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Bank of Finland

**41<sup>st</sup> Workshop on Monetary Questions in Würzburg at Akademie Frankenwarte 5 May 2006**

General topic of the Workshop is *China – Challenges and Opportunities for the World Economy*

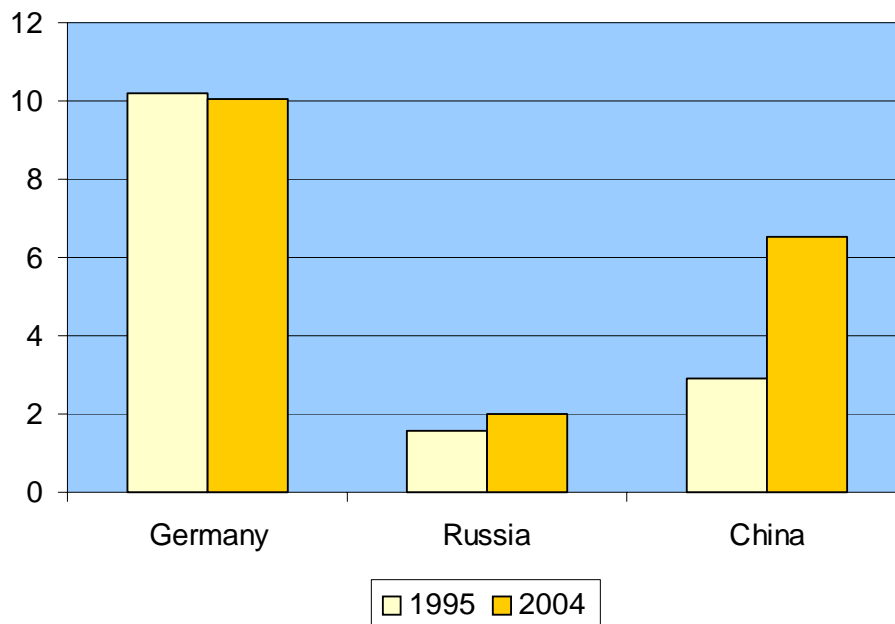
**China's integration into the world financial system**

First, let me say that I am grateful for this opportunity to give a presentation on China's integration into the world's financial system. The topic is interesting to say the least. When Professor Hans-Helmut Kotz invited me to do this, I felt a bit flattered and a bit hesitant. On one hand it is a great opportunity to participate in this bi-annual seminar on monetary questions, which has been held already 40 times. On the other hand, I must admit that I am not personally an expert on the Chinese economy. Professor Kotz referred to the fact that, the Bank of Finland has allocated substantial resources to this area. So I felt somewhat obliged to come here and share some of the information we have gathered at the Bank. Our research unit BOFIT has specialised in the Chinese and Russian economies. I thought that I could market its accomplishments by distributing among you the quarterly report on the Chinese economy and then some weekly published updates. You can find all this material at our website, [www.bof.fi/bofit](http://www.bof.fi/bofit).

China is obviously worth studying. It may be difficult to describe the country and its economy comprehensively – it is so immense and its population so vast. The scale of all the parameters is huge and almost all comparisons and the speed of the country's economic growth are unprecedented. The country is outnumbering others in almost all comparisons. Thus it is certainly challenging to try to present a comprehensive view on developments in the Chinese economy. What makes this even more challenging is that there is a lot of information available and a lot of experts. This implies that an observer's viewpoint inevitably defines at least some of aspects, one will see as relevant. Even knowing that, it may be difficult to give a balanced picture of the country's successes and prosperity and the risks and threats that the economy may face.

My viewpoint is that of an observer from a small economy trying to understand properly the China phenomenon and its role. In my presentation I first touch on some general relevant issues of the Chinese economy. After that, I make it more concrete by talking about the China phenomenon and Finnish companies. I hope that this will enable us to see some impacts of the very rapid Chinese growth for our economies. After that, I will move to the economic outlook for the years and decades to ahead.

