

## CHINA – THE NEW GLOBAL PLAYER

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# CHINA – THE NEW GLOBAL PLAYER

## THE CHINESE ECONOMY: HOW MUCH MARKET – HOW MUCH STATE?

MARKUS TAUBE\*

The Chinese economy seems to be one of today's greatest enigmas. On the one hand, observers are anything but shy to postulate a dynamic development which has lasted for a good quarter century by now and has already been overshadowing the post-war "Wirtschaftswunder" economies of Germany, Japan and Southeast Asia. On the other hand, economists are facing serious problems when trying to explain the forces at work: According to standard property rights theory, the prevalence of ambiguous property rights structures in China should rule out any sustainable economic development dynamics (Demsetz 1967); privatization of its state-owned enterprises comprises the final step of China's transformation process while standard transformation literature puts it at the very beginning of systemic change (Gelb/Gray 1991); lacking empirical evidence of positive externalities and spillover-effects from China's huge inflows of foreign direct investment (FDI) puts the real value of China's FDI attraction into doubt (Hu/Jefferson 2002, Huang 2003). And then there is a final paradox to be unraveled: Postulating the superiority of a market economy over any central planning or hybrid economic system, how can it be that China has advanced to become the growth engine of the global economy (IMF 2005)?

### Market, plan and more

There are strong indications that China is working according to market principles. Already two years ago, price reform was nearly completed, leaving only a few strategic goods in the control of state agencies.

Today, the private sector is already contributing about two thirds of China's GDP; foreign invested enterprises contribute about one third to China's gross industrial output. Products valued at about one third of China's GDP are sold on the global markets and stand the test of global competition. The entrepreneurial spirit and capitalist acumen of Chinese businessmen has already become a well respected force in global business.

At the same time, however, there still exists a comprehensive set of five-year and single-year plans covering all strategically important aspects of the Chinese economy. The new, already 11th Five-Year-Plan, is due to be promulgated at the end of this year and will cover the period 2006-2010. This new set of economic plans includes much more than just the general outline of economic development goals being publicized at the outset of the plan period. In the unpublicized sphere there exists a comprehensive set of detailed plans for industries and individual enterprises. These plans are much more flexible than the directives issued in former periods<sup>1</sup>, nonetheless, they do have a very significant impact on the top management of China's leading enterprises.

While the Chinese government has certainly given market forces much more leeway than in former times, it still is not willing to leave the nation's economic development in the hands of such a "chaotic" mechanism. Based on the premise that market forces should be the dominant coordination mechanism for day-to-day business interaction, the central government understands itself as the strategic mastermind of national (economic) development. This strategic approach to national economic development, however, is not the only way in which government agencies are involved in China's business sector. Local governments as well are on a large scale engaged in the business activities of their local enterprises. These local politico-business alliances, however, are less concerned with the strategic issues of economic development, but are rather the product of rent-



Despite a lot of market, "chaotic" mechanism is not trusted

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<sup>1</sup> The tenth Five-year-plan (2001 to 2005) was the first not to include any directives, but rather to rely on indicative planning and indirect means of control and regulation.

seeking activities and designed for short-term profit/utility maximization.

### **China's master-plan for economic development and "China Inc."**

China's economic policy makers are not content with China being the global center for labor intensive manufacturing. While industries establishing labor-intensive production capacities must be promoted in order to create jobs for China's growing labor force<sup>2</sup>, the real focus of China's industrial policy is the promotion and establishment of higher value-added, technology-intensive industries. As this policy is designed to always venture one step ahead of China's present comparative advantages, the attraction of new technologies embodied in foreign direct investment projects constitutes an inevitable element in the government's quest for industrial upgrading. But China's industrial policy does not stop with the selective promotion of foreign investment projects. Rather, the domestic business sector is the most important target of these policies. The creation of large Chinese enterprises, "national champions", featuring state-of-the-art technological capacities and exerting global leverage has been a prominent goal of China's economic policy makers since the early 1990s.

The political leadership in Beijing believes that in order to advance its quest for substantial political influence on a global scale and strengthen its independence from established powers, the existence of Chinese "global players" that are fully integrated in the oligopolies of the global markets will be indispensable. Strong domestic enterprises with global reach are equated to political leverage. Furthermore, the political circles realize that China's industrialization and modernization process is consuming more resources than the country can provide. In order to secure China's energy needs as well as the capital resources and raw-materials it needs for further development, the country will have to rely on its companies to venture out and secure stakes in the global market place.

In its strategic approach to economic development and interaction with the business sector, the central government relies on various agencies. Most important of these are the National Development and

Reform Commission (NDRC), which has evolved from the former State Planning Commission, and the State Council's Development Research Center (DRC). These organizations take a leading role in the formulation of China's macro-economic economic development strategies. The State-owned Asset Supervision and Administration Commission (SASAC) of the State Council has been entrusted with the micro-economic coordination and regulation of the nation's top (state-owned) companies. In order to strengthen government control it is invested with rights that before had been dispersed among different ministries and agencies.

SASAC has been holding a firm grip on China's "national champions" subjecting the top management of the enterprises in its realm to strict monitoring and disciplinary surveillance. Consequently, SASAC does have substantial leverage over the behavior of individual enterprises and its managers, although these enterprises are embedded in a supply/demand driven environment and are not subject to plan directives. It has taken up the government's doctrine and strives to create 30 to 50 large Chinese enterprises and holding companies of international standards until the end of this decade. Enterprises thought to possess the potential of becoming global players are promoted by a number of preferential policies, including preferential provision of bank credit, access to the capital market (issuing of stock and corporate bonds), promotion of foreign direct investment activities, support for the creation of research institutes, etc. In addition to these direct support measures, the national champions are greatly benefiting from regulatory policy and formal institution building that is promoting their expansion to the detriment of other domestic and primarily foreign competitors.

Seen in perspective, even without detailed plan directives, the central government is very much involved in the pro-active design of industry structure and the opening of development paths for its "national champions". In order to do so, it can rely on powerful organizations staffed with some of the best trained people in the country. This concept of the central government and its agencies functioning as the mastermind behind China's long-term economic development gives rise to the notion of "China Inc.", where politics and the business sector form an integrated organization. As a matter of fact, the case of CNOOC's bid for the US American oil corporation Unocal, which in August 2005 was abort-

<sup>2</sup> According to UN projections, China's population in the age bracket of 15 to 64 will rise from the present 890 million to 1 billion by 2015.

ed due to strong political resistance in the United States, provides a perfect example of how, in modern China, political interests become intertwined with individual business strategies and may even dominate the latter. In how far the CNOOC-Unocal deal would have made sense from a business perspective is open to question. It would, however, have fitted perfectly in the government's policy to improve the nation's access to natural resources. Against this background, it becomes understandable how CNOOC, which would never have been able to stem the \$ 18.5 billion it was bidding for the US company, was able to secure the necessary financing by means of very substantial soft loans guaranteed by the state.

### State and business on the local level

Next to the top-down approach described above, we can also identify a second, more or less horizontal linkage between the state and the business sector. This nexus is founded on bilateral alliances between local governments on the provincial, city or county level and local business. Its *raison d'être* lies in the prevalence of grey market structures, which make it rational for local cadres as well as business managers to seek close bilateral relationships. In the absence of strong macro-economic institutions to protect a market system based on fair competition, local government organizations are still in a position to control the access of local firms to important inputs and licenses. Given this monopoly, however, the cadres working in these very government organizations are evaluated by central government and party organizations according to their ability to promote economic development, create new jobs, etc. in their localities. I.e. they rely on strong business partners. As a consequence, there exists a strong interdependency between local government and business, which both parties ideally solve by teaming up in alliances, thereby reducing their risk exposure and earning rents beyond the competitive equilibrium.

An important side effect of these local-level politico-business alliances consists of their inclination, or even nature, to evolve in a direction that runs counter to the interests and declared policies of the central government, i.e. they lead to a reduction of overall "state capacity". As a matter of fact, a good deal of China's boom-and-bust cycles, the periodical existence of over- and under-capacities in various industries as well as the "unstoppable" generation of new nonperforming loans are caused by this juxtaposition of central and local interests.<sup>3</sup> Local governments promote the development of "their" enterprises irrespective of any directives by central government agencies targeting loan-expansion, industry-development, land allocation, environmental protection etc. The case of *Jiangsu Tieben Iron & Steel Corp., Ltd.* (see box) provides a perfect example of this mechanism.

position of central and local interests.<sup>3</sup> Local governments promote the development of "their" enterprises irrespective of any directives by central government agencies targeting loan-expansion, industry-development, land allocation, environmental protection etc. The case of *Jiangsu Tieben Iron & Steel Corp., Ltd.* (see box) provides a perfect example of this mechanism.

### A market economy with "Chinese characteristics"?

How to classify the Chinese economic system? According to EU terminology, China is a "non non-market economy"; the Chinese political leadership has termed the phrase "socialist market economy with Chinese characteristics". All of this seems to provide a large scope for interpretation. What we do observe in China, however, are strong market forces on a micro-economic level, which are not complemented by the corresponding macro-economic institutions. On all levels, the government is involved in business issues.

There are two very distinct forms to be differentiated, in which the state (i.e. government organizations and their individual representatives) interferes in the market process. On the one hand, we can observe policies based on a comprehensive long-term strategy, by which the central government intends to promote Chinese enterprises in the global market place. For the time being, this policy approach has created positive net-effects for the economy and its global competitiveness. Still unthinkable only a few years ago, the Fortune 500 list today includes more than a dozen Chinese companies. And, nurtured by the government's "national champions" policy, dozens of Chinese enterprises have already reached a developmental stage where they are no longer content with catering to their domestic customers or with producing goods for foreign brand owners, but are venturing out on the global markets. But with China leaving the early stages of modern-age industrialization and entering more complex, knowledge-intensive stages of economic development, this interventionist policy approach will have to be abandoned. China's policy of creating "national champions" by means of selective support measures and an accommodating regulatory policy as well as institution building calls to mind the unsustainable industrial

Long-term strategies of the central government vs. ...

<sup>3</sup> China's central bank makes local governments responsible for about one third of China's overall non-performing debt.



## Box

**Jiangsu Tieben Iron & Steel Corp., Ltd.**  
 – A case-study of a local-level politico-business alliance –

In June 2003, construction on an 8.4 million t/a steel mill started in a small township of Changzhou, Jiangsu province. 10 months later, after using up Yuan RMB 2.56 billion of bank loans, construction was stopped on direct order of China's premier Wen Jiabao. Since then the construction ruin of *Jiangsu Tieben Iron Co., Ltd.* has become a symbol of a systemic coordination failure in China's economic and political system and its investment regime in particular. (*Nanjing Steel* has now taken over the facilities and will continue the project, but on a drastically reduced scale.)

The short-lived story of *Jiangsu Tieben* began with the vision of private entrepreneur Dai Guofang to create a new steel empire that would surpass China's leading steel producer BaoSteel. Dai's high flying aspirations were founded in a vita marked by extraordinary entrepreneurial success. Starting as an ordinary construction worker without any formal schooling, he had started his career as a private entrepreneur by trafficking in iron scrap until he entered the steel business by investing in three 30 t/a electric steel mills. From there on he quickly expanded his steel production activities and step by step leased (and turned around) various run down plants of altogether six state-owned enterprises. In 1996, he eventually founded *Jiangsu Tieben Iron Co., Ltd.* in Changzhou city. In 2003, this private company already produced 800,000 tons of steel. Now the time seemed to have come for the next step in Dai's career.

The entrepreneurial spirit of Dai alone, however, would not have sufficed to start the new *Jiangsu Tieben* steel mill venture. In order to do so, top decision makers of the local political circles had to provide substantial support. And, as a matter of fact, the local political elite was more than willing to promote the project. Economic development, tax revenue and job creation have become the most important criteria for political success and career advancement in China's party and administrative 'nomenclatura'. As a consequence, China's local decision makers are first of all striving for the facilitation of economic growth in their constituencies – regardless of potential negative externalities that might endanger overall macroeconomic stability, harm economic development in neighboring areas or become visible only after they have moved on. In the case of *Jiangsu Tieben*, the head of local government had just been transferred to the city and was looking for ways to promote economic development in the region when Dai introduced his plans in 2002. The plans were received enthusiastically. More than that, Dai was prompted to enlarge his original design and increase the projected production capacity fourfold to more than 8 million t/a.

In order to make the project possible, Changzhou's political and administrative bodies greatly transgressed their authority. Once the project design had reached its final stage with 8.4 million t/a steel production capacity and an overall investment volume of Yuan RMB 10.59 billion, it greatly surpassed the authorization limits of local administrative bodies. In order to prevent the project from being stopped by central authorities, the project was therefore split up into 22 individual projects, each of them small enough to fall within the authorization limits of local administrations. The transgression of existing regulations, however, did not stop here. Against existing law, *Jiangsu Tieben* was allotted land use rights over a total area of about 630 hectares of land, 436 hectares of which had been taken into possession in March 2004. Of the latter, 310 hectares were agricultural land, which according to existing regulations was not to be transformed into industrial usage. An environmental impact report, which for this kind of project is prescribed by law, was neither prepared nor asked for when the project was authorized by local administrative bodies. In order to secure the financial means for the project, local bank offices were pushed to provide multi-billion Yuan RMB credit lines for the project, although the paid-in capital amounted to only Yuan RMB 676 million, or a mere 6 percent of the total investment volume.

With China's central governmental and party organizations immersed in the internal struggles accompanying the transfer of power to the new leadership group of Hu Jintao and Wen Jiabao in 2003, local organizations had much leeway to put their own policies into effect. But even in "normal" times, all the irregularities depicted would probably not have resulted in the central government bringing the project to a grinding halt.

"Unfortunately", the overall economic development resulted in a situation in which central government officials felt the need to intervene in order to prevent the economy from overheating and to rectify structural imbalances. An enormous investment surge in 2002 and 2003 had already created bottlenecks in certain key sectors of the economy. The danger seemed to be imminent that the booming Chinese economy would go bust and enter a period of prolonged depression if the central government failed to bring the economy back on a sustainable growth path. The problem was aggravated by additional problems evolving in the Chinese steel sector. Based on a generally accepted projection that China would consume 330 million tons of steel in 2010, the fact that Chinese steel makers were in the process of expanding their production capacities to at least 400 million tons in 2005 raised serious concerns in Beijing. In order to prevent the creation of massive overcapacities – which would eventually result in a poor return on capital in China's steel industry as well as a new addition of non-performing loans in China's fragile financial sector – Beijing had to intervene and stop new investment projects. *Jiangsu Tieben*, an investment project designed to incorporate very high technological standards, was certainly not the best project to stop in order to improve average productivity in China's steel industry. But it was a project whose cancellation could be instrumentalized to communicate a very strong warning to other actors engaging in similar undertakings.

The *Jiangsu Tieben* case highlights the extraordinary entrepreneurial dynamics existing at the micro level of China's national economy, as well as the lack of a macro-economic coordination mechanism, that would channel these activities into a symbiotic context. Instead ex-post macro-regulation results in a disruption of the economic process and wastes entrepreneurial as well as financial resources.

... short-term alliances  
between local  
politicians and firms

policies in Korea and South East Asia that eventually led to the dramatic events of the "Asian crisis" of 1997/1998.<sup>4</sup>

On the other hand, we observe the phenomenon of local politico-business alliances that often run counter to central government policies and follow rather short-term rent-seeking motives. As the *Jiangsu Tieben* case documents, local politicians are not only still in a position to provide highly protect-

ed niches for enterprises of their favor, but are actually facing strong incentives to do so. As a conse-

<sup>4</sup> As a matter of fact, China's "national champions" policy in combination with local politico-business alliances come at the cost of a highly underdeveloped competitive system. Despite the WTO principle of "national treatment" there is still no level playing field for all economic subjects in China. As a result, the allocation of resources and therefore the industrial structures created are to a considerable extent not the outcome of market processes but rather of human design. Their sustainability is open to doubt. The situation is aggravated by pervasive corruption, which has already prompted Jiang Zemin, late President of State and General Secretary of the Communist Party of China, to declare the struggle against corruption as "a matter of life and death of the party".



quence, the Chinese economy is characterized by a multitude of politically monopolized and isolated markets that are not corresponding with each other. Due to this constellation, market-based tendencies working towards the establishment of macro-economic equilibria cannot take effect and the Chinese economy continues to feature pronounced boom and bust cycles and a highly volatile development path characterized by the sequential prevalence of under- and overcapacities in its major industries. The Chinese “market” economy seems to neither lack entrepreneurial initiative nor capitalist savvy – it simply lacks an integrating force that would bring all these elements into a symbiotic context.

Paradoxically, China will need a stronger – central – government in order to establish a smoothly functioning free market system. The central government must be strong enough to bring the enormous entrepreneurial initiative that can be observed in all parts of society into a rule-based national context. It must stop local governments from colluding with local business and resist lobbying activities by powerful interest groups that try to meddle with the competitive “level playing field”. And at the same time, the central government will have to retract from its ambition to steer China’s economic development and especially the business development by discretionary measures.

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## EMBRACING THE DRAGON: CAN THE EU AND CHINA BE FRIENDS?

KATINKA BARYSCH\*,  
WITH CHARLES GRANT\*  
AND MARK LEONARD\*

Relations between the EU and China will become a much more prominent feature of the international landscape in coming years. Two trends underpin this prediction. First, China is manifestly becoming more central to European interests, and vice versa. Already, the EU is China's most important trading partner, and growing amounts of European investment are pouring into the booming Chinese economy. European companies want more open markets and predictable rules for doing business in China. But that is not the only reason why the EU is keen to lend a helping hand to China as it reforms its economy. Europeans hope that a China with open markets and a firm rule of law will be more likely to respect human rights and allow democratic freedoms. They also believe that a more open, democratic and law-abiding China will be a better partner in building the kind of multilateral global order that most Europeans want. Conversely, China is keen to learn from the European experience, for example with unifying disparate markets and developing backward regions. So the EU and China are looking at various ways of working together on issues that matter to both of them.

Second, both China and the EU are reaching out beyond their respective regions and taking on greater roles in world affairs. Both the EU and China can still be safely described as economic giants with only a limited role in world affairs. Both struggle with various problems at home and focus their foreign policies on their immediate neighbourhoods. They only intermittently dabble in world politics. This is changing, however.

The EU will increasingly act as a vehicle to defend European interests and values, not only in its own vicinity but also in the wider world. Of course, individual EU governments – in particular the 'big three', Germany, France and the UK – will continue to have their own foreign policies, including their own special ties with Beijing. And on many occasions, their short-term interests and national rivalries will frustrate EU attempts to forge a common position or act strategically. But the EU continues to beef up its common foreign and security policy (CSFP), to accumulate new powers, for example in counter-terrorism and defence, and to sharpen its international presence through Javier Solana, its foreign policy chief. In short, the momentum is towards 'more Europe' in foreign policy.

China, meanwhile, is groping its way from being a regional power towards becoming a global player. The pace of internal change leaves China little choice. For example, China's Communist leaders know that they need to deliver economic growth to enhance their legitimacy. For this, they need open markets and foreign investment. So China has become a big fan of globalisation. But the country's growing economic clout also brings new responsibilities for managing the global economy, for example through pushing the Doha trade talks forward or addressing skewed exchange rates in the G7. Another thing that a growing China needs is natural resources. Already China imports more oil than any country bar America. In its quest for energy security, China has forged close links with some rather unsavoury regimes in oil producing regions, including Africa and Central Asia.

Wherever the EU will focus its attention in coming years, China will be there. And whatever the EU will try to achieve on key global issues – such as reforming the United Nations, preventing Iran from building nuclear bombs, or intervening in failed states – it will need China's consent or co-operation. So the EU will want to make sure that it works closely with China as both increase their global roles. In theory, this should not be too difficult since the two have a lot in common. Both support multilateral organisa-

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The EU and China are economic giants, but political dwarfs in world affairs

tions, such as the UN, and want all countries – including the big powers – to abide by international law. Both are wary of the dominance of the United States in global politics. Both care about sustainable development, the threat of terrorism and the spread of weapons of mass destruction.

These various common interests have provided fertile soil for a prospering EU-China relationship, which today consists of a plethora of co-operation programmes, dialogues and projects. What it often lacks, however, is consistency, strategic vision and an ability to plan beyond the next bilateral summit. Moreover, there are several issues that could hold back EU-China relations in coming years.

First, the EU and China do not always share the same values. Most Chinese now live vastly better than a couple of decades ago, and they also enjoy some political freedoms. But the EU will still struggle to build a strategic partnership with what is essentially an autocratic one-party state while at the same time upholding its own values and principles. Second, in many areas of international politics, the seeming agreement between the EU and China is little more than skin-deep. For example, China supports the UN, but opposes the concept of humanitarian intervention, something that the EU is prepared to practice. Third, the EU's thickening ties with China could damage its relations with its key global ally, the United States. Many Americans see a rising China as a potential threat that needs to be contained. The arms embargo shows the potential for open disagreement between the Americans and the Europeans over China.

