decade, but are still at a manageable level. Total government spending and revenue on a national accounts base are estimated around 26 and 25% of GDP, respectively (Table 4.1). Total government revenue has been buoyant growing at over 13% per year over 1994-2003, and nearly quadrupling during these ten years. Total spending has recorded similarly rapid growth at about 14% per year over the same period owing partly to the fiscal stimulus in response to the fallout of the Asian financial crisis. This response boosted the general government deficit in the late 1990s but as the upswing gained momentum the deficit was reduced in 2004 to less than 1% of GDP on a national accounts basis.

Though debt has increased in the past decade, its total is low, and interest payments, on a national accounts basis, represented only 2.6% of revenue in 2002 and 0.6% of GDP. All debt is owed by the central government, as local governments are required to balance their budgets annually. The share of foreign debt in the total has declined significantly following the fiscal stimulus in the late 1990s, but remained stable as percentage of GDP at around 4%. A low ratio of public debt is not a sufficient, even if an important, condition of sustainability of fiscal policy; but given the current GDP growth, the deficit could increase to 3% of GDP without raising the current debt to GDP level. While there is no commonly accepted threshold for the debt ratio above which a country would become vulnerable to shocks that may threaten sustainability, China's high private savings would allow for a higher threshold relative to countries with similar debt and deficit figures but lower private savings.

China's general government expenditure to GDP ratio on a national accounts basis was 14 percentage points lower than the OECD weighted average in 2002 and is lower than that of any OECD country except Korea.[1] However, if interest payments and social security

Table 4.1. **General government finances 1992-2004 (in % of GDP)**

		1992/1997	1997/2002	2001	2002	2003	2004
On-budget[1]	Revenue	12.2	15.1	16.9	17.8	18.0	18.9
	Expenditure	13.1	17.3	19.5	20.7	20.4	20.3
	Balance	–0.9	–2.1	–2.6	–2.9	–2.4	–1.4
Extra-budgetary[2]	Revenue	5.3	4.1	4.4	4.2	3.9	3.7
	Expenditure	5.0	3.7	3.9	3.6	3.6	3.4
	Balance	0.2	0.4	0.5	0.6	0.3	0.3
Social security[2]	Revenue	1.7	2.8	3.1	3.8	4.0	4.0
	Expenditure	1.5	2.6	2.8	3.2	3.3	3.3
	Balance	0.2	0.3	0.4	0.5	0.7	0.7
Central government bond issues on behalf of local governments		. .	0.5	0.4	0.2	0.2	0.1
Total[3]	Revenue	19.2	22.1	24.4	25.7	26.0	26.5
	Expenditure	19.7	23.9	26.6	27.7	27.6	27.1
	Balance	–0.5	–1.8	–2.1	–2.0	–1.6	–0.6
National Accounts (SNA)	Revenue	20.1	22.4	24.1	24.1	24.4	24.9
	Expenditure	20.6	24.2	26.6	26.4	26.3	25.8
	Balance	–0.5	–1.9	–2.5	–2.3	–1.9	–0.9
Debt[4]		8.8	20.3	23.2	23.5	23.7	22.8

1. Subsidies for loss-making state-owned enterprises are added to total expenditures where it is not accounted for and also to total revenues from which it is deducted in Chinese accounts.
2. Figures for 2003 and 2004 are OECD estimates.
3. Total revenue includes budgetary and extra-budget revenue and payments to social security funds. Total expenditures, similarly, comprise budgetary and extra-budget expenditure, outlays of social security funds and central issues of bonds on behalf of local governments.
4. Debt includes domestic and foreign central government debt, central debt issues on behalf of local governments and special bonds for bank recapitalisation.

Source: National Bureau of Statistics, National Accounts, Statistical Yearbook (1992-2002), OECD estimates on basis of budgetary outcomes 2003, 2004.

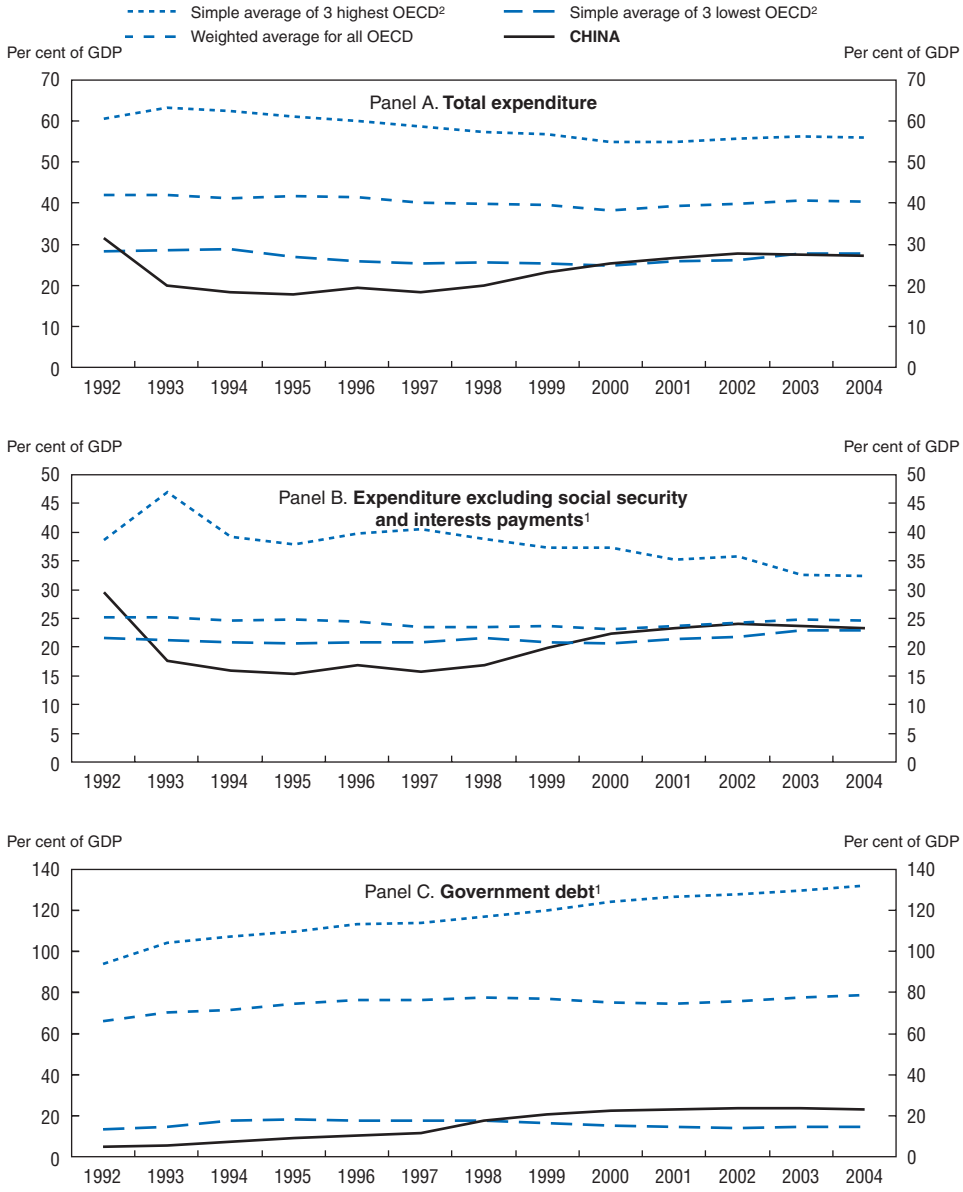
disbursements are excluded from the comparison, expenditure in China, at 24% of GDP, is only 1 percentage point of GDP below the OECD weighted average. China's prudent fiscal policy has resulted in low gross debt level in comparison with OECD countries, with its stock at 23.5% of GDP being less than one-third of the OECD weighted average in 2004. Only Luxemburg, Korea and Australia have lower gross debt than China's relative to GDP.

Off-budget debt and expenditure exist but do not jeopardise stability

Overall expenditure figures do not fully reflect actual total expenditure as some part of the spending is not recorded. Sub-national governments raise and spend funds off-budget. This is, in part, a consequence of unfunded expenditure mandates by the higher layer of government, and in part driven by incentives to hide revenue in order to become eligible for more transfers.

In addition, the government has over time accumulated considerable implicit and contingent liabilities. Chief among these are the non-performing loans (NPLs) incurred by financial institutions. While it is difficult to estimate contingent liabilities, particularly in China because of scarcity of data, current estimates put the total financing required to fully resolve the NPL problem at close to 30% of GDP in 2004 (see Chapter 1). This amounts to unacknowledged past spending on the order of 1.5% of GDP annually since the commercial banks were first established in 1984. A fraction of the total has already been recognised as government debt. Another part has been dealt with by the central bank financing the acquisition, through a state company, of equity in commercial banks.

Figure 4.1. **The evolution of public spending and debt**



Note: Chinese data are SNA based until 2002, and updated thereafter on the basis of budgetary data.

1. Turkey and Mexico are excluded from the OECD average in panels B and C as no data for either interest or debt are available.
2. The highest and the lowest three countries in each category are determined by their respective figures for 2002.

Source: National Bureau of Statistics, Ministry of Finance, *OECD Economic Outlook 76* Database.

The largest part of the eventual debt is likely to be held in asset management companies (AMCs) and remain with them once the remaining banks are recapitalised. Currently, the AMCs have borrowed CNY 1.5 trillion and are likely to have to borrow more to finance further bank recapitalisations. So far, the AMCs have been able to meet interest payments on their debt from the sale of recovered assets. At some point they will have realised all saleable assets and then the government would need to refinance the AMCs if the holders of the debt (the commercial banks and the central bank) are to be fully repaid. If the present AMC debt and cost of all recapitalisations undertaken after the end of 2004

were to be transferred to the government eventually, official interest payments would rise by about 1% of 2004 GDP.

