CHINA – OPPORTUNITIES OF AND CONSTRAINTS ON THE NEW GLOBAL PLAYER

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In transforming its centrally planned economy, China did not experience a J-type transformation curve like that seen in Central and Eastern Europe in the 1990s, when Poland, Hungary and the then still united Czech and Slovak Republics lost roughly 20 percent of their GDP. In contrast, China has enjoyed high average annual GDP growth rates of nearly ten percent for the last 25 years since the Deng Xiaoping reforms commenced in 1978. In 2006 it achieved a USD 2.7 trillion economy; the preliminary figure for 2007 GDP is USD 2.9 trillion (World Bank 2007a; World Bank Beijing Office 2007a and 2007b). China now represents the world's third largest economy, accounting for 5 percent of world GDP in 2005. For many economists, this success story is a puzzle.

Expressed in per capita terms, China's output is still low. Gross national income at current market prices (GNI) per capita stood at USD 2,000 in 2006, at the same level as the average for the low and middle income countries (USD 2,037) and at about 5 percent of the US level. According to this measure, China ranked 128th in the world economy in 2005. World Bank data for 2004 indicate that 9.9 percent of the total population lives on less than one US (PPP) dollar per day.

Factors driving growth

Growth occurred evenly over the last two and half decades with high average annual real GDP growth rates of nearly ten percent per decade (Table 1): the preliminary figure for 2006 is

Table 1

10.7 percent. However, quarterly growth rates show a high volatility. GDP per capita has risen by an average annual real rate of about 8 percent since 1978 (IMF 2006a) and real wages have also increased by 8 percent (since 1987). According to World Bank estimates, poverty was reduced for 422 million people in the period 1981-2001, using the criterion of income of one US dollar per day. The two main drivers of growth were exports and investment (Siebert 2007a and 2007b).

Exports as a stimulus for growth

Exports are a major driver of economic growth in China, amounting to 34 percent of GDP (2005). This figure relates to exports from mainland China, i.e. excluding exports from Hong Kong. This high export share is unusual since large countries normally have a much lower export share. The trade account had a surplus of 4.4 percent of GDP in 2005 and the current account surplus stood at 7.1 percent of GDP in the same year; in 2006 the current account surplus had risen to 9.5 percent of GDP. China has a world market share of 6.8 percent, measured in terms of merchandise trade (2005). Foreign trade is estimated to contribute between 3 and 4 percent of GDP growth (World Bank Beijing Office 2007b).

Chinese exports have risen in real terms at the rapid rate of 12.4 percent since 1980, while world merchandise exports have expanded at 4.9 percent over the same period. In the period 1995 to 2005 China's exports rose more rapidly at 19.7 percent (World Bank 2006a). Rising exports pulled up the economy. They induced production, investment and employment. Note that in order to determine the increase in real terms, i.e. in the volume of exports, nominal export figures, given in renmimbi, have to be corrected by a price deflator. Usually the trade deflator for goods published by the Customs Administration is applied.

Nearly all exports represent merchandise exports, i.e. exports of goods (excluding services). Almost all merchandise exports are produced in the manufacturing sector (92 percent in 2005). Yet while China is considered to be the manufacturing workshop of the

China: Real growth rates of GDP, exports and investment ^{a)}								
	1970–1980	1980–1990	1990–2000	2000-2006	1980-2006			
GDP	6.2	9.3	10.4	9.8	9.8			
Exports	n.a. ^b	5.7	14.1	23.3 ^{c)}	12.4 ^{d)}			
Gross capit-								
al formation	6.8	8.6	10.6	14.5 ^{b)}	10.6 ^{c)}			
^{a)} Geometric annual average growth rates in constant 2000 US dollar prices. Data for 2006 on the basis of World Bank projections. $-^{b)}$ n.a. = not available. $-^{c)}$ 2000–2005. $-^{d)}$ 1980–2005.								

Source: World Bank, World Development Online Indicators, September 2007.

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world, it is astonishing that its exports consist not only of low technology products. Almost one third of its merchandise exports (31 percent) are high technology exports. In this respect, China is playing ball in the same league as Japan (22 percent), Korea (32 percent), the Netherlands (30 percent), the United Kingdom (28 percent) and the United States (32 percent), according to the World Bank classification (World Bank 2007c). Although China's high technology exports rely on considerable high technology imports and the issue of delineating high technology exports plays a role, China's export basket is seen to be moving up-market into higher value goods (World Bank Beijing Office 2006b). WTO membership (since 2001) has further improved China's export conditions by securing access to foreign markets.