### The evolution of a partnership

#### *The EU's China policy*

For the first 20-odd years of its existence, the People's Republic of China had few links with non-Communist countries. But after Beijing fell out with Moscow in the 1960s, it was forced to look for friends in what Deng Xiaoping called the "grey zone" between US imperialism and the Soviet bloc, namely Europe. China established diplomatic relations with France in 1964, with Italy in 1970 and with the UK and Germany in 1972. Diplomatic relations with the EU (then called the European Communities) followed in 1975, and the EU signed its first trade agreement with China in 1978.

It was only after the end of the Cold War that EU-China relations really began to take shape. Relations initially remained frosty after the 1989 Tiananmen Square massacre which was followed by a country-wide clampdown on all forms of political opposition. Europe froze its political dealings with Beijing, cut off military contacts and banned arms sales. But economic ties between European countries and China continued to thicken. With the Asian economies booming, European businesses, in particular from export-oriented Germany, feared they would lose out on commercial opportunities unless political relations improved. The German government drew up its first China strategy in 1993. The European Commission followed suit with its first Asia strategy in 1994 and its first China policy paper in 1995.

Subsequently, the Commission issued policy papers on China with increasing frequency (1998, 2001, 2003) as the EU sought to keep up with the break-neck speed of change in China and its rapidly developing ties with the country.<sup>1</sup> While objectives have become more ambitious and the scope of co-operation ever broader, none of the later policy blueprints deviates substantially from the original 1995 paper.

The EU's basic idea is to build its relationship with China from the ground up. Numerous concrete co-operation projects, many with rather modest short-term goals, form the basis. At the same time, the EU pursues a number of ambitious long-term objectives. The first is to "socialise China into the kind of international order that the EU supports", which includes support for the UN, adherence to international agreements on the environment, and the fight against the proliferation of nuclear and other weapons. This, the EU is convinced, will be easier if China continues down the path of economic and political reform. The EU's second objective therefore is to help China's internal transition. It vows to work with China "in many practical ways: progress towards full integration in the world market economy, strengthening of civil society, poverty alleviation, environment protection, human resource development, scientific and technological development, the information society, trade and investment cooperation". The EU is convinced that it has much to offer the Chinese in terms of experience and expertise, be it on how to open markets, support poor regions or protect the environment. It therefore offers China

Many sectoral dialogues, but no long-term strategy

<sup>1</sup> All documents are available on [http://europa.eu.int/comm/external\\_relations/china/intro/index.htm](http://europa.eu.int/comm/external_relations/china/intro/index.htm).

aid, training, dialogue and co-operation across a large number of areas.

In the mid-1990s, the EU started building a more ambitious political framework for its broadening relationship with China, including annual summits at government or head of state level and regular ministerial contacts. In 1998, the Chinese prime minister met with a “troika”<sup>2</sup> of EU leaders for the first EU-China summit. These annual summits have since helped to sustain momentum for EU-China relations. But what they have not done is provide sufficient focus and strategic vision. Each summit adds more programmes and agreements to an already cluttered list. Today, the EU and China are engaged in more than 20 “sectoral dialogues” covering everything from intellectual property rights to regional security, education, maritime transport and environmental protection. However, there is little linkage between the various dialogues, their short-term objectives sometimes clash and they do not always serve the EU’s overall objectives, as defined in its strategy papers.

A new institutional framework is needed for EU-China relations

Some diplomats blame this lack of priorities and leadership on the fact that the legal and institutional framework for EU-China relations is out of date. The main legal basis for EU-China relations is still the 1985 Trade and Economic Cooperation Agreement, drawn up at a time when the EU had few economic links with China and even fewer political ones. The agreement is a mere four pages long and focuses heavily on trade. The negotiations for the new agreement – which may start in the course of 2005 – are likely to be long and arduous. As bilateral ties have intensified, so has the room for friction, tensions and disappointments. The new framework agreement will bring all the contentious issues onto the negotiating table.

#### *The role of the “big three”*

A new EU-China framework agreement may create a better institutional framework for the relationship. But it will not fix the other key problem in the EU’s China policy, namely the inconsistent policies of the EU’s member countries, in particular those of the “big three” (Germany, France and the UK), but also Italy, Spain and others. On the one hand, the larger EU countries have been and continue to be instru-

mental in shaping the EU-China relationship. They provide vision, ideas and expertise; they brighten the EU’s image in China through cultural work and student exchange programmes; they fork out millions of euros to help China’s transition; and they foster trust through political dialogues, joint military exercises or human rights projects. But their efforts would be more potent if they were better co-ordinated with each other, and with the EU’s overall strategy. The Member States’ policies should reinforce each other and the common EU position, not undermine it.

In principle, all EU countries have endorsed the objectives of the EU-China strategic partnership. In practice, divisions and rivalries between individual countries often undermine EU objectives. This problem is not unique to the EU-China relationship. It characterises the Union’s dealings with all large and important countries. However, in the case of the United States, and to a lesser extent Russia, political disagreements are the main reason for intra-EU divisions. In the case of China, short-term commercial rivalry among the member-states tends to predominate.

From a business perspective, the competition is perhaps inevitable. As Peter Nightingale, head of the China-Britain Business Council, explains: “Foreign companies in China face brutal competition. These companies then look to their own governments for help. The result is competition at the political level.” Although China has made much headway with economic reform and opening, the government in Beijing, alongside provincial authorities, still controls large chunks of the economy. Political lobbying is therefore part and parcel of doing business in China. This applies particularly to the multi-billion dollar contracts that flow from China’s massive infrastructure needs. In coming years, China is planning to construct over 30 nuclear reactors, 20,000 kilometres of rail capacity and subway systems in some 20 cities, in addition to numerous dams, airports and pipelines.

The Chinese authorities have become rather good at exploiting commercial rivalries for political purposes. Like Russia and the United States, they hope to “divide and rule” in their relations with the EU. Policy-makers recount instances where Chinese officials have warned individual EU governments that a lack of political support (for example for lifting the arms embargo) or too harsh a mention of human rights could damage the business interests of their companies.

<sup>2</sup> The troika now consists of the leaders of the country that currently holds the EU rotating presidency and the one that will take over next; the EU’s high representative for foreign policy, currently Xavier Solana, and the president of the Commission.

Politicians from London, Paris or Berlin (but also Rome, Madrid and elsewhere) often think twice before they speak out on Chinese human rights violations or back “tough” EU policies. Their focus on short-term commercial advantage has elicited criticism from NGOs and many voters, caused divisions within the EU (the Commission, the European Parliament and the Nordic EU countries want a stronger emphasis on human rights) and angered many Americans. Worse, this kind of “competitive bilateralism” has led to some rather rash decisions in EU-China relations. The EU’s promise to lift its arms embargo on China is a good example.

#### *China comes to terms with the EU*

Nevertheless, the EU’s leverage in Chinese policy-making circles should not be under-estimated. Traditionally, Beijing had seen the EU almost exclusively through the prism of its relationships with other powers, first the Soviet Union and then the United States. The EU mattered mainly as a potential counter-weight to American hegemony. It is only in the last 15 years or so that China has started developing its ties with Europe for their own sake. Yet China initially continued to focus its attention on the capitals of the big European countries. Since the Chinese have very traditional ideas about national sovereignty, they have struggled to take the EU’s supranational model seriously.

Several developments have changed Beijing’s view of the evolving European Union and its potential as a serious partner. Successive rounds of enlargement proved the attraction of the European model. The completion of the internal market and the introduction of the euro indicated that European integration was becoming irreversible. But it was only during the WTO negotiations that the Chinese authorities realised the importance of the EU as an international actor in its own right: trade policy is a genuine Community competence, with decision-making power resting mainly in Brussels, not Berlin, London or Paris. China was somewhat taken aback when demands from Brussels threatened to delay its WTO entry. The Commission also manages day-to-day trade relations as well as the many “sectoral” dialogues that together form the backbone of EU-China relations. So China started taking EU institutions seriously.

The Chinese have also realised, perhaps more so than Russians and many Americans, that the EU is

not “just” a trading bloc. With its emerging common foreign and defence policies, the Union is also becoming an important political actor on the world stage. Some Chinese are worried that a stronger EU may pursue policies that run counter to China’s own interests, such as intervening in foreign countries or becoming more assertive in the Asian region. But most appear to welcome further progress in European integration and a stronger EU foreign policy, mainly because they still hope that a strong and unified EU could counter US hegemony in a multipolar world.

China acknowledged the EU’s growing importance in 2003 by choosing the EU as the subject of its first-ever policy paper on a foreign partner (FMPCR 2003). It then declared 2004 “the year of Europe” in China. Growing enthusiasm for the EU has also been reflected in the frequency of high-level contacts: between 2002 and 2004, members of the Standing Committee of the Politburo of the Communist Party (the top policy making body), made seven trips to EU member countries, and only one to the United States.

Occasionally, the Chinese have found the EU’s policies a little condescending, in the sense that “*you* have a problem, and *we* are willing to help” (Lanxin Xiang 2004). On the whole, however, Chinese leaders tend to stress their commonalities with Europe, rather than their differences. China’s dealings are fuelled by a kind of open-mindedness and goodwill that Europeans look for in vain in Russia and sometimes the United States. Chinese officials, academics and commentators are usually well informed about EU developments and knowledgeable about the Union’s internal workings. Foreign ministry officials in Beijing know the ins and outs of EU policies and many can recount exactly how many votes each EU country has in the Council of Ministers.

#### **EU–China economic relations**

##### *EU–China trade and investment relations*

It is interesting to compare the Chinese economy with that of the EU, United States and Japan (Table 1). In terms of purchasing power parity (PPP), China is already the third biggest economy, although GDP per capita underlines how far behind its standard of living still is.

China has acknowledged the EU’s growing importance



**Table 1**  
China's economy compared with the EU, U.S. and Japan

	China	EU-25	U.S.	Japan
Population, m	1,300	456	293	127
GDP, \$ bn	1,450	12,500	11,700	4,700
GDP per head, \$	1,200	27,500	34,000	37,000
GDP at PPP, \$ bn	7,500	11,600	11,700	3,700
GDP per head, at PPP, \$	5,800	25,400	40,000	29,000
Share of world GDP, at PPP, in %	14	31	21	12
Share of world exports, in %	7	21	9	7
Stock of FDI, \$ bn	540	3,660	2,540	94

Source: Economist Intelligence Unit. All figures are 2004 estimates.

Table 2 shows how China's trade with the EU has evolved during the past five years. Exports to the EU have grown by an astonishing 4,300 percent since the beginning of the 1980s, when China got serious about opening its economy. EU sales to China have risen by around 2,000 percent over the same period, which leaves the EU with a sizeable trade deficit vis-à-vis China. In 2004, the value of EU-China trade reached €175 billion, making the enlarged EU China's most important export market. Conversely, China is now the second most important market for the Europeans, after the United States.

In the 1980s, the EU included China in its "general system of preferences" (GSP) that offers lower tariffs on many goods from developing countries. By the mid-1990s, half of China's exports were covered by preferential tariffs, making the country the biggest beneficiary of GSP. But the system semi-automatically "graduates" countries out of preferential treatment if their exports grow too fast or take up a certain market share in the EU. So by 2000, the share of Chinese exports benefiting from GSP was down to 30 percent, and by 2005 only a small handful of products was still covered. At the same time, however, China's WTO membership guarantees it

**Table 2**  
EU-China trade, 2000 to 2004, € billion

	EU exports to China	EU imports from China	Trade balance
2000	25.8	74.4	- 48.6
2001	30.6	81.6	- 51.0
2002	34.9	89.6	- 54.7
2003	41.2	105.4	- 64.2
2004	48.0	126.7	- 78.7
Average growth rate, %	16.9	14.3	14.9

Source: European Commission, DG Trade.

much broader market access around the world. Under WTO rules, the EU must grant China the same access to its €10 trillion internal market as all other WTO members (although there are still some transitional arrangements that allow for extra protection).

The composition of EU-China trade is changing rapidly. In the past, China mainly sold basic manufacturing goods – toys, shoes, bicycles and the like – to

the West. But in recent years, it has rapidly upgraded its exports to electronic products such as TVs, computers and other sorts of equipment. Usually, countries that move up the value chain stop producing the basic goods with which they started out. But since China has a huge pool of workers, it has managed to move into new high-tech sectors without considerably reducing its production of basic manufactures.

The EU is selling China the inputs it needs for its economic boom: machinery, tools, cars, chemicals and fibres, as well as sophisticated consumer goods. In many areas, such as electronics and chemicals, trade is still fairly balanced. This could change however, as China continues to become more competitive, with the help of western investment.

While trade has boomed, EU companies have also become major foreign investors in China. By the end of 2002, they had ploughed more than \$30 billion into the Chinese market, about the same as US investors.<sup>3</sup> European and American investment is dwarfed, however, by that coming from Hong Kong, Taiwan, Korea and Japan. But so far, these countries have mainly used China as a cheap manufacturing hub. Their companies in China import components to assemble DVD players or microwaves and re-export them to the West, adding little value in the process. European and US investment projects and joint ventures tend to be more high-tech and therefore have a catalytic impact on Chinese economic development.

The Americans were quicker to invest in China's booming economy, establishing a strong foothold in

<sup>3</sup> Chinese trade and investment statistics have to be interpreted with caution since a lot of exports and investment are channelled through Hong Kong, which distorts the figures.

The enlarged EU is China's biggest export market



IT, electronics and consumer markets – Coca Cola is everywhere and a tiny Starbucks nestles inside the Forbidden City, Beijing’s magnificent imperial palace. But the Europeans are catching up fast. Like US companies, European ones are now mainly investing in the production of goods and services for the fast-growing local market. European brands are popular: China’s emerging middle classes love French designer handbags (usually fake), German cars (real ones) and Italian pizzas (more often than not cooked by US fast food outlets).

For some European companies, China has become a major source of profits. Cars are a prime example: About 40 percent of the 4 million cars sold in China each year are European brands, while only 10 percent come from US producers. Germany’s Volkswagen alone controlled half of China’s passenger car market at one point, although its share has recently fallen closer to 10 percent, as the company has struggled with increased competition, sluggish demand and plummeting prices. Italy’s Fiat designed a small passenger car especially for the Chinese market. And France’s Peugeot is also making a comeback in China, having pulled out in 1997.

Success stories can also be found in other sectors. France’s Carrefour is the pioneer of Chinese retail, having opened its 59th Chinese hypermarket in March 2005. Finland’s Nokia and Sweden’s Ericsson have been pushing into China’s booming mobile telephony market, now the world’s largest, with more than 330 million subscribers. Britain’s BP has been the leading foreign investor in China’s petrochemical, gas and fuel sectors. But for every company that has made money, there are many more that have failed to turn a profit. Some have given up in frustration. But the majority struggle on under the motto “you cannot afford not to be in China”.

All companies agree that their lives would be much easier if China fully lived up to the promises it made when it joined the WTO to reform and liberalise its economy. In many cases, China has followed the letter of its WTO commitments but used implementation legislation and so-called non-tariff barriers to keep its markets closed in practice. The resulting uncertainty has made life very difficult for foreign businesses in China since 2001. The main problems encountered by EU (and US) companies in China are:

- The widespread infringement of trademarks, copyrights and other intellectual property rights.

- The use of administrative barriers to keep foreign banks, insurance and telecom companies out of the Chinese services sector.
- Red tape that makes life difficult for foreign investors.
- Restrictions on imports, both on intermediate goods that go into local production and on finished products for the Chinese consumer market.

The economic and trade dialogues that the EU has with China alone might not persuade the Chinese to speed up the implementation of WTO commitments. The EU holds a big carrot in the shape of “market economy status” (MES) that could entice the Chinese to work harder. When China joined the WTO, the existing members, including the United States and the EU, insisted that it remained classified as a non-market economy for a period of 15 years. Such a classification makes it easier for other countries to impose anti-dumping duties on China. So it is perhaps no coincidence that China is the number one target for EU anti-dumping action.

China argues that it has already made tremendous progress with market reforms, and that more than 20 countries have already upgraded China to MES, most recently Australia in April 2005. But the EU (as well as the United States and Japan) has so far refused to follow suit – a fact that has rankled the Chinese, particularly since both the EU and the U.S. upgraded Russia to MES in 2002. But in mid-2004, the Commission judged that China did not yet meet four of the five criteria required for an upgrade. For China, market economy status has become a question of political prestige. Although MES is a technical term, the Chinese believe that an upgrade would signify a different “status”: that of an equal economic partner of the EU.

#### *China’s rise, Europe’s reaction*

The MES upgrade is part of Europe’s wider debate on how to react to China’s economic rise. As Chinese exports continue to soar and the EU-China trade deficit widens, European sentiment might turn against China. So far, the EU-China trade deficit has not turned into a hot political topic, as is the case in the United States. Many Americans blame cheap Chinese imports for the 2.7 million job losses in their industrial sector since 2000. They accuse China of shielding its own economy while taking advantage of open markets in the West. The US administration has launched more anti-dumping actions and safeguards

EU direct investment in China, though often profitable, faces many obstacles

against China than the EU, and the US Congress is frequently calling for more protection. Moreover, until recently, the United States has accused the Chinese of keeping their currency pegged to the dollar at an artificially low rate, thus giving their producers an 'unfair' advantage. And it is unlikely that China's small revaluation in July will end US calls for protection of its own market.

There are several reasons why the EU-China trade deficit is not (yet) so politicised. First, Europeans have been less aware of the impact of China's currency peg on their trade, although the peg has, in fact, put a disproportionate share of global currency adjustment onto the euro. Second, although the EU's deficit has been growing at rates of 50 to 100 percent a year recently, it is still significantly smaller than the US-China trade deficit. Third, the deficit with China is more than compensated by the big surpluses the EU runs with other countries around the world. In the case of the United States, Chinese trade exacerbates an overall trade deficit that reached a whopping \$620 billion in 2004. Fourth, Europeans still mainly care about their national trade balances, not that of the EU or the eurozone as a whole.

And perhaps most importantly, EU enlargement has to some degree obscured the impact of the economic rise of China. Eastward enlargement has provided Western Europe with a large pool of relatively low-cost labour directly at its doorstep. West European companies have invested at least three times as much in the Central and East European countries as in China – and they continue to outsource more to this region than to China. The new Member States are now selling growing amounts of electronics, furniture, cars and other manufacturing goods to Western Europe. So when Germans, Austrians or French people worry about cheap imports or the outsourcing of their jobs, it is Eastern Europe they point their fingers at, not China.

For the time being, therefore, China's economic ascendancy is not as central to public debate in Europe as it is in the United States. Also, the EU is divided on how to react to the "China challenge" as Chinese competition affects different EU countries in very different ways. In other words, there are winners and losers.

Germany, and to a lesser extent the UK, Italy and France, have gained massively from China's insatiable appetite for machinery and equipment. The

machine-building industry is less vulnerable to Chinese competition since it is characterised by small, highly specialised companies, not the gigantic, mass-producing plants that give China its competitive edge.

Among the losers are those countries that directly compete with Chinese exports in labour-intensive manufacturing, such as textiles, shoes, basic consumer goods and, increasingly, electronics. Most of the EU-15 (perhaps with the exception of Portugal and Greece) has long since moved to sophisticated manufacturing and services that do not directly compete with China. But the new Member States rely on the kind of low value-added goods and consumer electronics that China is specialising in. Hungary and the Czech Republic mainly export electronics and IT equipment, an area where Chinese exports are growing fast. Only Poland can feel a little safer since it relies more on exports of car parts and furniture (European Commission 2004).<sup>4</sup>

Another sector that is coming under heavy pressure from China is textiles and clothing. Until recently, a global trade agreement allowed developed countries to use strict quotas to keep out cheap garments from Asia and elsewhere. But these quotas have gradually been phased out, and at the start of 2005 the agreement expired altogether. When Chinese sales of trousers and T-shirts soared in early 2005, the EU struck an agreement with China that restricted the growth of textile imports until 2008, under a special safeguard clause that is contained in China's WTO accession agreement. After 2008, however, China's market share in the European textiles market could quickly grow from its current 30 percent to more than 50 percent. In the EU-15, the textile industry now employs only 1 to 2 percent of all workers, since much of the production has already moved to lower-cost locations in Central and Eastern Europe. Most vulnerable to a Chinese import surge are those countries that are still queuing for EU membership: Bulgaria, Romania and Turkey are all big exporters of textiles and clothing to the EU.

Economists predict that China's exports to the EU will continue to grow at double-digit rates. The bilateral trade deficit will continue to widen, especially if the euro keeps on rising against the renminbi. China will continue gaining market share in both textiles and electronics – sectors that are suitable for mass

<sup>4</sup> European Commission, "The challenge to the EU of a rising China", in: European competitiveness report 2004.

EU eastward enlargement has obscured the impact of China's rise

production. China's almost unlimited labour supply allows it to produce with massive economies of scale, while the influx of western investment helps to drive double-digit productivity growth. Some observers believe that 70 percent of global production of electronic goods and components could be located in China by 2007, and that China will soon be producing more than half of the world's clothing.

