Allianz Dresdner Economic Research

Working Paper

No.: 96, 23.11.2007

Authors: George Joseph
Dr. Rainer Schäfer

China's Long-term Economic Outlook
The Long March to the Top

Economic Overview :

Real economic growth has peaked in 2007 and will remain at a high level in 2008, in spite of the economic downturn in the US. There is no sign of a soft landing, much less a hard one, for the economy.

Significant **financial crises** are unlikely, primarily because controls on the movement of currency and capital do not allow capital flight. The inefficiency of the banking and financial markets is currently a drag on economic growth but, in the future, the financial sector will make a **disproportionately large contribution** to growth due to deregulation and increased competition.

China will gradually lose economic momentum over the next 15 years. For the years 2009-2012, we see a **base scenario** of average annual expansion of real GDP at 9%, with a drop to 7% for 2013-2022. The probability of economic growth being at or near this level is 90%.

If economic growth were to fall below the 6% level, there would be the threat of serious **social conflicts**. The government would react to this by limiting economic and personal freedoms, which would act as an additional brake on economic growth.

In the next 15 years, this scenario would position China as the third-largest economic zone in the world, putting it at nearly the size of the Eurozone.

Many **structural adjustments** will accompany this development: domestic demand, primarily private consumption, will see above-average increases, while exports will lose prominence as the primary economic driver.

China’s transition to a market economy and the creation of market-economic institutions and conditions will lead to more **transparency** in economic life. This will help to ease current **fears** of other countries regarding China’s rapid economic expansion.

China’s **economic dynamism** regularly exceeds even the most **optimistic expectations**. However, most analyses of the economy and its prospects are **contradictory**. While some view the economic boom as being sustainable in the longer term and putting China on the path to becoming the largest economy in the world, others see the path as strewn with bitter losses, even calling into question economic growth so far. Naturally, the ongoing transformation of the system is changing the gloomier forecasts: while 10 years ago, a return to the Communist economic order would have been seen as a real danger, today, the worst-case scenarios are forecasts of a **hard economic landing** with serious social and political economic consequences.

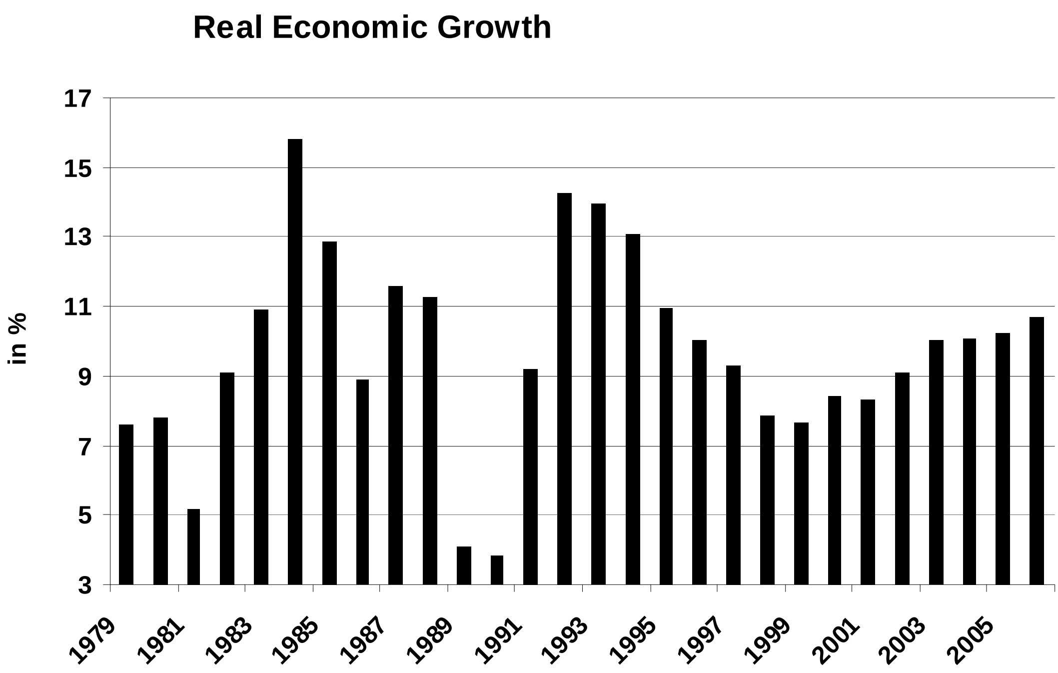
Why are there such sharply diverging views of future economic development in China? The primary reason is the **lack of transparency**. Because of the commissions, which can hardly be ignored and which operate outside their own government, it is much less clear in China than in other emerging market countries who is now making decisions or even working on them. In a country with a very free version of capitalism, political decision-making power still lies with the committees and structures that remain strongly influenced by socialism. There is also the matter of the lack of meaningful **statistics** in many areas. Given the size of the country and the dramatically different levels of development in the individual regions, it is a challenge to put together and coordinate any sort of statistical summary. Finally, China is in a permanent state of **rapid structural change**, which makes it difficult to predict future trends on the basis of past and present economic developments.

Given these circumstances, is it possible to make predictions about growth for a 10-15 year period? Absolutely not. We are not claiming to be able to predict precisely how much China’s economy will grow in the next 10-15 years. In our view, the key is whether China can sustain its current levels of growth or if there is the threat of major economic downturns with significant consequences for the country’s social stability. For this reason, we are simply making an estimate of average annual growth in real gross domestic product for the projection phase.

Economic growth in the coming years: no hard landing!

The **boom** in China **continues**. Officially, in the third quarter of 2007 real GDP was up 11.5% over the previous year, down from 11.9% in the second quarter. The Chinese economy also grew 11.5% in the first nine months of the year. There are justifiable doubts about these figures: for one thing, the Chinese statistical authorities publish production figures immediately after the close of the quarter, which is very quick by international standards; in addition, once the data are published, revisions are very rare. It is no surprise, then, that analysts regularly take into account other indicators, such as electricity usage or port activity in order to draw conclusions about the actual state of the economy.

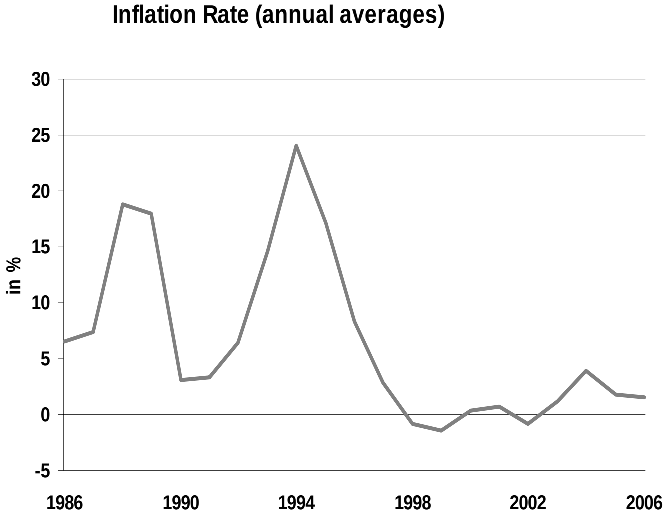
The fact that estimates rely primarily on surveys of major companies and exclude small and medium-sized firms lends support to the idea that gross domestic product is higher than the official figures. On the other hand, it is possible that there are double payments in areas such as inputs, which would shift reported value added upwards. In addition, the provinces tend to correct the economic activity in their regions upwards in order to make the best possible impression in Beijing. This would primarily affect the absolute amount of added value rather than the growth rate, as long as the degree of over- or underestimation does not change over time. But even if economic growth is cut, China's growth rate would still exceed that of other emerging market countries by a considerable margin.



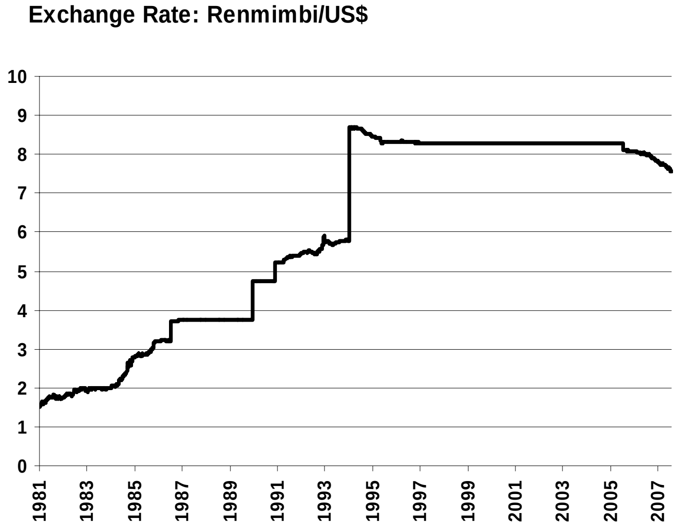
Source: Institute of International Finance (IIF)

A look at the more distant past shows that economic growth has **stabilized** at a high level over the past ten years, i.e. the amplitude of the economic cycle has fallen during this time. This is attributable partly to an active monetary and fiscal policy supported by well-planned measures and partly to the significant long-term drop in the inflation rate. But in recent months, **the rate of inflation** has started to **rise** again. In August 2007, prices were up 6.5% over the previous year, twice as high as the rate in March of this year. However, monetary policy has less to do with this sharp rise than the fact that the strong demand for foodstuffs is outstripping supply.