### Shares of world exports, %



Source: World Development Report

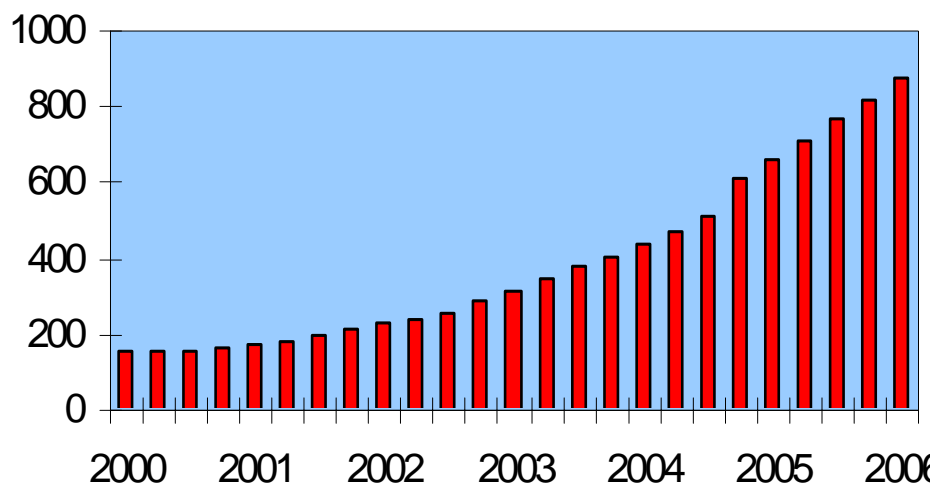
The economic growth in China has continued for more than 20 years. However, the country it has become a major player in the world economy only after the Asian crises in the 1990s. Last year it ranked as the fourth biggest economy after Germany, Japan and United States, surpassing both France and Great Britain. China's impact on world economic developments has become strikingly visible. The China effect is already felt in almost all industries and sectors.

Almost every country has felt the Chinese impact, in one way or another. This has caused a need for adaptation, which has been quite hard in some areas and industries. China's

exports count for close to 7 % of the world's export market. Thus it cannot avoid some criticism. Some protectionist ideas have also surfaced, especially in the United States. However, it appears that China's economic development is not adverse to the industrialised countries at all. Globalisation has led to improved efficiency, efficient division of labour and lower product prices than would be the case without the Chinese impact. And not only for industrial countries but also for developing countries has China's current development been a positive thing. China can be integrated into the largest poverty reduction programme in world history.

China has been seen as an exporting country only. However the speed of its growth of industrial production is rapid. It is not only exporting but also importing raw materials and goods. For example, China is by far the biggest producer and consumer of steel. It is said that in 2005 China increased its capacity to produce electricity by an amount which corresponds to the total electricity output in the UK.

#### The largest foreign exchange reserves in the world, USD bln



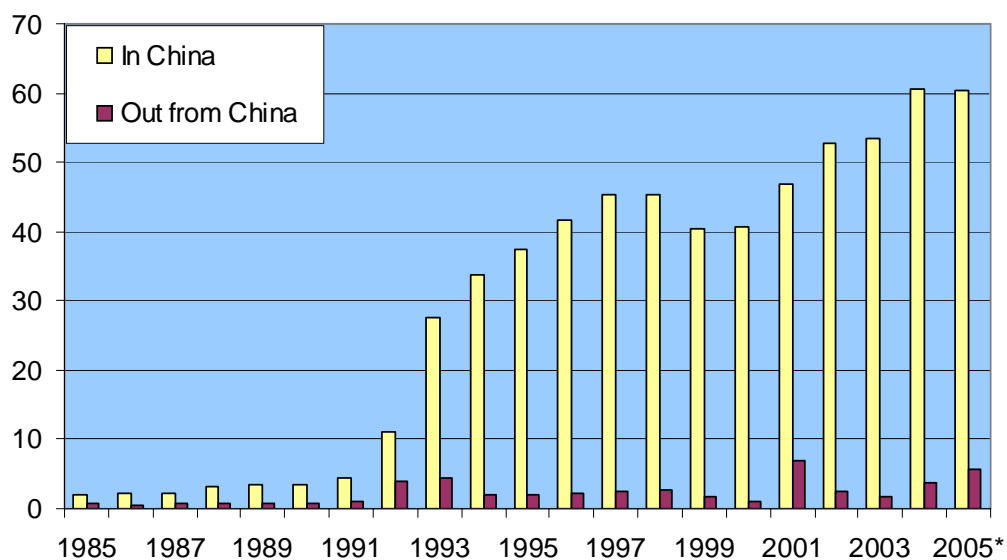
Source: People's Bank of China

Because China is one of the major economic powers in the world it has also become increasingly integrated into the world financial system. Due to a relatively large trade surplus and increasing foreign direct investment inflows, the central bank is constantly

intervening in the currency market and, as a result, the foreign exchange reserves are increasing. In February, China's reserves overtook Japan's to become the largest in the world.