A further source of eventual government debt is illegally-incurred local authority debt. In effect, local governments that cannot borrow under existing laws have, nonetheless incurred substantial debt. Such debt will ultimately have to be assumed by local or central governments. Precise information on such illegally-incurred government debt is not available; one researcher put the accumulated debt at the county, township and village level at around CNY 1 trillion or 10% of GDP in 2002 (Song, 2003), while the Ministry of Finance estimates that the debt of township and village administrations was between CNY 300 and 400 billion (around 3% of GDP) in 2003. In addition, local governments may have provided credit guarantees even though the granting of such guarantees is forbidden by law. It has been suggested that once illegal debt had been recognised, then local authorities could be granted very limited recourse to borrowing subject to central government approval (Wei, 2004).

The inclusion on the government balance sheet of local government related debt, and the financing necessary to recapitalise all banks and to refinance all AMC debt would raise official interest expenditures by slightly over 1% of GDP. With current nominal GDP growth and budget deficits, the higher level of debt would still be on a declining path and, *ceteris paribus,* be sustainable.[2]

The overall fiscal balance of the government, as well the elements listed above, includes the balance of the social security system. In this area, the number of pensioners is likely to increase very rapidly over the next 25 years. Major reforms of the pension system have been undertaken but these are unlikely to be sufficient. Considerable further reforms appear to be necessary and these are discussed in more detail below.

Budget management has been improving transparency

Following decisions to increase budget transparency, the coverage of the budget has become more comprehensive and the basic infrastructure for budget formulation and implementation has been put in place. A growing number of extra-budgetary items have been brought into the budget and unauthorised funds and surcharges have been abolished especially for local authorities in rural areas. This policy has resulted in a reduction of extra-budgetary expenditures and revenues to 3½ and 3¾% of GDP in 2003, respectively. Extra-budgetary accounts encompass a number of funds used by local governments (or by other entities on their behalf) to carry out a wide variety of activities. The planning and control procedures for extra-budget accounts are typically distinct from those applying to on-budget spending. They are financed by legally sanctioned fees, surtaxes, user charges, and other levies specific to each account. In addition, local governments' off-budget activities are financed by illegal fees and levies. By bringing all extra-budgetary activities on budget and phasing out off-budget activities, the planning and control of the entire budget could be improved.[3]

A number of other steps have been taken to improve budgetary procedures even if some improvements could still be made. The introduction of departmental budgets has markedly increased budget transparency as now all spending is assigned to a specific ministry or agency. Moreover, the centralised treasury payment system, started as experiment in 2001 and now extended to 140 central government departments, has increased the effectiveness and efficiency of budget implementation. One area where

budgetary planning could be improved is the integration of control of current and capital spending. Current expenditure is decided by the Ministry of Finance while capital spending is controlled by the National Development and Reform Commission, reflecting past legacies in decision-making government bodies. A better integration of the two parts could make budget planning and control easier.

The new budget classification system adopted from 2004 brings data definitions closer to international standards. However, more timely publication of accounts conforming to international standards could make international comparisons easier. Also, more comprehensive public accounts are needed to measure the impact of quasi-fiscal activities and contingent liabilities on the government's fiscal position.

The framework for allocation and mobilisation of resources needs improvement

Outcomes of China's public finance policies will, to a large extent, depend upon how spending is allocated and how effectively resources are mobilised to finance them. While in OECD countries social spending is a large share of government expenditure, in China social security spending has emerged as a major concern only recently with physical investment outlays long being the focus of spending. The steady growth in expenditure has been made possible by buoyant growth in revenue and debt financing. The rapid growth in public revenue can be attributed to strong GDP performance, higher profits, an unindexed income tax system and enhanced tax collection. Few new taxes or widening of tax bases have been introduced during the past decade. In the coming years, however, further measures may have to be considered in order to meet the increasing demand for health and education spending in particular, depending on the growth of revenues and the extent to which existing spending can be re-organised.

Spending is low in key social areas

While public expenditure in China is not classified by economic categories and the functional classification does not fully conform to international standards, available data suggest that China allocates a relatively low portion of its public outlays to social welfare, human resource development, science and technology; but a relatively high portion to capital spending (Table 4.2). Indeed, in 2002, expenditure on culture, education, public

Table 4.2. **Government expenditure by sector in 2002**

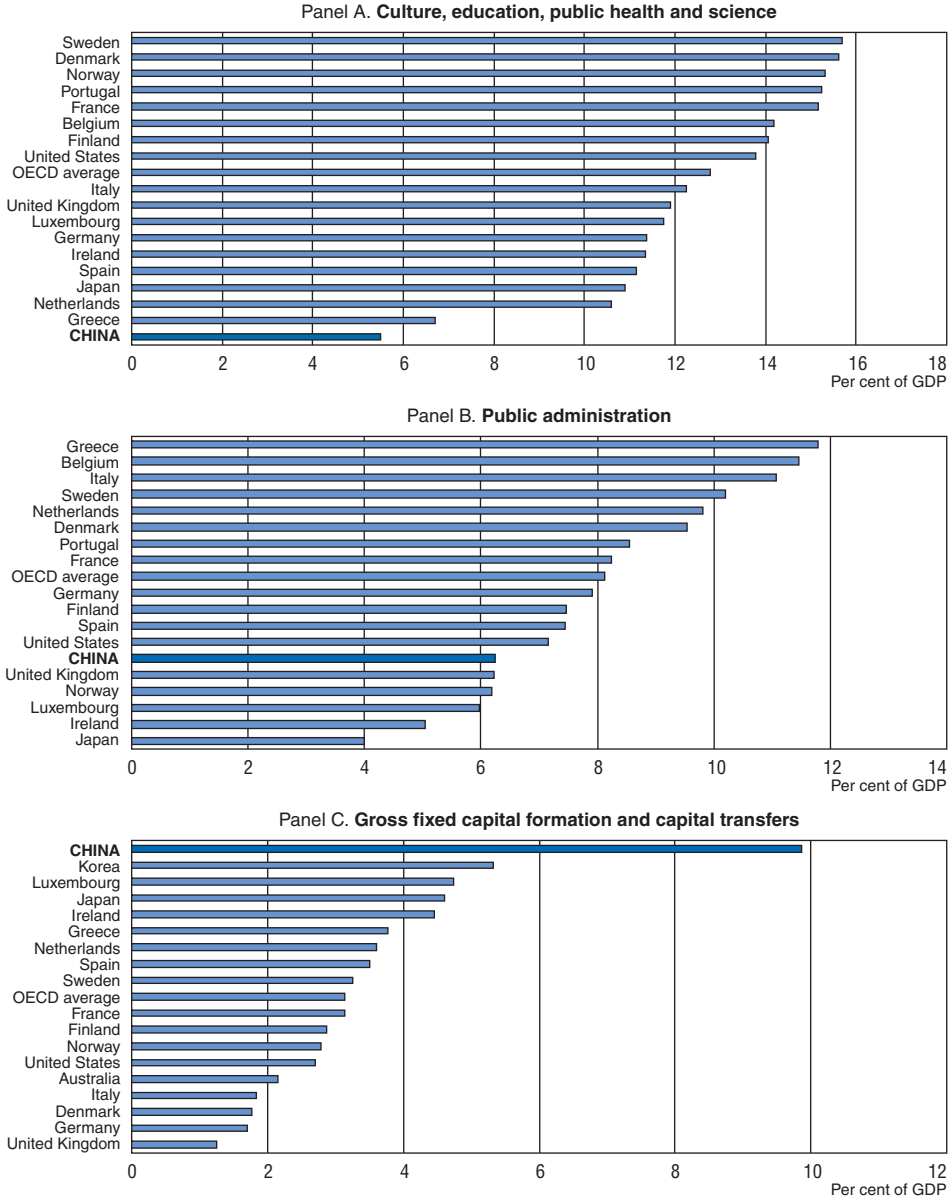
	Amount (CNY billion)	Per cent of GDP
Administration	671	6.2
Defence	171	1.6
Culture, education, public health, science	592	5.5
Economic services	146	1.4
Social relief	218	2.0
Subsidies[1]	90	0.8
Interest expense	68	0.6
Social security funds	393	3.6
Infrastructure[2]	289	2.7
Others	349	3.2
Total Expenditure	2 987	27.7

1. The subsidies category includes transfers to cover SOE losses.
2. Does not include infrastructure spending in the Culture, education, public health and science category.

Source: Finance Yearbook of China 2004.

Figure 4.2. **An international comparison of public expenditure components**

2002



Note: OECD country data are SNA based, Chinese data come from budgetary accounts except for capital expenditure, which is SNA-based.

Source: Ministry of Finance, National Bureau of Statistics, *OECD Economic Outlook 76* Database.

health, and science on a national accounts base was 5½% of GDP, over 7 percentage points of GDP lower than the OECD average and much less than in any OECD country (Figure 4.2).