The **exchange rate policy** has clearly also contributed to the steadying of the economy and of economic policy. After repeated major devaluations of the Renminbi, a fixed exchange rate against the US Dollar was in place from 1998 to the middle of 2005; this has since been followed by a period of moderate revaluation.



Source: Institute of International Finance (IIF)



Source: Bloomberg

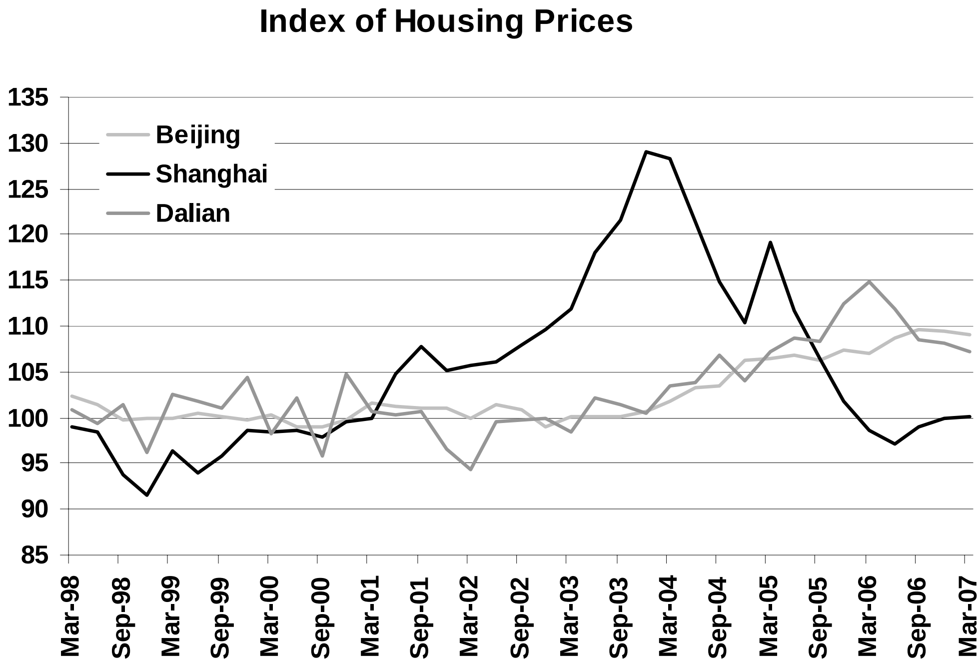
In spite of more gradual economic growth, in recent years there have been unmistakeable signs of significant **overheating**. This has led to supply bottlenecks in the economic centres on the east coast, primarily in the **construction sector.** The construction boom is fuelling fears of speculative bubbles which, if they burst, could affect the entire economy. However, there are three factors that counter these gloomy predictions:

- The government is trying to reduce construction activity in the regions concerned through the implementation of targeted measures. This includes a **ban on loans** for construction projects and a minimum holding period for properties acquired by private individuals. Even if these regulations are frequently avoided, they have proved very effective in the past.

- **Housing prices** are uneven around the country, as the chart below indicates. The biggest price fluctuations can be seen in Shanghai, while the rise in other centres has been less spectacular. Significant vacancy levels in China are just temporary, though, as steady migration to economic centres creates constant new housing demand. The same is true for **commercial construction**.

- The correction of high prices on the real estate market will not necessarily lead to catastrophe for the economy as a whole, as happened, for example, in Thailand in 1997/98. The boom in these cities is relatively small in relation to the size of China's overall economy. One certain indication of this is the balance of the country's resources: Thailand had a significant current account deficit before the crisis, using foreign capital to finance its real estate boom, while China has had a high current account surplus for years and it keeps increasing.

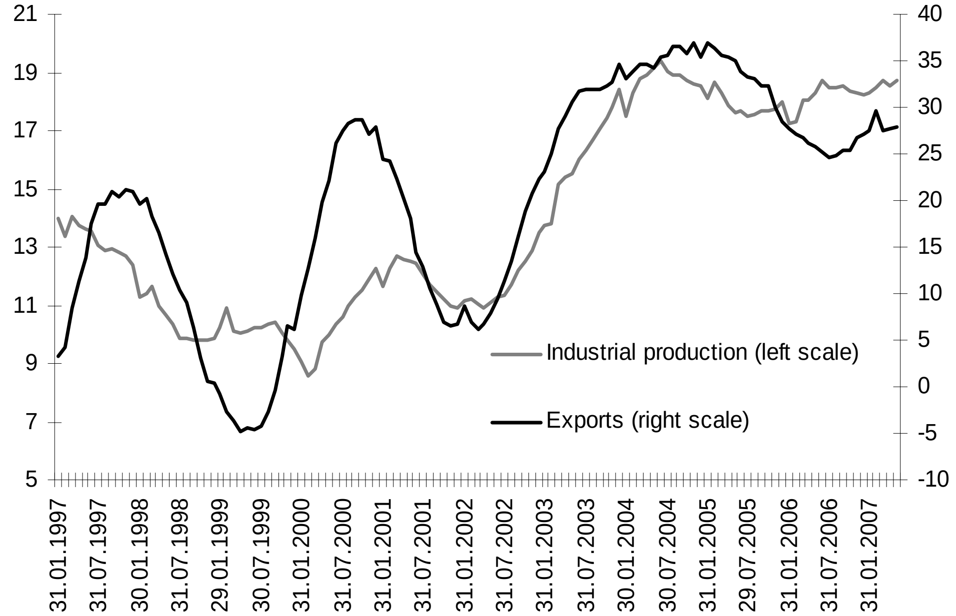
So in spite of numerous bottlenecks in the building sector of the economic centres, we do not expect a collapse in construction or a hard landing in the economy. The **industrial production** numbers point to a continued robust and stable economy. Growth rates are no longer increasing, as was the case in the period from 2000-2004, but have stabilised at a high level. The same is true for **exports**, which are certainly the key component of demand for the industrial sector. Of course, the factors that determine export levels lie outside the country. The troubled **US economy** has clearly acted as a brake on the growth of Chinese exports. Restrictive **monetary policies** have also played a role: the Central Bank raised both the minimum reserve requirement and the interest rate in order to check the runaway economy.



Source: National Bureau of Statistics

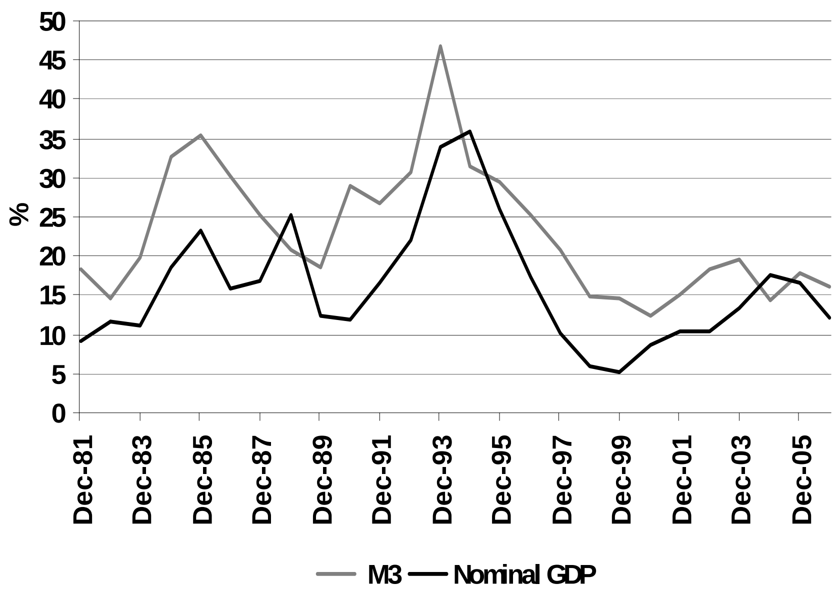
All in all, this indicates that for this year and next year the economy will remain dynamic, but will by no means be out of control. The somewhat weaker world economy will probably lead to a slight drop in China’s growth rate. For this reason, on the basis of the official figures for 2007, we expect growth in real GDP of nearly 11.5%, while growth in 2008 should be somewhat lower at 10.5%.