The huge reserves have prompted some concerns as well. Having a tightly managed exchange rate between renminbi and dollar the growth of fx-reserves will continue. Some experts in asset management have pointed out that the risks attached to the reserves are huge and that the implications e.g. of a depreciation of the dollar could be quite serious. Even in well functioning world capital markets, it may be difficult to achieve efficient diversification of assets and to efficiently mitigate and manage risks.

### Foreign direct investment in 1985-2005, USD bln



Source: UNCTAD, People's Bank of China

\*) Figure on outward investments January-November 2005

The level of FDI inflows during 1990s has increased to a very high level. Since China's WTO membership in December 2001, FDIs have gone up to some USD 60 billion. Chinese authorities have strongly supported foreign direct investments. However, recently there has been some discussion on whether such a high level of foreign direct investments is desirable. Despite the fact that investment activity is strong, the savings

rate in Chinese economy is at such a high level that all investments could be financed, without any difficulties, through domestic savings. Thus there have been guesses and expectations that China may curb foreign investment into certain sectors.

One indication is that despite the fact that China has opened its markets gradually to foreign banks, the country is considering a possibility to impose restrictions on buying shares in the state-owned Chinese banks. This is an interesting turn of events since just last year foreign banks acquired shares of Chinese banks in the amount of USD 15 billion.

Due to the vast amount of savings in China, we expect Chinese investments in other countries to increase. It is official policy to encourage Chinese enterprises to gain stronger market shares and new technology by buying shares in foreign companies. It is obvious that through both channels, FDI and investments in foreign companies, Chinese enterprises can acquire foreign managerial skills and foreign technology. Eventually Chinese firms will compete with foreign multinationals, not only in China but also in the international market. It is easy to foresee that after having gained solid footholds in various sectors with very good price and cost competitiveness, it is now natural to aim at improving quality. Chinese companies will do what the Japanese did 40 years ago and Koreans 10 years ago, and undoubtedly will in the near future have some Chinese high quality brand names on the world market.

Today about 55-60 % of China's exports are due to foreign owned companies. Based on active investment policy and efforts to improve domestic production, we expect that domestic owned companies will account for an increasing share in the future.

Investments have been made by car manufacturers and the electronics industry in particular.



## China's integration to the world financial system

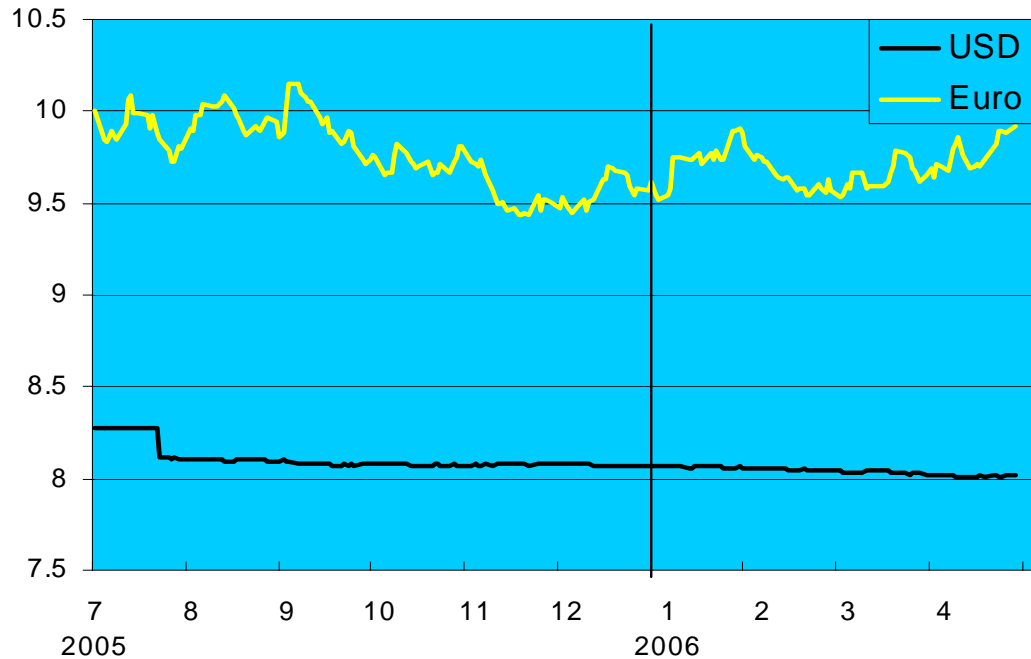
- China has still in place many restrictions on capital flows
- Due to its very high savings rate China can finance all the investments itself
- Actually, China is a net capital exporter
- The private capital outflows are nearly forbidden
- China's long-term plan is to liberalise the capital flows