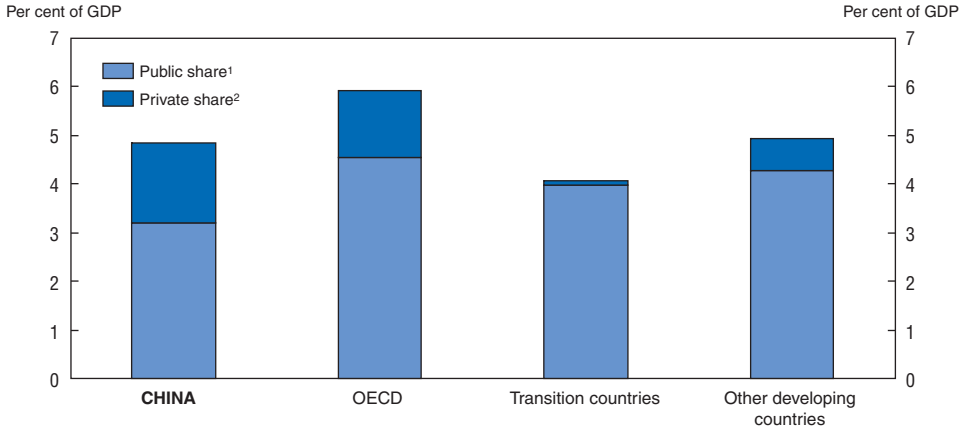
Education

High private spending on education compensates in part for the gap in government spending in this category of outlays relative to the OECD area. Indeed, total spending was only 1% GDP lower than in the OECD area. Despite a significant increase in recent years, in 2002, total official expenditure for education – including in other budget categories and

extra-budgetary accounts – was about 3.2% of GDP, below the long-standing government goal of 4% of GDP (see below). Public education expenditure relative to GDP has been somewhat less than in other developing countries for which data is available and below that in transition countries (Figure 4.3). Total education expenditure relative to GDP, however, has been on a par with that in other developing countries owing to the higher share of private financing in China.

Figure 4.3. **Public and private education expenditure**

2000



1. Including public subsidies to households attributable to educational spending.
2. Net of public subsidies attributable for educational institutions.

Source: Ministry of Finance, *Education at a Glance 2004*, OECD.

Education has been a main target of development policy during the past decade. As early as 1993, a medium-term objective for budgetary expenditure on education was set at 4% of GNP, to be reached by 1999, with the aim of approaching the average ratio in developing countries, which stood at 4.1% of GDP in 1991 (Gao, 2001). The central government allocated an additional sum of CNY 50 billion per year over 1998-2002, in order to finance the 1995 National Compulsory Education Programme. It targeted central government transfers on 592 poor counties (about one-fifth of all counties). The objective was to extend compulsory education to nine years in cities and six years in all rural areas and to provide free textbooks in those counties and for poor families in other central and western areas. It also guaranteed primary school teachers' salaries by shifting the level of government responsible for payment of teachers' salaries form the township level upwards to the county level in 2000 and to the central level in 2002. Though the volume of spending on education increased substantially, the target of spending 4% of GDP on education was not reached (outlays stood at around 3.4% of GDP in 2002).[4] The latest objective set in the 10th 5-year plan is to achieve the 4% of GDP spending target by 2005,[5] while encouraging the participation of the private sector in providing education services.

There remain inequalities in the distribution of spending on education across regions and across levels of education. Funds available for education differ across the country and both the inputs and outcomes vary widely. A comparatively large share of official education spending is channelled to tertiary education, while primary and secondary education is under-funded. In addition, China's public spending on science and technology has also been relatively low by international standards (OECD, 2002).

Health and Social Welfare

China's total health expenditure at 5.3% of GDP in 2002 is only slightly lower than in some OECD countries but the share of private financing is higher than in most OECD countries. The share of public health outlays in on-budget spending has fallen from 4.2% in 1994 to 2.9% in 2002 and represented only 0.6% of GDP. The decline in government financing of health expenditure is attributable to the reform of the health sector in 1996 aiming at establishing a market-based system. In addition, the transition of the economy has brought about a sharp reduction in health insurance coverage. According to a survey by the Ministry of Health only 49.6% of urban and less than 20% of the rural population was covered by health insurance in 2003.[6] To provide accessible health care services for the rural population, the government launched a pilot project of rural cooperative medical and health care services in seven provinces in 2002 and from the following year allocated CNY 10 per rural inhabitant (with local governments and individuals each contributing the same amount) to create a fund that would cover 50% of medical expenses. The aim of the project is to cover 80% of the rural population by 2010. Health outcomes have improved over the past decades, with life expectancy reaching that of the lowest OECD countries. To further improve outcomes, particularly in the areas of infant and maternal mortality and to increase the rate of immunisation among children there is a need to increase government health outlays.

Although growing rapidly, spending on social welfare makes up a relatively low fraction of total government expenditure (19.8% of total expenditure and 2% of GDP in 2002).[7] One of the largest components of welfare spending is expenditure on urban minimum living standards, which was introduced nationwide in 1997 and increased over twelve-fold by 2004 to cover 22 million people. The beneficiaries include laid-off urban employees and retirees or unemployed people. The rural equivalent of the scheme has been established by about 1 400 wealthier counties (about half of the total) and paid benefits to less than 5 million people. Spending on minimum living standard in rural areas is about one-tenth of that in urban areas.

Investment expenditure is high and inefficient

In contrast, government capital spending is much higher than in any OECD country. At over 9% of GDP on a national accounts base in 2002, it was more than double that of the average OECD country. The level of capital spending in the budget has more than doubled since 1998, due largely to spending for infrastructure in the western regions. Over half of overall capital spending, on a national accounts basis, takes the form of capital transfers, which are shown by the national accounts to be received by the enterprise sector.[8]

Better management of capital spending is required

The authorities are now evaluating the cost-efficiency of public spending. The new system for reviewing expenditure efficiency in health, education and agricultural support creates benchmarks for these spending categories against which actual expenditure is assessed. It covers investment projects, public agencies (schools, hospitals, etc.) and government organisations. While this is a step in the right direction, there is room for improvement by making benchmarks more comparable across regions and objectives.

The government now intends to adopt performance-oriented management practices for public employee evaluation. By focusing on the quantity and quality of outputs, the new evaluation method is expected to improve accountability. The lack of nationwide performance indicators may limit its effectiveness which could lower spending on public

administration, which at 6.2% of GDP, is already somewhat below the OECD average of 8.1% in 2002 and in line with that of the United Kingdom or the United States.[9]

Efficiency could be enhanced by better exploiting the role of market mechanisms, especially for investment. Competitive bidding for public procurement and removal of restrictions on choice of service providers could increase cost efficiency by enhancing competition among suppliers. In the field of infrastructure investment, a larger involvement of the private sector might be needed, given that several public projects have been characterised by a low degree of accuracy in planning, underestimation of costs, inadequate forecast of demand, delays in project implementation and a lack of *ex post* evaluation (Japan Bank for International Cooperation 2003). Waste of public funds is particularly severe in government bond-financed projects, half of which only meet their initial objectives (National Audit Office 2004).[10] A major reason for this could be too easy an access to public financing. Infrastructure projects and cost efficiency could benefit if implemented on a commercial basis rather than being financed from the budget. This may require more of the large construction companies moving to the private sector and private companies' access to long term finance from capital markets (see Box 4.1).

There remains ample scope to improve effectiveness of spending by integrating the capital and current budgets. This would entail moving control of aggregate investment into

Box 4.1. **Involving the business sector in public investment**

The scope for involving companies in the development of infrastructure would appear to be significant. A number of construction companies appear to be competitive on a world-wide basis. Of the top fifteen companies, one-third generated more than 15% of their revenue from overseas operations. In the late 1990s, the Beijing Municipal Government brought in a public-private style financing system to raise cash to build freeways. A company was established by the government and charged with raising the cash and building a new ring road. The new company took complete responsibility for financing the roads and putting the work out to tender. The highway (65 km long) cost less than its budget and was in use within three years, two years ahead of schedule. Two more ring roads will be added to the four existing ones before 2008.

However, the experience by municipal governments in creating companies to run infrastructure projects has not always been as good as that of Beijing. Many airports have been financed through development companies. For example, by 2005, the Yangtze River Delta area will have 18 airports with a density (0.8 airport per 10 000 square kilometres) above the US average of 0.6. A similar situation is occurring in the Pearl River Delta. Overall, regional airports have had difficulty attracting airlines and a 2001 survey showed that 90% of China's 143 airports lost money (China Daily 2004-04-29). Another example of over-investment is ground satellite receiving stations. China currently has 17 ground satellite receiving stations, but four or five would be sufficient if distribution and data sharing were better executed. However, more than 60 stations are to be built within the next three years (Hong Kong Chamber of Commerce, 2004).

While Chinese state-owned construction companies are diversifying abroad, there have been concerns that regulations introduced in 2004 may limit the ability of foreign companies to bid for large public-sector infrastructure contracts and so reduce competitive pressures and lower the cost-effectiveness of public expenditure. The new regulations impose minimum capital requirements on foreign contractors and limit their contract values to a multiple of this capital. In addition, a significant number of staff must be employed in China.

* (Engineering News Review, 2005, *www.enr.com/people/topLists/chinaCont/topChinaCont_1-60.asp*).

the same agency that is responsible for revenue and current expenditure. The capital budget should include spending that is currently off-budget such as on-lending of central bond proceeds to local governments for infrastructure investment and investment incurred in all extra budgetary accounts. The capital budget should be anchored in a medium term framework.

Reforms are needed to the pension system

A government-based countrywide social insurance system comprising pension, health, unemployment, injury and maternity was only established in 1997 and is still in the process of transition. Prior to this date, benefits were provided by the companies to employees. Average contribution rates are high: 41% of the wage bill is paid into the above four social insurance schemes, from which 30% is paid by enterprises and the rest by employees (Table 4.3). At present, the system is segmented between rural and urban areas and even within urban areas, and there are large differences in coverage across regions and enterprise ownership types. The segmentation of social insurance schemes impedes labour mobility and hence the creation of a national labour market. In addition, the various systems are poorly administered with a significant proportion of private sector enterprises not joining the system despite its compulsory nature.