Investment - the other driver

Gross capital formation stands high at 38.7 percent of GDP (2004), with annual average growth rates amounting to 10.6 percent in the period 1980 to 2005 (see Table 1). Foreign direct investment (FDI) plays an important role in total investment. In 2005, net capital inflows of USD 68 billion were FDI (3.6 percent of GDP and about 8 percent of gross capital formation) – the preliminary figure for 2006 is estimated at USD 60 billion.

Among other components of GDP on the expenditure side, household final consumption accounted for 48.5 percent and general government final consumption for 10.2 percent in 2004. Government investment is included in total investment. Gross national savings for 2005 are estimated at 47 percent of GDP (IMF 2006b). Households presently save close to thirty percent of their disposable income, while firms account for the other part of gross national savings. The difference between the share of savings and investment in GDP, the savings-investment gap, reflects the current account surplus. Marginal capital productivity is declining.

Entrepreneurship

An important contributor to growth is the entrepreneurial spirit of the Chinese. Historically, they have been traders, and they enjoy accumulating family wealth. These characteristics together with the traditional value orientation represent powerful incentives for effort and entrepreneurship and form a strong foundation for bottom-up developments of individuals and municipalities; they encourage economic agents - the entrepreneurs - to organize new combinations of the factors of production in the sense of Schumpeter. The Chinese seem to have been waiting for the Deng Xiaoping reforms, ready to exploit the options created and to embrace capitalism in spite of the Communist Party's official philosophy. It is no wonder that, according to a survey conducted by the University of Maryland, the Chinese now show a larger acceptance of the market economy than the three large continental countries of Europe: 74 percent of the Chinese population supports the market economy compared to 36 percent in France. Entrepreneurs of Chinese origin living outside mainland China have also played an important role in China's economic growth.

The fragility of the banking sector

Whereas the sector of state-owned firms as a whole no longer makes losses, the banking sector is fragile. Banks are state-owned. This applies to the four big state-owned commercial banks as well as to twelve joint-stock commercial banks, city and rural cooperative banks, other banks and asset management companies. Three of the state-owned commercial banks have been partly privatized through initial public offerings, with the state (and the state-owned management companies) still holding about 70 to 80 percent of equity. For instance, in October 2006, 17 percent of the shares of the Industrial and Commercial Bank of China (ICBC), the largest of the four state-owned banks, were introduced to the Hong Kong and Shanghai bourses in the largest world-wide initial public offering ever, making this institution the fifth largest bank with a market capitalization of USD 147 billion. In addition, 8.5 percent of its assets are held by Goldman Sachs, Allianz and American Express. State-owned banks have chosen strategic partners (IMF 2006b). The other two stateowned commercial banks are the Bank of China and China Construction Bank. The initial public offering of the Agricultural Bank of China is pending. Asset management companies are the vehicles through which the government exercises its ownership rights vis-à-vis the four state-owned commercial banks. Each one of the asset management companies is responsible for one of the four state-owned commercial banks.

But China's banking system is fragile. Asset quality is poor and the capitalization of banks is low. There is massive government intervention in the banking system. Banks are not competitive in terms of international standards. As a result of monetary policy, the liquidity of the banking system is high, banks hold large excess reserves, inter-bank interest rates are low and credits are expanding strongly. Fully functioning bond and equity markets, which could allocate savings to investment more efficiently than bank intermediation, have not yet been developed. Moreover, bank intermediation is subject to political influence and competes with informal financing; more than half of investment is self-financed. Investing savings abroad is not a permitted option for savers. Bank deposits are the main form of savings.1 Chinese savers seem to have confidence in the state-owned banks. If the depositors ever lost this confidence, a severe risk for a stable growth process in China would arise. Thus it is essential that bank failures leading to bank runs be prevented.

The non-performing loans, resulting from the political pressure on banks to provide credit to inefficient state-owned enterprises, represent a major risk. The stock of the banking system's non-performing loans was estimated at about 40 percent of GDP in 2004 (Blanchard and Giavazzi 2005). Other sources put the percentage of total bad loans in GDP at 21 and – with a higher credibility – at 56 (Roubini and Setser 2005). The proportion of non-performing loans to GDP fell in 2005 (IMF 2006b). However, their total stock is still estimated at 25 percent of GDP at yearend 2005, including 8 percent at the asset management companies (IMF 2006b).