If China succeeds with rapid economic upgrading, it may soon also be able to compete with some of the industries in the EU-15 Member States. Economists say that it is only a question of time before China stops importing cars and instead floods world markets with its own, much cheaper models. Already, foreign investment is pouring into telecoms, office equipment, automobiles and electronics, leading to a massive expansion of capacity. The number of Chinese science and engineering doctorates has soared, and China now has more researchers than Japan. R&D spending is rising five times faster than in the United States, albeit from a very low level. Europeans are not – yet – as panicky as Americans about China's ability to combine cheap labour with modern production techniques to create “the most competitive manufacturing platform ever” (Engardio 2004). But it is by no means assured that the EU-China economic relationship will always remain cordial.

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There are many arguments for a RMB appreciation

## ON THE RENMINBI

JEFFREY FRANKEL\*

Fixed and flexible exchange rates each have advantages, and a country has the right to choose the regime suited to its circumstances. Nevertheless, several arguments support the view that China should allow its currency to appreciate.

### For an appreciation of the renminbi

(1) China's economy in 2004 was on the overheating side of internal balance, and appreciation would help ease inflationary pressure. Although this excess demand probably moderated in 2005, the general principle remains: to achieve both internal balance and external balance simultaneously, an economy needs to be able to adjust its real exchange rate as well as its level of spending. (2) Although foreign exchange reserves are a useful shield against currency crises, by now China's current level is fully adequate, and US treasury securities do not pay a high return. (3) It becomes increasingly difficult to sterilize the inflow over time. (4) Although external balance could be achieved by increasing expenditure, this policy applied by itself might send China back into the inflationary zone of excess demand. (5) A large economy like China can achieve adjustment in the real exchange rate via flexibility in the nominal exchange rate more easily than via price flexibility. (6) The experience of other emerging markets points toward exiting from a peg when times are good and the currency is strong, rather than waiting until times are bad and the currency is under attack. (7) From a longer-run perspective, prices of goods and services in China are low – not just low relative to the United States (.23), but also low by the standards of a Balassa-Samuelson relationship estimated across countries (which predicts .36). In this specific sense, the yuan is undervalued by approxi-

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mately 35 percent. Typically across countries, such gaps are corrected halfway, on average, over the subsequent decade. These seven arguments for increased exchange rate flexibility need not imply a free float. China is a good counter-example to the popular “corners hypothesis” prohibition on intermediate exchange rate regimes. The hybrid basket-band-crawl regime that China announced in July 2005 would be suitable, if it were really followed. So far, however, the de facto regime seems to remain a dollar peg, with only a 2.1 percent revaluation.

### Qualifications to the endorsement of RMB appreciation

The author is not endorsing urgings of American politicians. US trade deficits and unemployment are not substantially attributable to China's exchange rate policy.<sup>1</sup> Furthermore, any country is free to choose to peg its currency if it wishes. Thus allegations of “illegal exchange rate manipulation” are probably inappropriate. It is not even true that an appreciation of the renminbi against the dollar would have an immediately noticeable effect on the overall US trade deficit or employment, though the effect on the US trade balance would eventually be moderate if other Asian countries were to respond by letting their currencies appreciate against the dollar as well. But in any case, the first order of business for China should be to determine what policy is in its own interest.

This is not to say that surplus countries have no obligations under the international monetary system<sup>2</sup>, nor that no country can ever be asked to take into account the interests of others, as part of a reciprocal system that has gains for all. But in the author's view it is not appropriate to use the language of WTO violations for the question of balancing the pros and cons of fixed exchange rates, which is inherently much less clear-cut than the

<sup>1</sup> The recent US position on the Chinese yuan has a precedent 15 years earlier when US policy urged appreciation and liberalization of the Korean won: Frankel (1993). And before that, the Japanese yen: Frankel (1984).

<sup>2</sup> Goldstein (2004) argues that there is an obligation not to manipulate the currency to frustrate adjustment, and that a fixed exchange rate is not proof against such charges.

question of balancing the pros and cons of free trade.<sup>3</sup>

It should be conceded from the outset that a regime of fixed exchange rates has a number of advantages.<sup>4</sup> Two advantages of fixing the exchange rate in terms of a particular major currency like the dollar are most important. First is the provision of a nominal anchor to prevent inflationary monetary policies and expectations thereof. But there are other possible alternate candidates for nominal anchor, including nominal GDP, and the CPI. Second is the facilitation of trade with those countries that use the dollar, or at least are pegged to the dollar.<sup>5</sup> Other advantages of fixed rates include facilitating financial integration, forestalling competitive appreciation or depreciation, and preventing the sort of speculative bubbles that seem occasionally to afflict floating exchange rates. There is of course a corresponding list of advantages of floating rates.

#### Target for the overall balance of payments

China's trade surpluses may in themselves constitute an argument for appreciation. Contrary to some public discussion, it is not necessarily desirable, for any country, that its trade balance be close to zero. Let us assume for the sake of argument that the Chinese trade balance is where it should be. There is still the question of the overall balance of payments, the sum of the current account and the private capital account.

The statistics show that the foreign exchange reserves held by the People's Bank of China continue to increase. This says that China is running a surplus on its overall balance of payments. Much of the surplus currently takes the form of capital inflows. Although portfolio capital inflows are still heavily restricted by the government of China, they are nevertheless finding their way in through one route or another; and in any case inward foreign direct investment is large. Which measure of external balance is the right one? One cannot definitively assert that it is correct to have an objective for the current account but not for the overall balance of payments,

or vice versa. Both measures are of interest to policymakers.

Why does the balance of payments matter? One disadvantage of a balance of payments deficit, for any country, is that the central bank is running down its reserves. If this process continues indefinitely, it will eventually have to adjust course. Under conditions of open capital markets, if reserves reach a critical level (which need not be as low as zero), a sudden speculative attack could force the adjustment to take place rapidly, and under unpleasant conditions.<sup>6</sup> In the East Asian crisis of 1997-98, for example, the economies that had run down their reserves suffered sharp crises (Thailand, Korea, etc.), while the economies with high levels of reserve holdings were the ones able to ride out the storm (China, Hong Kong SAR, and Taiwan Province of China).

One disadvantage of a balance of payments *surplus*, on the other hand, is that the reserves, which are typically held in the form of US Treasury bills and bonds and other dollar securities, pay a low rate of return. Interest rates on US treasury bills are low because the market is so liquid and because default is assumed to be very unlikely – and also, during the period 2001 to 2004, because the Federal Reserve has held short-term interest rates well below normal historical levels. The Chinese authorities have evidently already diversified out of Treasury bills, into agency bonds and other longer-term securities, which will probably help the yield somewhat. But it is more likely than not that the dollar will depreciate over the next ten years (not necessarily in the short run), in light of the large US trade deficit, which would reduce even further the return to holding dollar securities. (Diversification into the euro or other currencies has evidently not yet gone far.) Meanwhile, China is presumably paying to foreign investors on their inward investment a higher return than it is earning, which means that the arrangement is a losing deal for the country in the aggregate.

The author's feeling is that China has not been irrational – in light of the observed volatility of the preceding decade – to want to accumulate reserves. Thus one can rationalize a balance of payments surplus above and beyond the trade surplus (though I would guess that exports and employment are the more important motivations in the minds of Chinese

China's accumulation of foreign reserves has not been irrational

<sup>3</sup> Frankel (2004) is a more comprehensive survey of the pros and cons of exchange rate regimes among emerging market countries.

<sup>4</sup> McKinnon has long argued the advantages of dollar links for Asian countries; e.g., McKinnon and Schnabl (2003).

<sup>5</sup> Since Rose (2000), we have come to realize that the empirical effect of a fixed exchange rate on the quantity of trade is stronger than had been previously thought, at least in the case of a common currency. Clark, Tamirisa, and Wei (2004) find little effect of variability versus a regular fixed exchange rate.

<sup>6</sup> This is predicted by most theories of speculative attacks. Chapter 23 of Caves, Frankel and Jones (2002) is a brief survey of crises in emerging markets.



policy-makers when they intervene to maintain the *de facto* peg<sup>7</sup>). In any case, by now the level of reserves is so high that further accumulation would seem to accomplish very little by way of increased security. So I will assume in the analysis that the target for the overall balance of payments is now zero.

Another consideration in selecting the desired level of the overall balance of payments is the implications of reserve flows for the monetary base. If reserves are flowing in through a balance of payments surplus, that puts upward pressure on the monetary base. Conversely, if reserves are flowing out through a balance of payments deficit, that puts downward pressure on the monetary base. If the central bank wishes to make its domestic monetary policy decisions unencumbered by changes in foreign exchange reserves, that may be a further argument for a target of zero for the balance of payments.

### Sterilization

We have already mentioned that a balance of payments surplus implies that the reserve component of the monetary base is increasing. Some expansion in the monetary policy may be entirely appropriate, especially in an economy with strong long-term growth. But in an economy that is in danger of overheating, the central bank may wish to sterilize the inflow, so as to prevent expansion in the overall money supply.

Sterilization can be a good response to an inflow, for a period of time. It can help the country maintain its exchange rate target without abandoning a target for the money supply or interest rate. But it can become increasingly difficult over time, especially if traditional barriers to capital flows have been gradually eroded. One problem is that it just prolongs the balance of payments disequilibrium, because it by-passes the automatic mechanism of adjustment that reserve flows provide under the monetary approach to the balance of payments. Another potential problem is the quasi-fiscal deficit: if the central bank has to pay high interest rates to get domestic residents voluntarily to absorb “sterilization bonds,” while receiving low interest rates on its reserves of US treasury securities, then it is running a deficit. Some governments are able to force their bonds down the

throats of their banks without paying market interest rates, a form of financial repression; but this just weakens the balance sheets of banks and raises the odds of a banking crisis somewhere down the road.

### Avoiding currency crises

Asian countries are understandably anxious to avoid crises such as those that afflicted much of the continent in 1997-98. Although much ink has been spilled over the question of exchange rate regime, there is no clear verdict. The late-1990s saw the development of a surprisingly wide consensus in favor of the corners hypothesis: hard pegs or pure floats, in preference over intermediate regimes. But the author has been skeptical of this view all along. China, for one, is too large a country to dollarize or adopt a currency board, but is probably not ready for pure floating yet either. That leaves intermediate regimes: either the current adjustable peg, on the one hand, or alternatives such as a target zone, centered either on the dollar or on a basket, on the other hand.<sup>8</sup>

Baskets tend to be less transparent and less credible than defining a parity in terms of a single existing currency. Asia currently lacks a currency in use that is a suitable anchor for individual countries. China does not yet have the necessary developed and open financial markets to make the renminbi a regional anchor currency, while Japan's yen fluctuates too much versus the dollar and euro.

Some have argued that for China to minimize the probability of crisis, it would have to avoid appreciation, so as to keep the current account as strong as possible. It is true that overvalued currencies played a role in the East Asia crisis of 1997, even though some westerners had urged appreciation for surplus countries in the past. It is also true that real appreciation is likely to lead to trade deficits and net borrowing from abroad, and that countries that borrow from abroad are more likely to have crises. But there is another respect in which moving to a regime of increased flexibility now might reduce the chance of future crises rather than increase it.

If and when inflow turns to outflow, as part of the cycle that so many developing countries have gone through so many times before, it is important not to

Balance of payments surpluses expand the money supply – unless inflows are sterilized

<sup>7</sup> Dooley, Folkerts-Landau, and Garber (2003) surmise on these grounds that Asian central banks will happily absorb ever-more dollars indefinitely.

<sup>8</sup> Williamson (2000) has been a consistent defender of the intermediate regimes, even when the corners were most in fashion (which was just before the collapse of Argentina's currency board).



cling to a peg for too long. Many countries procrastinate, postponing adjustment either through devaluation or expenditure reduction. The lesson is not to procrastinate. There is an understandable temptation to cling to an exchange rate peg that has worked well for some years, economically and politically. Mexico in 1994 is one of many examples. One lesson from past experience is that of the exit strategy. If an eventual exit from a peg, to a regime with greater flexibility, is likely to occur eventually anyway, it is better to do it at a time when the balance of payments is strong and the initial movement is likely to be appreciation. The alternative of waiting for a time of balance of payments deficit often turns out to mean exiting the peg under strong downward speculative pressure, with the result that confidence is undermined. Hence the argument for being safe, and increasing flexibility before any cut-off in capital flows.

These points are drawn largely from the experience of emerging markets such as Colombia and Korea in the early 1990s. Those countries were able to sterilize capital inflows only for a year or two, before it became too difficult, due to high interest rates on the sterilization bonds and the prolongation of strong capital inflows (as in standard macro models). Chinese officials may be correct that their case is somewhat different, due to a financial system that is less open and less market-oriented. The capital inflow has consisted largely of Chinese citizens bringing capital flight money back home, speculating on a revaluation, and so far the authorities have not had to pay high interest rates locally to sterilize it. But they may find it increasingly difficult to sterilize further inflows.

### The Balassa-Samuelson relationship

Purchasing Power Parity (PPP) is often calculated as a guide for the equilibrium level of the exchange rate, for China as for other countries. But the overwhelming majority are estimates of *relative* PPP, that is, based on price indices. They do not necessarily show the yuan to be strongly undervalued. But that may be because they use the past as the benchmark, and the yuan may have been undervalued in the past.

Comparisons of price levels across countries are difficult, because such *absolute* PPP data are much less available than *relative* PPP data (for which one only needs price indices and exchange rates). But some data are available. As of 1990, China's price level was

reported as only .119 of the US price level, according to the Penn World Tables, Mark 5.6.<sup>9</sup> That prices are lower in China is not in itself a surprise. Even if we thought that markets in internationally traded goods were perfectly integrated, there is no mechanism to arbitrage disparities in prices of nontraded goods. There is abundant empirical evidence, along both the cross-section and time-series dimensions, that prices of non-traded goods, and thereby of general price levels, rise with levels of productivity, real wages and real income. This robust empirical regularity is called the Balassa-Samuelson effect, and is most often explained by the assumption that productivity growth is more rapid in traded goods than non-traded goods.<sup>10</sup>

### Balassa-Samuelson estimation in 2000

China's absolute price level in 2000 was .23, relative to the United States. The news is that China's prices are, not just low, but well below the level that one would predict from the country's per capita income and the cross-country empirical relationship between the real exchange rate and real income.

China's real income per capita was \$3,747.3, which was .11 of the US level. We can update the Rogoff (1996) estimation of the Balassa-Samuelson effect to the year 2000, on a cross-section of 118 countries. The regression yields a highly significant coefficient of 0.382 on the log of relative income. In other words, every one percent increase in real per capita income is associated with 0.38 percent in real appreciation. Notwithstanding the relatively good fit of this univariate regression, there are some substantial outliers. China is one of them, though far from the most egregious.

The price level (relative to the United States) that is predicted for China by the equation is 0.362 (derived from  $-1.015$  in logs). The residual of the log was  $-0.448$ . In other words, the regression suggests that the yuan was undervalued by 44.8 percent in logarithmic terms (36.1 percent undervalued in absolute terms) in 2000.

Few economists would seriously recommend a revaluation over a short period of time of the yuan on the

The RMB was estimated to be undervalued by 44 percent against the dollar due to differences in productivity growth

<sup>9</sup> China's prices showed up as the lowest of 31 countries; the next lowest was Bangladesh at .154. Summers and Heston (1991) describe the data. See Rogoff (1996, p. 659-660).

<sup>10</sup> Useful references include Balassa (1964), De Gregorio, Giovannini, and Wolf (1994) and Kravis and Lipsey (1988).

order of magnitude suggested by this interpretation of the Balassa-Samuelson equation. In the first place, a sudden revaluation of the currency of this magnitude would be disruptive. In the second place, other considerations matter in addition to the Balassa-Samuelson regression, including current monetary conditions. In the third place, one would first have to investigate the reliability of the Chinese price data. It is possible that the numbers in the Penn World Table have been extrapolated extensively from a slender base.<sup>11</sup>

Nevertheless, the numbers are suggestive of a disequilibrium that in the very long run may have to be corrected one way or another. Even if the adjustment is drawn out over a long period of time, to correct the disparity with no change in the nominal exchange rate would imply substantial inflation, not desirable as a long-term trend. Thus the Balassa-Samuelson calculation seems another reason to plan on a transition to a more flexible exchange rate regime.

#### Regression toward the mean

To characterize the empirical literature on the Balassa-Samuelson effect, the relationship between the real exchange rate and real income is fairly robust on a cross-section basis, but is more uncertain on a time series basis, even when changes are observed over intervals as long as ten years. This raises the question of the predictive power of the relationship for a given country over time. But a plausible interpretation is readily at hand. Most economists believe that real exchange rates are influenced not solely by the long-term trend of the Balassa-Samuelson effect nor solely by the short-term fluctuations of monetary policy and nominal exchange rate changes, but rather are influenced by both.<sup>12</sup> A reasonable characterization is that in the long run Balassa-Samuelson factors dominate, but in the short run monetary factors can pull the real exchange rate away from the Balassa-Samuelson equation. This framework contains the powerful prediction that if a country lies substantially off the Balassa-Samuelson regression line in one year, it can be expected to return part way – not necessarily all

the way – to the regression line over the subsequent decade. This claim has important implications for our ability to make predictions, and furthermore is testable with data from the last decade.

We have tested whether residuals from the 1990 regression have explanatory power for the year 2000. On a cross-section (of countries with data available for both years), we regressed the 2000 real exchange rate against the fitted values from the 2000 regression (which is also equivalent to regressing them against 2000 income levels, as before) *together with the residuals from the 1990 regression*. The results confirm the theory, and also provide the useful prediction that, in expected value terms, approximately half of any deviation from the Balassa-Samuelson regression line is corrected over the subsequent decade. For the case of China, it says that even if the big differential in productivity growth between China and its trading partners were to disappear tomorrow, Balassa-Samuelson factors nonetheless would predict that by 2010 the yuan would undergo an expected real appreciation of about half of the year-2000 gap, which is half of 44 percent, or 22 percent.

A real appreciation toward long-run equilibrium could be accomplished with no change in exchange rate regime, by an inflation rate of 2.2 percent per year in excess of the US level, which is not especially large compared to recent swings in China's inflation rate. Nevertheless, the theory predicts that more movement in the same direction would have to continue over the subsequent decade, and, more importantly for present purposes, that an allowance for Chinese growth to continue on the order of 6 percent greater than US growth would require adding another 2.3 percent of real appreciation per year (.38 times the relative growth rate). Adding together the correction of the past undervaluation and the continued trend gives a real appreciation in excess of 4 percent per year. A 4 percent differential above the US inflation rate seems too high to be desirable as a long-term inflationary bias. Again, the implication is that the yuan would have to appreciate in coming years.

This idea of gradual “regression toward the regression line” bridges the gap between the first half of this paper and the second half. The Balassa-Samuelson calculation suggests real appreciation on the order of 4 percent a year averaged over the next decade or more, better achieved through nom-

Including short-term and long-term effects reduces the expected real appreciation by half over a decade

<sup>11</sup> As a rough check, MacPPP suggests that Chinese prices are about .56 of US prices. Parsley and Wei (2004).

<sup>12</sup> One does not necessarily need prices of non-traded goods to be sticky – let alone prices of traded goods – to get the result that devaluations or changes in monetary policy can have transitory effects on the real exchange rate in the short run. Dornbusch (1973).

inal appreciation than through inflation. The targets and instruments framework of the first half of the paper suggests that appreciation is needed to curtail excessive build-up of reserves through the current balance of payments, and the dangers of excessive monetary expansion, overheating, and inflation. Perhaps past devaluations (or deflation, as recently as 2002) help explain how the yuan got so far off the equilibrium line in the first place. At least as important is that China's rapid productivity growth and increased trade integration mean that levels of the nominal exchange rate that might have been consistent with long-run equilibrium in the past have now become undervalued. Either way, if this gap is real, better to address it through appreciation than inflation.

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## WHOSE AFRAID OF A RENMINBI FLOAT?

DAVID ALTIG\*

On July 21, the seemingly inevitable came to pass. On that day, the Chinese central bank revalued the renminbi (RMB), the first step down a path that, by proclamation of the government, will ultimately lead to a fully flexible currency. The broad details of the action are now widely known. In addition to an administered appreciation in the renminbi's value of just over 2 percent (from 8.28 RMB per dollar to 8.11 RMB per dollar), the currency would be allowed somewhat more latitude to fluctuate (albeit in a narrow range of plus/minus 0.3 percentage points), and what had been a pure dollar peg was presumably replaced with a system based on a multiple-currency reference basket. No details were given about the composition of the basket upon the immediate announcement, but it has subsequently been revealed that, in addition to the US dollar, the basket includes the Australian dollar, the British pound, the Canadian dollar, the euro, the Japanese yen, the Korean won, the Malaysian ringgit, the Russian ruble, the Singapore dollar, and the Thai baht.