Industrial Production and Exports
(%, y-o-y), moving 12-month average



Source: Institute of International Finance (IIF)

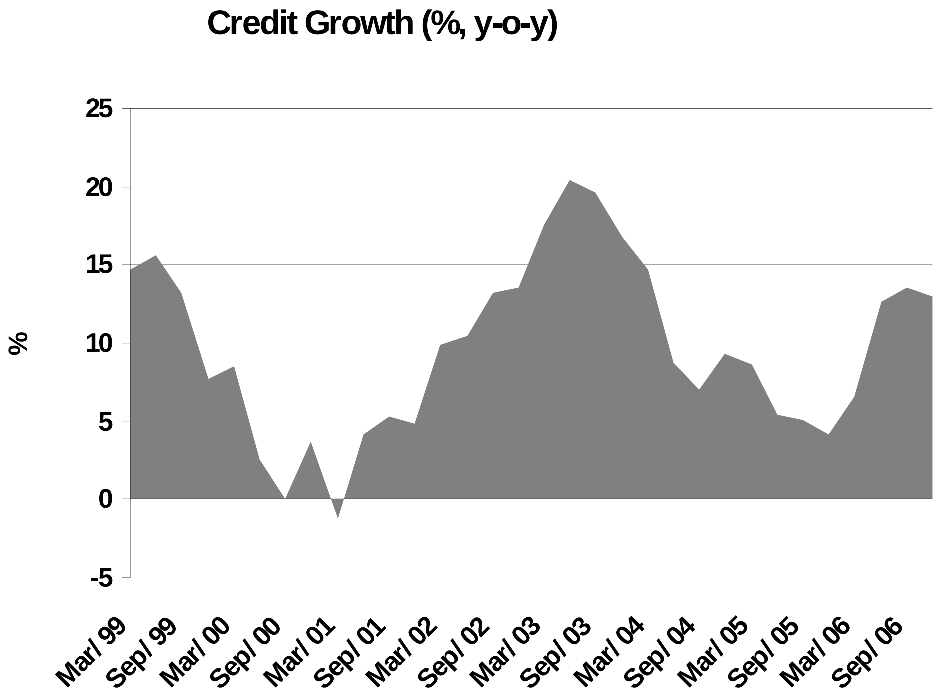
Money Supply and Gross Domestic Product
(rates of change, nominal)



Source: International Monetary Fund

Growth Factors

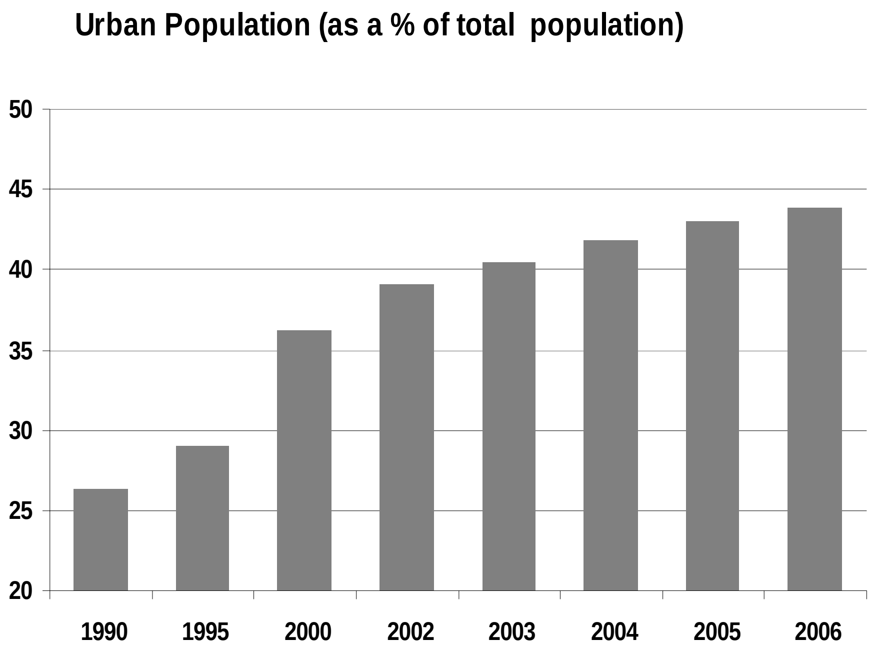
The above circumstances may shed some light on economic performance over the next one to two years. But the more interesting question is whether China can maintain its economic growth in the long term. What factors **drive** economic growth and will they be of long-term significance?



Source: National Bureau of Statistics

Movement of labour and capital

China's path to a market economy began in 1978 with the creation of so-called special economic zones, where supply and demand could develop more freely than in the rest of the country. The success of these zones spurred the political leadership to expand them repeatedly. While the market economy has to a great extent already penetrated into the provinces of the east coast, the **waves of development** are now concentrated in Manchuria in the north, which previously was home mainly to heavy industry, as well as the Yangtze region in the middle of the country. The government is making major improvements to the infrastructure in these regions and is providing **tax incentives** for **companies to set up business there**. State and corporate investment is driving economic development and creating jobs in these regions. Major **migrations** from the rural provinces in the interior of the country to the economic centres in the east are also fuelling growth. While the GDP had scarcely taken into account people who were previously employed in agriculture or by government-owned heavy industries plagued by high levels of hidden unemployment, the added value and productivity of those employed on construction sites and in export-oriented business is rising.



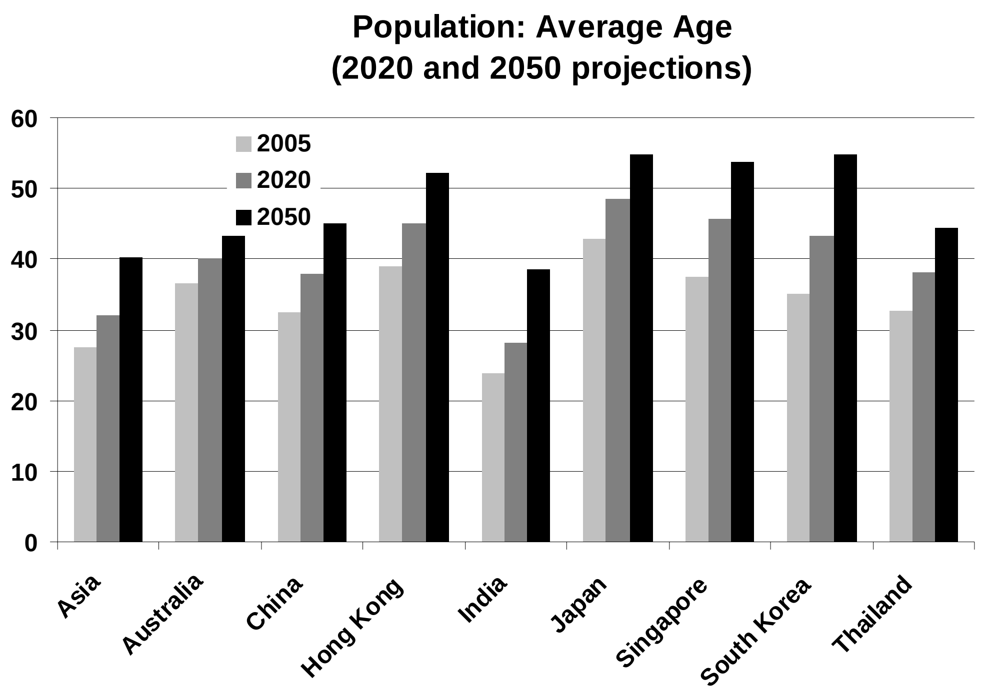
Source: National Bureau of Statistics

Currently only about a third of all persons employed work in free-market businesses. So there is still a great deal of **growth potential** resulting from **capital mobility** and **migration**. However, in the long run, the influence of these factors on economic production will gradually flatten out, with migration probably being affected before the flow of capital to the people. This alone points to a long-term drop in real GDP growth rates.

Demographics, education and environmental factors

As shown in the chart below, **population** growth has been declining for decades. This is not unusual for a dynamically growing emerging market like China. In addition, the government has been actively deterring growth through its one-child policy. In China, too, the rising life expectancy and falling birth rate will lead to an increase in the number of pensioners as a percentage of the total population. However, the aging of Chinese society will not take place significantly faster than in other Asian countries. The number of employed people as a percentage of the total population will reach its peak in 2010.[1] While this is e[1]xpected to dampen economic production, the effects will be very limited for at least 15 years.

[1] see Dunaway/Arora, p. 5



China's **literacy rate** is slightly higher than that of comparable emerging markets. Comprehensive and internationally comparable data on the level of and progress in education are not available. It is noteworthy, however, that the **export of technology products** has risen significantly and currently stands at about 55% of total exports. IT hardware exports alone now make up almost a third of all exports. These figures could suggest that China is gradually freeing itself of the image of the world's low-wage manufacturer, although these more technologically advanced products are made almost exclusively by subsidiaries of foreign companies. The export of these goods, however, is countered by correspondingly higher imports; the actual **value added** in China itself is, with a few exceptions, **low**. In other words, companies import technology products, assemble them into finished products which they then export. Better education remains an important growth factor in China, too, of course, and the value added to exported goods will no doubt continue to increase.[2] But for the next 15 years, it cannot be assumed that it will be any higher than it has been in the past.

China's production comes at the expense of the **environment**. Foreign countries and, increasingly, the party leadership and the government are expressing concern about the high level of pollutants being produced. In this respect, China's development resembles that of Taiwan, where little attention was paid to environmental factors when the country began to industrialise, though as economic production increased greater emphasis was placed on this area. We expect China to follow a similar path in the long term. But policy will not allow any major reduction in growth in favour of more environmentally-aware production, because a high level of economic growth simply represents the best guarantee for social peace. For this reason there will be no significant drop in economic growth as a result of environmental expenses. Nor will this prove to be a support for strong economic growth, as is the case in Germany, for example. Exportable environmental technologies normally consist of cutting-edge technology products whose production will remain primarily in the industrialised countries for the foreseeable future.

Economic policy
As experience in other emerging markets demonstrates, very **ambitious investment and exchange-rate policies** can result in serious financial crises that have a negative impact on the real economy for years. The crises in Mexico (1994), Thailand and South Korea (1997), Russia (1998), as well as Turkey and Argentina (2001) all followed this path.

The **gradual**, **consensus-building**[2] approach to economic policy in China has prevented such drastic developments there in recent decades. Exchange rates remain well regulated by economic policy and normally offer no surprises to the financial markets or the economy as whole. The rather sedate pace of change in economic policy may lead to the country not fully realising its potential for growth. The best example of this is the exchange-rate policy, which allows for only very gradual, if any, increase in the flexibility in the Renminbi. On the other hand, this cautious approach protects the economy from committing serious mistakes in economic policy.