In the past, the government has had to recapitalize the state banks from time to time with sizable amounts. In 1998, the government spent USD 32.6 billion (about 31/2 percent of GDP) in order to save the four then wholly state-owned commercial banks (Prasad 2004). In 1999 to 2000 the government injected about USD 169.1 billion or 14 percent of GDP via state-owned asset management companies into the financial sector to clean up the balance sheet of the state-owned commercial banks (ibid.). Bad loans of this magnitude were taken off the bank's books in 1999 and transferred to four asset management companies (Roubini and Setser 2005). In 2003, USD 45 billion or about 4 percent of GDP were used for the same purpose. The People's Bank of China transferred the amount to holding companies in order to recapitalize two of the four state-owned

banks (China Construction Bank and the Bank of China). The banks will not convert these assets into renmimbi but rather retain them as international reserves. This signifies an increase in the central bank's balance sheet risk. In 2005, a sum of USD 15 billion was injected into the ICBC and USD 30 billion were transferred to its asset management company. Chinese press reports indicate that a capital injection of USD 100 billion will be needed to prepare the Agricultural Bank of China (with 24 percent of its loans non-performing) for an initial public offering.

China makes use of its international reserves to clean up its banks' balance sheets. Astonishingly, in 2004 China's reserves relative to GDP amounted to a share not too different from that of the non-performing loans of the state-dominated financial system, namely 40 percent. Viewed this way, the international reserves partly represent an insurance against a future failure of the banking system, and this view mitigates against condemning China's accumulation of international currency reserves too harshly.

Monetary policy, balance of payments and exchange rate policy

Money supply and inflation

China experienced high inflation rates in the 1980s and 1990s. For instance, the change in the consumer price index was 19 percent in 1988 and reached its peak of 24.2 percent in 1994. Inflation rates were also extremely volatile. Whereas the inflation rate was amounted to 18.3 percent in 1989, it had fallen to a comparatively low 3.1 percent just one year later. The price level declined in the context of the Asian financial crisis with - 0.8 percent in 1998 and -1.4 percent in 1999. Compared to the 1980s, inflationary pressure stemming from a considerable increase in the money supply and strong credit expansion was somewhat tempered in the past few years. Consumer price inflation, driven mainly by food prices, was between 0.26 percent (in 2000) and 3.99 percent (in 2004). Recent inflation rates have also been far less volatile than those of fifteen years ago. The money supply (broad money according to the IMF definition) rose in the range of 14.0 percent to 19.6 percent in the period 2000 to 2005 (IMF 2006b). Credit to non-state sectors expanded in a volatile fashion in the same period

¹ In principle, with the WTO opening of the Chinese banking system in 2007 foreign banks should be allowed to offer non-Chinese financial assets.

with rates fluctuating between 2.1 (2001) and 26.5 percent (2002).

An independent monetary policy is complicated by high current account surpluses as they increase outside money. The Chinese Central Bank - the People's Bank of China - purchases foreign exchange and accumulates reserves. Because of the high current account surpluses, it is necessary to sterilize the monetary expansion. That is why the People's Bank of China sells sterilization bonds to the state-owned banks. From 2003 to 2004 the stock of sterilization papers increased by about 265 percent, from 2004 to 2005 it increased by another 88 percent or USD 117 billion - putting the value of the overall stock of bonds at USD 250 billion. However, this vast increase covers only slightly more than half of the increase in reserves. Not all of the outside money can be sterilized. In the future, bonds to China's new Sovereign Wealth Fund may be used to mop up part of the excess liquidity.

Balance of Payments

China has registered a surplus both in the current and in the capital account of its balance of payments for many years. The capital account includes FDI and portfolio flows. In 2006, the surplus in the capital account disappeared in spite of high net FDI inflows. China uses the surplus to accumulate reserves (Table 2). In 2006, the surplus of the current account stood at USD 250 billion, making up 9.5 percent of GDP. This translates into an increase of reserves of USD 247 billion. For 2007, a surplus of USD 378 billion or

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11.9 percent of GDP is expected. Then total reserves equal USD 1,428 billion, amounting to about half the GDP.