Table 4.3. **Social Security Contribution rates**

Per cent of wage, 2005

	Pension	Health	Unemployment	Injury	Maternity	Total
Enterprise	20	6	2	1	1	30
Individual	8	2	1			11
Total	28	8	3	1	1	41

Source: Ministry of Labour and Social Security.

Among the five social insurance programmes, pensions are far the most important with a share of around 80% in revenues and expenditures. The present pension system evolved from a PAYG, defined-benefit system through a hybrid scheme of defined-benefit and defined-contribution into the present unified three-tiered system established in 1997 when it was extended to the entire urban labour force (see Box 4.2).

The transition to a mixed PAYG and funded individual accounts system entails costs, the financing of which has not been resolved. A major problem emerged from the nature of the pension systems which are run at the county, city or province level. A surplus in one administrative area cannot be used to make up for shortfalls in others. The central government is responsible for financing the deficit regions. Surplus regions, on the other hand, can lower contribution rates or invest the surplus and so are reluctant to agree to combine their schemes with those of regions less favourably placed.

Contributions to the first tier of the new system are not sufficient to finance pension payments to people entitled to pensions from the old systems where replacement rates had been between 75 and 80% (Zhu, 2002). As a result, the government modified its original plan and the individual accounts have become notional rather than fully funded. Making the individual accounts notional reduces the transition burden as by borrowing from these accounts the transition could be spread over more years. In 2000, the central government established a National Social Security Fund to serve as a reserve and to cover cash flow deficits in the first tier.[11] This fund is, in principle, entitled to receive 10% of the proceeds

Box 4.2. **The Chinese pension system**

The first tier is mandatory and its first component gives the right to a basic flat-rate pension equal to 20% of average wages in the locality covered by the system provided that the pensioner has contributed for at least 15 years. It is financed by enterprise contributions of 17% of wages. This component is highly redistributive as at retirement it pays a pension equivalent to 20% of local wages regardless of actual lifetime earnings. The second component of the first tier is based on notional mandatory individual accounts to which both enterprises and individuals contribute, at 3 and 8% of wages, respectively. Contributions are usually credited with interest at the official rate for bank deposits. At retirement, the pensioner is entitled to a monthly annuity equal to the accumulated contributions and interest in the account divided by 120. The age of retirement is 60 for men, 55 for female non-manual employees and 50 for female manual workers. This component is designed to give a replacement rate of 38.5%, on the assumption that the interest rate on balances (the bank deposit rate) is always equal to the nominal growth of wages. The second tier is voluntary and is funded by enterprise and individual contributions. Only enterprises that fully comply with the first two tiers can establish third tier funds. State-owned enterprises have high compliance but can not afford to create such funds. As a result the number of people participating in this plan was only 7 million in 2003. A prerequisite to boosting the role of this tier is to increase compliance, particularly by private and foreign-invested enterprises. The third tier in the system is reserved to encourage individual savings for retirement.

from the sale of shares in state-owned companies when there is an initial public offering or a new share issue. Lottery ticket sales will be an additional source of revenue for the fund (Wang, 2004). Other initiatives are at the stage of pilot schemes (see Box 4.3).

The terms of the notional individual accounts, representing the second tier, are unattractive. The contributions have earned a real return of only 2.4% per year since the inception of the scheme while real wages have risen by 12.4% annually. If this gap were to narrow from 10 to 3 percentage points, the replacement rate would drop to 24% rather than

Box 4.3. **The pilot pension system reform in the northeast**

The government announced a pilot scheme in Liaoning Province (State Council Document No. 42) that creates fully funded individual accounts. Liaoning Province has one of the highest ratios of pensioners to employees among all provinces owing to its high share of SOEs that have been downsized. As originally planned in 1997, the entire contribution of the enterprise to the basic pension (20% of the wage bill) is used to partially pay basic pension benefits, while the employee contribution of 8% of wages is transferred to individual accounts. The central and local government make up for any difference between contributions to the basic pension and benefits actually paid. The basic pension scheme still has a 15-year vesting period, but benefits now increase at a 0.6% for each additional year of contribution. The local tax bureaus are now responsible for collection. The pilot project has been extended to the two other northeast provinces (Jilin and Heilongjiang) in 2004 with modifications. The basic pension in these provinces now also takes into account individual salaries and pension payments from the individual accounts are adjusted for life expectancies. In addition, in Heilongjiang province pension funds will be pooled at the provincial level.

the planned 38½ per cent. Moreover at some point the formula used to calculate pensions at the end of the accumulation period will need to be adjusted. It assumes a life expectancy of ten years. By 2001, life expectancy at age 60 was 17 years for men, while for women life expectancy at age 55 was 24 years (WHO, 2005).

The effective coverage is very low: overall, only 63% of eligible employees were actually covered by the system in 2000 (Zhao and Xu, 2001), representing 14% of total employment and registered unemployment.[12] The coverage rate is higher for state-owned and collective enterprise employees, while private and foreign-funded enterprises are reluctant to participate. In an attempt to increase the coverage, new participants are offered preferential terms in several provinces.[13] Wealthier regions with low share of the state-owned sector and low coverage are more likely to offer such terms. Reduced contributions and non-compliance imply an even lower effective collection than what the coverage would suggest. Large variations across enterprises of different ownership types and in different regions impede the portability of pensions and thereby the creation of a national labour market.

Evaluating the long-term sustainability of a country's pension system is fraught with uncertainty, although the exercise is essential to provide a basis for policy reform discussions. In 2001, the Ministry of Labour and Social Security (MOLSS) made projections for future outlays. They depend upon the assumptions concerning demographic, employment, productivity and urbanisation developments.[14] The simulations assume that the parameters of the system remain unchanged and that individual accounts are fully funded in contrast to current practice. On this basis, the first tier of the pension system would remain in deficit for 28 years until the pre-1997 retirees and the transition generation no longer draw pensions.

A number of options for reform were investigated. The length of this deficit period could be shortened to six years by continuing with the current arrangement of having notional individual accounts. Once the combined system is in surplus, the individual accounts could be invested in assets from outside the government sector. After the 28 year period, when the basic plan will be in surplus, the new cash flow to individual accounts could be fully invested. There would be a scope to reduce contributions to the first tier from the present 20% to 12% or repay the initial borrowing from the national account to the first tier.

Such a long transition period would reduce the capability of the pension system to raise savings and boost the development of capital markets. Consequently, the MOLSS report recommends a phased set of reforms to quicken the transition to fully funded accounts. It suggested:

- abolishing early retirement schemes;
- phasing out the differences between retirement ages of manual and non-manual female workers;
- raising the retirement age of women to that of men;
- lowering the pension paid from individual accounts, to bring benefits more in line with life expectancy at the retirement age;[15]
- pooling pension funds at the national level.

Eliminating early retirement would shorten the duration of the deficit period by 3 years and decrease the size of the cumulative deficit by one-third to CNY 1.8 trillion (19% of 2001 GDP). Other measures would still be needed to ensure sustainability.

The projections identify areas where policy reform is most likely to have major impact on sustainability. If the reform plan were implemented, with a combination of lower replacement rates, extension of coverage and an increase in retirement age, the system could become sustainable. Further funds could be raised by more stringent enforcement. The results of the provincial pilot projects will be assessed before nation-wide changes are made.

The tax system relies on taxes on goods and services

The current Chinese tax system is relatively new, dating from 1994. The vast bulk of China's government revenue comes from three main sources: income taxes, taxes on goods and services and social security contributions, but the structure of revenue is quite different from OECD countries. The share of indirect taxes in government revenue is 43%, significantly above the average in the OECD area (Table 4.4). Company taxation produces a yield similar to that in OECD countries but personal income tax and social security contributions are of much less importance in China.

Table 4.4. **The structure of selected government revenues in China and the OECD area**

Per cent of total taxes and social security contributions, 2003

	Total direct taxes	*of which: direct taxes on household*	*of which: direct taxes on business*	Indirect taxes	*of which: value added type taxes*	Other taxes	Social security contributions received by the government
Australia[1]	55.3	*38.5*	*16.3*	33.2	. .	11.5	. .
Austria	29.9	*24.3*	*5.3*	26.9	*18.0*	8.9	34.3
Belgium	36.5	*29.7*	*6.5*	24.3	*14.9*	7.0	32.2
Canada	46.5	. .	. .	26.4	*8.0*	12.3	14.7
Czech Republic	26.2	*13.5*	*12.8*	29.8	*17.9*	2.4	41.6
Denmark	59.1	*53.3*	*5.7*	31.7	*19.9*	5.8	3.4
Finland	39.0	*31.2*	*7.8*	31.0	*18.8*	2.7	27.2
France	23.6	*18.6*	*5.1*	25.7	*15.8*	12.4	38.2
Germany	25.6	. .	. .	25.3	*15.4*	5.6	43.5
Greece	23.1	*13.6*	*9.1*	38.0	*21.1*	3.0	35.8
Hungary	23.9	*18.2*	*5.7*	41.6	*23.2*	1.9	32.5
Iceland	43.2	. .	. .	37.8	*26.9*	10.5	8.5
Ireland	40.2	*23.6*	*12.9*	40.5	*23.6*	3.8	15.4
Italy	31.1	*25.3*	*5.5*	25.3	*13.8*	13.4	30.2
Japan	26.8	. .	. .	17.9	*9.5*	17.0	38.2
Luxembourg	36.5	. .	. .	29.2	*15.3*	6.4	27.9
Netherlands	26.0	*17.7*	*8.2*	30.0	*19.1*	6.6	37.4
New Zealand[1]	57.5	. .	. .	29.6	*20.0*	9.4	3.5
Norway	44.6	*25.9*	*9.8*	29.9	*20.0*	2.6	22.9
Poland	17.2	*11.2*	*6.0*	36.0	*22.3*	8.4	38.5
Portugal	24.7	*15.9*	*8.8*	38.8	*22.5*	4.5	32.0
Slovak Republic	22.3	. .	. .	34.2	*22.0*	3.8	39.6
Spain	28.5	*19.3*	*9.2*	30.1	*16.5*	5.6	35.8
Sweden	36.9	*32.2*	*4.6*	25.3	*17.8*	9.5	28.3
United Kingdom	36.7	*28.8*	*7.8*	31.9	*18.9*	11.3	20.1
United States	42.5	*34.8*	*7.7*	15.3	. .	14.6	27.5
OECD area unweighted average	**34.7**	**25.0**	**8.2**	**30.2**	**18.4**	**7.7**	**28.4**
China	**34.8**	***9.2***	***23.4***	**42.8**	***32.3***	**2.8**	**19.5**

1. 2002 data.