If undesirable developments threaten to get out of hand, however, the Chinese leadership does not hesitate to take difficult measures. For example, when inflation rose above tolerable levels in 1993, the central bank ordered rigorous limits on credit. The more than 30% devaluation of the Renminbi against the US Dollar at the same time also fits into this picture.

Will economic policy continue to be marked by gradualism in the future? The success of this approach so far speaks clearly in its favour, although, as in other countries, the degree of freedom will decrease as the **economy becomes more open to foreign influence**. This is especially true for the liberalisation of currency and capital controls that have offered the country considerable protection from the volatility of international capital flows.

While solid and predictable economic policy is important for growth, it is itself a result of economic development. If China can retain its economic dynamism in the long term, we expect continued liberalisation and opening of the economy, which will increase growth potential. Even if the growth rate temporarily (for just 1-2 years) falls below 7%, this economic policy would not be questioned, because in times of low investment, as in 2000-2002, the state will support growth with infrastructure projects.

However, if the growth rate were to fall below the 6-7% level for several years, problems on the labour market, and thus major **social upheaval** and unrest, would probably follow. This could easily result in a less ambitious opening-up policy, a return to a **stronger role of the state** in the economy and significantly more limited political freedoms in comparison with today. Such an economic policy would not just be the result of a crisis in growth but could also act as a drag on longer-term economic growth.

Although the points made so far generally argue for a positive influence of economic policy on longer-term economic growth, one factor should not be overlooked: one of the cornerstones of China's economic

---

[2] An OECD study also laments the technological backwardness of most companies. OECD Reviews of Innovation Policy. China. Synthesis Report, 2007, see i.a. p. 59

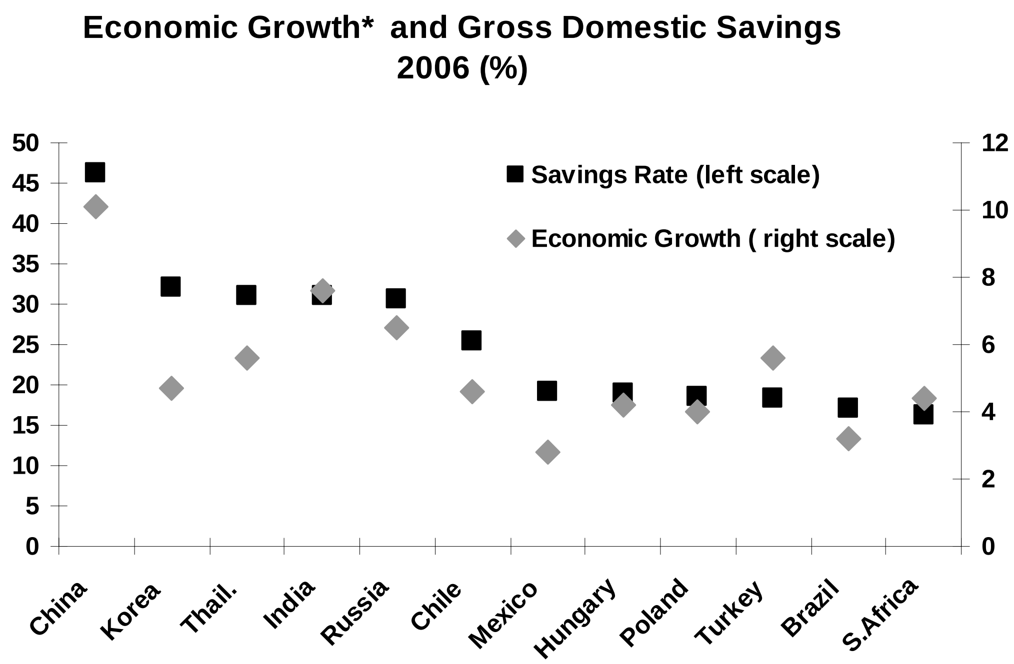
[3] For a good description: N. Roubini and B. Setser: China Trip Report, April 2005, www.rgemonitor.com

success has been the fact that the government has liberalised the economy gradually, thus freeing up the driving forces for the upturn. But the greater the level of liberalisation in an economy, the less effect this will have. The state currently has considerable room to manoeuvre, but this will decrease over time, thereby gradually reducing the opportunity for the state to have a positive impact on economic growth.

Capital accumulation

One main source of increasing **productivity** is the extremely high **level of savings** in China. Capital accumulation in 2006 represented more than 50% of GDP, a level far above any other emerging market country.

Of course, the high current account surplus of a good 10% of GDP includes the outflow of considerable Chinese capital abroad. Nevertheless, there remain sufficient savings to finance a significant increase in investment.This accumulation of real capital makes possible the rapid expansion of production in the future.



*) average annual value 2002-2006

Source: Institute of International Finance, International Monetary Fund

The above chart shows the relationship between an economy's level of savings and real economic growth in emerging markets. **Manufacturing** plays a much more significant role in this group of countries than is the case in industrialised countries where the service sector is normally stronger. With the dominance of **industrial production**, the significance of **real capital** as a growth factor increases.

High levels of savings are not unusual in countries of the Far East. Japan’s savings rate is also far above the average for OECD states. In China, there are other factors supporting the extremely high rate of capital accumulation:

- During the transformation, the social security system inherited from the communist period has largely fallen by the wayside[3]. Traditional pensions and health insurance now hardly cover the already low basic needs of people in China. And new supplementary insurance solutions are just being created. In this comparatively tough environment for individuals, in which there is little in the way of job security, high savings rates have a **precautionary character**.

- The primary savings method for private households is **bank deposits**, which offer only a low rate of interest, often even below the rate of inflation. Foreign investments have rarely been allowed, so besides bank deposits, the local stock market, which has been increasingly overheated in recent years, is the only investment option. In short: in order to achieve a sufficient absolute return on savings, one simply has to save more.

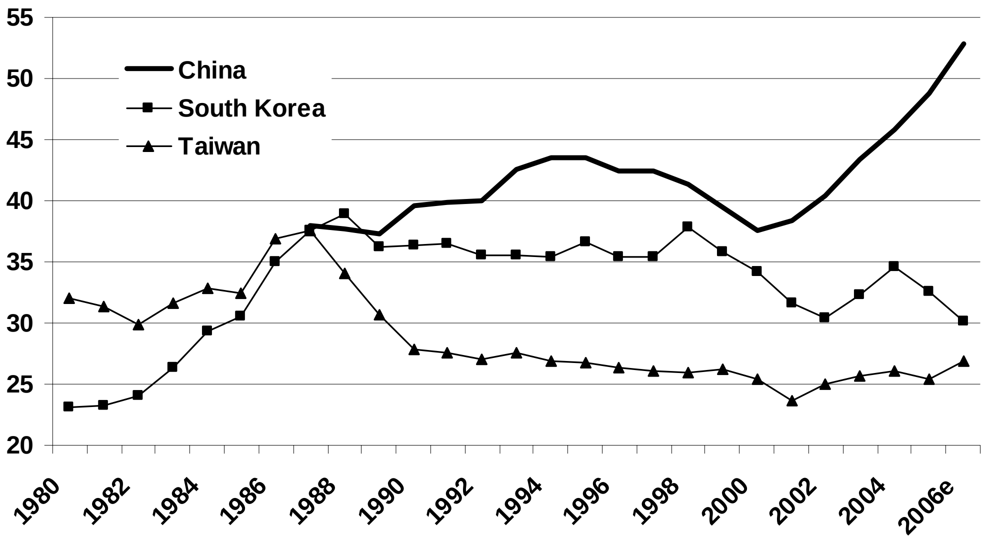
- Companies' **retained earnings** are high and are being fed primarily by the favourable level of earnings in the export economy.

- **Budgetary shortfalls** on the part of the government have fallen sharply in recent years. Estimates for 2006 assume a shortfall of only 0.7% of GDP (2002: 2.6%). As tax receipts are very high because of strong economic growth, the relation between current state income and spending and thus the government contribution to the overall level of savings in the economy has probably increased.

How will the savings rate develop in the long term? The chart below shows the situation in the more advanced Asian emerging markets of Taiwan and South Korea. In both countries, an initial increase was followed by a gradual reduction. Although capital accumulation in these countries never reached the current savings rate in China, it stands to reason that China will follow a similar path. As social security systems are increasingly built up, the level of "precautionary savings" may fall. The other determining factors for high savings rates outlined above will also tend to "normalise" which would likely bring them down to more moderate levels. Of course, less capital accumulation will not necessarily result in lower growth rates, as the efficiency of investments is certain to increase. In addition, experience tells us that as the economy matures, the service sector, where development is less connected with capital accumulation, will gain in importance. This also supports the thesis that China will follow the development model of Taiwan and South Korea with a gradual decline in savings rates.

[4] S. Dunaway and V. Arora: Pension Reform in China: The Need for a New Approach, IMF Working Paper WP/07/109, May 2007, pp. 5

Gross Domestic Savings (as % of GDP)



Source: Institute of International Finance, International Monetary Fund, national statistics

Banking and finance markets

Because of the high level of capital accumulation, banks and the capital market will play an especially important role in future economic development. For this reason, it is no wonder that the polarised, contradictory view of China is particularly stark in this area. The financial sector is indisputably among the **weakest sectors**. The widespread lack of transparency, in spite of improved accounting requirements, fuels speculation that – as has been observed in other emerging markets – the financial system could collapse, with enormous consequences for the real economy. In addition, major foreign banks are moving into the huge domestic market as they are moving into no other emerging market. New equity issues by Chinese banks are regularly several times oversubscribed and the Industrial and Commercial Bank of China (ICBC) is now the largest bank in the world by market capitalisation.