Capital account controls

Capital flows are controlled. Though current account convertibility has existed since 1996, the capital account has not been liberalized. China is following a cautious and gradual approach to capital account liberalization, taking into consideration the fragility of its banking system. The Asian crisis of 1997 and other currency disruptions, like the financial crisis in Sweden of 1992, have shown the risk of liberalizing the capital account when the banking sector is not sufficiently robust, i.e. when it is not adequately regulated to withstand shocks and when banks have too much leeway in extending loans. From the point of view of the sequencing of liberalization, it is reasonable to make the foreign exchange rate more flexible first and then to liberalize the capital account in a second step. It would be risky to introduce residents' convertibility immediately and fully.

Exchange rate policy

The exchange rate of a country in transition to a market economy can be expected to go through two phases. In the first phase, the transformation process and the opening up to trade, including a sizable reduction in import tariffs, put the export sector and the exchange rate under pressure which depreciates the currency. In the second phase, when the competitiveness of exports has been established, apprecia-

Table 2 China's current and capital account balances									
	Current account balance	Capital account balance	Errors and omissions ^{a)}	Increase in gross official reserves	Accumulated foreign exchange reserves ^{b)}				
Annual average 1990–2000	+ 13.3	+ 15.2	- 12.8	+ 15.7	-				
2001 2002	+ 17.4 + 35.4	+ 34.8 + 32.3	- 4.7 + 7.5	+ 47.5 + 75.5	212 286				
2003 ^{c)}	+ 45.9	+ 52.8 ^{c)}	+ 18.0	+ 116.7	403				
2004 2005 ^{d)}	+ 68.7 + 160.8	+ 110.7 + 63	+26.8 -16.4	+206.2 +207.3	610 819				
2006 2007 ^{g)}	$+ 250 (9.5)^{e}$	$-3^{f)}$ -20^{f)}	_	+ 247	1,066				
2007 ⁽⁵⁾ 2008 ^{g)}	$+ 378 (11.9)^{e} + 408 (10.7)^{e}$	$- 20^{\circ}$ $- 10^{\circ}$		+ 358 + 398	1,428 1,826				

^{a)} Includes counterpart transaction to valuation changes. $-^{b)}$ Accumulated reserves in a specific year are not identical to the additions of a period plus the reserves of the previous year due to exchange rate changes. $-^{c)}$ 2003 figure includes the counterpart transaction to the USD 45 billion of foreign exchange reserves used for bank recapitalization. With this figure, the capital and financial balance would show a surplus of USD 143.7 billion. $-^{d)}$ Includes bank capitalization and foreign exchange swaps, estimated at USD 28.8 billion. $-^{e)}$ Numbers in parentheses show the share of GDP in percentage. $-^{0}$ Including errors and omissions. $-^{g)}$ Forecast.

Data sources: 1990-2005: IMF, International Financial Statistics, Online Database, October 2007; Forecasts: World Bank Office, Quarterly Update, September 2007; own calculations.

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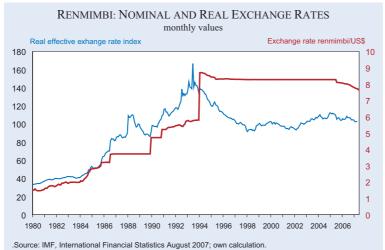
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tion is likely. These two phases can be observed in China.

Throughout the 1980s and the early 1990s, the nominal and the real effective exchange rate of the renmimbi depreciated sharply. The nominal rate (renmimbi to the US dollar) depreciated from 1.5 in 1980 to 8.6 in 1994 (Figure 1). The real effective exchange rate index (which is the inverse of the IMF's real exchange rate index) rose from 33,3 in January 1980 to 167 in June 1993, with February 2000 set equal to 100 (in contrast to the index used by the IMF, an increase in this index denotes a real depreciation). From 1994 to 1998, the renmimbi appreciated nominally relative to the US dollar, i.e. the RMB/USD rate fell. It then was held steady at 8.28 until 2004. Since 2005, the renmimbi has appreciated by 8.28 percent to a rate of 7.65 in May 2007. This looks like a soft crawling peg to the US dollar. In real terms, the renmimbi appreciated from 1993 to 2001, then depreciated unsteadily until March 2007. However, it is amazing that it has remained constant since 2003. It has even depreciated since 2000.