Some revaluation at last

### How much flexibility?

As seen in Figure 1, the renminbi has exhibited somewhat more movement in the period since revaluation, but not

much. As of this writing, the Chinese central bank has generally kept the value of the RMB relative to the dollar near its target level, with some drift in the direction of the lower bound. As for the new, expanded market basket, Figure 2 gives a glimpse of how the dollar has fared relative to the yen, the euro, and the won since revaluation. Among the eleven countries whose currencies are identified as part of China's reference basket, Japan, the eurozone, and Korea account for roughly 73 percent of total non-US trade with China. As is apparent from the figure, there hasn't been enough volatility in the value of these other currencies relative to the dollar to provide a really good test of what broad-

Figure 1

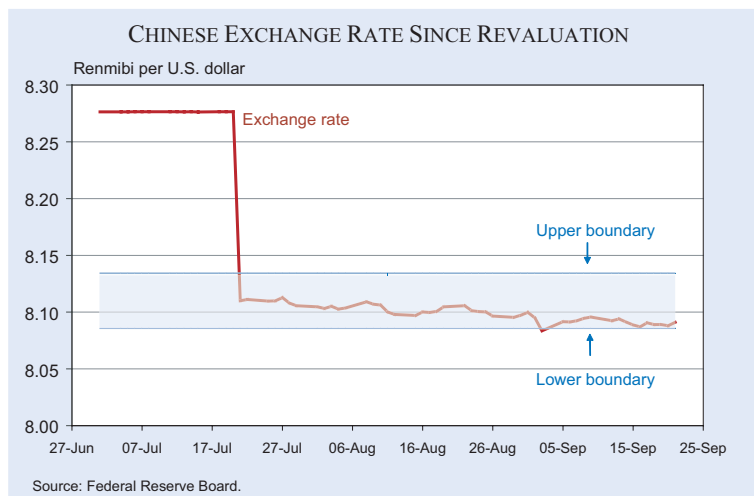
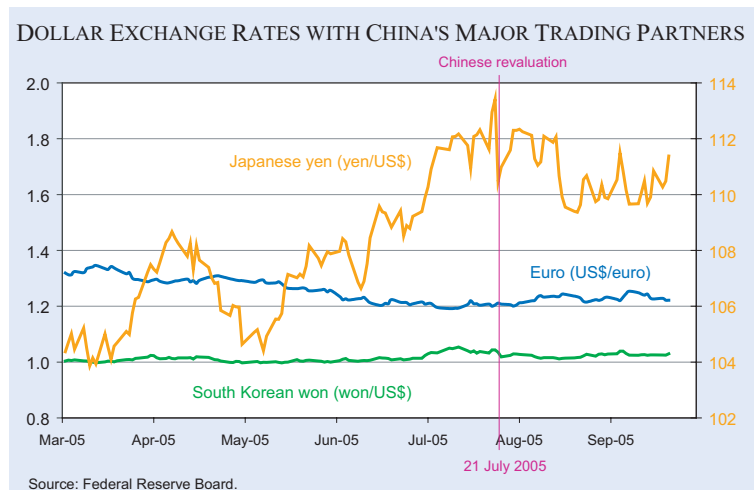


Figure 2



\* Federal Reserve Bank of Cleveland.

ening the focus beyond the dollar will ultimately mean for how Chinese exchange rate policy will be conducted.

While maintaining the mantra of “slow and easy as it goes”, Chinese officials have systematically laid the groundwork for more changes. In early August, the government announced its intentions to allow domestic trading of currency futures and swaps. In early September, the world was informed that the range in which the RMB would be allowed to fluctuate will gradually expand. Good as their word, these are the steps that are widely appreciated as obvious precursors to a future in which the renminbi freely floats.

But how soon will greater flexibility appear, and how far will it sail when that time comes? It would seem that the Chinese have addressed these questions, and the answers are, I paraphrase, “not too soon” and “not too far.” But there is a distinction between what a central bank wants and what a central bank can get, and there is a large contingent of analysts who believe that the imbalances building between the what-it-would-be-if-allowed-to-float value of the renminbi and its current value are so large that the ability of the Chinese government to hold back the flood is rapidly coming to its end. In this view, a dollar collapse – and all its presumed attendant pain – lurks around some nearby corner.

I am not putting fingers to keyboard to tell you that this view is misguided. I will, however, share my views on why I am not convinced of its inevitability. Before I proceed, however, I should acknowledge my debt to my colleague Owen Humpage, with whom I have had many a conversation on this and related topics. I steal liberally from his insights, while acknowledging that all instances of twisted logic that follow bear my mark alone.

### Just how overvalued is the RMB, anyway?

The answer to that one is simple: Nobody knows. The thing about not letting the market decide a currency’s value is that the *nominal* exchange rate – literally the number of units of one currency you can get for one unit of another – is essentially made up. It is whatever the government chooses it to be, so long as the regime can be feasibly maintained.

The latitude the government has in setting the nominal exchange rate leads to the claim that the

Chinese are enjoying an unfair advantage in trade by artificially depressing the value of its currency. But to make this claim is to fundamentally confuse the distinction between nominal exchange rates and *real* exchange rates. As just noted, the nominal RMB/dollar exchange rate tells us how many renminbi can be purchased with one dollar. But that is not at all the right price to be considering when thinking about trade, because it does not tell us anything about the purchasing power of the currencies.

An example might help. Suppose that the dollar appreciates from 8 renminbi per dollar to 9 renminbi per dollar. You might be inclined to think that people with dollars are better off, but you might be mistaken. Let’s dig a little deeper into the example and reasonably assume that people who have dollars and want renminbi do so not because they are enamored of the Chinese currency in and of itself, but because they desire Chinese goods or services that can only be purchased with renminbi. Suppose, for example, that US consumers want renminbi in order to purchase baseball caps made in China.

What if, at the same time the dollar appreciates, baseball caps made in China increase from 8 renminbi per cap to 9 renminbi per cap? To the buyer of baseball caps, the 8 RMB per dollar exchange rate is just exactly the same as the 9 RMB per dollar exchange rate. They both get you one baseball cap for a dollar.

This simple example provides a flavor of the *real* exchange rate, which is the exchange rate concept that matters for questions about competitive advantage, trade deficits, and the like. The real exchange rate adjusts for changes in the purchasing power of one currency relative to another. Roughly speaking, the nominal exchange rate depends on cross-country differences in price levels and the fundamental value of the real exchange rate which depends on things like the relative desirability to global consumers of the goods and services a country produces. It depends, in other words, on things that are hard to measure.

Direct calculations of the real exchange rate – or perhaps more precisely, where the real exchange rate ought to be – are notoriously difficult.<sup>1</sup> It is my impression that most who believe in a vastly undervalued renminbi do so less out of conviction based

It is the *real* exchange rate that counts

<sup>1</sup> A good discussion of why this may be so can be found in Jeffrey Frankel’s paper, cited in the references below.



on hard calculations than on the existence of specific economic tracers. In other words, the belief that the renminbi is out-of-whack with its what-it-would-be-if-allowed-to-float value is based not on a firm conviction about what that right value is, but on other observations that don't seem to make sense under the assumption that the RMB is "fairly" valued. At the top of the list is the accelerating pace at which the Chinese central bank has been purchasing dollar-denominated assets.

### The Chinese central bank: dollar collector

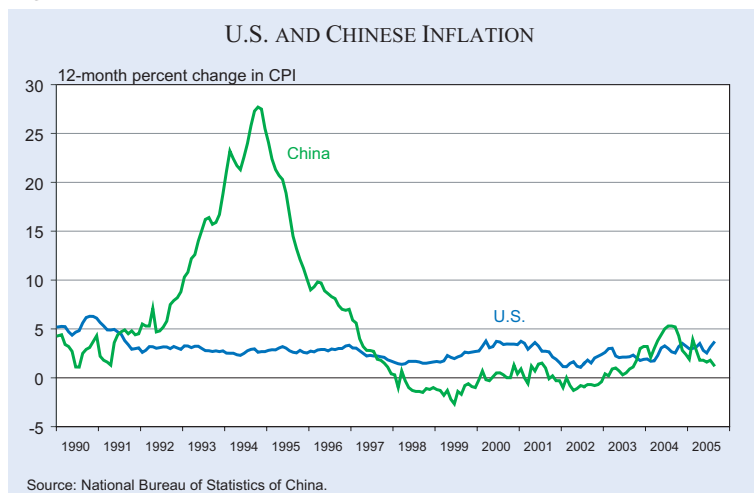
A typical storyline for what the Chinese central bank is up to goes something like this: The Chinese government, wanting to stimulate its own export markets and domestic industrial base, desires a low value of its currency so that the goods it produces are relatively cheap to foreigners. Roughly speaking, it can keep the price of the renminbi low by making its supply plentiful. Again roughly speaking, it can do this by printing RMB and using it to purchase, say, dollars, or assets with values expressed in dollar payments (such as US Treasury securities).

The assets that the Chinese central bank purchases and accumulates are referred to as foreign, or official, reserves, and their growth has been pretty awesome, more than quadrupling in value since the beginning of 2001. That growth is one of the tracers convincing many that the pressure for RMB appreciation has been building for some time. In this view, the Chinese government has had to fight harder and harder, printing more and more renminbi and absorbing more and more dollars, to keep the RMB at its undervalued level.

Maybe, but there are other economic tracers that don't quite fit this narrative. After all, isn't inflation caused by too much money chasing too few goods? Shouldn't we expect to see some pretty significant inflationary pressure in China as a result of such rapid money creation?

The fact seems to be, we haven't. I have borrowed Figure 3 from an article written by Patrick Higgins and Owen Humpage, both from the Federal Reserve

Figure 3



Bank of Cleveland. The figure shows consumer price inflation in both China and the United States, up through August. There has been some upward drift in Chinese inflation over the past three years, but it has essentially stabilized (near US levels) in the past couple of years, even as the central bank was accelerating its purchases of dollar assets.

One plausible explanation for why accelerating reserve accumulation by the Chinese has not led to accelerating inflation is that the government has actively sterilized a good portion of their foreign exchange interventions. Sterilization occurs when a government engages in activities that keep its exchange rate policies from affecting its overall money supply. In the Chinese case, the chain of transactions goes something like this: The government prints renminbi to purchase dollars. But, recognizing that printing too much of their own currency may be inflationary, they reabsorb the new money by swapping money balances held by Chinese banks for special, less liquid, government bonds. On balance, then, the Chinese money supply does not change.

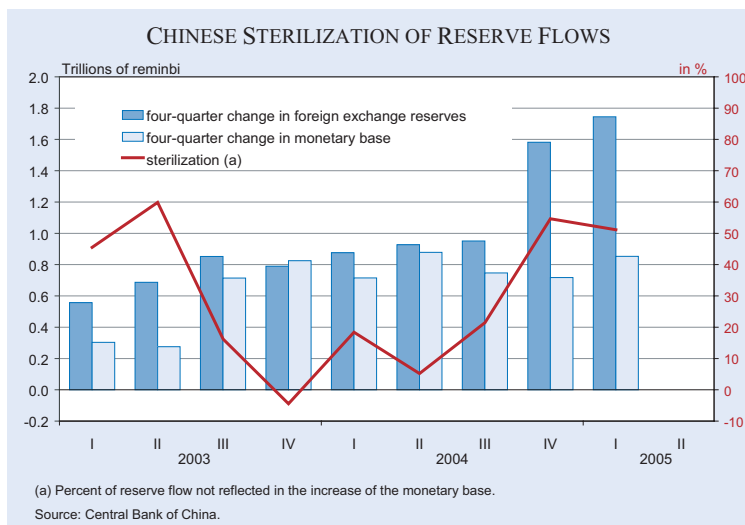
Figure 4 (from Higgins-Humpage once more) shows that this is exactly what the Chinese government was doing, at least through the first quarter of this year. The really large jump in foreign reserve accumulation by the Chinese central bank at the end of last year and beginning of this year was matched by a really large increase in sterilization. The net effect was that money supply growth in China barely changed.

To some, these observations just prove the point that the Chinese are finding their currency policy increasingly unsustainable – they have to sterilize because

Due to sterilization,  
dollar accumulation  
has not led to  
inflation



Figure 4



the amount of money creation required to hold the line on the RMB/dollar exchange rate has unacceptable implications for the domestic rate of inflation. But there is an alternative interpretation. By my reading, the preponderance of the evidence suggests that sterilized interventions have little if any sustained effect on exchange rates.<sup>2</sup> The fact that the Chinese have been able to sustain the exchange rate peg while substantially sterilizing their interventions suggests that, perhaps, the targets chosen by the central bank are not too terribly far from where the exchange rate would settle unfettered. At the very least, it is not obvious that Chinese exchange rate policy was becoming increasingly difficult to sustain through the first quarter of this year (unless you believe that sterilized foreign exchange intervention matters).

This does not, of course, speak to the environment immediately preceding revaluation, or the situation since. The data required to make that judgment is not available as of mid-September. But we can still ask this question: Suppose that downward pressure on the RMB/dollar exchange rate has continued, or even accelerated. Are more, and perhaps larger, appreciations of the renminbi the only possible outcome? The answer is no.

### The inflation solution

In the literature on exchange rate determination, there is one case most sympathetic (in my opinion) to the view that even sterilized interventions have an effect on exchange rates. That case occurs when the intervention serves as a signal about the policy

the government intends to pursue going forward. If the renminbi is in fact undervalued, and the Chinese government is absolutely committed to sustaining a particular level of the nominal exchange rate, or limiting the amount by which the rate appreciates, they can quite likely get away with it. And market participants will help if an accelerated pace of intervention – even sterilized intervention – signals a willingness of the government to make it happen.

Recall the mechanics of fixing the nominal exchange rate at a level not supported by the underlying real exchange rate and differences in domestic and foreign prices. In order to inhibit an appreciation of the currency, the exchange-rate-setting government will respond by increasing the world supply of its own money. In the process, the expansion of the money supply sets the table for a decline in the purchasing power of the country's currency. If that expansion is ongoing, the decline in the value of money continues. There is, in other words, inflation.

In essence, the inflationary pressures created by attempting to fix a currency's exchange value at too low a level reduces the value of that currency until the target rate is actually justified by the fundamentals. Problem solved.

The argument that this mechanism is unrealistic in the case of China today presumably rests on the presumption that the imbalances are so large that the inflation solution is unacceptable to the Chinese authorities. I would argue that this proposition puts a lot of faith in the unknowable, but for the sake of argument let's suppose it is so. The fact remains that there is a set of feasible outcomes. Appreciation may be preferable to inflating away the excess value of the currency. Or vice versa. Or some combination of the two may be best. But there is a choice, there are options. And that fact argues in favor of an orderly transition toward whatever finally shakes out.

<sup>2</sup> A nice, if somewhat aging, overview of the literature can be found in Taylor (1995). Humpage (2004.) provides a more recent and less formal summary. Hutchison (2003) summarizes a recent contrary opinion about the effectiveness of sterilized interventions.

There are options:  
Inflation or appreciation  
or a combination  
of the two

### Hard landing/soft landing

Some time ago, a respected colleague admonished me for my willing participation in a debate that included terms of art like “hard landing” and “soft landing.” He had a point, as these phrases are used with nothing that even approaches precision. Nonetheless, I persist, as I think the language is understandable as shorthand for reasonably distinct views of the world.

So, what is meant by “hard landing”? It is easiest to begin with a sketch – maybe a caricature – of what the hard landing scenario entails. Most often the starting point is a badly behaved America, populated by spendthrift households whose shortsightedness has driven personal saving rates to zero, aided and abetted by an equally undisciplined government doling out irresponsible tax cuts and spending like a drunken sailor, all enabled by a too accommodative central bank.

In normal times, markets would discipline this sort of malfeasance with higher interest rates, rising prices, and a depreciating dollar. But these are not normal times, with the Chinese and other Southeast Asian governments loathe to let imbalances in the United States force their hands on exchange rate policies unsupportive of rapidly growing export sectors. Unfortunately, resistance to the natural course of currency appreciation has only served to delay the day of reckoning, and encourage more of the same from the Americans. Thus the imbalances grow, the efforts to stave off their effects become ever more desperate, and the inevitable accounting ever more severe.

The end game appears to be some sort of speculative run. Over time, the imbalances become so severe that RMB appreciation becomes a necessity. Once the process begins, expectations of further appreciation drive demand away from the dollar and into the renminbi, accelerating the pace of revaluation. Asian governments with large dollar-reserve holdings begin to suffer substantial capital losses on their portfolios, and the shift out of the US currency accelerates. The dollar crashes, interest rates soar, interest-sensitive spending in the U.S. bites the dust, and a full-blown economic contraction ensues.

Pretty scary, but in my mind there are several problems with this scenario. The first is the one alluded to above: Appreciation is but one road to bringing the

nominal exchange rate back into line with fundamentals. To be sure, allowing a domestic inflation is not ideal. But it may beat the alternative. If the costs of portfolio losses on dollar reserves are so large as to cause a stampede out of the dollar capable of trashing the US economy – which would almost surely rebound to the detriment of global economic growth – why would governments not choose an alternative policy path?

We have come to learn that managing expectations is essential to the conduct of monetary policy, and that this is never truer than in times of economic stress. Deflations coupled with low real returns to capital, for example, may be problematic because once nominal interest rates hit zero they can go no further.

That lower bound, if hit, may limit the effectiveness of monetary policy, or at least complicate the implementation of policy operations. The solution to this problem is pretty simple, even if not always easy to pull off: Convince people that the central bank will do whatever it takes to eliminate the deflationary pressure. In other words, make a commitment to generate some inflation.

The same medicine would seem a relevant antidote to the hard-landing problem. Speculative attacks rely on expectations that there is something to be gained (or less to be lost) by joining in the rush for the exits (or in the case of the renminbi, for the entrance). In the case where the speculation is driven by expectations of currency appreciation, what could work better than a commitment from the government to pursue those policies that will devalue the currency?

Anything, in fact, that mitigates incentives to join in a speculative rush toward the renminbi puts a dent in the likelihood of a hard landing. Quite apart from what governments themselves may or may not do, it is becoming increasingly evident that private markets are quite capable of making themselves part of the solution.

As time goes on, market participants will become increasingly able to protect themselves from swings in currency values. This is the explicit objective behind the Chinese government’s decision to allow domestic markets in currency-related derivative instruments. As those markets develop and mature, and hedging opportunities grow, the possibilities for

Managing expectations to reduce likelihood of a hard landing

limiting exposures to RMB-gains/dollar-losses expand. Indeed, offshore markets for these hedging activities already exist in the form of non-deliverable forward contracts for renminbi (and the currencies of other emerging-market economies). It is difficult to know exactly how much protection these contracts afford today, and how quickly these markets can develop within China. But this activity is a clear sign that both private markets and governments are actively engaged in developing a financial-market infrastructure capable of inhibiting the emergence of worst-case scenarios.

### To where will foreign funds run?

The hard landing scenario also apparently requires that the bottom on the dollar is pretty low. The quantity side of this equation is the assumption that foreigner will demonstrate a hitherto unseen willingness to throw off dollar assets, or at least radically reduce the rate at which they are collected. I question the plausibility of this assumption, too.

It is a fact that the US current account deficit was expanding rapidly even before the rate of dollar accumulation by foreign governments popped up on the radar. From mid-1997 through the end of 2000, the current account deficit rose from 1.3 percent to 4.4 percent of US GDP. In the period from the end of 2001 through the first quarter 2004, the ratio rose from 3.5 percent to 6.4 percent.

Ben Bernanke, former Federal Reserve Governor and now Chair of the Council of Economic Advisors in the Bush Administration, made a splash awhile back when he attributed the change in the earlier of those two episodes to a “global savings glut.”<sup>3</sup> Critics have argued that the dynamics generating growth in the deficit in the late 1990s were much different than those that have generated the deficit since. In the former case, investment in the U.S. was booming, and the lion’s share of dollar assets – IOUs for the benefit of receiving imports in excess of exports – were being accumulated by the private sector. The latter episode has been characterized by sluggish investment, increasing deficit spending by the government, and a shift toward US debt being absorbed by foreign governments.

The interpretation seems to be that trade deficit growth was somehow organic in the 1990s, but artificial

in the first half of the present decade. Even conceding that government deficits and the like explain the rise in the current account deficit after 2001, there remains the question of why the trend toward surpluses in emerging-market economies took hold in the earlier period. There are reasonable-sounding explanations for this that include explicit foreign-government policies aimed at stimulating export-related industries, controls that inhibit both total consumption and consumption derived from imports in emerging-market countries, governments’ desire to build reserve positions in “safe” currencies, and private sector concerns about accumulating wealth in emerging-market assets.

It is surely the case that some vestiges of these motives remain today. Let’s suppose that all of America’s economic sins are miraculously washed away. Households return to historical norms in the amount they save relative to their disposable income. The federal government balances its budget. That sort of stuff. Does anyone expect to see trade deficits in emerging-market economies to suddenly become the order of the day?

I don’t, and it is a hard fact of international accounting that a current account surplus implies a capital account deficit. If a country is exporting more than it imports, it is accumulating the IOUs (or the capital more generally) of some other country or countries. If a combination of government policy and private decisions continue to support the status quo in emerging market economies – and I’ve yet to hear any compelling argument that it won’t be so – someone in those economies will be collecting financial claims denominated in some other currency. Is there really a strong contender to the dollar? The euro? The yen?

I have long conceded that some amount of diversification of private and public foreign portfolios out of the dollar would not be surprising. I expect it to happen, and there is evidence that it is happening. But given the alternatives in the present environment – uncertainties about the strength of economic fundamentals in Europe and Japan, to be direct about it – I’m unconvinced that tastes run too far from continuing dollar domination. The downside to the dollar is a long way from bottomless.