China's integration into the world financial system has moved ahead. There are still many restrictions on capital flows in place. However, due to its very high savings rate, which enables it to finance its investment itself, it is a net capital exporter already today.

China has announced that some banks and insurance companies will gain permission to access to foreign capital markets, not only in bonds but also in equities. Assuming this will be realised on a large scale, the change is remarkable.

Although private capital outflows are nearly forbidden, there are very interesting signs of change. For example, at the beginning of May of this year the authorities introduced a maximum yearly quota equivalent to 20,000 dollars for private individual's foreign exchange purchases. The individuals can deposit the sum to their own domestic foreign exchange accounts. Prior to May, the maximum amount of foreign currency a Chinese citizen could buy for a long trip to abroad was only 8,000 dollars.

## RMB's exchange rates against EUR and USD



Source: Reuters, Bank of Finland

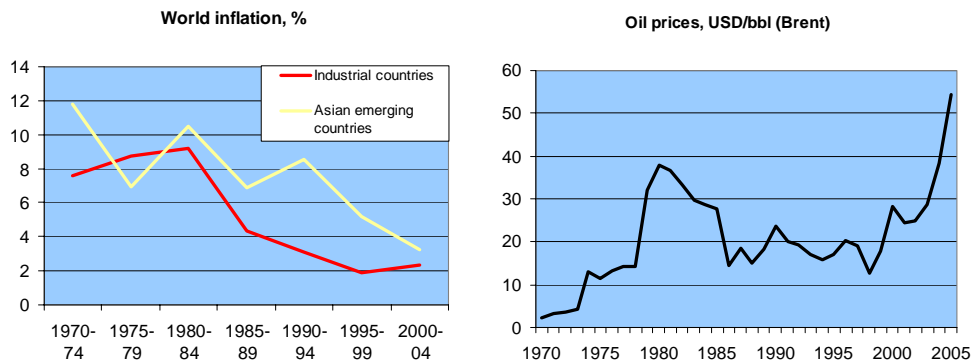
There have been quite wide discussions and an increasing number of academic studies dealing with China's exchange rate policy. The renminbi has strengthened against the US dollar about 1% since the beginning of 2006. Quite recently China took steps to enhance the possibilities of banks and enterprises to learn how to deal with currencies.

One should keep in mind that China and Chinese enterprises have dealt with currency risks against currencies other than the US dollar. For example, the euro has been quite volatile against the renminbi in recent years. This means that there is already real expertise in China in handling currency volatility.

Regarding the revaluation of the renminbi, Chinese authorities are determined to keep the matter in their own hands. They have said that they are planning to liberalise gradually their financial and exchange controls. And despite the fact that in public debate China has been accused of holding its currency pegged against the US dollar, China is not alone. There are many other counties in Asia with the very same type of exchange rate

policy, and these countries are trading with China and other countries in the world economy.

### China's impact on the world economy



Source: IMF

It is noteworthy that, China's impact on global economy is channelled through various means. World economic growth has been around 4-5 % in recent years and world trade has grown by 7-8 % annually. China's huge demand for raw materials has driven up world energy and commodity prices. That has an adverse impact on other countries. Even though these countries have suffered from very high oil prices, which affects their cost base, China has contributed to lower world inflation.

China has been able to supply many consumer goods at lower prices for world consumption. That is the case especially in textiles and electronics. It is still an open question what the future will hold as China moves from low price goods to high quality brand products. A potential increase in the cost base may lead to different future inflation figures.