Source: Tax Yearbook of China 2004 and OECD National Accounts Statistics Database.

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Some features of indirect taxes introduce distortions in economic behaviour

Indirect taxes in China are a mixture of value-added taxation and taxes on specific products and services. The value-added tax has been the most significant source of taxation since the widening of its base and the reduction of the number of rates to two in 1994.[16] Unusually, the effective base for VAT is consumption, investment and, since 2004, certain exported products. On average, the VAT rate on exports is 3-5% against the standard rate of 17%. However, the tax base does not cover transactions in intangible assets and services that are covered by the business tax, which generally has much lower rates.

The VAT authorities are under constant pressure to redefine goods as intermediate rather than investment goods, to reclassify exports into products that are eligible for a full tax rebate and finally to move services to within the scope of the business tax or the reverse depending on relative tax rates. The value added tax also produces disincentives to use capital rather than other inputs in the production process as VAT on capital goods cannot be reclaimed.[17] In 2003, the yield of VAT represented only 56% of the theoretical yield if all investment and household consumption were taxed at the standard rate, due to the large number of exemptions and below standard tax rates. Consumption (excise) tax rates are highly differentiated, ranging between 3% and 45% (for tobacco). Since 1994, the yield from VAT has grown 1½ percentage points faster than the growth of consumption and investment (an elasticity of 1.13) perhaps due to rapidly rising exports and to better collection.

The share of direct taxation is small but has been rising rapidly

The corporate income tax system is biased against domestic enterprises

A low rate of corporate taxation for foreign-invested companies has boosted economic activity. Foreign companies located in a very wide range of geographic areas or engaged in designated production sectors (such as high technology industries) pay a tax rate of 15%. For foreign companies, 40% of the corporate income tax on profits is refunded if the retained profits are re-invested in the same enterprise or in a newly established enterprise. This refund rises to 100% if the existing or new company exports its output or engages in a high technology activity.[18] Foreign companies are also granted total and partial tax holidays for the first three years of operation, or longer in certain cases. Domestic companies can also benefit from the tax regime reserved for foreign companies if they have a foreign partner that holds at least 25% of their equity. These differential tax rates also give incentives to Chinese companies to disguise their investments as originating from abroad, so as to benefit from lower tax rates. The overall result of these provisions is that, in the industrial sector, the effective corporate tax rate for majority foreign controlled companies was 10-15% in 2003, while even domestic private companies paid an effective rate of only 20-25% against the standard rate of 33%. With growing activity of low-taxed foreign companies and the recovery in profit rates (see Chapter 2), the yield of corporate tax rose from 1¼ per cent to nearly 3% of GDP between 1998 and 2004.

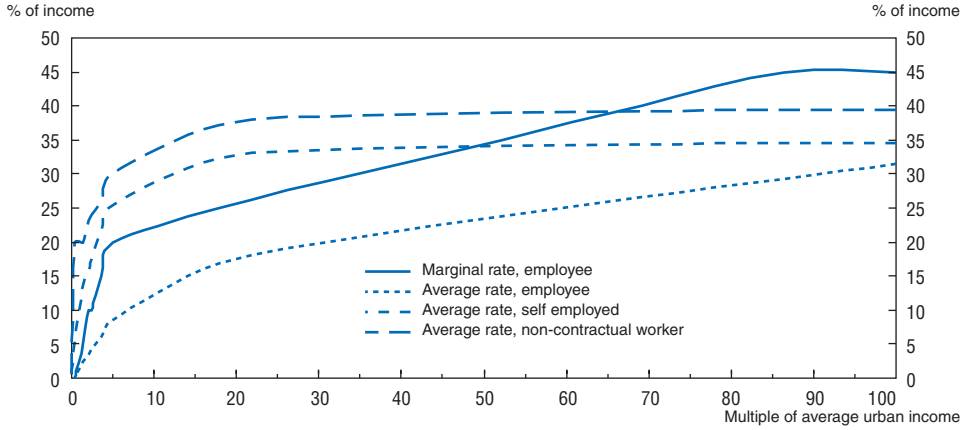
The personal income tax system needs change

Capital accumulation is helped by low flat taxes on investment income. Both interest income from banks and dividends are taxed at a flat rate of 20% and do not influence the taxation of other forms of income. In order to encourage the provision of rental housing,

income from letting has been taxed at a flat rate of 10% since 2001, while interest from savings accounts specifically limited to withdrawals for education, and pension purposes are not taxed at all. Capital gains on securities and the income from government bonds and certain other bonds are not taxed. Capital gains on fixed assets are taxed at 20%.

In contrast to the corporate tax regime, the individual income tax system for income from wages and self-employment is straightforward and few people pay a marginal tax rate over 20%. The system also avoids many of the complexities seen in OECD systems, but is not very equitable. Such income is taxed using three separate schedules: one for regular salaries, one for the self-employed and the other for project payments. The unit of taxation is the individual, so avoiding problems seen in many OECD tax regimes where the unit of taxation for married people is the couple. There is a basic personal allowance which is available to people with regular salary income only and amounted to 70% of the average urban wage in 2003. Moreover, the tax schedules differ for the three categories of income. For people with regular salary income, the degree of progression in the nine tax brackets is relatively slow. For example, a marginal tax rate of 20% is reached at 5 times the average urban wage (Figure 4.4), whereas for the self-employed a marginal tax rate of 35% is reached at 3.6 times average earnings. The tax rate on non-contractual workers is even higher than on the self-employed, as they pay an average rate of between 20 and 40%. Certain types of income such as basic pension, health and unemployment benefits are completely exempt from taxation.

Figure 4.4. **Tax rates for people with regular salary income, self-employed, and non-contractual workers**



Source: State Administration of Taxation, calculated by OECD.

Although the basic personal allowance for employee income tax is set nationally at CNY 9 600 per year, but this can be set at a higher level in different localities provided it does not exceed 120% of the national level. As a result, the income tax threshold is substantially higher in high-income coastal provinces and Beijing.

Despite these higher deductions in richer areas, the yield of the income tax system has been rising rapidly. Nationally, the tax brackets and the tax threshold have not been moved since 1980, despite an 18 fold increase in annual urban wages since then. No long time series of the revenue from the wage and salary component of the income tax system is available, nor are there tabulations of tax payments by income bracket. However,

simulations based on the urban household income survey can replicate the yield from the wage tax system successfully, suggesting that revenue collection is quite efficient (Piketty and Qian, 2004).[19] Not surprisingly, given the unindexed nature of the system, their calculations show that income tax yields from wage income have been rising very rapidly. The elasticity between the tax yield and the tax base was 2.6 in the period 1994 to 2001. Both the proportion of people in urban areas paying income tax on their wage earnings, and their average tax rate, were simulated to have increased by over 20% annually in the same period. The authors suggest that the tax elasticity may rise to close to 4 in the period 2004 to 2010. The mechanism for increasing tax yields will change from people moving into the bottom of the tax system to moving through the tax brackets, perhaps raising the income tax yield by 2¾ per cent of GDP by 2010.

Reforms should aim to support growth

The Chinese tax system has a number of features that may well have contributed to high levels of saving and investment. Marginal income tax rates are low for the bulk of the population. Capital income taxation is low and the bulk of taxation comes from indirect taxation. However, there are a number of areas where reform of system would make it even more favourable to savings, investment and labour effort and hence growth.

Value-added tax should shift to consumption base

Value-added taxation should progressively be moved towards a consumption-only base by allowing deduction of input taxation for investment outlays. Such a move would be expensive and would need to be phased-in over a number of years. At the same time, the VAT tax base should be widened to encompass the base for the business tax. This would require a change to the intergovernmental fiscal relations as the business tax is a local tax. No official breakdown of the sources of VAT is available. However, with investment and the taxed part of exports representing over 60% of the total base in 2004, the tax loss would be large as the yield of VAT was over 7% of GDP in 2004.

Corporate taxation should be unified

The tax treatment of domestic and foreign companies needs to be unified. Here, the key concern is not to harm the vitality of the special economic zones and other favoured areas that have been the most dynamic parts of the economy as a result of foreign investment. This argues for keeping the unified tax rate as close as possible to the existing tax rate on foreign companies. One OECD country, Ireland, faced with a similar dilemma decided to raise rates on foreign companies slightly but to lower rates on domestic companies to this new rate for foreign companies. China needs to take into account company tax rates in both its major suppliers of foreign capital, arguing for a rate of no more than 20%, perhaps maintaining the lower rate on re-invested profits.