### Cautious optimism

Let me be clear. I am absolutely not suggesting that growing US current account deficits and increasing

Accumulation of foreign assets will continue and so will the demand for dollars

<sup>3</sup> See Bernanke (2005).

absorption of dollars by foreign governments, represent a sustainable path. They do not, and I am not predicting that the return to sustainability will be seamless and without discomfort. I fully agree that large current account deficits have helped to maintain low interest rates in the U.S., promoting outsized gains in certain sectors of the economy, such as residential real estate. As those deficits reverse, interest rates will likely rise, to the detriment of interest-sensitive parts of the economy that have heretofore benefited. That may or may not imply measurable macroeconomic effects, but it will at a minimum create dislocations and uncertainties as resources are reallocated and relative asset prices adjust.

But there is a very big difference between discomfort and disaster. The case for the latter is respectable, and I do not absolutely rule it out. Nor do I find it compelling. There is an awful lot of uncertainty about all of the things that matter. To begin with, the case that a large appreciation is in the offing if the renminbi floats is far from ironclad. Beyond that, it is the business of central banks and other financial authorities to promote market stability. Thus far, the Chinese government has proven itself more than capable of meeting this mandate as it makes the transition to a more flexible exchange rate regime.

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## IS REVALUATION OF THE RENMINBI GOOD NEWS?

VANESSA ROSSI\*

### Exchange rate reform and prospects for RMB revaluation

On July 21 China announced its first step towards floating the renminbi (RMB). It is clear why China saw this as the right time: not only is current economic performance strong, as illustrated by second quarter GDP growth of 9.5 percent reported just ahead of the revaluation, but even the risk factors that were causing concern in 2004, such as inflation and energy shortages, are now more subdued. The initial revaluation of 2 percent was modest and this will have only minor repercussions on economic forecasts and global trade. What is less clear is how much the currency will be permitted to revalue over the next couple of years and what impact this might have on China's surging exports and its balance of payments.

The move to a managed float against a basket of currencies leaves China with more scope for flexibility than it had under its previous dollar peg. Instead of managing the currency in a very tight band around the prevailing RMB/dollar rate, the RMB is now fixed against the basket, with a  $\pm 0.3$  percent daily fluctuation band. The basket is reported to include not only substantial weights on the US dollar, the yen and the euro, as expected, but also a large weighting on the Korean won and lesser weightings on a range of other currencies.

However, it is not yet known how much flexibility will actually be permitted under the managed float. One obvious reason for this is that the weights for the currency basket are unknown, although inevitably the weight on the US dollar will be high. An explicit US dollar weight of 30 to 40 percent is seen as a plausible estimate but the implicit weight may be higher given the tendency for a number of currencies to closely track the dollar.

In terms of speed of adjustment, the currency could move by as much as 1 to 1.5 percent per week, in theory, if the daily central rate against the basket were to be reset at the upper limit of the  $\pm 0.3$  percent band each day. And if all other currencies were to revalue by, say, 10 percent against the US dollar, then China should, in principle, follow the basket so that the RMB/dollar cross rate would also revalue by about 5 to 7 percent. We simply do not know at this stage but the process will probably be evolutionary, allowing China time to set up appropriate financial systems, forward markets etc.

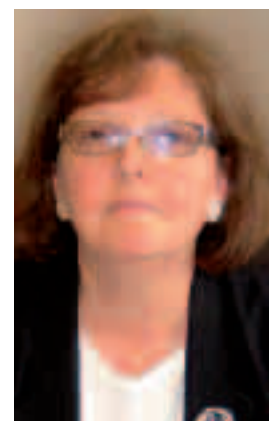
So far, there has been too little movement of the dollar against the major currencies to really test the operation of China's new regime. However, if such changes were to occur without China adjusting its dollar rate, this would prove very damaging to confidence in China's new policy and currency intentions. Indeed, if little change in the key RMB/dollar rate is seen over the next three months, disenchantment will set in. So further, modest, adjustments look likely, perhaps more if other currencies were also to rise against the dollar.

In order to assess the prospects for appreciation of the RMB, we have estimated two exchange indicators that point to the potential scale of revaluation:

- A FEER<sup>1</sup> type model for assessing the underlying "fair value" for the exchange rate – benchmarked on the basis of the currency being close to equilibrium in 2000 to 2001, which marked the watershed between the period in the late 1990s when many expected a devaluation and the first rumbles about revaluation after WTO entry. Taking a fairly broad view over 2001 to 2010, this suggests an equilibrium rate in the range 5.5 to 7 versus the US dollar.
- A basket float estimated using plausible weights on the basket currencies. Firstly, we estimate the predicted path for the RMB had China floated on entry to the WTO at the end of 2001. Secondly, for the forecast period, the estimates depend, of

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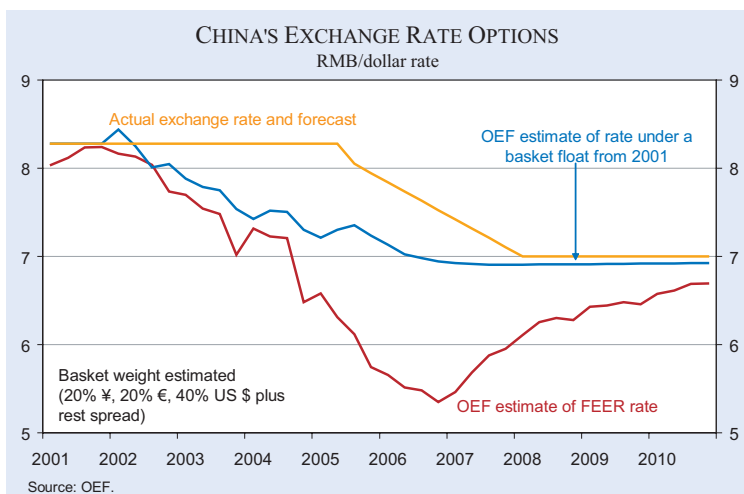
<sup>1</sup> Fundamental equilibrium exchange rate.



More flexibility, but little movement to date



Figure 1



course, on the projections adopted for other currencies: here we assume that the US dollar weakens by 5 to 10 percent against both the Yen and Euro over the next year.

Along with many forecasters, we estimate that the RMB may be considered to be around 15 to 20 percent undervalued. Projections made using the basket float method are fairly close to the FEER estimate over the longer run – given anticipated strength in other currencies, especially in Asia. On the basis of these indicators, we may therefore expect to see a steady move to around 7 RMB/US dollar by 2007, in line with the cautious, gradualist approach typical of Chinese policymakers.

### Revaluation may have little impact on China's exports

The main reason for the intense interest in the Chinese currency is obvious: China's trade partners hope that revaluation will ease the pressure from China's booming export industries on the more exposed and fragile industries and jobs in the US and EU – for which China has become the latest and most serious in a long line of threats from low cost producers. Alarmist estimates, based on simply extrapolating recent high growth rates, point to a virtual takeover of world manufacturing by China. Such extrapolations exaggerate China's potential, as we will discuss later, but further gains in market share must be expected. Can revaluation make a significant difference to this outlook?

Although it is difficult to establish reliable econometric estimates for the impact of changes in com-

petitiveness on China's export performance, evidence from both Chinese statistics and other emerging market economies tends to point to this impact being fairly low compared with that estimated for OECD economies. The loss in export volumes that we would directly associate with a 20 percent appreciation would only be of the order of 4 to 5 percent in total, just slightly slowing Chinese export growth over a couple of years. In addition, only a small increase in China's dollar export prices is likely (as China

is widely believed to price to market for much of its trade), thus the overall loss in China's dollar exports linked to a 20 percent revaluation may be less than 3 percent. A larger export price rise might even push dollar exports up, so importers might pay more for a slightly lower volume of Chinese goods – but they might have to pay more if they were to switch sourcing to another trade partner or if they tried to supply the same goods from domestic producers. Because China's costs are so low in absolute terms, the incremental impact of a 20 percent revaluation probably means very little – although larger changes could imply that some production (e.g. for basic textiles and garments) starts to switch to even lower cost bases, perhaps in Vietnam or other undeveloped parts of SE Asia. Such moves away from producing in China would not benefit producers in the US, or EU, however.

Apart from having only a weak impact on China's exports, revaluation may also fail to provide much stimulus to China's imports. Many imports are input requirements linked to export production, which implies that these imports would weaken alongside exports. Imports linked to local demand should strengthen, provided Chinese consumers are not threatened by job losses that could cause a rise in precautionary savings. On balance, a 20 percent revaluation might cut China's current account surplus by some \$10 to 20 billion.

Overall, the changes we would expect from a 20 percent RMB revaluation are quite modest. This is not the key to turning around the US trade deficit – at least not if the RMB were to revalue alone. Coupled with Asia-wide revaluations, the impact on global trade and the US deficit is estimated to be much

Estimates suggest a further revaluation to around 7 RMB/US\$ by 2007



larger – possibly boosting US net trade by some \$100 billion over 2 to 3 years. But, ironically, this scenario might even turn out to be beneficial to China over 3 to 4 years as China would still be the most attractive, large low cost economy of Asia. OEF model based estimates predict a rapid recovery of China’s exports and GDP in such a scenario.

The view that plausible RMB revaluations will easily “cure” recent trade trends is wide off the mark. Even an implausibly high revaluation of 100 percent or more would still leave China cost competitive and an attractive production base given both its export capability and the potential size of the undeveloped internal market. Model estimates suggest that revaluations of some 50 percent or more per annum might be required to sustain a reduction in China’s export growth to zero. This is not a realistic scenario. More importantly, we should recognise that this would severely slow the expansion in world trade, with damaging consequences for longer-run trends in global productivity growth and inflation. As a means of addressing the US imbalances, or reducing the EU’s unemployment rate, there is clearly a problem with this approach – a more appropriate view must be to consider the global picture for trade, consumption and savings flows, thus putting both the U.S.’s and EU’s problems within a wider frame than simply bilateral trade disputes with China.

However, the estimated weak link between China’s currency valuation and export growth also points to another issue: the drive behind China’s export boom has not been due to improvements in cost competitiveness. Most of the rise in China’s trade share has been due to its rapid adjustment from a virtually closed economy to one in which trade plays a more appropriate role. This view may offer some hope that China’s export expansion may be slowing down even without currency changes

**WTO entry a lead factor behind China’s export boom**

Although China is very cost competitive versus the OECD and much of the developing world, this was not the only reason for the surge in export growth seen during the 1990s and again in 2000 to 2005. Most of these gains have been due to adjustment from an abnormally low historic trade position. In the 1980s, China accounted for about 1 percent of world merchandise trade but its share is now close to 12 percent. In effect, both China’s interests in participating in trade and its accessible export markets have changed radically, pulling actual exports up sharply. Being cost competitive will have helped accelerate this adjustment process but even if plausible revaluations had raised *relative costs*, much of the gain in trade share seen since the early 1990s would still have occurred.

In particular, the impact of WTO entry on Chinese trade has been phenomenal both in its scale and longevity, even viewed against the trade gains made by China pre-entry. The long, strong expansion that started in 2000, ahead of WTO entry in December 2001, has continued into 2005 – indeed with a boost to textile exports provided by the end of the Multi-Fibre Agreement (MFA) on textile quotas this year. Out of China’s total exports in 2004 of nearly \$600 billion, as much as \$300 billion (nearly 20 percent of

Weak link between China’s exchange rate and export growth

**Figure 2**

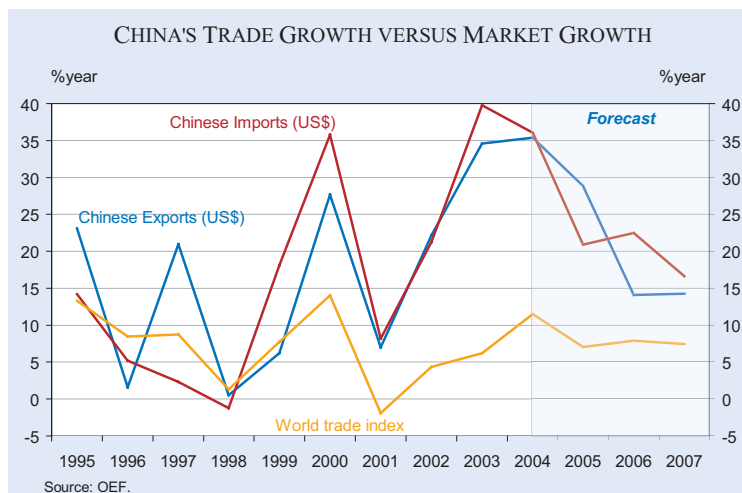
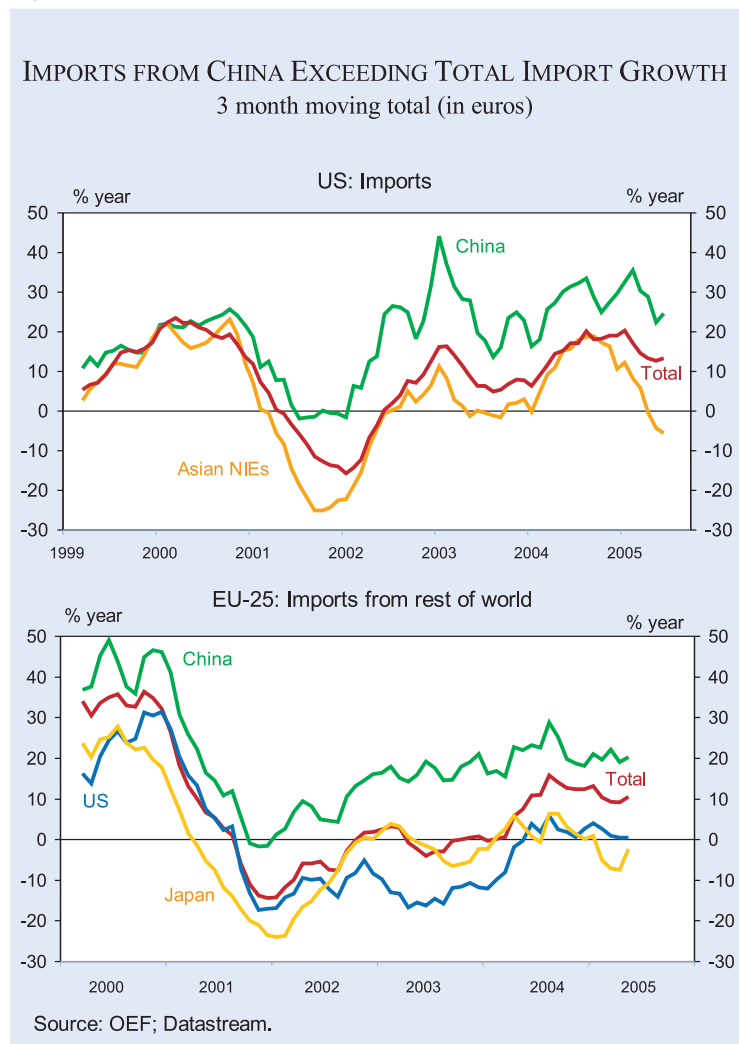


Figure 3



The share of exports in China's GDP has risen to 40 percent; its share of US and EU imports is nearing 15 percent

2004 GDP) was due to exports outperforming world trade, gains largely attributable to WTO entry. In fact, because investment has also doubled since 2001 (alongside trade flows), we may argue that the net stimulus to China's economy has been even higher than \$300 billion.

These WTO-related gains have been the drivers that have kept China's economy growing at a rate of more than 9 percent for the last three years – well ahead of most analysts' predictions in the late 1990s, when a slowdown was widely expected. China has overtaken Japan to become the world's third largest exporter – and the third largest importer – behind Germany and the U.S.

In as much as a large proportion of China's export success has been due to rapid adjustment from an exceptionally low share of world trade to a "fairer" share, then the speed of export growth should start

to ease off as the process of adjustment comes to an end. The share of exports in China's GDP has risen from 20 percent in 1990 to about 40 percent, above the average world trade/GDP ratio of just under 35 percent, and only slightly less than the average for Asia of about 45 percent (WTO, World Trade Report 2004). In addition, with China's share of world manufactures trade now about 12 percent and its share of US and EU imports nearing 15 percent, further gains will be harder to achieve. Shares in the most easily penetrated sectors of trade (such as low cost textiles, toys and electronic equipment) are already high and new sectors, such as cars, other high value-added goods and branded consumer products will take longer to develop.

Indeed, China's export growth is already slowing down. Taking account of the estimated increase in export prices, *export* growth in volume terms is now appreciably weaker, in the 20 to 25 percent range versus a peak of as much as 30 to 35 percent in

2003 to 2004 (recent World Bank estimates also indicate these trends). Growth should settle back to about 15 percent by next year, aided by a further modest revaluation of 5 to 10 percent although this is not the main factor behind the forecast slowdown. This expansion will be faster than the global average, however, so China's share of world trade will still be rising but at a markedly slower pace than the last few years. At this rate, China will be about on a par with projected trade for the U.S. and EU by 2015, with exports (and imports) of some 3 trillion dollars (a share of about 15 to 17 percent in world trade).

As well as expecting a cooling off in the rate of China's export expansion, there is another reason for taking a more sanguine view of the impact on US and European producers: almost all of China's gains in trade have been at the expense of the rest of Asia, linked to the switching of production from higher cost parts of Asia. In fact, *it is remarkable how* little trade shares have changed for Asia as a whole. Over

the last 15 years, Asia's share of world trade has been virtually static at about 30 percent (measured excluding intra-EU trade and re-exports of Hong Kong and Singapore) with the U.S. accounting for about 20 percent and the EU just slightly more than the U.S. Asia's share of EU imports has also remained around 30 percent but the share in US imports actually fell by about 4 to 5 percent in the mid-1990s (to just under 40 percent), reflecting the impact of the Asian crisis on prices (i.e. with the US benefiting from lower import prices). However, in both the U.S. and EU, China has rapidly increased its share of trade, mostly at the expense of Japan but also, for the U.S., reducing the share of the NICs (WTO, 2004).

Tables 1 and 2 show the breakdown of US and EU imports by major trading partners. While China's share of US imports increased from 8.2 percent in 2000 to 13.4 percent in 2004, the shares of six of China's neighbours fell. The picture for the EU is broadly similar, except for the notably poor US export performance.

#### **If China's imports are also rising, why is this expansion in trade a threat?**

Although China's exports have risen rapidly, imports have grown more or less in tandem. Until 2005, China's trade surplus was quite small, about \$20 to 40 billion versus a surplus of more than \$150 billion for Japan (based on similar levels of trade). There has been a sharp rise in China's trade surplus in 2005, which will probably reach \$75 to 100 billion, but this is most likely due to exceptional factors related to de-stocking and speculative trading in 2005, linked to expected revaluation (speculative trading patterns were also visible in 1993 ahead of currency unification).

So why is there so much concern over China's trade trends? Rapid world trade growth is generally wel-

**Table 1**  
**US imports from rest of the world**  
% of total

	2000	2004	"swing"
China	8.2	13.4	+ 5.2
Taiwan	3.3	2.4	- 0.9
Korea	3.3	3.1	- 0.2
Singapore	1.6	1.0	- 0.6
Hong Kong	0.9	0.6	- 0.3
Japan	12.0	8.8	- 3.2

**Table 2**  
**EU-25 imports from rest of the world**  
% of total

	2000	2004	"swing"
China	7.5	12.3	+ 4.8
Taiwan	2.8	2.3	- 0.5
Korea	2.7	2.9	+ 0.2
Singapore	1.7	1.7	0.0
Hong Kong	1.2	1.0	- 0.2
Japan	9.2	7.2	- 2.0
U.S.	20.6	15.3	- 5.3

comed and seen as promoting global GDP growth, trend factor productivity gains and low inflation.

It is myopic to see China's trade boom as a purely negative factor for the US and EU economies: trade with China has brought benefits in terms of lower consumer prices and the potential to increase efficiency and thus raise total factor productivity. We estimate that OECD consumer prices may be some 2 to 3 percent lower now than they would have been had China's exports only grown in-line with the average for world trade since 2000 (e.g. had China not gained WTO entry). While some industries feel pressured by competition, others have gained from increased consumer spending power and from China's need for imports. China has provided a boost to German equipment exports and French luxury goods sales, for example.

In fact, if China's export growth slows, so too will its need for imports. About half of China's imports may be directly linked to export production in the form of raw materials and investment equipment. Even if consumers are stepping up demand for imported goods, consumer products represent a small share of China's total imports and it will take some years for these to become large enough to dominate trade.

This highlights a problem posed by China's pattern of trade. It is not that China exports too much but that its substantial import requirements are not spread evenly across the countries to which it exports, leading to a large bilateral surplus with the U.S. and, less pronounced, with the EU (bilateral trade data are reported in the tables in the data annex). Offsetting these surpluses, China has trade deficits with its Asian trade partners and with its raw material suppliers, notably the oil producers.