China has followed a policy of pegging the renmimbi, attempting to keep it more or less stable or changing it only slowly. Effective June 21, 2005 the renmimbi is no longer tied to the US dollar alone, but to a basket consisting of the US dollar, the euro, the yen and the Korean won. In addition, the Singapore dollar, the British pound, the Malaysian ringgit, the Australian dollar, the Russian rouble, the Thailand baht und the Canadian dollar are taken into consideration. The weights of the currencies in the basket are supposed to reflect the importance of China's trading partners, but are not disclosed by the

Figure 1



Chinese central bank. Disclosure of the weights would allow speculators to guess where the renmimbi might be in the future and when the central bank is likely to intervene. In practice, each day trading on the spot market starts with a central parity of the renmimbi to the US dollar determined by the weighted average of fifteen market makers appointed by the People's Bank of China rather than beginning with the closing price of the previous day. Intraday movements are constrained by a band of 0.3 percent on both sides.

Is the renmimbi undervalued?

Determining the correct exchange rate is a tricky issue. After all, it is a counterfactual question. Economic forces pull the exchange rate in different directions. Some forces clearly work in favor of an appreciation of the renmimbi. Following the trade flow view of the exchange rate, the high current account surpluses of 9.5 percent of GDP in 2006 and the expected surplus of 11.9 percent of GDP in 2007 clearly suggest an appreciation of the renmimbi. Following the capital flow view of the exchange rate, labor productivity growth and China's improved access to other countries' markets also operate in favor of an appreciation, making China more attractive for foreign capital. Other factors, however, would work in favor of depreciation, among them too high an inflation rate (representing a real appreciation but requiring a nominal depreciation) and a liberalization of the capital account. Thus, residents' convertibility would induce market participants to hedge political risks and let them place their savings abroad, in this way increasing the demand for US dollars, euros and

> other currencies, implying an increased supply of the renmimbi and dragging its value down.

> Consequently, the existing capital controls for residents imply an overvalued renmimbi, i.e. the renmimbi would depreciate strongly with a liberalized capital account. Combining the trade flow and the capital flow views, the accumulation of reserves definitively points in the direction of an appreciation. Most importantly, it is the real exchange rate that determines the

current account. Yet the real exchange rate has remained constant since 2003 and has even depreciated since 2003. China has used the international reserves as an insurance against the fragility of its banking system (Siebert 2007a). In any case, reducing the Chinese current account surplus will not necessarily solve the US current account deficit problem. Thus, a lower Chinese surplus would raise the world real interest rate and would hurt the US through another mechanism (Corden 2007).

Property rights

Establishing property rights is crucial in transforming a communist, centrally planned society into a market economy. They set incentives for the economic agents to produce, invest, innovate, save and provide work effort. In an approach different from the transformation countries in Central and Eastern Europe, China has developed its property rights step by step. They come in the form of land use rights, ownership titles of firms and residential titles. Land use rights are at the core; even firms need them. Although property rights grant the right to use land, run firms, construct, sell and use buildings and own apartments, all these rights are subject to control by collective authorities, most importantly collectives, municipalities and the Communist Party. Property rights are far different from their interpretation in market economies.

Land use rights for individual farmers were introduced in the Deng Xiaoping reforms. Land use rights are leases on the use of land. They now are granted for 30 years, were initially only given for one year, then for ten and afterwards for twenty years. However, agricultural land is owned and administered by the collectives. According to the Land Management Law of 1998, a contract between the collective landowner (i.e. the collectives) and the private farm household defines the rights and duties of both parties (Article 14). Article 13 of the Constitution, amended in 2004, defines "citizens' lawful private property as inviolable". Land use rights are granted by political decision - they were given to those who worked on the land and Party connections may have played a role. The total number of landlease contracts is more or less rationed; there is no primary market for land use rights. However, a thin secondary market for land use rights exists, which was constitutionalized in 1988 (deLisle 2004). Farmers can rent out the land with permission, paying a fee to the collective administration. Extension of the land use may be possible.

Land use rights do not comprise full ownership. Land cannot be sold, nor can it be mortgaged. Farmers do not enjoy capital gains on their land. Ultimately, they may not be interested in investing in their land, knowing that this land may have to be returned to the government. Given that farmers cannot negotiate directly with locating firms and developers, they cannot use the proceeds from selling land for investment in firms, for moving to the city or for financing their retirement.

Although land readjustments are restricted, farmers are not protected when the land is allocated to expanding firms or when it is needed for residential construction. Compensation, if any, is low: for rural land it is at about one tenth of the market value. About 34 million farmers lost their land-lease contracts in the period 1987 to 2001 (Lindbeck 2006). De facto, local bureaucrats have ultimate control and ownership of rural land.