And marginal personal income tax rates capped

Some reforms of the personal income tax system could increase equity and ensure that disincentives do not arise in the future. The highest tax rate at 45% raises little revenue as few people fall into the top bracket. Capping the rate to, for instance, 20% as seen in some other transition economies could be considered. This would make the treatment of employment and capital income more equitable. At the moment, in China, such a marginal tax rate is reached at a multiple of 5 times the average urban income. Capping marginal

rates at this level would generate only a small tax loss, as the average tax rate on the top 1% of income earners is estimated to be only 9% in 2001 (Piketty and Qian, 2004). It would, however, present the advantage that all capital income could be integrated into income taxation without raising the burden on capital income. Such a move would have an equity advantage in that small savers would benefit from a lower marginal tax rate than at present. Dividends from domestic corporation should however be exempted from taxation in order that they not be subject to both corporate and individual income taxation. The government is missing in this direction. Only half of dividend income from listed companies will be taxed as from June 2005. On the other hand the tax base should be widened to include transfer incomes and social benefits, though given current thresholds few recipients would pay tax. The authorities should also consider whether eventually to index tax brackets to average wage growth, although in the next five years the sharp increase in income tax yields, as people move into the tax system and move up the tax brackets, would help to finance other tax reforms such as changing the VAT system and lowering the corporate tax rate. The much higher taxation of self-employed people also seems an anomaly, if the objective is to stimulate growth, as is the high taxation of non-contractual workers.

The efficiency and effectiveness of tax administration need increasing

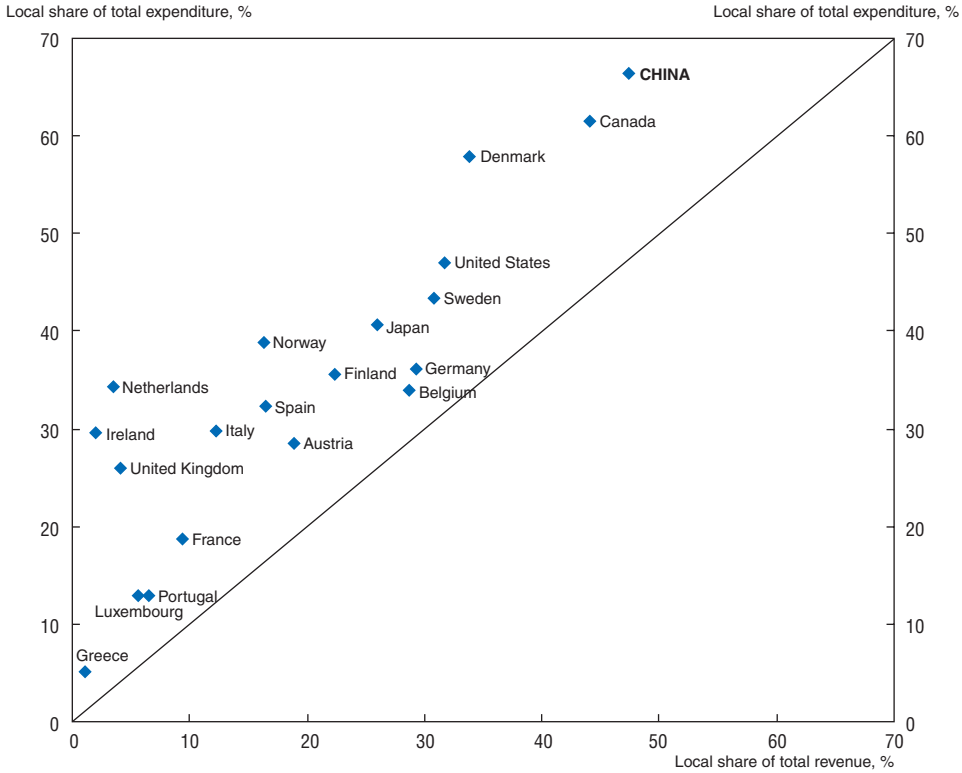
The prerequisite to efficient tax policy is efficient tax administration. The 1994 tax reform brought about the establishment of national tax offices to collect national and shared taxes at all sub-national levels. The coexistence of national and local tax administration at all government levels and the lack of coordination between them creates high administration costs, with the tax administration having eight hundred thousand public employees and tens of thousands of offices (Kurihara, 2005). Perhaps of more concern is the problem that the reach of the national tax offices does not extend to the lowest level of tax agencies. Here, the concept of tax sharing, as introduced by the 1994 agreement, appears still not to be fully in force. Rather the previous tax-contracting system still exists. For example, township tax offices strike agreements with higher levels of local government about the amount of tax revenue to be remitted upwards. If the tax yield is above the contracted amount, the township tax office is allowed to keep a certain proportion of the excess revenue as a bonus according to a sliding scale. Perhaps even more remarkably, the township tax office has the authority to rebate these bonuses to the companies in its locality (Krug, Zhu and Hendrischke, 2004), with the funds showing up as expenditure on industry and transportation. To ensure that the tax policy reforms result in increased revenue, tax administration should be streamlined. Instead of a functional organisation, tax administration should be structured around taxpayer segments and activity types and put under firm national control, with the practice of negotiated tax targets being ended, though this would go against what still appears to be an accepted practice that regards the lower levels of government as the residual owners of tax revenue.

Imbalanced intergovernmental fiscal relations lie at the core of disparities and inefficiencies

Fiscal relations among different government levels in China are characterised by a comparatively high but also uneven degree of decentralisation of expenditures and a lesser degree of decentralisation of revenues. As a result, many sub-national governments are highly dependent on transfers. While government is unitary, the share of sub-national expenditure at over two-thirds of total spending is very high by international standards – higher than in any OECD country including those with federal systems such as Canada (Figure 4.5). In a large country with wide regional disparities like China, decentralised

Figure 4.5. **Government expenditure and revenue: the local share**

2001



Note: Chinese data include on-budget and extra-budgetary accounts and central government bond issues on behalf of local governments.

Source: Ministry of Finance, Joumard and Kongsrud (2003).

decision making on the provision of public goods and services could be justified on the ground of better responsiveness of sub-national governments to local needs but in practice there is little room for sub-national governments to adapt service provision to local requirements. However, many of the potential benefits of decentralised provision have not been achieved owing to strict central controls and to accountability of local officials to higher government levels rather than to local inhabitants (Tsui and Wang, 2004).

Intergovernmental fiscal relations are governed by the 1994 reform of public finance and taxation system, which for the first time defined the scope of expenditure assignments and revenues including an objective tax sharing system and also established a transfer system between central and provincial governments. While the 1994 reform is an important step towards establishing a modern public finance system, it is ambiguous on issues such as sub-provincial fiscal relations, lacks clear rules for the transfer payment system which among other things generates adverse incentives that undermine effectiveness and efficiency (Ni, 2005). Moreover, the scale of remaining differences in spending across provinces, but particularly within provinces, raises concern about the equitable distribution of public spending (Molnar, 2005).

Spending has been decentralised without adequate revenue sources

Since 1994, a new set of rules has governed the expenditure responsibilities of central and local governments. The central government is almost entirely responsible for spending

on national defence, armed police troops, geological prospecting and servicing national debt. Infrastructure spending is shared between the central and sub-national (primarily provincial level) governments. Most other major activities, including spending on education, health, social welfare and urban maintenance are largely the responsibility of sub-national governments. The division of responsibility for expenditures within provinces is less formalised but typically sub-provincial governments (prefectoral, county and township) bear the main responsibility for expenditures assigned to the sub-national level within their jurisdiction.

The extent of devolution of expenditure responsibilities below the province level varies across spending categories and regions. Some categories such as infrastructure spending tend to be less decentralised while other ones such as education are more decentralised. Moreover, several sub-national governments have adopted a "two-speed" system, where spending responsibilities are delegated only to better managed localities (Ni, 2005). Central government expenditure mandates leave little room for sub-national governments to tailor public services and goods to local needs. Moreover, with lack of clear expenditure assignments, each level of government tends to shift the burden of mandates to a lower level. Certain expenditure assignments such as the payment of social benefits to workers laid off from SOEs, the achievement of the nine-year compulsory education programme and family planning have been delegated to the lowest government levels without corresponding resources to finance them. This results in suboptimal and inefficient provision of public services by the lowest government levels, which are responsible for some of the growth-enhancing spending categories such as education and health.

China's fiscal revenues are also decentralised but substantially less so than expenditures. Sub-national governments accounted for 47.6% of government revenue in 2001 – 19 percentage points below the corresponding expenditure share on a national accounts base. The greater centralisation of revenues compared to spending was an objective of the 1994 tax reform, which established explicit sharing formulas between the central and provincial governments for the main taxes and which, over time, has substantially increased the central government's overall share of revenue. Provincial and other sub-national governments have few taxes assigned completely to them. Sub-national governments have also been widely applying user charges in the domains of education or health.

While revenues and expenditure responsibilities are highly decentralised, the policies that govern both are largely determined by the central government. Sub-national authorities have, in principle, virtually no discretion over either the rates applied for the major taxes assigned completely to them or the tax bases. The allocation and much of the regulations governing expenditure are also determined by the central government. Moreover, local government officials are appointed and their performances evaluated by government and Party officials at the national level.

While substantial decentralisation of expenditures is probably inevitable and necessary in a country as large and varied as China, the current system has engendered serious distortions. In particular, (as discussed above in this chapter) there is a large gap between available financial resources and expenditure needs and responsibilities that encourages many sub-national governments to resort to illicit off-budget spending and borrowing (Molnar and Pigott, 2005 and OECD, 2005b). They are also partly responsible for the relatively low level of overall spending on key areas such as education and health.