The "imbalanced" geographic pattern of China's trade reflects its "imbalanced" trade by product (Table 3). Exports are dominated by consumer

Growth of China's trade benefits the U.S. and the EU

**Table 3**  
Structure of Chinese trade in 2003

	% of exports	% of imports
Raw materials including energy	9.2	20.1
Intermediate goods	12.8	21.5
Equipment	42.9	46.7
Consumer goods	34.9	11.4

Source: WTO.

goods (35 percent of total exports) and electronic and electrical equipment (over 40 percent share), whereas imports are largely raw materials (e.g. oil, iron ore, copper and cotton), intermediate goods and investment equipment with consumer goods only 11 percent of total imports. Trade developments during 2003 to 2004 illustrate this position. Imports of raw materials have risen sharply over the last two years as China is no longer self sufficient, with oil imports up 31 percent in 2003 and 35 percent in 2004 and iron ore imports up 33 percent in 2003 and 40 percent in 2004. This rise in raw material requirements offers little direct benefit to US or EU exporters. In addition, some intermediate goods imports are now seeing import substitution following China's investment boom (e.g. aluminium and steel). Thus the main markets for US and EU exporters are investment equipment (which depends on China sustaining its high rate of investment) and luxury consumer goods (which depend on China maintaining consumer sentiment and wealth creation).

In terms of export growth, gains have been particularly rapid in consumer electronics (with more than 50 percent year-on-year gains in mobile phones and over 30 percent growth in television sales) and in other new markets for Chinese exporters, such as furnishings. Contrary to public imagination, growth in mature sectors such as toys and clothing, where China has been the leading supplier for some time, has been appreciably slow-

Machinery and equipment are an important factor in US and EU exports to and imports from China

**Table 4**  
China's share of world exports

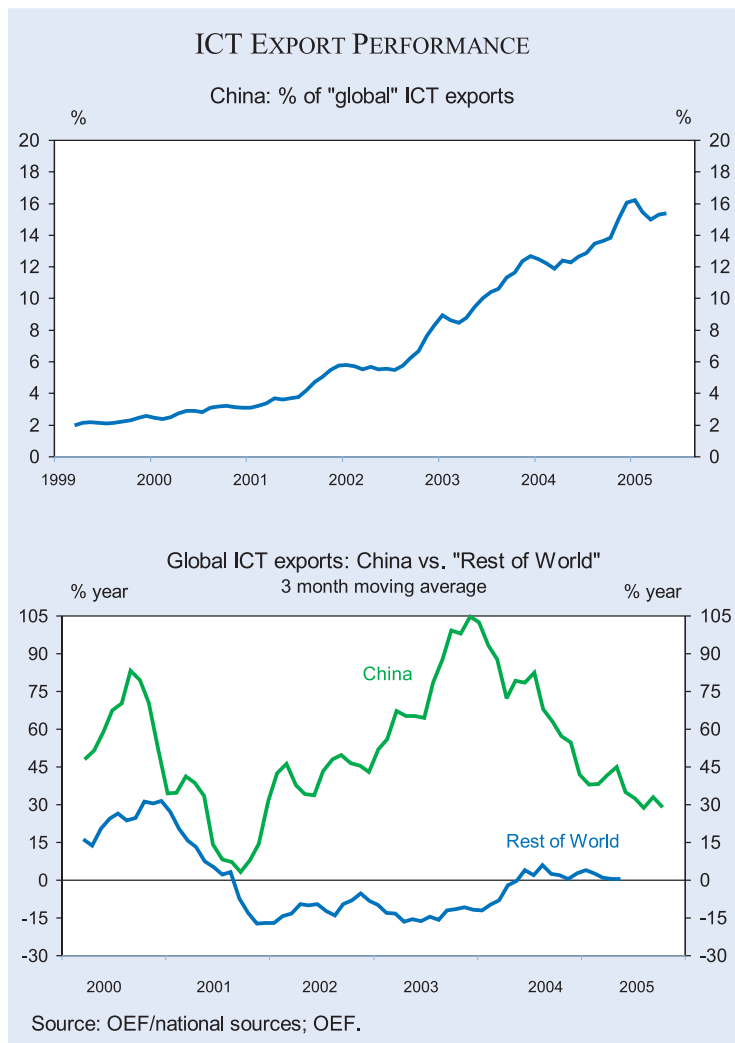
	2000	2002	2003
Agricultural products	3.0	3.2	3.3
Total manufactures	4.7	6.2	7.3
Iron & steel	3.1	2.3	2.7
Chemicals	2.1	2.3	2.5
Office machines & elecoms equipment	4.5	9.0	12.6
Textiles	10.5	13.5	15.9
Clothing	18.3	20.6	23.0
Toys*	70.9		

\* % of US toy imports from China (2000).  
WTO data are based on total world trade including EU internal trade (China's share is larger if estimated excluding EU internal trade).

Sources: WTO, Toy industry association (US).

er. Toy exports are rising at about 7 percent per annum, for example, and clothing sales rose 19 percent in 2004, down from 26 percent in 2003. Although the end of the MFA may have provided a boost to China's clothing exports in 2005, the very

**Figure 4**



substantial growth rates being quoted by the US and EU (as high as 50 percent) refer to specific categories of garment imports: for broad categories of textiles, footwear, accessories etc., China's exports are reported to be up 10 to 20 percent from 2004. Table 4 shows that, according to the WTO, China's share of global clothing exports was 23 percent in 2003, and this probably increased only slightly, to about 25 percent, last year.

Machinery and transport equipment are the goods that really dominate China's sales to its main trade partners – accounting for about 40 percent of US imports from China, 45 percent for the EU and 35 percent for Japan. Indeed, the rapidly rising office and telecoms equipment segment alone accounts for some 20 to 30 percent of all imports. This compares with shares for toys of less than 10 percent and a share for all textiles/clothing/footwear combined of 15 to 20 percent for the U.S. and EU, rising to about 25 percent for Japan. The problem with China's textile exports is clearly less to do with the overall scale of such exports than their impact on already fragile industries and employment in the U.S. and the EU. Notably, there has been little publicity over electronic equipment imports from China although these represent a larger, and faster growing, component of trade with China.

In hi-tech exports (computers and components, semiconductors and telecoms), China's performance has been even stronger. Its share of all ICT sales has climbed from just 3 percent in 2000 to 16 percent in 2005 (to date). These are undoubtedly sectors in which China has raised its share of world markets at the expense of other Asian exporters.

### **Liberalising the exchange rate and capital account is important for China**

While China's exports are the preoccupations of the U.S., the EU and other trade partners, from China's perspective, capital flows are also an important issue. Large swings in capital flows have been seen in recent years in spite of a supposedly closed capital account. Excluding FDI, total annual outflows were probably more than \$50 billion per annum in the late 1990s, whereas inflows may have been as high as \$100 billion over the last year. Fluctuations on this scale suggest volatility would be even greater under a liberalised capital account. However, capital outflows could help to alleviate China's "excess" savings

problem and the threat of banking and investment bubbles this poses.

Although capital inflows have been blamed for stoking up China's credit growth, the main factor behind such growth has been the high rate of domestic savings. The expansion in bank loans of 14 percent in 2004 and 22 percent in 2003 (a total rise in credit of about \$600 billion from the end of 2002 to the end of 2004) was largely "home grown" out of savings inflows into bank deposits. With most savings bottled up in China's banking system, deposit accounts represent about 200 percent of GDP. If 100 to 150 percent of GDP might be considered more "normal", this possibly implies scope for a flow into other forms of savings, including investments abroad, of around one trillion dollars at current rates of GDP, more than equivalent to China's present level of foreign exchange reserves.

Although China's balance of payments position is far from precarious, exaggerated confidence might be inappropriate in the medium term given the potential for:

- Changes in net trade that may curb the trade surplus.
- Swings in the capital account, possibly into a sizeable deficit.

Revaluation of the RMB will most likely encourage both these trends over the next few years. Although we are sceptical about the scale of any change in exports associated with such revaluation, sharp swings in the balance of payments may well occur given the scope for volatility in capital flows. We could find ourselves surprised by the scale and speed of losses. The RMB might then turn around and devalue, an outcome seemingly overlooked by those presently urging China to liberalise.

### **Summary**

Opinion concerning the benefits of China liberalising its exchange rate regime has clearly been dominated by concern over the rapid rise in China's exports over the last few years and the expectation that revaluation might reduce this growth. Export sales have continued to increase at annual rates of around 35 percent, putting China's share of world manufactures trade at nearly 12 percent this year, double the share recorded in 2000 and up from only

Large swings in capital flows and high domestic savings



The U.S.–China bilateral trade deficit is double that of the EU–China deficit

2 percent in 1990 and about 1 percent a decade before that. Shares in US and EU imports have risen at similar rates and are now around 15 percent, commensurate with US and EU shares in each other's trade. Whilst the U.S. has been most vociferous about the rise in the US-China bilateral trade deficit, the EU has also seen mounting demands for protection from industries finding competition tough, especially in the textiles sector. Further revaluation of the renminbi (RMB) would be welcomed by these sectors. Nevertheless, EU retailers are beginning to complain about restrictions placed on low cost imports from China. For consumers, cheaper goods mean greater purchasing power – more disposable income available for discretionary spending on other goods. This reflects the long-term advantages from opening up to trade: enhanced productivity gains

from sector specialisation and lower prices for traded goods. So a stronger Chinese currency may not prove popular with everyone in the economy after all.

#### Annex: Bilateral Trade Data

These tables provide information on bilateral trade for China, the U.S., the EU and their trade partners. Discrepancies in reporting between China and its trade partners are largely (although not solely) due to trade passing through Hong Kong (China reports trade based on Hong Kong as the destination of exports rather than designating exports according to their final destination after passing via Hong Kong).

Chinese trade data (\$ bn)

Versus	exports		imports		trade balance	
	2004	12 mths to May	2004	12 mths to May	2004	12 mths to May
Taiwan	13.5	15.1	64.8	67.0	-51.2	-51.9
Korea	27.8	31.8	62.2	67.1	-34.4	-35.3
ASEAN	42.9	48.9	63.0	66.9	-20.1	-18.0
Russia	9.1	10.2	12.1	13.3	-3.0	-3.2
Saudi Arabia	2.8	3.2	7.5	9.5	-4.7	-6.3
Australia	8.8	9.8	11.6	13.3	-2.7	-3.5
EU	104.6	122.4	69.2	70.7	35.4	51.7
Japan	73.5	79.1	94.2	95.2	-20.7	-16.1
US (China basis)	124.9	140.1	44.7	44.9	80.3	95.2
US + HK (China basis)	225.8	248.9	56.5	57.2	169.3	191.7
Other	84.5	92.8	120.4	130.9	-35.9	-38.1
Total	593.4	662.2	561.4	591.1	32.0	71.1

US trade data (\$ bn)

Versus	exports		imports		trade balance	
	2004	12 mths to May	2004	12 mths to May	2004	12 mths to May
China (US basis)	34.7	35.9	196.7	215.9	-161.9	-180.1
EU	172.6	178.5	282.0	291.7	-109.3	-113.2
Japan	54.2	53.7	129.8	134.0	-75.6	-80.3
Canada	189.9	199.4	256.4	266.9	-66.5	-67.5
Mexico	110.8	114.2	155.9	161.3	-45.1	-47.1
OPEC	22.3	26.4	94.1	105.5	-71.8	-79.0
NIEs	83.6	85.2	105.5	106.1	-21.9	-20.9
of which:						
Hong Kong	15.8	16.2	9.3	9.0	6.5	7.2
Other	139.4	147.0	252.6	274.4	-113.3	-127.4
Total	807.5	840.3	1,472.9	1,555.7	-665.4	-715.4

EU-25 trade with rest of the world (euro bn)

Versus	exports		imports		trade balance	
	2004	12 mths to May	2004	12 mths to May	2004	12 mths to May
U.S.	234.3	236.6	157.7	157.9	76.5	78.7
China	48.1	47.9	127.0	136.8	-78.9	-88.9
Switzerland	75.0	78.2	61.5	62.4	13.5	15.8
Russia	45.7	49.6	80.5	90.6	-34.8	-41.0
Japan	43.2	43.1	73.7	72.4	-30.5	-29.3
Norway	30.8	31.8	56.0	59.2	-25.2	-27.4
Turkey	38.0	38.2	31.0	32.7	7.0	5.5
Canada	22.0	22.1	16.3	16.1	5.7	6.0
Total	968.3	993.7	1,029.6	1,070.9	-61.3	-77.2

## THE CHINESE CHALLENGE TO THE EU25

GABRIELE ROUBAL\*,  
H.-GÜNTHER VIEWEG\*, MARKUS TAUBE

The liberalization of the global textile and clothing markets at the beginning of 2005 has – as expected – led to trade tensions. Soaring imports

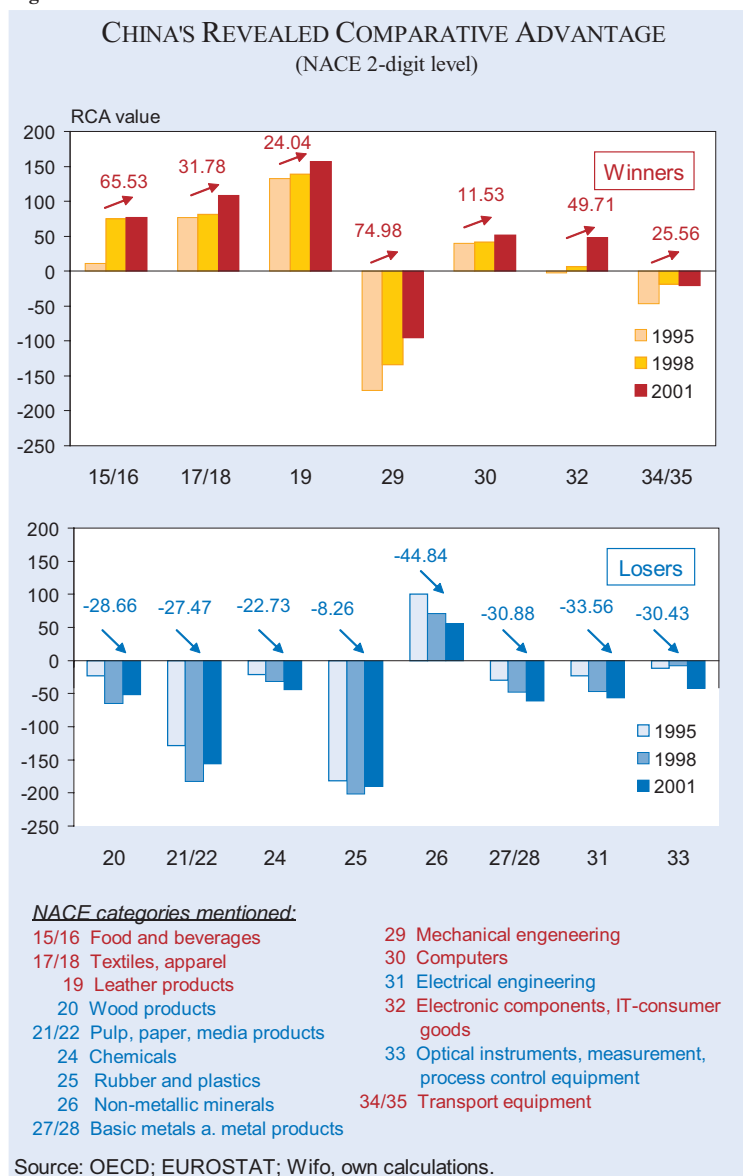
induced the EU to put a brake on Chinese deliveries. But the Chinese challenge is not restricted to low-tech labour-intensive products. As disclosed by a revealed comparative advantage (RCA) analysis, the Chinese position in international trade is improving even in those product categories in which it has been strongly dependent on foreign deliveries until recently, such as machinery and equipment. RCA has remained strongly negative but shows a clear improvement for China, whereas the situation is quite the opposite for the EU15 and the new

Member States.<sup>1</sup> In trade theory, factor endowment is regarded a major explanation of trade flows. In line with this theory, product groups have been clustered according to the most important factors of production, i.e. labour skills, capital and know-how intensity. China's exports to the EU15 are compared with the exports of the new EU Member States and Candidate Countries.<sup>2</sup> The result unveils that China is an important supplier of high-tech products that require highly skilled labour and/or R&D. Their share in total exports to the EU15 is at least as high as that of the new Member States. This implies that the Chinese challenge is not limited to simple products. China has become a competitor of the new EU Member States, as well as a competitor of high-tech-manufacturers in the EU15.



China has become an important supplier of high-tech products

Figure 1

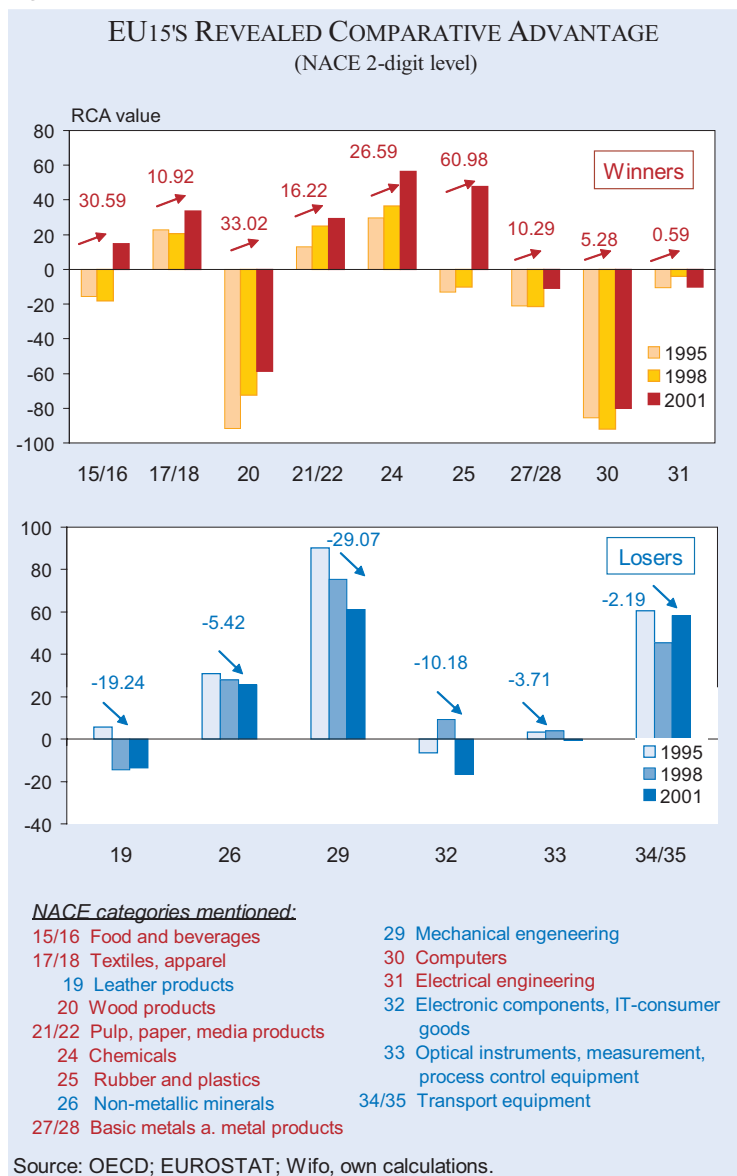


### Upgrading and broadening

At the onset of China's reform era, its foreign trade was determined by the amount of goods

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<sup>1</sup> Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovak Republic, Slovenia.  
<sup>2</sup> Bulgaria, Romania, Turkey.

Figure 2



The Chinese export structure is today based on relative prices

available for export, i.e. exports basically constituted the residual of domestic production and domestic consumption (OECD, 1994). Lacking a price system that would be able to indicate the relative scarcity of a certain good, China's export activities were "blindfolded", resulting in deals that, from the perspective of its Western counterparts, made no economic sense. Although highly profitable for Western traders, they often ran counter to China's actual comparative advantage.<sup>3</sup> Since then China has converted its export structure into one that is determined by a price system based on relative scarcities and thus on the principle of comparative advantage.

<sup>3</sup> See Kamm (1989) for a detailed account of China's foreign trade in this period. As a matter of fact, most companies producing export goods had no contact with their foreign customers or the foreign markets as all international transactions were conducted by foreign trade corporations.