The truth probably lies somewhere between these two extremes. We have reached this conclusion on the basis of the following factors:

- Non-performing loans (NPL) have fallen steadily in recent years in relation to the overall outstanding loan volume and now are at around 6%. It is true that this positive trend is the result of the rapid expansion of lending rather than a drop in the absolute number of NPLs. Problematic loans continue to mount up, particularly in the provinces, not least because local authorities exercise direct or indirect control over the granting of loans. In addition, the rather generous granting of loans in areas such as real estate could easily lead to a sharp rise in the number of NPLs should the economy begin to cool off. A higher proportion of non-performing loans than described above would involve primarily those loans that would become non-performing in the event of a serious weakening of the economy and thus have more the character of a forecast[4.] In

[4] E.g.: Standard&Poors: Bank Industry Risk Analysis: China's Banks Benefit From Strong Economic Conditions, But Corporate Governance Remains Weak, October 2007, see p. 2, www.ratingsdirect.com

any case, the government has made substantial funds available to banks for recapitalisation over the past 10 years.

- Banks active in major economic centres have been particularly successful in their efforts to introduce modern practices in **risk management**[5], especially in the analysis of individual loans. The gradual cooling off of the real estate markets in some major cities like Shanghai will help banks absorb loans granted earlier in times of easier credit. However, a hard landing in the real estate economy would be a much greater challenge for the banks.

- The banking and financial sectors are extremely closed off from the "outside world". **Currency and capital regulations** still do not permit private individuals to transfer significant amounts of money abroad, although the government has taken small steps to liberalise these regulations somewhat. For example, private individuals were recently granted the right to acquire foreign equities under certain conditions. The financial sector, which is shut off from the outside, and government regulations on the level of interest rates on savings accounts and loans (interest-rate bands) limit competition, especially given the fact that the number of foreign banks operating in China is very low overall. And it is private individuals, who in many cases are receiving real negative interest on their savings accounts, who suffer.

- In addition, banks are the victim of the **exchange-rate policy**. To stop the Renminbi from rising in value, the central bank intervenes in currency markets and mops up the liquidity created domestically through the issue of so-called sterilisation papers. These low-interest bonds appear in the balance sheets of the banks and limit their ability to lend to private companies.

- The Chinese **stock market** is also in a period that is far from balanced. The fact that the price/earnings ratio on the A-share market, which is limited to domestic investors, is over 50 is, to a certain degree, representative of the alarming state of investment in the country. The only way to receive a higher return than on a bank savings account is to buy shares in companies listed on the A-share market, in spite of the lack of transparency in these companies. Very high demand meets a very limited supply here as a significant proportion of the share capital of the listed companies is in the hands of the state. The currency controls mean that prices on the A-share market have no connection whatsoever with prices on international stock markets.

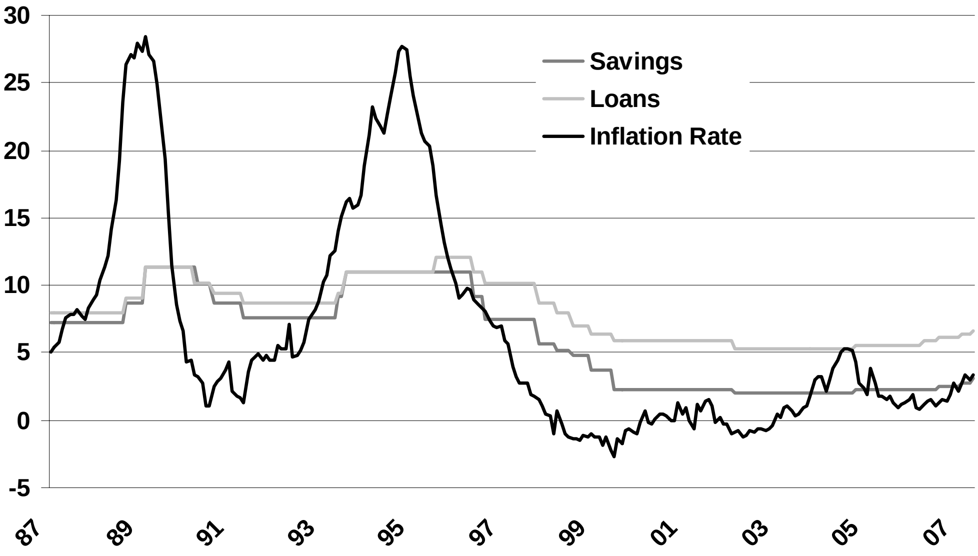
- **Bank crises** are far from rare in the Far East. However, with the exception of Japan, these crises do not necessarily derail the entire economy. Speculative bubbles in the **equity and real estate sectors** are not a prerequisite for banking problems. For example, in South Korea at the beginning of this decade, banks got into difficulties primarily because of **consumer loans** extended through credit cards.

---

[5] For more on this topic: R. Podpiera: Progress in China's Banking Sector Reform: Has Bank Behavior Changed? IMF Working Paper, WP/06/71, p. 9ff

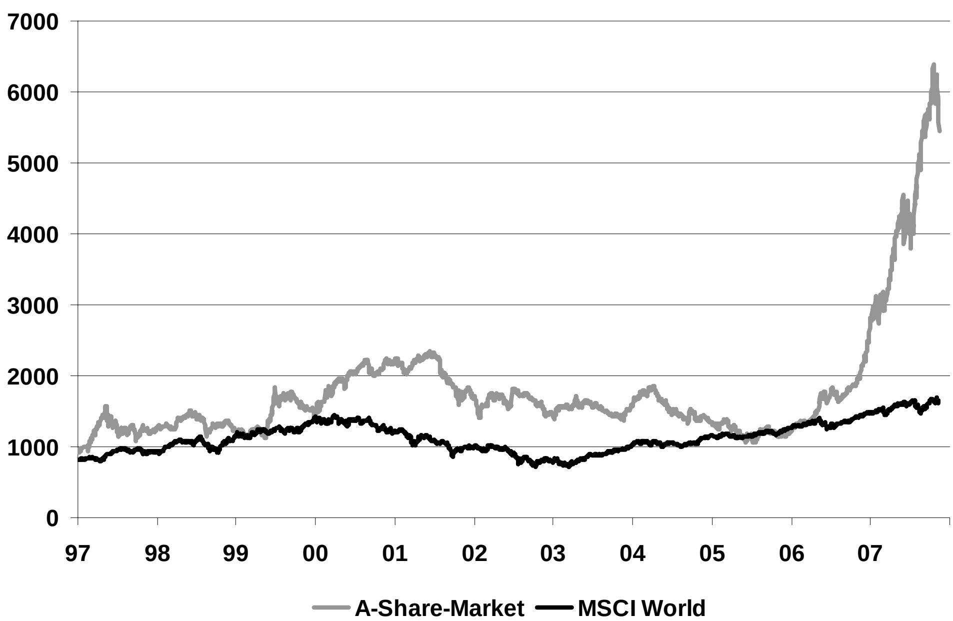
[6] E.g.: Standard&Poors: Bank Industry Risk Analysis: China's Banks Benefit From Strong Economic Conditions, But Corporate Governance Remains Weak, October 2007, see p. 2, www.ratingsdirect.com
[7] For more on this topic: R. Podpiera: Progress in China's Banking Sector Reform: Has Bank Behavior Changed? IMF Working Paper, WP/06/71, pp. 9

Savings and Lending Interest Rates, Inflation Rate (%)



Source: International Monetary Fund

Performance of Shanghai A-Share and MSCI world



Source: Bloomberg

This isolation has the advantage of preventing capital flight and thus limiting the extent of systemic financial crises. The disadvantage is the **reduced efficiency** of the financial system which is a drag on economic growth. The government will gradually (i.e. in the next 5 to 10 years) liberalise the currency regulations and the entire financial system.

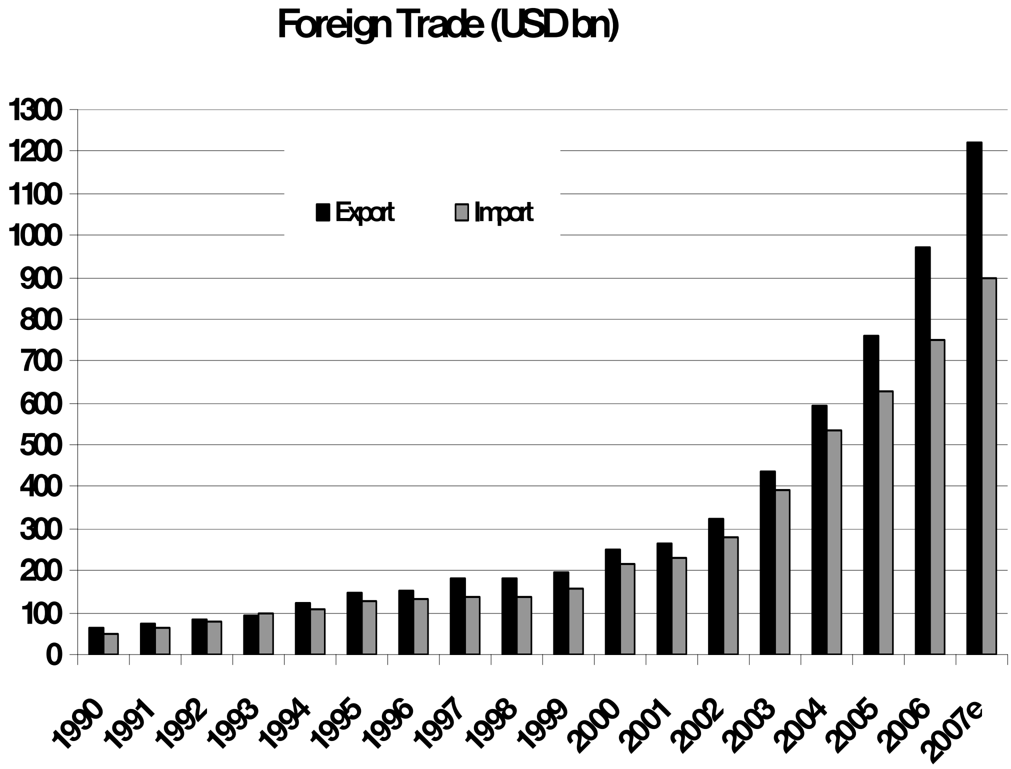
The probable **reduction** in private household **savings rates** in relation to available income in the future could lead one to the conclusion that the financial sector will make a below-average contribution to economic growth in the longer term. However, finance has traditionally been one of the most **heavily regulated sectors**. The **liberalisation** that is already underway and the resulting increase in **competition** may free up particularly **strong forces for growth**. This point of view is supported by the following factors:

- More financial instruments will help ease the current **investment crisis**. It will increase the banks' added value.
- With the implementation of modern risk management methods, the **granting of loans** will follow more rational criteria than in the past.
- The state will continue to reduce its participation in **social security systems**. Private instruments will fill these gaps. Private pensions will carry particular weight here, largely because of unfavourable demographic developments.

This argument suggests a strong, **disproportionately high contribution to growth** by the financial sector. The effect should be felt most strongly in the next 5-10 years and then run in proportion to economic growth.

Global market

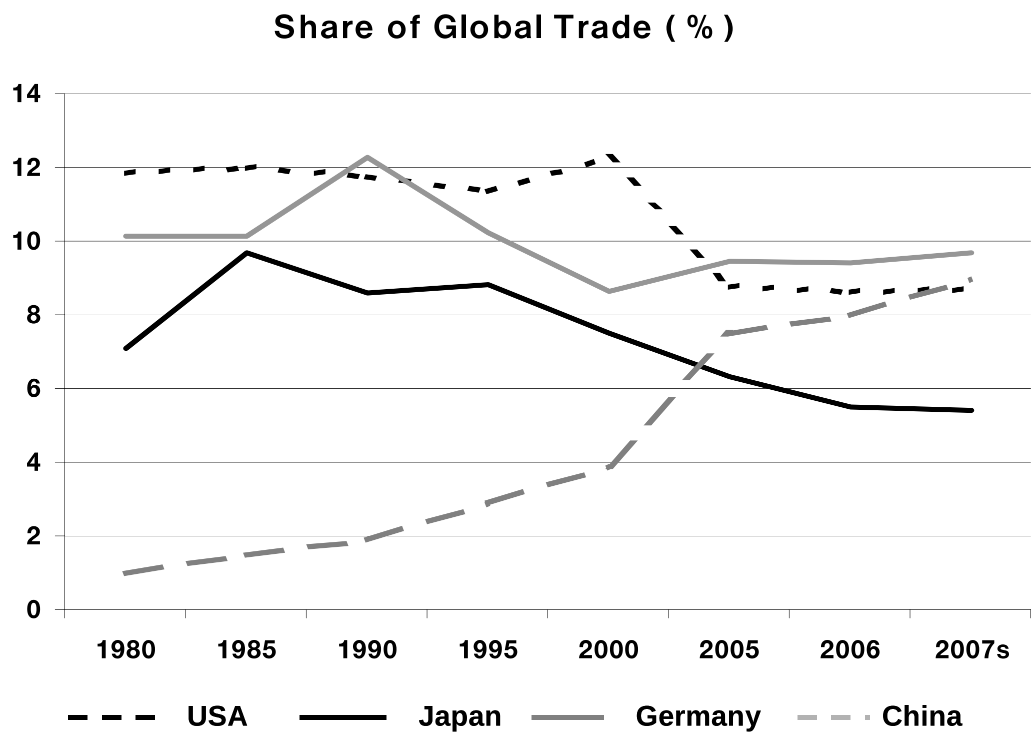
With a **foreign trade volume** of more than USD 2,000 billion, China is now the third-largest trading nation in the world. China's strength as an exporter is making bigger and bigger waves. In spite of the huge domestic market, exports rose from 16% of GDP in 1990 to 40% in 2006. This is also reflected in the increase in China's share of world trade from 2% to 8% in the same period. At this rate, China could replace Germany as the world's largest exporter next year. There have been very high trade and **current account** surpluses for several years. The current account surplus could be more than 10% of GDP this year. High current account surpluses and capital inflows in recent years have led to a significant increase in **foreign exchange reserves**. With more than USD 1,300 billion, the country now has the world's highest currency reserves.



Source: Dresdner Bank, Institute of International Finance (IIF)

There are many reasons for China's export miracle. Initially, **low wages** were the main factor allowing low-cost production of labour-intensive products. Until the middle of the 1990s, exports were dominated by textiles and toys as well as low-end electronics. In the past ten years, China's export industry has profited from the high investment of **multinational companies** from neighbouring countries, which has led to the expansion of export capacities, particularly for electronic products. While this increased the range of products exported, the **level of added value** has usually remained low, as described above. In addition, extensive **infrastructure expansion** is allowing the interior of the country to participate in the export industry.

More than two-thirds of all foreign direct investment comes from neighbouring countries in Asia, which is having an effect not just on the export structure, but the import structure, too. More than 50% of all of China's imports in 2006 came from more industrialised countries of the Far East.



Source: International Monetary Fund

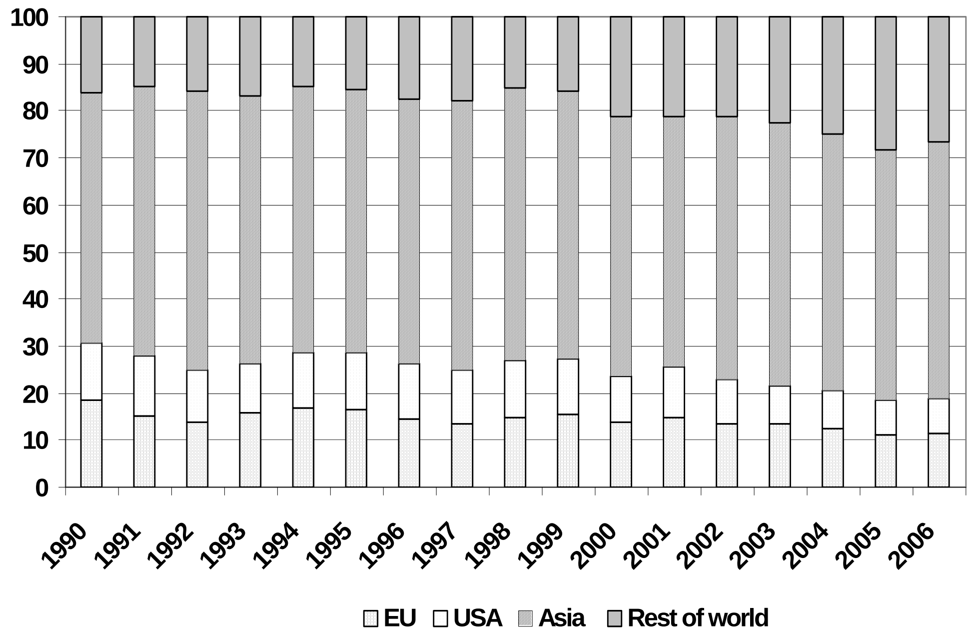
The typical production process described above - the import of high-tech components which are then assembled into finished products in China and then exported - plays a key role in the **regional structure** of foreign trade. China has deficits in the bilateral exchange of goods with neighbouring countries, while it has surpluses with the US and Europe.

Source: International Monetary Fund

China has averaged nearly 25% annual growth in exports since 2000. Is this high level of growth sustainable?

The practically unlimited availability of cheap labour with good work habits continues to make China a **favourable location for production**. The average hourly wage in Chinese manufacturing (around EUR 1.20) is only one-tenth of Korea's and Taiwan's and one-twentieth of Japan's. While wages are going up by double-digits annually, productivity is rising just as fast, allowing Chinese manufacturers to make up for rising labour costs.