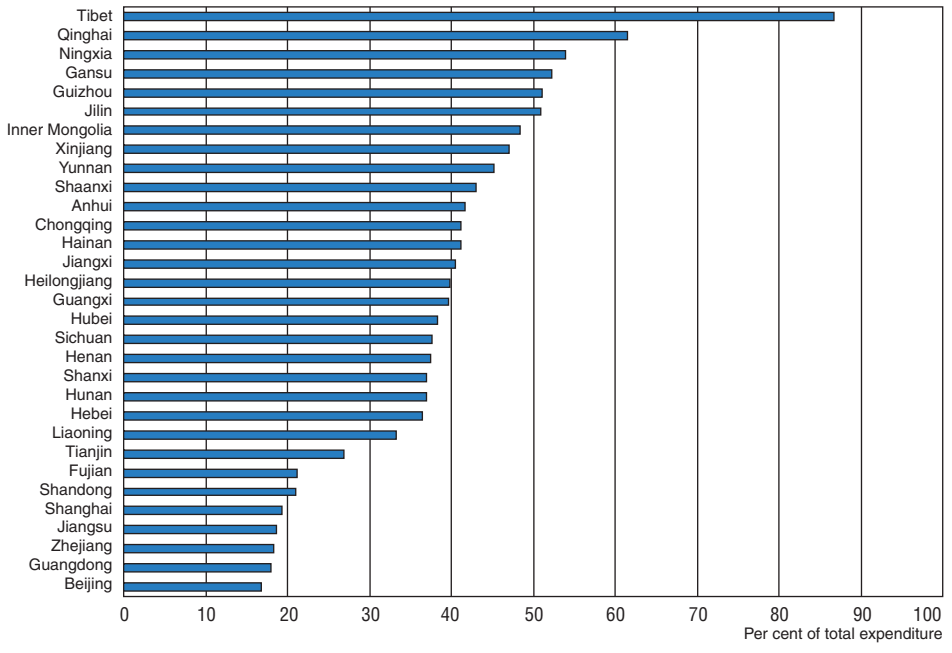
Increasing the importance of redistribution

There are large differences in economic activity and incomes across the different provinces in China. The interaction between the structure of these incomes and the tax system results in tax yields being even more unequally distributed geographically than income. The national government has put in place various mechanisms to moderate the differences in tax revenue that the previous bargaining system of tax-sharing would have created. While the sharing arrangements between central and provincial governments are well-determined, the central government provides only general guidelines as to how tax revenues should be shared within provinces.[20] As a result, provinces have considerable discretion as whether or how they share taxes. Overall, the 1994 tax reform and revenue-sharing agreement has resulted in the share of central government in overall tax revenues rising over time and given scope for increased transfers.

Higher central government revenues have allowed a significant redistribution of revenue through transfers from central government to provincial governments (Figure 4.6).[21] The extent of central government transfers to lower levels of government, aside from the tax rebate transfer, has increased markedly since the reform of the revenue sharing system. Two factors have been behind this growth. First, overall central government revenues have been very buoyant. Second, the growth of the tax rebate transfer has by design been much slower than the growth of GDP. This transfer was instituted in 1994 to ensure that provinces did not initially lose revenue as a result of the new revenue-sharing system. Its growth is limited to 30% of the growth of shared taxes. These two movements have made room for a marked increase in all other central government transfers that have risen to 4.8% of GDP in 2003 from 1.3% in 1994.

Figure 4.6. **Reliance on transfers by province**

2003



Note: Total expenditure is national accounts-based. Provinces includes provincial regions and municipalities.

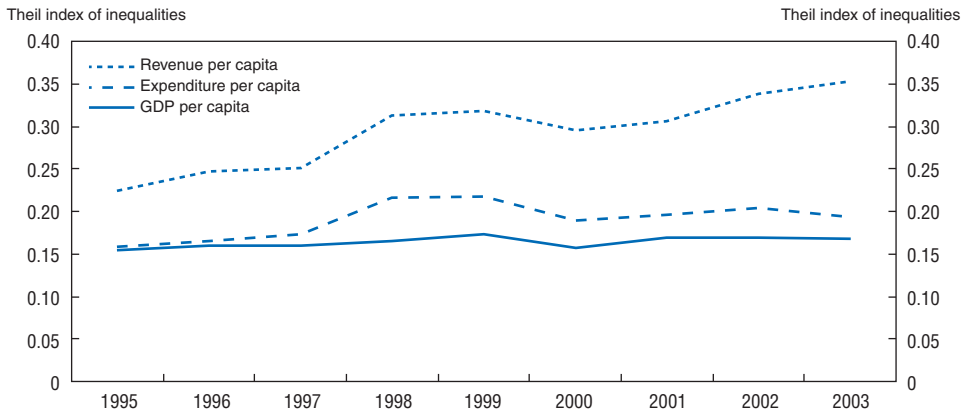
Source: Ministry of Finance.

As a result, central government has gained considerably more leverage over provincial budgets, with the share of transfers (excluding the tax rebate component) in provincial revenue rising to just over one-quarter by 2003 from 10% in 1993. The tax rebate transfer is received by better-off regions but its size has fallen and, at the same time, transfers to regions with large share of non-Han population, which are located mainly in poorer western provinces, have increased. Overall, there is only a slight but negative relative relationship between *per capita* transfers and income *per capita*. As a result of broadly equal *per capita* transfers, such income represents a significant share of GDP in poorer provinces.

Owing to the transfer system, there is markedly less dispersion of public expenditure at the provincial and lower levels of government than of the budgetary revenues of these levels of government. Indeed, with the gradual fall of the tax-rebate transfer relative to GDP, there has been little or no increase in expenditure dispersion since 1998, despite an increase in the extent of revenue dispersion in the same period (Figure 4.7). Not all inequality has been removed and there is still a positive relationship between income per head and public spending per person. However, the relationship is sufficiently weak that the share of provincial income devoted to public expenditure is much higher in low income provinces than in high income provinces.

Figure 4.7. **Inequalities in provincial GDP, tax revenue and expenditure**

2001



Source: OECD calculation.

Earmarked transfers constitute two thirds of transfer payments by the central government (not including the tax refund component, which can rather be considered as part of the tax sharing system). They impose a further constraint (in addition to expenditure mandates) on matching public services provision to local preferences. These transfers are effective in securing minimum standards for specific expenditure categories. The need to match central transfers with local funds, however, reduces the efficiency of allocation as local governments need to reallocate funds at the expense of other spending categories and effectively see the price of certain spending activities lowered relative to others. If there were no matching, though, cost efficiency might decrease further as local governments would see the funds as free resources. Moreover, earmarked transfers are allocated on an *ad hoc* base without objective criteria, which softens budget constraints as it leaves room for sub-national lobbying for funds.

While the remaining third of transfers is not earmarked, a large part consists of elements that compensate for the adverse effect on local revenue of policy reforms such as reducing and abolishing certain types of fees and taxes under the aegis of the rural tax reform. Only about 13.7% of transfers are formula-based, using objective criteria that take into account the financing capacities and expenditure needs of local governments. This transfer component is sufficiently small to avoid the risk that local governments might not implement growth-promoting policies for fear of losing transfers. There have been plans to increase the share of this transfer component. In this case, the formula should be calibrated to a base year, so that authorities continue to have incentives to collect revenue and promote growth.

Imbalances are particularly large at the sub-provincial level

The difference in the extent of devolution of spending responsibilities and revenue assignments tends to be larger at the sub-provincial level relative to that between the central and provincial levels. As a result sub-provincial governments are more dependent on transfers than provinces and are the least able to meet expenditure responsibilities. They are also the most likely to incur payment arrears and accumulate illicit debt (Wei, 2004 and Molnar, 2004). Inefficiencies arise from decentralisation because of different levels of government being given overlapping responsibilities. In addition, diseconomies of scale occur due to small size of the lowest administrative units. Finally, there is a failure to account for spillover effects, whereby people living outside towns benefit from public facilities in towns, which is more acute at the lowest government levels. Despite transfers and revenue-sharing within provinces, inequalities in spending are higher within provinces than between provinces (Table 4.5).

Table 4.5. **Revenue and spending inequalities: within and between provinces**

Theil index of inequalities, 2001

	Within-province	% contribution to total	Between-province	% contribution to total	Total disparities
Revenue per capita	0.26	76.8	0.08	23.2	0.34
Expenditure per capita	0.16	66.5	0.08	33.5	0.23

Note: Disparities are measured by the Theil index and calculated by the OECD.

Source: OECD calculation.

At present, there is a wide variation between provinces in the responsibilities and expenditure assignments of different government levels and in the layers of government that deliver goods and services. Even within a province, expenditure assignments can differ and even be overlapping as in the case of education and health. In order to achieve more uniform spending levels within a province the first step should be to introduce clear assignments of spending to each level of government. If adhered to, such an allocation would eliminate the tendency of upper level governments to delegate expenditure mandates downwards and would also overcome the lack of accountability inherent in a system with unclear assignments.

Diseconomies of scale are introduced into the delivery of basic public services as many townships are below the optimal size and as many prefectures have few activities other than administration. Major measures adopted so far to exploit economies of scale and internalise spillovers include merging of sub-national governments, recentralisation and,

more recently attempts to impose norms on sub-national expenditure, but co-operation agreements between or across government levels such as joint provision of public services could also be considered. Given that optimal boundaries between different public services vary significantly, the merger of two or more sub-national governments may not necessarily result in a size sufficient enough to exploit economies of scale in the provision of all services. Several pilot projects suggest that the prefecture level can successfully be bypassed, though abolishing this level of government may be more difficult in provinces with low population densities and large distances between centres of population, therefore a "two-speed" system could be adopted, where provinces with and without the prefecture level, would coexist. A further reason for reducing the levels of government is that the rural tax reform will markedly reduce the tax receipts of the lowest level of public administration: the township.[22]

The incentives in place have led to relatively high shares of physical investment outlays at the sub-national level. In part, the bias towards physical investment may have stemmed from the appraisal system for local officials that bases officials' promotion on the GDP performance of their localities. Thus, many officials have favoured infrastructure investment, since it might possibly boost GDP in the short-term during the construction phase more than other forms of outlays. Outlays on education or health are also profitable for economic growth but have been neglected in the past partly owing to spillover effects that are less visible locally. The recent proposal to replace the present GDP-focused appraisal system with a more objective, indicator-based one may eliminate some of these adverse incentives. It is not clear, however, whether it will be sufficiently transparent and clearly tied to public sector outputs, given the number of indicators used in the system.