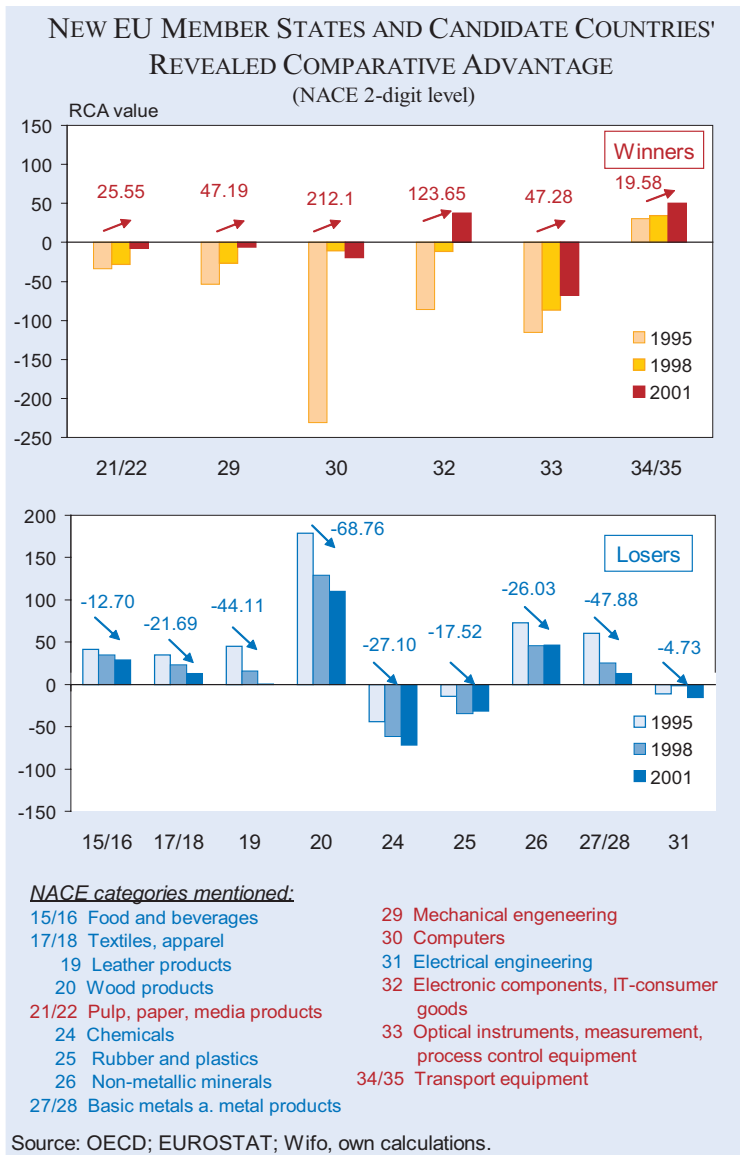
A closer look at the evolution of China's exports reveals that the reform process and rapid economic development have been accompanied by a sizeable shift in China's factor endowment. While resource-intensive, low-tech and labour-intensive products lay at the core of China's export activities during the 1980s, by 1995 China's export structure had already changed quite dramatically.

Today, there are no longer comparative advantages in agricultural and labour-intensive products only, but we find positive RCA values in some medium-tech and more capital-intensive products as well. And even more importantly, there is a tendency for further improvement in industries which supply more complex products, such as those of information and communication technology (ICT). Even in machinery and equipment, in which China has been dependent to a large extent on foreign technology, the former, strongly negative RCA value is showing a tendency towards a less disadvantaged position in international competition. In transport equipment the improvement of the RCA is driven by efficiency-seeking subcontractors to the major brands of the automotive industry.

The big international players such as Delphi, Visteon, Bosch and Continental invest in China not only to meet the domestic demand, but to deliver parts and components to their clients in the United States and Europe (Fig. 1, upper chart).

In contrast, the product groups characterized by the greatest decline in RCA values are first and foremost concentrated in agricultural products (Fig. 1, lower chart). Furthermore, the advantage of China in exports of raw materials and intermediate products is declining. The worsening of the RCA values for pulp and paper as well as coke and refinery products seem to be primarily determined by an increasing demand of the booming Chinese economy, which has exceeded by far the expansion of domestic produc-

Figure 3



tion capacities. But this development has not only been determined by growing final demand but also by the construction of new downstream capacities which permit the country to further process intermediate products and gain a higher share of the overall value added of a final product.

A comparison of the Chinese dynamic development of comparative advantages with the EU15 reveals a certain degree of complementarity. In those areas in which China shows a reduced competitiveness in trade the EU15 gains advantages. One of the few exceptions is in textile and clothing products. The improved situation for European producers in this market has been caused by the strength of high performance products and international well-known brands which benefit from a growing demand of

upper income-class households (Fig. 2, upper chart). On the contrary, there are some losses in areas in which Europe possesses an outstanding position in international markets, such as in the manufacture of transport equipment and machinery. To a certain extent the losses have been induced by increasing international division of labour, with growing imports of low value-added intermediate products and low-end goods (Fig. 2, upper chart).

But not only imports from overseas have caused this development. Another driving force for this slight deterioration of EU15 export performance has been the integration of the new EU Member Countries into EU15 manufacturing networks. Since the mid-1990s these countries have improved their comparative advantage in most areas of the metal industries, in particular in machinery and transport equipment. Among losing industries have been the textile, clothing and leather products industries, branches in which these countries had been strong in the past but which do not possess high enough comparative ad-

vantages to be competitive against Asian low-wage countries (Fig. 3).

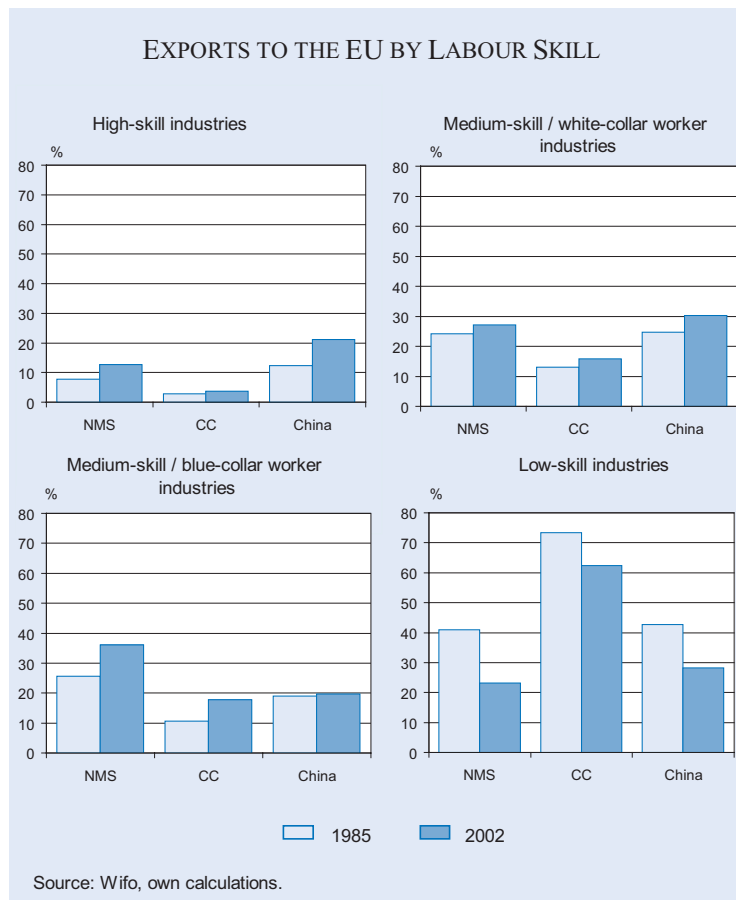
Mature industrialized countries face a challenge from emerging economies which exploit cost advantages, above all in labour. That is why technological progress and investment in human capital are perceived to be important strategies for succeeding in a globalized world.

Figure 4 depicts exports to the EU by quality of labour inputs for 1995 and 2002, respectively.<sup>4</sup> Across all three sub-regions (the New Member States, the Candidate Countries and China) we find

<sup>4</sup> For clustering industries by different characteristics of labour quality and by endowments of factor inputs the WIFO categorization has been applied, see European Competitiveness Report 2003, Appendix 4.A.4.

EU: Not only new competition from China but from the new accession countries

Figure 4



**China: High-skill exports double their share in exports to the EU**

a noteworthy upgrading in the quality of labour input. With respect to China, the share of products which require high-skill labour has grown by 75 percent between 1995 and 2002 to eventually surpass the threshold of 20 percent. Simultaneously, the share of products from low-skill industries fell by fifteen percentage points to less than 30 percent. These developments point at growing competitive pressure for human-capital intensive industries which used to be less exposed to competition from low-wage countries. One such example of growing import penetration in the EU15 by China is information and communication technology. Most ICT products are standardized mass products and traded in global markets.

The new Member States' and Candidate Countries' exports to the EU15 show some significant differences in comparison with China. Although the share of high-skill industries in total exports grew during the period under consideration, it remained much lower than the Chinese shipments to the EU. In 2002, the more advanced new Member Countries reached the 12 percent level which is about half that of China. Industries characterized by a vast employ-

ment of medium-skilled blue-collar workers, however, gained importance and reached a share of more than one third in total new Member Countries' exports to the EU. The more than proportional growth is mainly a result of international FDI engagement in the new Member Countries' automotive industries and the foreign-invested firms' subsequently increased export performance. With respect to high-skill blue-collar work, Chinese exports grew only proportional to overall exports to the EU.

The share of low-skill industries shrank in all exports. It is noteworthy that the Chinese share of low-skill exports is not that much bigger than the New Member Countries' respective shares. The bulk of exports of the three Candidate Countries is in low-skill labour with a share of more than 60 percent. Exports of

textiles and apparel are of outstanding importance in this skill category. Most of these shipments originate in Turkey.

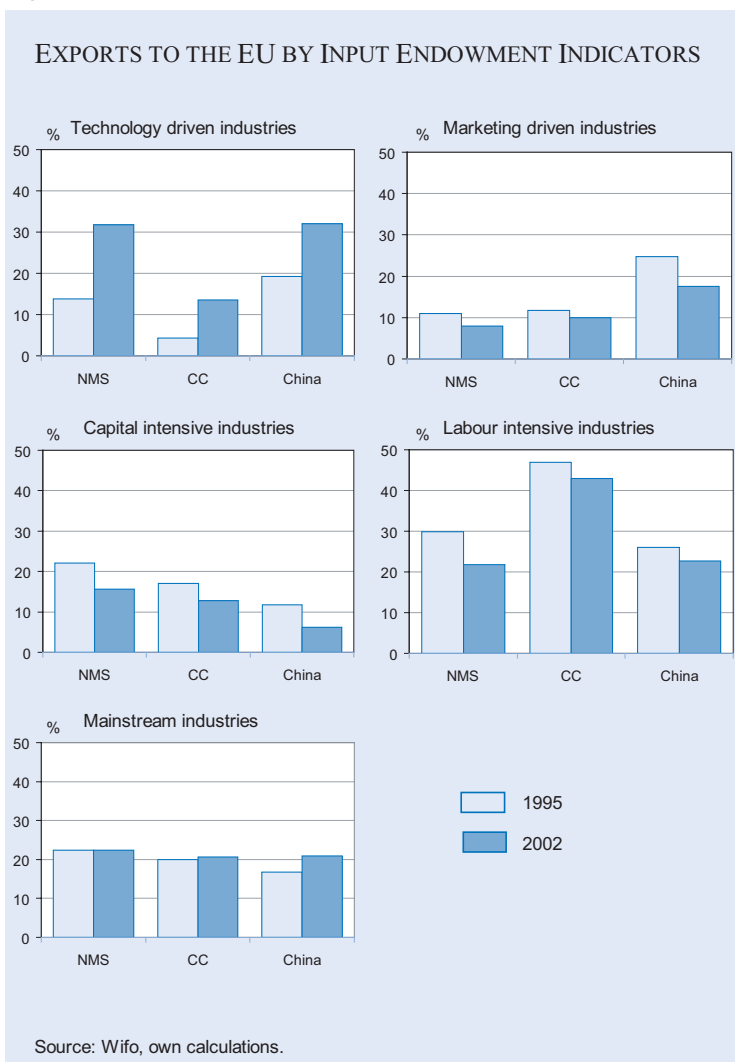
#### Skill upgrade reflected in Chinese exports

Another dimension for the clustering of traded goods addresses main factor endowments. We distinguish, (i) technology-driven products with high efforts in R&D, (ii) capital and (iii) labour intensive manufactured products and (iv) marketing-driven products, mostly consumer goods. With respect to the latter, access to distribution channels and access to final consumers are important features of corporate strategies. A fifth residual group comprises a variety of industries which are not characterized by a specific factor endowment. They are included under the heading of mainstream industries.

Figure 5 shows a remarkable growth of exports by technology-driven sectors. This category comprises computers and telecommunication equipment, as well as life-science products, measurement equipment and transport equipment. It is mainly due to



Figure 5



the latter that the new Member Countries' technology-driven exports to the EU show very dynamic growth. Furthermore, exports of computers and telecommunication equipment by new Member States and Candidate Countries also exhibit strong growth, but the shares are still small as compared to the respective Chinese performance.

Marketing-driven exports have generally lost some of their importance over the period under consideration. This proves true for all three export regions and can be explained by flat consumer demand since the late 1990s. A comparably strong position of Chinese marketing-driven exports is due to articles like games, toys, sporting goods and the like.

Capital-intensive industries are predominantly process industries that primarily manufacture intermediary goods. This category comprises pulp and paper products, man-made fibres, most chemical

products, construction materials and basic metals. These products suffer from the poor growth of European demand and to a certain extent from the relocation of production to overseas locations, especially of textile fibres. Exports of these goods have generally lost some of their importance. Many of the products of capital-intensive industries are commodities like steel and bulk chemicals. Transport costs are of importance and capacities are built close to major clients. This means that international trade is to a large extent driven by regional imbalances which in the long run will be offset by investment in new capacities.

With respect to labour-intensive industries, China and the new Member States have similar shares of around one fourth of total exports to the EU. A slight decline is observable between 1995 and 2002. The most important product group in this category is apparel; other items include handicraft products and labour-intensive assembled machinery and transport equipment.

Technology-driven exports to the EU are increasing their shares

The residual category contains most of the engineering industries and serial products of different materials. Among them are textiles, such as knitted and crocheted articles, the production of which relies on somewhat higher skill requirements and specific technologies. The mainstream industries make up nearly half of the Candidate Countries' exports to the EU. In contrast, the respective shares of the new Member Countries and of China shrank to some 20 percent in 2002.

In summary, China is not only a supplier of industrial goods manufactured with cheap and low-skilled labour. Instead, much of its exports consist of so-called technology-driven high-tech products. Hence, China's highly competitive position in the global market not only arises from its abundant availability of cheap labour, but has also been fostered by a dynamic upgrading of its industrial structures.

Exports belonging to the technology-driven and high-skill category are likely to adversely affect a broad range of highly developed European industries. The Chinese challenge has become much more complex than could be expected just a few years ago.

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## THE GIANT GRADUATES: CHINA'S STRIVE FOR HIGH- TECHNOLOGY

SONJA OPPER\*

While China's tremendous growth performance and catching-up process over the last few decades are undisputed, opinions on the sustainability of its economic growth could not be more diverse. On the one hand, analysts extrapolate the current growth performance and foresee world leadership within the next 20 years; others point to China's lack of innovative capacity and expect the leveling out of the current growth dynamic as soon as China's immense supply of cheap labor is absorbed and the potential for factor-driven growth recedes.

Overall, the debate appears highly politicized and to a large extent emotionalized, as the Western world fears the emergence of a new (authoritarian) economic superpower in the Far-East that will inevitably alter the global industrial landscape and the competitiveness of countries across the world. And while the advanced industrial countries are still struggling with the structural consequences of China's entry into the world market as a major supplier of labor-intensive products such as textiles and shoes, the country has long embarked on a far more ambitious development trajectory aiming for technological leadership.

This paper seeks to complement the ongoing debate by shedding some light on China's technological development path. While a comprehensive analysis of China's technology policy would be well beyond the scope of this contribution, I will compile selected policy priorities that may serve as indicators of China's future development path. For this purpose I will follow the common notion of endogenous growth theory that the creation of new technologies and knowledge is not exogenous, but explainable by

discrete input factors. In particular, my brief analysis will focus on investments in research & development (R&D) (Romer 1986) and the development of the human capital stock (Lucas 1988; Romer 1990) as major determinants of national growth trajectories. The paper will proceed in four sections. The first section gives a brief overview of China's efforts to create a national innovation system; section two focuses on the role of human capital development and section three sheds light on supporting policies. The last section concludes.

### National technology programs

Following its socialist planning tradition, the Chinese government developed a technology policy that basically relies on central planning and resource allocation. Major institutions in charge of formulating the national Science & Technology (S&T) plans are the State Science and Technology Commission and the State Economic and Trade Commission.

Four mutually complementary S&T programs constitute the framework of China's national technology policy. Each of the programs supports a close science-business interface in order to secure innovation activities with good prospects for productivity growth and to maximize the commercialization of R&D output. While the individual programs follow a set of distinct core objectives and usually favor specific tools to enhance technological development, the planning institutions gradually adjust the detailed plan priorities and favored research topics in response to changing overall national development goals.

The "Key Technologies R&D Program", implemented as early as 1982, was designed to support specific key projects within the scope of national priority sectors. The program provides advanced applicable new technologies, materials, techniques, and equipment in order to speed up the national modernization process in key industries. Another goal is the development of a national research elite involved in key technology R&D. A central concern is the research-



Science and technology programs are a focus of policy

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business interface and the support of joint projects between universities, research institutes and enterprises. The core principle of the program is to establish the firm as the major venue of innovative activities. The “Spark Program” was implemented in 1986 to speed up the development and technological upgrading of China’s rural areas. In particular, the program is aimed at the acquisition of S&T inputs by China’s rural, predominantly labor-intensive township-village enterprises (TVEs). Main beneficiaries of the program were the less developed TVEs in China’s inland provinces. “Program 863”, also implemented in 1986, reinforces the role of education and human resource development. A major tool of the program is the funding of international co-operations. Current research priorities include the development of the telecommunication sector, key biological, agricultural and pharmaceutical technologies, research on new materials and advanced manufacturing technologies and the advancement of key technologies for environmental protection, resources and energy development. Finally the “Torch Program”, launched in 1988, focuses on the development and provision of a high quality research infrastructure and a beneficial innovation climate. The program provides facilities, encourages the funding by banks or state-owned enterprises, and develops management skills among technical personnel. Through the clustering of technology-rich enterprises in technology zones, the program seeks to create synergies across key industries. Successful examples of companies that developed under the Torch Program are “Legend Computers” and “Founder” (a producer of typesetting software).

State-guided R&D acquisitions bear the inherent risk of selection problems and collusion, however. The risk of resource misallocation may be even more pronounced in non-democratic regimes that are characterized to a larger extent by objectives of prestige with a strong signaling effect to the international community. In an effort to alleviate the risk of misallocation, the government’s “*Decision on the reform of the science and technology management system*” (1985) called for decentralization and a reduction of government competencies in the choice and selection of research proprieties, breaking the close links between government and R&D facilities, and more intensive competition in the field of R&D policy. The procedure of planned allocation of S&T funds was replaced by public competitions, and the potential for the commercialization of S&T output emerged as a major criterion for funding decisions.

Concurrent with the structural changes within China’s research landscape, the central government has gradually increased the relative role of R&D policies. In 1995, the “*Decision on accelerating scientific and technological progress*” formulated a target value of 1.5 percent of GDP for national S&T expenditures. While China has not yet reached its target, the development of R&D expenditures during the last few years is indeed impressive. Between 1999 and 2003, annual R&D expenditures increased from 0.8 percent to 1.3 percent of GDP, meanwhile surpassing even the average value of the EU-15 countries. The majority of R&D expenditures accrue in the business sector, followed by R&D institutes and universities. In parallel, the proportion of scientists and engineers in the overall S&T population increased significantly from 54 percent to 69 percent between 1999 and 2003 (State Statistical Bureau 2004).

### Human capital development

The crucial role of human capital as a determinant of national growth is undisputed. Countries with a larger supply of human capital tend to grow faster, while too little human capital can have a constraining effect and explain why some of the poorest countries do not grow at all (Romer 1990). Even countries with a large labor force, such as China, will eventually suffer from low growth rates. Particularly the recent growth performance of NICs such as Taiwan, Korea and Singapore, countries of the so-called East Asian miracle, supports the importance of human capital formation within national growth strategies (Nelson and Pack 1999).

The positive growth effects of human capital are generated through diverse mechanisms. First of all, education increases the skill levels of workers and thereby raises productivity. In addition, education improves the adaptability of individuals. Structural changes and reallocation processes towards more efficient usage of scarce resources are facilitated by increasing the individual mobility of workers across sectors and industries. In a more general sense, education enhances the ability to detect and realize new profit opportunities in a highly dynamic business environment. Without high rates of investment in human capital and a sufficient supply of well-trained managers, scientists and engineers, new profit opportunities would easily be missed. This aspect is particularly crucial for transition economies undergoing

High-tech areas need a high quality research infrastructure

major liberalization processes and subsequent structural changes in their economies. Finally, people with higher levels of education will be better equipped to manage the transfer and implementation of advanced technologies, new ideas, modern management techniques, international standards and business practices. In short, national innovation systems focusing purely on the promotion of R&D activities may produce few effects if the stock of human capital remains underdeveloped.

China's leadership has understood the multiple effects of human capital formation and the need for an educated and skilled workforce, having emphasized the role of education – particularly higher education – since the mid-1990s. Overall financing of education increased from 2.8 percent of GDP in 1991 to 5.2 percent in 2002. Government funding equaled 3.3 percent of GDP in 2002, while the remaining educational funds were generated by tuition fees and non-government funding organizations (State Statistical Bureau 2004). In terms of public expenditure on education as a percentage of GDP, China is meanwhile comparable with Singapore and ranks only slightly below Japan and Korea. Institutions of higher education enjoy special attention, receiving 23 percent of government appropriations for education in 2002.