Import Destination (as % of total imports)

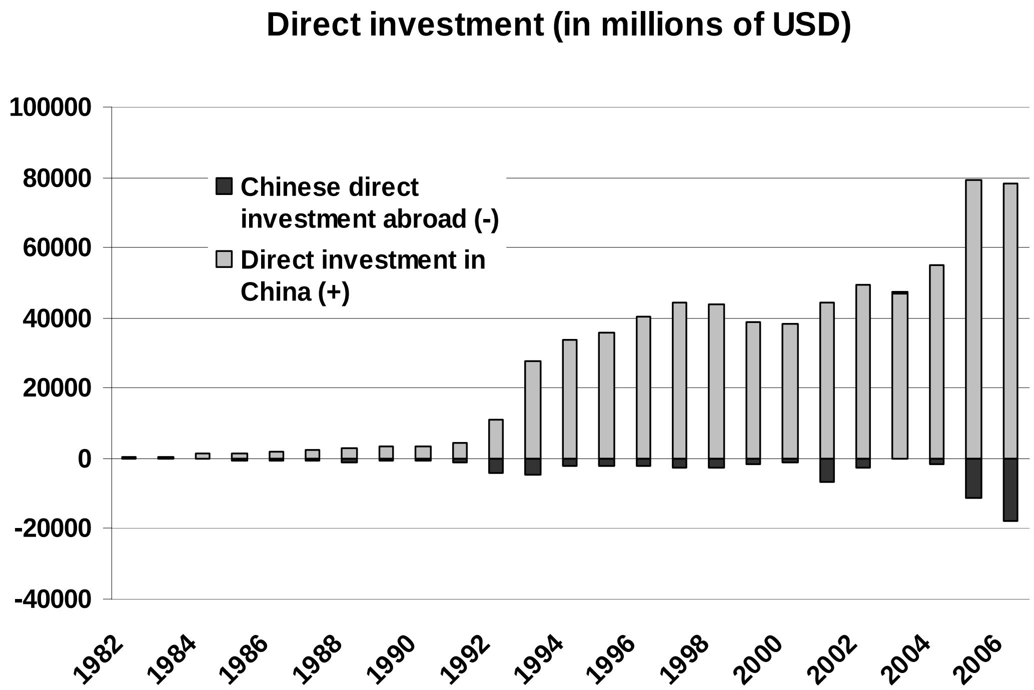


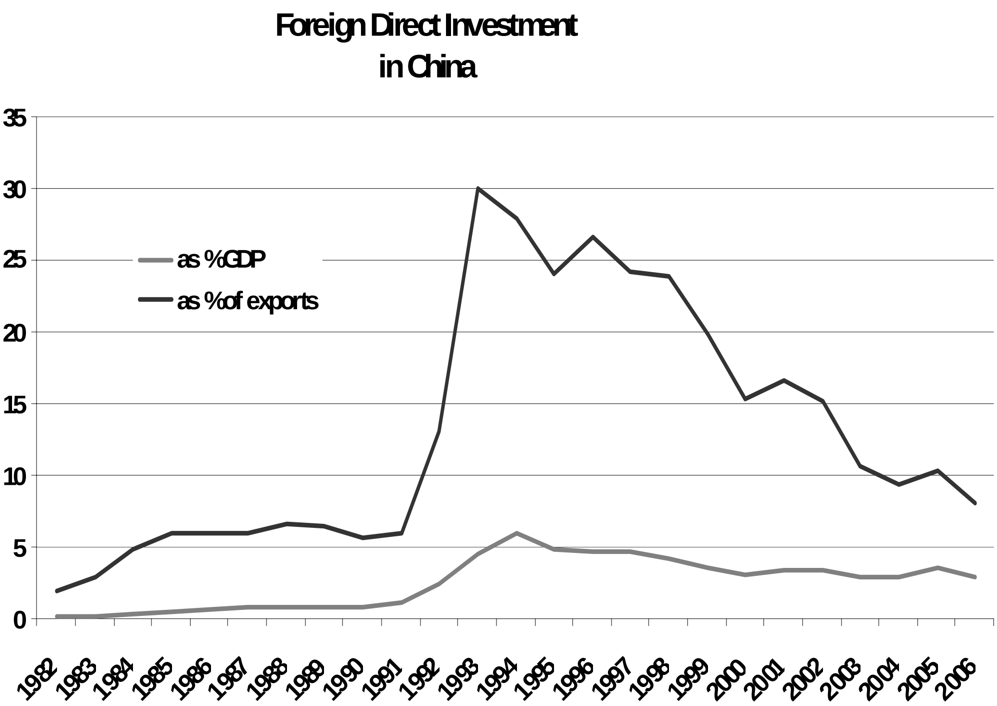
For the government, the **exchange-rate policy** is the key to ensuring that China's export economy remains competitive in terms of pricing. Since the USD peg was officially abandoned in July 2005, the Renminbi has gained 7% against the Dollar. The central bank has prevented a more significant increase in the currency's value through massive **intervention on the currency markets**. But the US will continue to apply pressure because of China's high trade surplus. The EU may also take more decisive action against China's currency dumping. **Protectionist policies**, such as those currently being discussed for steel imports, would hit the Chinese economy hard. Given this environment, it is safe to assume that China will allow the Renminbi to appreciate in the coming years, but this will only take place gradually. The Chinese government has also begun to reduce tax breaks and other preferential treatment for exporters.

In the past, producers made up for rising costs by lowering their profit margins, which was possible with returns so high. This left the export price unchanged and had no impact on export volume. After years of stagnation, export prices have been rising again since last year. But they are still below their level in 2003. Export companies can also move their factories to the interior of the country where wages are significantly lower than in the coastal regions. This flexibility will likely mean that the competitiveness of the export economy will not be reduced, at least for several years. In the longer term, though, part of the **low-wage segment** of the export economy will move to **Vietnam, Indonesia** and **India**.

In addition, **foreign direct investment** in China, which in past years has been one of the driving forces of the Chinese export economy, will begin to lose momentum. Investments have been falling in relation to GDP and goods exported for some time. Instead, Chinese companies are now increasing their investments abroad, which is certainly a result of the huge currency surplus in China. These investments are primarily intended to **secure raw materials** for the rapidly expanding economy. Much more than other countries, China makes investments with strategic development goals, i.e. investments in other countries are often closely related to the investor's production in China.

All things considered, we expect Chinese exports to register double-digit annual increases for the next 15 years, though exports will increasingly **give up** their **role** as a **catalyst** for economic growth. This view is also consistent with the government's strategy of boosting private consumption in order to generate economic growth that is more balanced between domestic and foreign demand.

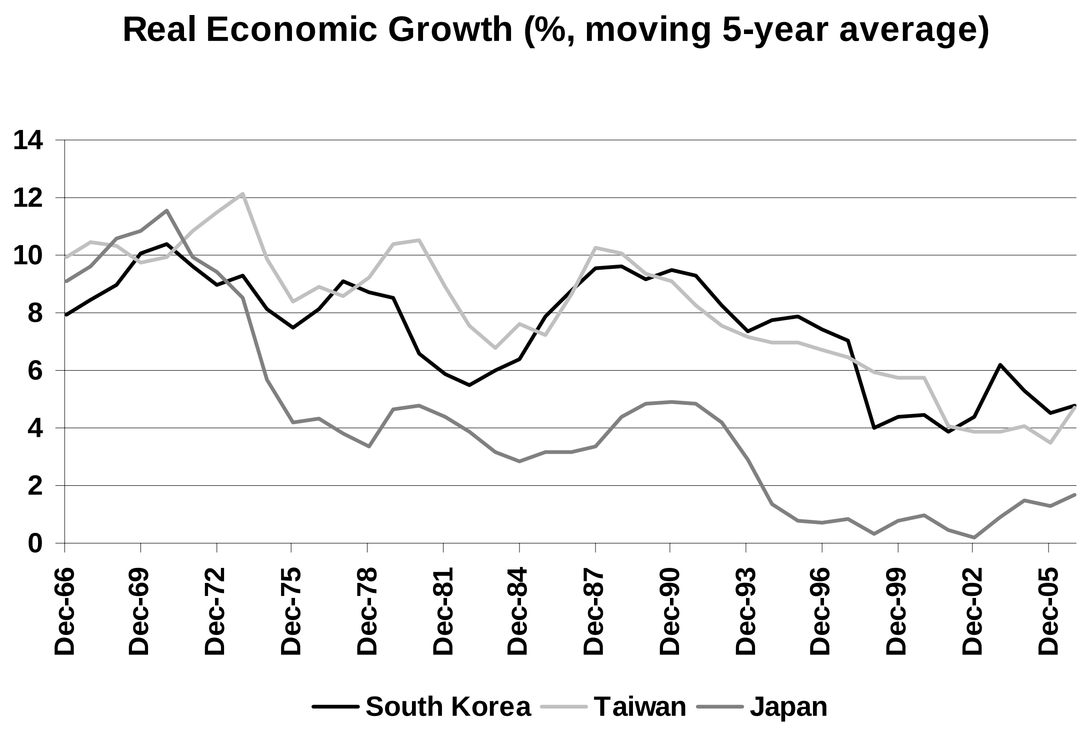




Base case scenario: high, but slowly falling economic growth.

Economic growth in Asia follows **waves of development**. Riding the first wave was **Japan**, which rose to join the group of industrialised countries on the strength of extremely high growth in the 50s and 60s of the last century. Japan's success paved the way for the so-called **tiger countries**, including South Korea, Taiwan, Hong Kong and Singapore, to follow this development model two decades later. Finally, a decade later, Malaysia, Thailand and, especially China formed the third wave of development. Despite significant structural differences in the economies of these countries, the success story of these waves is always based on a strong emphasis on industry, a focus on the global market and, initially, on labour-intensive production processes that allow the countries to take advantage of their lower wages. Then, as wages rise, capital intensity, which benefits from the high level of capital accumulation, increases.

The chart below shows the very high initial growth rates in Japan, Taiwan and South Korea.However, in all three countries, economic growth has slowed over time, with Japan seeing by far the sharpest drop, largely because of the real estate and banking crises in the last decade.



Can a similar long-term path be assumed for China's economic development? Initially, China fits into the wave model, except for the fact that there are **several waves of development** at the same time. In the urban centres of the east coast, which form the nucleus of Chinese growth, the conversion to capital-intensive production has either already taken place or is in full swing. For this reason, as described above, labour-intensive production is moving into the centres of less-developed regions like Manchuria and central China. A third wave will probably take hold later in the more rural provinces where the agricultural economy is currently dominant.Because of its size, China will probably get more of a boost from the beneficial process of bringing more and more people into the market economy than did South Korea and Taiwan, for example.