Local government allocates a much larger share of spending to administration than central government. At the provincial level, such expenditure is almost 15% of total outlays, rising to 20% at the county level. There are also marked variations geographically. At the township level, while no nationwide data are available, surveys show that a large share of expenditure is spent on government administration. An additional burden on county and sub-county governments is the support of prefecture level administration, that despite having the largest share of own revenue among sub-national governments, also relies on transfers from provinces and levies paid by the counties and other lower level governments.

Revenue sources of sub-provincial governments across provinces vary widely as sub-national governments decide on how to share the VAT or sub-national taxes such as the business tax with lower government levels. A number of tax types such as agriculture-related taxes are assigned to the lowest government level (typically the township), but the share of these taxes is small and is expected to diminish further as a result of the rural tax reform that abolishes several tax types or reduces their rates.

The rural tax reform first adopted in Anhui province on a trial basis and extended to 20 provinces will entail the abolition of a number of agricultural-related taxes and the progressive reduction of the agricultural production tax throughout the country by end-2005. In addition, levies and the obligation of farmers to work for the township without pay, when required, will be abolished. While the national impact of this change will be small (raising farmers' income by around 3-4% and lowering total tax revenues by 2%) it will have a much larger impact on township administrations that will lose revenue equal to nearly a half of their own income. In order to lessen the burden on the townships, central

government will start to finance primary school teachers' salaries. Counties are also expected to increase transfers, but, overall, compensation will remain only partial. Given the drop in revenues, township governments will be faced with the need to increase efficiency and reduce employment. That may call in question the need to keep townships as a unit that supplies public services. Indeed, eroding revenue sources without corresponding easing of expenditure responsibilities will only increase the transfer dependence of the lowest government levels. Under the present scheme transfers to meet these responsibilities seem to be insufficient and this could lead to a further proliferation of off-budget funds and illicit debt (OECD, 2005c). To avoid this, the Chinese government is exploring ways to reform township finances and the rural compulsory education system, solve the debt problem of townships and closer integrate rural and urban development. As part of the more recent measures, it announced a pilot programme for delegating township finances to the county level.

Conclusion

China's government finances are in reasonably good shape. Debt and deficit ratios relative to GDP have been kept within prudent levels while public spending has been used to stimulate demand during downturns. Revenues have been buoyant helped by a major tax reform a decade ago. The pension system has been reformed relying on a mixed system of defined benefits and defined contributions. Budgeting practices have been undergoing continuous improvement. The government has started to narrow the gap between revenues and expenditure mandates at the sub-national level. Overall, public finances are moving in the direction of raising both equity and efficiency.

The efficiency of public spending would be further improved by a more transparent presentation of the budget. This could be achieved by:

- improving reporting standards;
- incorporating extra-budgetary and off-budget accounts in the budget;
- phasing out illegal off-budget activities;
- requiring reporting of all illegal debt incurred at the local level. Only when all such debt is measured should local debt issue be legalised, but within limited ceiling and subject to central government approval;
- assessing the size of quasi-fiscal activities and contingent liabilities;

These measures would ensure better predictability and controllability of government accounts.

Growth prospects for the economy could be enhanced by a significant reallocation of spending priorities:

- Expenditure could be increased in areas where returns are particularly high and which are indispensable for its long-term growth such as education and health. This could partly be achieved by gradually reallocating funds from those areas of investment spending where returns are low.
- The efficiency of public spending could be enhanced by exploiting the role of market mechanisms and by improving the benchmarks for the evaluation of cost-efficiency of spending.
- The effectiveness of spending could further be enhanced by integrating the capital and the current budget and anchoring the entire budget in a medium-term framework.

If the pension system is not reformed, it will start to absorb national savings as the population ages, and so lower growth. To avoid such a development, reform on the following lines is needed:

- raise retirement ages;
- extend of coverage of the system;
- improve compliance;
- unify the retirement age for all categories of workers;
- allow pension rights earned in one area to be transferable across the country;
- bring the calculation benefits from individual accounts into line with life expectancy and, as long as the retirement age for men and women differs, their benefits should also differ;
- raise the return on individual accounts.

In a number of areas, further reform of the tax system would create a more favourable environment for savings, investment and labour effort and hence growth.

- Value-added taxation should gradually shift to a consumption-only base and eventually encompass the base of the business tax.
- Corporate taxation for domestic and foreign-invested enterprises should be unified bringing a substantial reduction in the tax rate for domestic companies.
- Personal income tax rates for employees could be capped at the same rate used for capital income taxation, so increasing equity. The tax treatment of the self-employed and non-contractual workers should be equalised. Transfer incomes and social benefits should be brought into the tax base, but dividends should be exempted from personal income taxation. Indexing tax brackets to average wage growth could also eventually be considered.
- The tax administration could be structured around taxpayer segments and activity types instead of a functional organisation to improve tax yields.

Given the highly decentralised nature of China's public finance system, fiscal relations between different levels of government lie at the core of ensuring the equitable and efficient distribution of public expenditure. A set of reforms could be considered to ensure that decentralisation works effectively while improving equity.

- Clear expenditure assignments for each level of government have to be defined bringing financial resources into line with these mandates.
- Public spending disparities across different areas of the country need to be reduced, particularly within provinces. This requires an equity-oriented national design of sub-national fiscal relations in the area of transfers and tax sharing, which at present are established at the discretion of the provinces.
- Explicit criteria for outputs in key areas could be used to improve the accountability and performance management of officials within the government structure to ensure that officials at all levels of government use resources effectively and efficiently.
- Earmarked transfers could be reduced in favour of general transfers to leave room for better accounting for local preferences, once officials are accountable.
- Economies of scale could be better exploited by co-operative agreements between local governments on the joint provision of certain types of services.

- The administrative system could be simplified by eliminating the township level and bypassing prefectures in provinces with high population densities.

Notes

1. General government expenditure in China includes budgetary and extra-budget expenditure, disbursement of social security funds and central debt issues on behalf of local governments. Two OECD countries - Mexico and Turkey – for which comparable data are not available are not counted. It should be noted that Mexico would also likely have lower figure than China if comparable data were available.
2. More detailed projections support this view (Wu, 2003 and Chang and Ho, 2002).
3. For a more exhaustive discussion of budgeting in China see Wong (2005) and OECD (2005a).
4. The switch of the target from 4% of GNP to 4% of GDP has no economic significance.
5. *Source*: Ministry of Education.
6. The survey by the Ministry of Health conducted in September-December 2003 covers 57 000 households.
7. Social welfare spending consists of transfers to social insurance programmes, pensions paid to retirees of government institutions or non-profit public sector organisations, expenditures for social relief and social welfare and public medical care.
8. These transfers have two components: investment grants and funds to recapitalise loss-making state-owned enterprises. In practice, there may be some misclassification of transfers between the government and enterprise sector.
9. The OECD countries covered 17 members for which data under the SNA classification are available in 2002. For China the sum of budgetary and extra-budget expenditure on administration are used.
10. Out of 526 such projects in 28 provinces and municipalities 26% are finished and a further 26% are non-operational, substandard or operate below planned capacity.
11. The fund was created by the allocation of CNY 4 billion from the budget.
12. The 14% ratio is slightly understated because government employees participate in a separate social security scheme entirely financed from public resources.
13. Enterprises may be allowed to pay a lower effective contribution rate, either by lowering the actual rate or by disregarding part of the wage bill.
14. The MOLSS simulation assumes a gross birth rate of 1.8, a proportion of male-female newborn of 106:100, an unchanged labour participation rate of 77% by 2050, a constant unemployment rate at 4%, a real wage growth rate decelerating by half percentage points per decade from 4% in the first decade of the 2000s to 2% in the 2040s, an inflation rate of 1% for the period of 2001-2005, 2% for 2006-2010 and 3% for the rest of the period, a dependency ratio or 1.87:1 in 2050 and an urbanisation rate gradually reaching 59% in 2050.
15. It suggests using a life expectancy of 13 years for men and 15 for women – as long as the retirement age differs for men and women.
16. A rate of 13% is applied to certain energy products and to certain agricultural products. Small traders are subject to a special regime and must pay a rate of 6% for industrial and 4% for commercial enterprises, but cannot benefit from reduced input taxation. Certain products are also subject to a zero rate.
17. The bias against investment was even greater before the abolition of the "fixed asset investment orientation regulation tax" that set a wide range of taxes on investment in different industries and within industries on selected products.
18. The tax refund has to be repaid if the newly established company ceases trading within five years.
19. However, the projections assume that the Beijing income tax deduction is implemented throughout the country. If the national deduction had been used simulated revenue growth would have been considerably faster than actual revenues.
20. Lou, J. (*ed.*) (2002) provides a description of these guidelines.

21. Certain transfer components such as minority transfers and the recent education transfer to poor counties target sub-provincial levels.

22. In general, townships are the lowest level with independent budgets in the government administration, though in a number of cases townships do not have independent budgets and are directly financed from the budget of the county above.

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