Firm ownership is linked to the ownership of land extending for 50 years; it thus hinges on the permission of Party officials. Owning the physical assets that firms use for production (including the machines and the buildings) is not sufficient to establish enterprise ownership. Urban land is administered by municipalities. Sons and daughters of the political elite have had privileged access to land that was used to set up firms. Private ownership of firms depends on which sectors of the economy are at stake and it also varies with provinces and localities. Public ownership prevails in sectors where government is the dominant producer, for instance in energy, transportation and telecommunication. The relationship between asset ownership and land use rights is far from clear. If an entrepreneur has good connections with the local or provincial government, land use rights may de facto not be limited in time. When there is a change in leadership, however, this contract may be void. The relationship with the former political leader and the current leader is crucial.

Residential ownership refers to the ownership of buildings, including private apartments. With the permission of the political authorities, it is possible to convert agricultural land into residential use for individuals. In contrast to rural land, residential leases run for 70 years (some for 50 or 40 years). Property

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owners elect their landlord committees in order to protect their property against the local Communist Party politicians.

Property rights are far from being clearly defined; nor are they strong. They are mushy and in constant flux. A property right seems to exist only as long as it is justified by economic success. The characteristics of Chinese property rights are that they have simply followed whatever is needed for high growth. Property rights are rarely respected when an expanding firm needs new location space, when a private investor constructs new residential buildings or when the government pursues an infrastructure project. A monetary compensation requirement with respect to real estate was introduced into the constitution in 2004. Implementation of the property rights system and of individual claim procedures is, however, far from being established. Compensation is controlled by the state. Corruption is prevalent, the court system is in development, and legal advice is scarce. The rule of law is one of China's institutional deficits. A clear bankruptcy law that would allow to sort out property claims in the event of bankruptcy does not yet exist either. The revised bankruptcy law, effective June 2007, attempts to partly remedy this situation.

This form of mushy and adjustable property rights may be appropriate for the Chinese situation in which everything is in flux. These adaptable property rights do seem to create enough certainty for people to invest in the initial period of Chinese transformation, when expected yields are high. The expansion of the domestic market and the opportunity to have access to the whole world economy for the absorption of Chinese products have over-compensated the risk arising from property rights uncertainty. The duration of land use rights for farmers was extended. Auctions were introduced in 2007 to cut down on corruption. It is, however, an open question whether they will prevent collusion between the administration and bidders. Property rights are unlikely to be sufficient later on, when yields become somewhat lower; lower expected yields require more certainty. The approach to property rights is also affected by the process of transforming a communist society in which property rights are not supposed to exist. Apparently, there are ideological constraints to creating property rights. For instance, establishing a rural landowning class would undo the Mao reforms in which rural landowners were expropriated and quite a few of them were executed. Establishing new rights that do not jeopardize the position of the Party is a crucial constraint. Note, however, that the former President Jiang Zemin's "Three Represents" doctrine calls for the inclusion of the entrepreneurial class – usually property owners – in the Communist Party.

Policy issues

The crucial issue for the future is whether China's growth process of the last twenty five years is sustainable.

Over-investment

Over-investment in the real estate sector and in construction can require a correction if an excess supply of real estate develops. As we know from the experience in other countries, over-investment in the real estate sector can have severe implications for the real side of the economy. Examples are Thailand and the Asian currency crisis of 1997 and East Germany. An over-supply of housing and office space leads to a fall of real estate prices, a reduction of employment in the construction industry, and a decline in its growth rate, often becoming negative. This lowers the GDP growth rate. Mortgages lose in value, the balance sheets of banks get into disarray, lending is cut back, and a credit crunch may affect the real side of the economy.

Normal brakes in the process of growth

Normal adjustment processes tend to reduce future growth. As the pool of rural surplus labor becomes exhausted and wages are no longer supported by productivity growth at previous levels, real wages will rise more sharply than in the past. Although the excess supply of rural workers is estimated at 150 million and about 10 million new workers used to join the work force each year in the past, eventually labor will become scarcer. China's appetite for energy and raw materials will drive up the prices of important inputs, making production more expensive. China bidding for these resources on the international markets will raise world market prices; at present, China consumes about 8 percent of the world's petroleum, 27 percent of its cotton and 17 percent of its wheat (Siebert 2007). To mitigate congestion in transportation, more resources will have to be invested in public infrastructure projects

which tend to have lower capital productivity than investment in the private sector.