### The China Phenomenon and Finnish enterprises

- In the first half of the 1990s, Finland went through a major crisis that deeply affected Finnish enterprises and increased their flexibility to meet future challenges.
- About 200 Finnish enterprises have become established in China and some 50 of them are involved in actual production activities. These enterprises represent all major industries. Also SME sector is involved in China business.

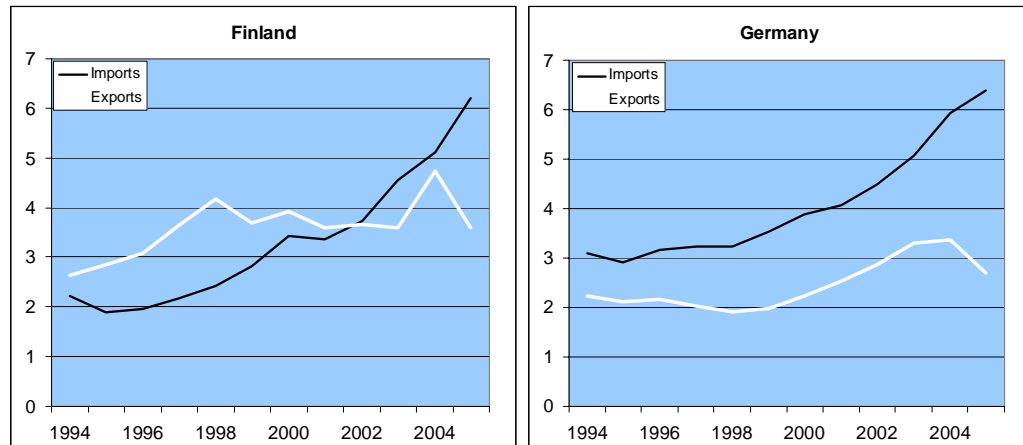
Now, let me move on to impact of China and its economy on enterprises and businesses in our countries. Within Europe, the changes in the world economy have affected the old EU countries very differently compared with the new countries. The concern is, in a blunt way: Do industries and businesses move to China? Do we lose our jobs?

Finland belongs to the group which had to go through a very tough adaptation process some 15 years ago. At the beginning of the 1990s, Finland experienced a severe economic crisis, which deeply affected Finnish enterprises and increased their flexibility to meet future challenges. The crisis resulted not only from the collapse of the Soviet Union and its trade but also from "home-made" problems in our own competitiveness. During the 1990s Finland almost entirely lost its textile, clothing and shoe making industries.

The hard economic experiences may have enhanced our preparedness for facing the challenges of globalisation and the very competitive production in China. About 200 Finnish enterprises have established operations in China. Fifty of them are involved in actual production activities. These enterprises represent all the major industries. The companies are from all major business sectors. The SME sector is also involved in

business with China. Almost on a weekly basis we get some news of Finnish companies having started or increased their activities in China.

### China's share in exports and imports, %



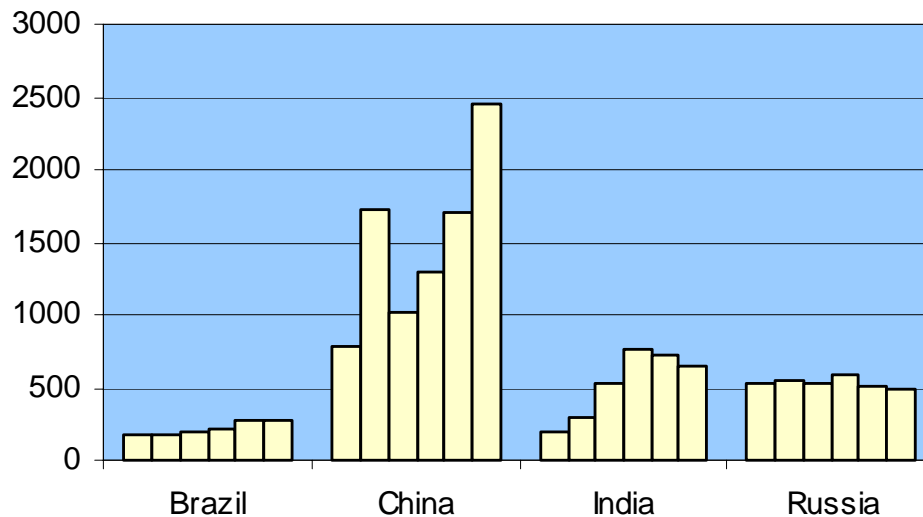
Relatively speaking, foreign trade with China is almost as important for Finland as it is for Germany. Today China accounts for about 6 % of our imports and 3 % of exports. And this holds not only for countries separately but China blends Finnish and German companies. For example, Nokia employs a lot of German suppliers in China.