Growth Factors

Effects of growth in real GDP (+: positive, -: negative effect, O: neutral)

	2008-2012	2013-2022
Movement of labour and capital – waves of development	+	-
Capital accumulation	+	-
Economic policy	+	O
Demographics	O	-
Education	+	+
Environment	O	-
Banking and finance	+	O
Global market	O	-

However, future waves of development will become less growth-intensive than those that China is currently seeing or than were experienced in the past. High growth rates can be seen in practically all emerging markets, particularly in the urban centres, most of which in China are already part of the market economy. Growth rates in rural regions will also tend to fall, partly because the employment potential of these areas is lower as migrant workers are already employed in the factories and construction sites of the booming centres. For this reason, we can expect growth to be high initially and then to flatten out somewhat toward the end of the forecast period.

The growth factors discussed in the earlier part of this study also point toward such a scenario: The table below makes it clear that these factors will have a positive impact on real economic growth in the next five years. In the following phase, from 2013 to 2022, the factors will have a negative or neutral impact. Viewed separately, only education and the boost in productivity it provides could increase the potential for growth.

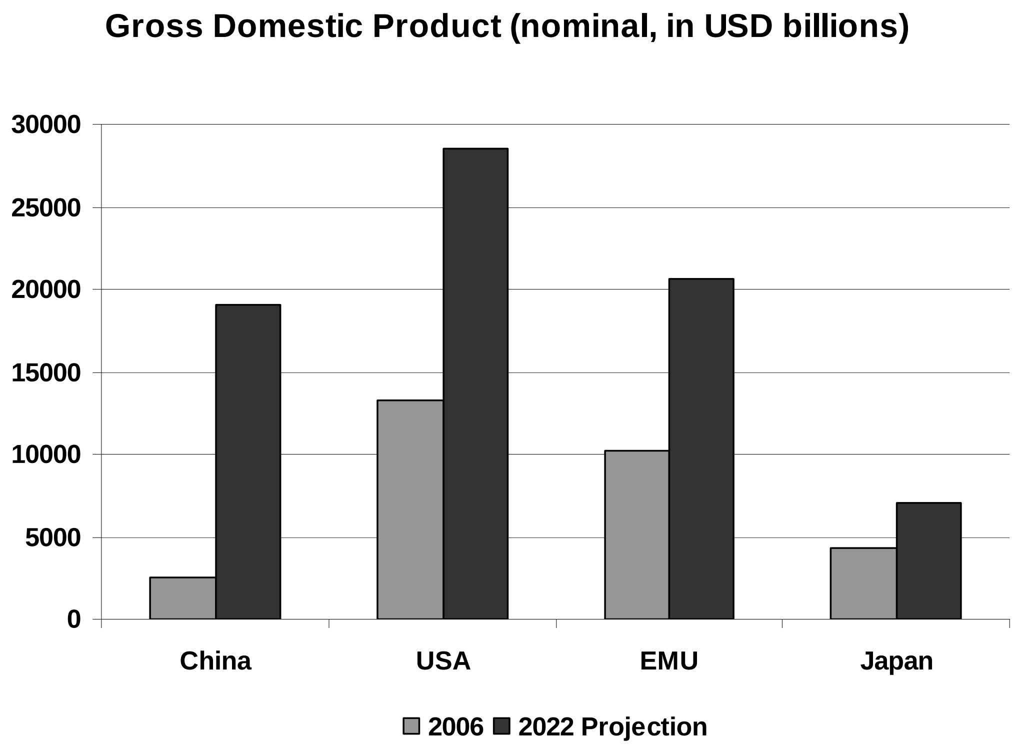
Base case scenario: Long-term forecast real economic growth China as %

economic growth in China in %

2006 actual	11.1
2007 estimate	11.5
2008 forecast	10.5
2009-2012 forecast annual avg.	9.0
2013-2022 forecast annual avg.	7.0

The scenario described above assumes continued **high**, **but falling, real GDP growth rates**. Production will expand less rapidly as the country becomes developed economically. The figures for 2009-2012 and 2013-2022 reflect annual growth rates, that is to say the trend in growth. Major fluctuations in growth within these periods cannot be ruled out.

This GDP forecast indicates that, given the assumptions described, China's GDP will rise seven-fold between 2006 and 2022, calculated at current prices and exchange rates. At the end of the forecast period, China will nearly have equalled **Eurozone economic output** and it will have overtaken Japan as the **largest economic power in the Far East**. Of course, per capita income will remain only a fraction of that of the major economic powers of the developed world.



Base case scenario: Assumptions

China: In addition to the real growth rate, other parameters influence the projection of nominal gross domestic product, expressed in US Dollars. As a deflator, we used the current publications of Allianz Dresdner Economic Research to reach our 2007 and 2008 inflation-rate estimates of 4% and 3.5%, respectively. We consider this procedure justifiable in view of the close connection between increases in consumer prices and deflators of the gross domestic product in the past. We also assume an average annual appreciation of the Renminbi against the USD of 5% for 2007 and 4.6% for 2008. This relatively major change in the exchange rate is partly a result of the appreciation of the Euro and the Yen, which are also in the currency basket of the Renminbi, against the US Dollar. For the following phase (2009-2022) we have projected an average annual deflator of 3%. By way of comparison, from 1992 through 2006, prices rose by an average of 5.5% per year. However, this rather high average was partly attributable to the very inflation rates of the early 90's. The Renminbi is expected to appreciate 3% p.a. from 2009 to 2012 and then 2% p.a. until 2022 against the USD. This represents a not insubstantial real appreciation of the Chinese currency. High increases in productivity are expected to greatly limit or compensate for the reduction in international competitiveness that will be connected with this rise.

USA: We are assuming real economic growth of 2.4% per year for the period 2007 to 2012. This is three-quarters of a percent lower than the equivalent for the period 1992-2006, which was an extraordinarily strong period of growth from a historical point of view. Because of the expansion of the potential workforce, the annual increase in real GDP will be close to 1%. We have used an average annual deflator of 2.5% for the period 2007-2022, slightly above that of the past 15 years (2.2%).

EMU: The projection does not take into account any possible future expansion of the economic and monetary union. We are assuming average annual real economic growth of 2% for the years 2007 to 2022 (1992-2006: 1.8%) and a corresponding deflator of 2.5% (1998-2006: 2.6%). For the purposes of the projection, we have assumed a stable exchange rate between the Euro and the US Dollar.
Japan: We are assuming average annual real growth of 2% and a deflator of 1%. We are also assuming that the exchange rate between the Yen and the USD will not change during the period of the projection.

We estimate the **probability of occurrence** of the base case scenario to be 80%. Of course, there are many other ways in which China's economy could develop in the long term. In our view, the probability of significantly higher growth is lower than that of significantly lower growth. The **"downside risk"** is thus greater than the **"upside potential"**. Even China is not immune to external shocks, such as a recession in the US. Socioeconomic upheavals could also have a negative effect on economic development in China, a country of extremes.

If economic growth falls below 6-7% for several years in a row, China would be threatened with mass unemployment, since the booming export-oriented industries would no longer be able to take on workers from state-owned companies or farms. This could also lead to higher unemployment in urban centres and widespread protests, or even massive unrest. As in the past, the government would initially react to this by increasing investment spending, though if this did not achieve its goals, political crackdowns and limitations on freedom could follow. The resulting greater international isolation that would result would make it even more difficult for the country to regain the economic momentum of the past.

But this will not necessarily happen and is, in fact, unlikely to take place. The growth levels detailed in our scenario are associated with many **structural changes** in China. **Private consumption** will grow faster than investment and exports, meaning that domestic demand will pick up. However, rising consumption will also mean an increase in imports, which will slowly erode the large **current account surplus**. Since China's foreign investments would be boosted at the same time, it follows that the extremely high currency reserves will fall to a more normal level in relation to imports and other key factors. The establishment of a stable **framework** in areas like corporate governance principles will benefit the **financial markets** in particular and increase their international competitiveness. This will, in turn, allow the government to liberalise its strict controls on the movement of currency and capital. The opening up of the country, which has so far extended only as far as trade and direct investment, will expand to include capital transfers with foreign countries.

Does China's rise to the third-strongest economic power pose a **threat** to people in the **industrialised countries**? Not necessarily. The fears currently associated with China's rise are often exaggerated. The developed countries fear an erosion of international competitiveness, the migration of entire sectors of industry and the resulting loss of jobs. China is also increasingly viewed as competition in the demand for raw materials and as the reason for price increases in this sector. This ignores the fact that **consumers** in the industrialised countries realise significant **economic gains** from low-priced Chinese products.

These gains are the result of the international division of labour that is fuelling China’s rise and from which everyone can benefit in the end. However, these fears, and the contradictory view of the country mentioned earlier, are primarily the result of the lack of transparency that has permeated China’s economic life and still persists. This is a reflection of the dual economic system in which it is often difficult to tell whether the policies of the old planned economy or free-market principles prevail. Even if we continue to be faced with this issue for a long time, it can be assumed that China will remain on the free-market path and that transparency will improve, which should help to reduce some of the concerns felt by other countries. The creation of politically more independent, stable free-market institutions and conditions in China should have a similar effect. The government has been working for some time on this as well as on the rising direct foreign investment by Chinese companies. The increasing interdependence of capital works to align more closely the interests of investors and the economy of the recipient country. This then serves to counteract political unilateralism and the isolation of China.