More importantly, weaknesses will come to the fore. China will have to pay more attention to accidents at the work place and in industrial production, for instance, in the chemical industry. Moreover, environmental constraints will make themselves increasingly felt. Toxic industrial dumping in the countryside has to be halted and existing toxic dumps have to be cleaned up. Air and water pollution and the deterioration of the soil become less and less acceptable as per capita income rises. Pollution causes social costs in terms of serious health damage. All these factors will increase the costs of production. According to the World Health Organization (WHO), seven out of the ten most polluted cities in the world are located in China.

Energy efficiency has to be increased. Retail gasoline prices are still lower than in the United States. Cheap energy helps keep inflation in check, but it distorts energy use. The Energy Information Administration projects China's oil demand to more than double and reach 14.2 million barrels per day by 2025, with net imports of 10.9 million barrels per day. Furthermore, China is both the largest consumer and producer of coal in the world. Hence China faces major energy-related environmental problems.

It may be argued that all these weaknesses can be overcome with a technocratic approach and by social engineering. However, more resources must be diverted towards these bottlenecks, and the capital spent on these issues will have a lower productivity, implying a lower growth rate of the economy. In any case, prices of land, capital, energy and the environment that falsely indicate low scarcity have to be corrected through institutional changes.

Caution with data

A word of caution is in order with respect to the statistical data (Holz 2006). In spite of the fact that the data are subject to review by international organizations, distortions may occur because local and regional politicians have an incentive to massage the statistically measured results in their favor. We know that data were heavily distorted in Central and Eastern Europe prior to the fall of the Iron Curtain. Moreover, statistical revision of data ex-post is common even for statistical offices of industrialized countries. It would not be surprising if, under conditions of high growth and stark structural change, large statistical revisions were to occur in China in the future.

Distorted resource-extensive growth

China's growth is unbalanced in many ways: exports and investment instead of consumption, inflationary risk through money and credit expansion instead of price level stability, the exchange of export goods for international currencies and economic stimulation instead of imports, production and investment instead of social protection, pollution in favor of production instead of environmental protection, and the promotion of urban centers instead of an improvement of rural areas. Gross national saving at 47 percent of GDP (2005) keeps consumption low. Monetary policy supports these distortions.

According to this view, China has followed an inefficient, resource-demanding or even resource-destroying growth path with many distortions. Factoring in these distortions, the GDP growth rate may actually be lower than measured statistically, say at 7.5 percent per year (See sources quoted in Lindbeck 2006, p. 25). That is why some economists are pleading for another growth strategy with fewer distortions (Blanchard and Giavazzi 2005; Roubini and Setser 2005). It seems likely that the normal brakes discussed above will affect the growth rate. Barring political crises, a lower growth rate of, say, 6 percent annually in the next twenty years is more realistic. Such a scenario is also more likely as China's catching-up process, in which imitation is still playing a major role, will eventually lose steam. It would be a different story if China were able to shift out the technological frontier of the world itself and were not dependent on the imitation of Western technological solutions.

Social policy constraints

Issues of social protection have not been a major concern in Chinese growth policy. Unemployment, which has increased due to the restructuring of state-owned firms, is high, given the high GDP growth rate. The urban unemployment rate is estimated at about 5 percent (Prasad 2004). Although generous unemployment insurance has been introduced for the urban unemployed, protecting about 105 million (Lindbeck 2006), other workers are not shielded against unemployment. Protection against health hazards and old-age pension insurance has not been developed, the level of social protection in China being similar to that of the European countries of one hundred years ago. With the decline of the state-owned enterprises, which provided safe jobs and human services insurance, a mixed system has developed where, for instance, part of the health costs are covered by firms but a large part is selfpaid. The inadequate insurance arrangements for health and old-age are one of the reasons for high savings. Private savings needed as a substitute for insurance are inferior in terms of efficiency than an insurance solution. Health insurance, for instance, can be provided more efficiently, if a large number of people with different health risks are insured. Apparently, China has alternative options to following the European social model. However, whichever model is chosen, the need to develop a social insurance system is likely to put a huge burden on the economy.

The growing inequality of the income distribution and the rural-urban divide represent a severe risk for the power of the Communist Party. Discontent among farmers due to relatively low income, the high costs of health services, insufficient pensions in old age and the arbitrary decisions of bureaucrats with respect to land-use rights and local levies may lead to social unrest in the country-side which, traditionally, has played an important role in political change in China. Massive lay-offs in the rust belt, toxic industrial dumping, affecting farming, fishing and water, and industrial accidents may add to the unrest. Social upheaval could threaten the ruling Party. That is why rulers fear the Latin-Americanization of the country and why they have announced the target of a "Harmonious Society". After all, China lacks profound experience in social problemsolving, compared, for instance, to India.