In Finland, the ICT sector became the third major export industry, after the forest and metal industries, in the 1990s. Due to Nokia Corporation and its extensive network of subcontractors, the China connection has perhaps been more important for Finland than for many other countries. Our trade has also been affected by major paper machine deliveries to China, as evidenced by the peak in our exports in 2004. This only shows that Finnish metals manufacturing and forest industry have been active in China and have been moving some production out of Finland.

One thing worth noting is that for Finnish companies the most important motivation to enter to the Chinese market is the size and growth of the market. Naturally, low wages also play a role, but perhaps less than people usually think. And shifting production closer to the market and having organic growth in businesses outside Finland is not an

adverse development. It has been one factor behind the success of multinational Finnish companies and also supported employment in Finland.

### Number of patent applications filed in BRIC countries in 2000 - 2005



Source: World Intellectual Property Organization

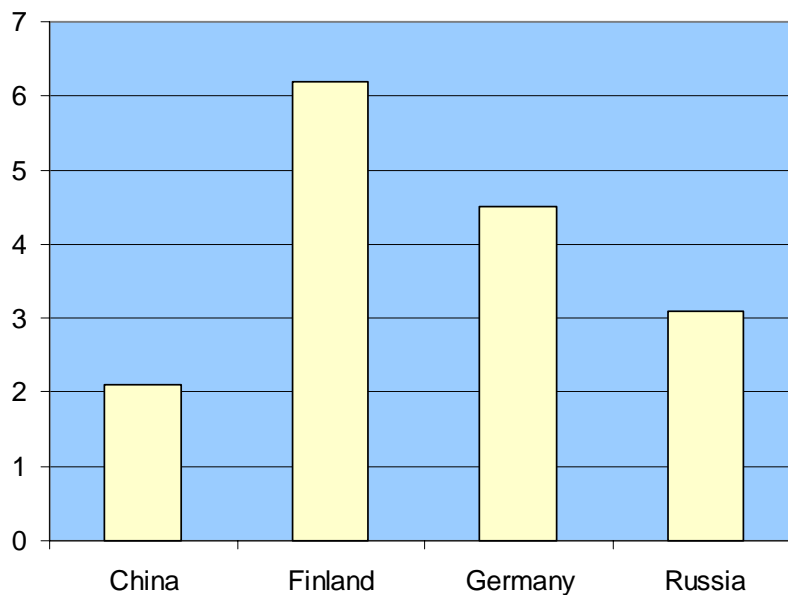
Reflecting a bit on what I said earlier, Chinese companies' efforts to move from low cost and low price products up to high quality products can be seen e.g. in the fact that they have been very active in research and development. Chinese R&D has already produced several successes. That is also true of foreign companies whose R&D in China is becoming more important. As an interesting example, Nokia's R&D in China has already produced at least one "Chinese" mobile phone model.

There have been truly remarkable results in Chinese R&D. China has risen to the top ten in patent activity. The World Intellectual Property Organization (WIPO) reports that the number of patent applications from China rose last year to nearly 2,500 – an increase of 44 % y-o-y. The total number of applications (about 130,000) filed by agents within the international Patent Cooperation Treaty (PCT) increased 9 %. China accounted for almost 2 % of global patent activity last year, boosting it to the rank of tenth among the 128 PCT (patent cooperation treaty) signatories.

Asia continues to gain importance in innovation; the number of patent application filings has increased greatly in Japan and South Korea. Japan ranks second and South Korea sixth among PCT members. China's counterparts among the great emerging global economies (the so-called BRIC countries) Brazil, India and Russia still lag far behind China in terms of patent activity, as can be seen from this chart.

The US continues to dominate in patent filings, accounting for a third of all global patent activity last year. Following the US and Japan are Germany, France and Great Britain. Finland is still a heavy-hitter in terms of patents, ranking 15th overall. The number of Finnish patent application filings rose 12 % last year to over 1,800.