A banking crisis?

The Chinese banking system is fragile. As is well known, money is not neutral. It can have a severe effect on the real side of the economy. There have been currency crises in the past, such as the Asian currency crisis in the wake of which Asian countries had negative growth rates for two years, and, of course, the Japanese bubble, as a result of which Japan stagnating for a decade. At the heart of this question is the issue of confidence. If the Chinese savers, who deposited all their savings at banks, lost their confidence, a bank run might result, putting the hitherto stable growth process in China at risk.

A period of positive surprises

Since the Deng Xiaoping reforms, China has experienced decades of what I call positive surprises. The economic system delivered more than people had anticipated. At the end of each year, most people were in a better position than they had hoped for when the year began. This is not unlike the experience of West Germany in the 1950s and 1960s after the Erhard reforms of 1948, when people could afford their first bicycle, their first motorcycle, their first car, their first vacation trip to Lake Constance or to Bella Italia and their first apartment. Under such circumstances it is easy to undertake economic policies. In the future, the Communist Party will face a different problem. The present young generation has grown up with high expectations, is used to big increases in real income and to a strong performance of the economy. Unlike their fathers and grandfathers, they most likely will no longer experience any positive surprises even if the economic system continues to deliver the high GDP growth rates of the past.

Institutional deficits

An efficient economic system requires a reliable institutional framework since most decisions of economic agents need a long-run orientation. When rules and the institutional framework for economic decisions are lacking, economic agents are at the mercy of bureaucrats and Party officials. Those who have the power to decide can hand out favors, usually in return for some compensation. Corruption is the unavoidable outcome. The rule of law therefore is a necessary prerequisite for a sustained growth process.

An important aspect of the rule of law is that rights are given to private firms and households as well as the empowerment to enforce these rights. This calls for corruption to be pushed back and it mandates clearer property rights. In addition, the Communist Party must desist from intervening in administrative and court decisions. Rules must be stable in order to be credible. To respect human dignity goes beyond the demand for economic freedom. All these requirements may limit the power of the Party.

The actual Chinese system of governance has been described as neo-Leninist, blending a one-party rule

and state control of key sectors of the economy with the market mechanism and an open economy (Pei 2006). Patronage secures support by key constituents, including the bureaucracy, the military and the business community. The question remains open whether or not economic freedom, a necessary condition for growth, will start a process in which citizens eventually demand political freedom. The relationship between economic freedom and political freedom, i.e. democracy, seems asymmetrical. Whereas democracy is accompanied by economic freedom (Friedman 1962), economic freedom does not necessarily entail political freedom. A major aspect could be that economic agents will insist on the right to elect those who make the laws governing economic freedom. After all, market capitalism separates economic and political power and this may put political power on the defensive.

The biggest challenge for China may then well be the demand for democracy. Whether or not this political demand for democracy will be forcefully articulated in China in the future cannot realistically be answered at this stage. One answer is that the Chinese derive an immense happiness from being and becoming rich and will be satisfied (for a long time) with a situation in which the Communist Party just lets them get rich. In that case, economic freedom will be all there is. In this scenario, the government remains more or less authoritarian. Another possible answer is that the Communist Party will introduce some cautious steps towards decentralized democratic procedures, for instance letting mayors be elected on a decentralized level. Among the political leaders there is a fear that the Communist Party will fall apart and the country will break up. For the Party, the disintegration of the Soviet Union serves as a negative example besides the Latin-Americanization of social issues. The result may be a cautious attempt of controlled capitalism, which may then serve as a prototype for other countries like the Arab oil countries and some developing countries. The least likely case is the third possible answer, a full move towards western style democracy.

Economic fundamentals may impact on the political system and vice versa. Thus, in generating Chinese multinationals, the issue arises of how China's products are viewed abroad and whether their image portrays the characteristics of freedom. Social inequality may lead to political unrest. Lower growth rates may put the political system into question, and political turmoil may jeopardize the economic growth dynamics of the past. An unstable China, for instance with a growing unrest of the rural population, will represent a threat to the world. Political rulers may then be tempted to play with nationalist sentiment to bolster legitimacy. It will be fascinating to watch how China will develop.

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