### Public expenditures on education - % of GDP



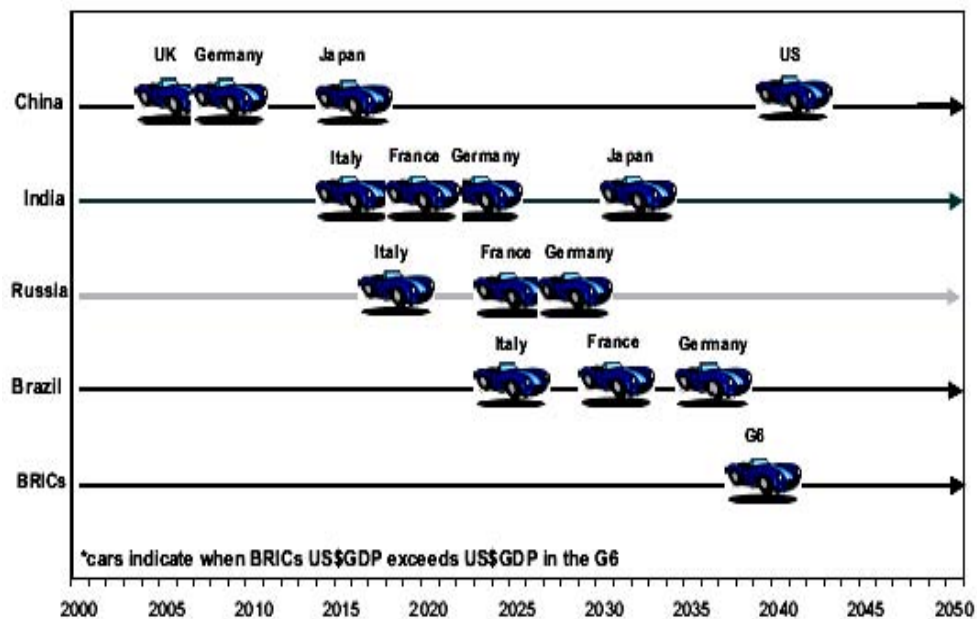
Source: World Bank

Looking closer to some figures, in 2002 China used 1.2 % of GDP on R&D activities while in Germany the respective figure was 2.5 % and in Finland 3.5 %. However, in China, R&D expenditures have been increasing fast since the mid-1990s.

In addition to the active effort in R&D, China is developing a high quality education system. That is of course one way of ensuring that China's R&D activities will continue in the future, along with its production.

China has increased public expenditure on education in recent years. However, most of the increase has been channelled into high-level education (e.g. universities). Thus, there is great inequality in the distribution of spending on education across regions and across levels of education. Currently, roughly 1 % of this generation is starting masters-level university studies. This reflects the fact that it is very difficult to get into a good university and having tough competition results in highly motivated and talented students.

### BRICs vs. G6; Conclusions



Source: GoldmanSachs, 2003

After having touched on the Chinese economy in general and its relevant characteristics, it's impact on the world economy and integration into the world financial system and

then on the future outlook and what is being done to ensure success in the future as well, let me now attempt to draw some conclusions.

Despite all the successes in the recent decades, there have been a lot of sceptical voices regarding whether China can grow for a longer time as fast as it has been growing for the last 25 years. Some years ago Goldman Sachs did a study where it estimated that over the next 50 years, Brazil, Russia, India and China (the so-called BRIC economies) would become a much larger force in the world economy. Using the latest projections and models of capital accumulation and productivity growth, they made projections of GDP growth.

The results of the study are shown in the slide, in which there is a time line and each country's car showing the point of time when the car of the Chinese economy overtakes each of the other cars in turn. Now when assessing the slide in today's light, one can say that for China it has gone better than expected, and it looks as if the future outlook is even brighter than it was some years ago.

There is a lot of debate on the risks related to continuations of the Chinese development. You can hear concerned voices referring to unbalanced regional development, difficult social tensions, environmental problems, the possibility of an overheating economy and so on and so forth. Here the discussion is simply put aside, without saying that any of these risks are not important.

Noteworthy is the fact that China has been able to overcome the difficulties it has faced with its economic growth. It is evident that China will continue its spectacular growth, as it has already done for a quarter of a century. Naturally there are challenges. A potential risk is that the growth is too fast, and this creates adverse complications. And some of the expectations may not materialise. However, it does seem clear that the world's largest economies in 2040 will not be the same ones as in 2006, but China will be one of them.