In a national effort to increase the quality of human capital, the major universities provide generous compensation packages to attract faculty from elite Western universities either for long-term positions or visiting and joint appointments. At the same time, the capacities of institutions of higher education have been extended by a large margin. Student enrollment increased from only 0.9 million at the outset of the reforms in 1978 to more than 11 million in 2003. Over the last decade, the number of university graduates has more than doubled, reaching approximately 1.9 million p.a. today. Due to China's centralized system of university entry exams, the structural composition of university graduates is closely aligned with the specific needs of China's economic development. About 35 percent of China's university graduates hold a degree in engineering, 15 percent in business administration and another 9 percent in natural sciences (State Statistical Bureau 2004). This makes China the worldwide biggest producer of engineers (in absolute numbers) along with the United States.

China is also eager to extend international agreements on student exchange in order to benefit from

foreign programs in higher education. In 2003, approximately 120,000 Chinese students were enrolled in universities abroad. To increase the return-rate of students, government institutions offer research positions and funding for returning junior faculty members. The Chinese National Natural Science Foundation (NNSF), for instance, provides research opportunities and resources for junior university faculty and facilitates collaboration with scientists affiliated with the Chinese Academy of Sciences.

Finally, China's development benefits from a widespread hunger for education. Self-learning and evening classes are popular among China's ambitious young professionals, who are eager to move up the career ladder and wish to have a stake in China's economic development. The market for economic publications and translations of Western standard literature in engineering, natural science and economics testifies to the great interest in learning and human capital accumulation. In 2003, the shares of publications in the field of industrial technology and economics were as high as 12 percent and 8 percent, respectively, of China's total book publications, whereas ideological works (Marxist-Leninism and Mao Zedong thought) were down to an all time low of 0.3 percent (State Statistical Bureau 2004). Interviews with entrepreneurs support the general observation that China's urban professional classes pay utmost attention to the role of human capital development as a major determinant of their economic success.

### **A supportive business environment**

While the state may play a crucial role through direct budget appropriations for R&D and the education sector, China's technological catching-up process benefits equally from indirect mechanisms triggered by individual economic actors.

#### *The emergence of a national entrepreneurial class*

The locus of innovation is the firm. That is, without a thriving business sector responding to competitive pressure, national technology programs would eventually have only small effects. China's fiscal decentralization move in the early 1980s appears to be a strong driving force for the creation of a positive business environment. China's policy of fiscal decentralization has constituted a key institutional innova-

A national effort to increase the quality of human capital



tion aimed at strengthening the economic incentives of municipal and provincial governments to support market-oriented economic reform. According to the fiscal revenue-sharing system, lower-level governments have the obligation to submit a fixed proportion of fiscal revenues to their superior government unit, while retaining the rest for their own budgets. Given that tax revenues are positively correlated with firms' performance, bureaucrats have an incentive to do what they can to assure that local firms prosper (Montinola et al. 1995; Li 1998). In addition, many municipalities implement individual incentive schemes to align the interests of bureaucrats with local economic objectives. Hangzhou city, for instance, a municipality in the Yangzi Delta, rewards bureaucrats with a bonus payment equaling 1 percent of the total volume of new investment contracts.

As a result, the local business environment in China improved significantly over the last decade. A thriving private economy with a large proportion of small and medium-size firms has developed, ready to serve as a major engine of innovation and productivity growth. Intensive competition and low entry barriers reinforce the role of innovation. Firms often benefit from close university-business ties. Particularly in China's new high-tech industries, university-business collaboration in R&D and knowledge transfers play a crucial role, with many high-tech start-ups being university spin-off companies. The development of a supportive university-business interface is driven by a close alignment of the individual incentive structures of entrepreneurs and scientists. While entrepreneurs need to develop their innovative performance in order to survive in China's highly competitive market environment, marked by strong competition by international firms and small and medium-size national firms, scientists are often driven by material concerns. Due to the unfavorable wage structure in the institutions of higher education, scientists are eager to start up their own businesses or to work as consultants for the business sector. Consulting honorariums of up to 95 percent of total personal incomes are not exceptional for knowledgeable and ambitious faculty members.

#### *Learning from abroad*

In contrast to Japan's technological catching-up process, which basically relied on the country's national development strength, China's reformers embraced foreign technology to jump-start national economic development. Foreign direct invest-

ment (FDI) emerged as a core element of the national reform agenda from the outset of economic reforms in the late 1970s. FDI was promoted to serve two complementary purposes: First of all, it obviously alleviated China's capital constraint; secondly, the new FDI policies were specifically designed to speed up the country's technological catching-up process through channels such as reverse engineering, skilled labor turnover, and demonstration effects. The establishment of special economic zones with generous tax incentives not only facilitated the inflow of scarce capital, they also served as entry ports for advanced technologies, western-style management techniques and organizational blueprints. The concept of preferential FDI policies quickly spread and the country-wide development of technology parks and development zones facilitated an immense inflow of FDI across the whole country. Meanwhile, China ranks number one worldwide among FDI recipient countries with an FDI inflow of \$115 billion in 2003 (State Statistical Bureau 2004). Not only the volume of capital inflows gives credit to the planners' strategy; in response to specific investment incentive schemes, FDI gradually shifted from labor-intensive technologies towards capital and knowledge intensive technologies, thereby mitigating the country's technological backwardness. Local content regulations guaranteed that national firms benefited from the growing FDI inflow as suppliers of inputs and machinery. More recently, local content regulations have even included R&D activities in order to deepen the technological exchange between multinational corporations and local firms. Multinational corporations are increasingly forced into research co-operations with local research laboratories and university institutes if they want to gain market access. And none of the big multinationals like General Electric, Microsoft, IBM, Motorola or Siemens is willing to miss its chances. The deal is as clear as it could be: The Chinese are trading market access for technology.

Endogenous growth theory supports the idea that FDI may increase the efficiency of potential national innovators through the indirect transfer of knowledge. FDI provides a stimulus for national research activities, as knowledge is never appropriated solely by one firm, but will always create new production and research possibilities for other firms. As Romer (1990) points out: "If an inventor has a patented design for widgets, no one can make or sell widgets without the agreement of the inven-

Firms benefit from close ties with universities

tor. On the other hand, other inventors are free to spend time studying the patent application for the widget and learn knowledge that helps in the design of a widget". This observation describes very well the research approach of many Chinese entrepreneurs, who often rely on reverse engineering and further development of western technology imports. Examples abound: Based on the core technology supplied by its German partner, the refrigerator company Haier became a pioneer in developing high-efficiency, chlorofluorocarbon-free refrigerators. Similarly, design and development centers of China's automobile factories draw heavily on technology imported by their Western joint venture partners. Jinliang Motors, for instance, just recently secured the first export contracts to Europe with their model "Landwind," a hybrid constructed with a Mitsubishi motor and a car body resembling General Motor's "Frontera." The Little Swan Group Company increased its own innovation capacity with an initial technology transfer from Matsushita, the Japanese producer of washing machine components, which served as a catalyst for in-house development of further product innovations (Pech et al. 2005). In support of these cursory observations, Cheung and Ling (2004) offer empirical evidence of positive spillover effects of FDI on innovation in China.

### Taking stock

China's recent technological catching-up process is impressive. A team at the Beijing Genomics Institute was the first to decode the rice genome, national vendors of network switches, Huawei Technologies Co. and ZTE Corp., managed to snatch contracts from the Cisco Systems and Nortel Networks, and China has been successfully launching satellites for years now.

The national production of higher value-added products has increased dramatically during the last few years, though the starting levels were admittedly low (see Table). Exports of China's high technology industries increased from \$13 billion in 1995 to \$110.4 billion in 2003, accounting for about 25 per-

Selected Industrial Products, 1995 to 2003

	Household refrigerators (million)	Air-conditioners (million)	Micro-Computer (million)	Integrated Circuits (billion)
1995	9.18	6.82	0.83	5.52
1996	9.79	7.86	1.39	3.89
1997	10.44	9.74	2.07	2.55
1998	10.60	11.57	2.91	2.63
1999	12.10	13.38	4.05	4.15
2000	12.79	18.27	6.72	5.88
2001	13.51	23.33	8.78	6.36
2002	15.99	31.35	14.63	9.63
2003	22.53	48.21	32.16	14.83

Source: State Statistical Bureau (2004).

cent of total exports and clearly surpassing the high-tech share in Germany's exports of about 18 percent. Patenting also developed dramatically with only about 100,000 patents granted in 1999 and more than 180,000 patents granted in 2003. While direct causal links between technology policies and innovation performance are hard to establish, the evidence supports the conclusion that China's recent moves in innovation and education policies provide fertile grounds for the country's technological catching-up process.

Nonetheless, the country still has far to go to become a high-tech superpower. High-tech production is not yet "Chinese", as Sino-foreign joint ventures contribute more than 50 percent to China's total high-tech exports. But the rapid development over the last few years sends a clear signal that China is striving to be more than the world's biggest socks-and-buttons producer. China, where gun powder, the compass and paper were invented, is steadily moving up the production chain, claiming a growing market share of global high value-added products and preparing to reclaim its past technological supremacy.

Of course, China won't become a technological superpower this year or next. And there are still several risks along the way. Upcoming reforms of the banking and financial sectors will pose critical economic risks that may easily reduce China's short-term growth perspectives. Political stability needs to be secured, and will increasingly depend on the leadership's ability to deal with rising social instability as a consequence of widening income gaps and regional development disparities. But after reviewing China's determined catching-up performance since the end of the Cultural Revolution, who would actually doubt that China will achieve its ambitious goals? Doubts are better founded as to whether the West will be prepared to accept the challenge.

Chinese firms rely on the further development of imported technology

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## CHINA'S GROWING IMPORTANCE FOR GERMAN INVESTMENT

RAINER FREY\*<sup>1</sup>

### China's role in the world

The economic opening-up of China began in the late 1970s, and since the start of the 1990s the country has been an important location for investment and a trading nation on a global scale. China's integration into the world markets resulted in rapid growth of its economy, which, according to official Chinese sources, increased the country's real gross domestic product by an average of 8<sup>1</sup>/<sub>2</sub> percent a year between 1995 and 2004. The process has also resulted in China now being the seventh-largest economy in the world in terms of GDP. Even so, per capita GDP is still relatively low owing to China's enormous population.

Foreign direct investment in China has also grown dramatically. While China, according to IMF figures, had FDI inflows of just slightly more than \$4 billion in 1991, they had almost reached \$30 billion in 1993. More FDI has flowed only into the United States in the past. In 2003, China actually was the most attractive location (apart from Luxembourg) for foreign capital investment, at \$54 billion.<sup>2</sup> In 2003, Hong Kong, at just under \$18 billion, became the largest investor on the Chinese mainland.<sup>3</sup> It was followed, by a wide margin, by Japan and the United States, whose investment was much the same as that of

Europe (China Statistical Yearbook 2004). Regarding trade, China has attained great significance in a relatively short time. For example, China now accounts for almost 6<sup>1</sup>/<sub>2</sub> percent of world trade. There is also a direct link between China's direct investment and Chinese foreign trade: over half of China's exports in 2002 were attributable to the subsidiaries, participating interests and joint ventures of foreign firms (IW 2004).

China's attractiveness as an investment location is due primarily to the favourable production conditions, notably the very low labour costs, and to the enormous size of its domestic market that is in the throes of development and offers a promising future. The high growth rates of China's GDP, which are far above those of most industrial countries, and a population of more than 1 billion people arouse expectations of substantial sales prospects of foreign producers. For that reason China has become a global player in many economic areas even though per capita figures are still very much lower than those of industrial countries.

### German financial transactions with China – an overview

Not only have financial transactions between China and the rest of the world seen dramatic growth; a rapid increase can also be identified in the Sino-German figures in the period from 1990 to 2004 (see Figures 1 and 2). However, most of this increase occurred in the first half of the 1990s, when German financial investment in China rose from just under €230 million (1990) to almost €1.9 billion (1997). German capital exports to China were subsequently curbed by the Asian crisis, which also had a detrimental effect on China indirectly, and by the generally greater reluctance of German investors to go abroad after the burst of the New Economy bubble and the terrorist attacks of 11 September 2001. Nevertheless, since 1990 this investment has amounted to a total of €14 billion, accounting for about 0.5 percent of Germany's aggregate capital exports.



China is attracting more FDI than any other country

\* Deutsche Bundesbank. The paper represents the author's personal opinions and does not necessarily reflect the views of the Bundesbank.

<sup>1</sup> The present study is the updated and enlarged version of a paper done as part of the preparatory work for the article in the June 2005 issue of the Bundesbank's *Monthly Report*, "Germany's external relations with the People's Republic of China."

<sup>2</sup> Although China recorded the largest absolute amount of inward FDI (after Luxembourg) in 2003, in terms of inward FDI as a percentage of GDP it ranks further down the country league table, at just slightly over 35 percent in 2003 (UNCTAD, 2004, p. 13).

<sup>3</sup> However, this money partly belongs to mainland Chinese who first take their money out of the country to bring it back in the form of FDI because FDI is privileged vis-à-vis domestic investment (Aykut and Ratha, 2003, pp. 149–176).

Figure 1

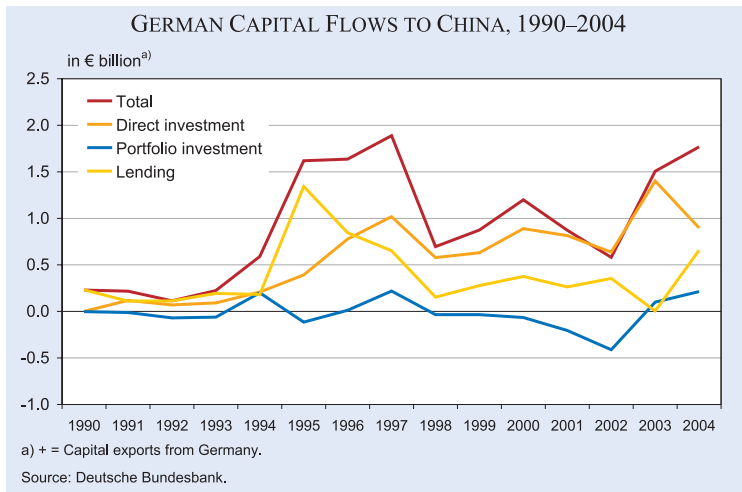


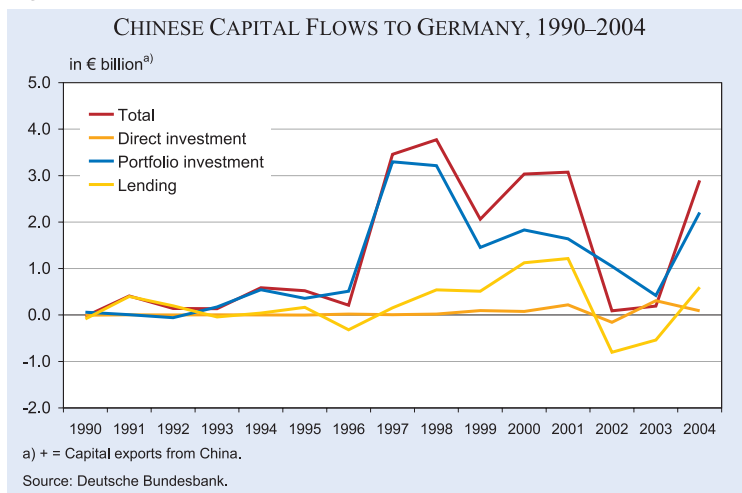
Figure 1 shows the enormous importance which the FDI component of cross-border financial transactions with China has attained during the past few years. Lending to China also played a fairly significant role for a time.

The pattern of Chinese investment in Germany has only a very faint similarity to the picture which emerges on German investment in China (see Figures 1 and 2). It was particularly between 1997 and 2001 and again last year that fairly large amounts of capital flowed from China to Germany. Chinese portfolio investment in Germany was of considerable relevance here<sup>4</sup>, whereas China's interest in direct investment in Germany was negligible.

**German direct investment in China**

In 2003, China attracted the largest amount of foreign direct investment worldwide for the first time.

Figure 2



At \$54 billion, it pushed the United States, the long-term leader among the host countries for FDI, into second place. This means that in only a few years China has become the most important location for foreign direct investment.<sup>5</sup>

In 2004, German direct investment in China amounted to about €1 billion. Given the sharp reduction in German enterprises' direct investment since 1999, the acquisition of participating interests in China over the past

few years has advanced fairly well. It is a reflection of the great expectations which enterprises harbour with respect to China's economic prospects, a sentiment that has certainly also been encouraged by China's accession to the WTO and the associated liberalisation measures taken in many sectors of the economy since late 2001. However, at around 1.5 percent, Germany's share of international direct investment in China in 2004 was fairly small.

China, with a share of just under 1.2 percent at the end of 2003, has also been playing a fairly limited role in terms of Germany's total FDI assets worldwide. By contrast, in terms of the number of people employed by affiliates of German enterprises abroad, China's share at the end of 2003 was 3.6 percent (see Table).

Direct investment in China has been primarily in the form of establishing new enterprises, with most of these being joint ventures with Chinese partners.

While joint ventures were possible as early as one year after

<sup>4</sup> Only direct inflows are captured in the Chinese capital investments in Germany recorded by the balance of payments. It is possible that, additionally, other funds have flowed into Germany through other international financial centres but cannot be attributed to China statistically.

<sup>5</sup> Private equity firms have also become increasingly active in China and have been speculating on rising profits for Chinese enterprises seeking a listing on foreign stock exchanges. In the first half of 2004, for example, the rather risky business deals struck by these equity firms generated capital flows amounting to US\$1.2 billion, equivalent to a five-fold increase year on year. The frequent lack of information about the Chinese enterprises' financial position and about their shareholder relationships does not appear to be a deterrent of any importance. (Handelsblatt, 2004-1).



**Stock of German FDI  
and employment of German firms abroad  
End 2003**

	Foreign direct investment (€ billion)	Employees abroad (thousand)
<b>Total</b>	568.6	4,498
<i>of which</i> <b>Countries in transition</b>	36.1	1,021
<i>of which:</i> <b>China</b>	6.7	160

Source: Deutsche Bundesbank.

China started opening up its economy to the outside world in 1978, foreign companies had to wait until 1987 before they were permitted to establish wholly-owned subsidiaries in China.

Mergers and acquisitions are another form of investment. German firms spent a total of €324 million on completed M&A contracts between 1995 and 2004. By international standards, German firms appear to be quite cautious regarding M&As, given that China recorded inward direct investment amounting to a total of €71.9 billion through M&A transactions during the same period.<sup>6</sup>

A survey conducted by the German Chamber of Industry and Commerce in the spring of 2005 provides an overview of German companies' motives for investing in China. The creation of local production capacity in order to gain a foothold in the market is more important for investment in China than for other German FDI destinations. Cost advantages are also important, although the benefits are much more pronounced in the case of investment in the new EU countries (DIHK 2005).

### Sectoral breakdown of German FDI

German investors' interest in China has been evidenced particularly clearly by the car industry, which accounted for 30.7 percent of all German direct investment in China up to the end of 2003. The manufacturers of electrical machinery and equipment (14.0 percent) as

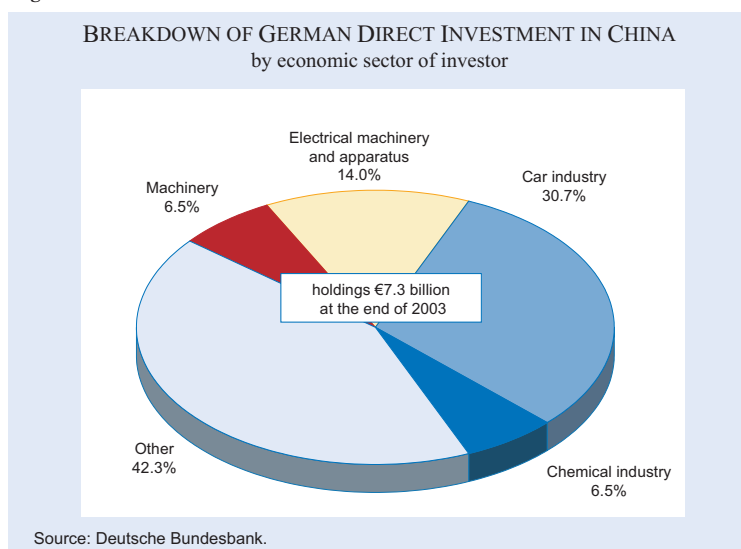
well as the chemical industry (6.5 percent) and the mechanical engineering industry (6.5 percent) also played an important role.

A significant discrepancy can be observed in the sectoral mix if Germany's direct investment in China is compared with its total outward investment. Just under 60 percent of Germany's investment in China is attributable to the car industry, electrical machinery and apparatus, the chemical industry and mechanical engineering, whereas the share of these sectors in total German outward investment is just under one-quarter. By contrast, direct investment by German financial intermediaries in China has been negligible (2.0 percent). The discrepancy in the relative importance of the various sectors in China and elsewhere for German investors is only partly due to the specific economic conditions in China. What appears to be more important is the fact that investment in China has been subject to considerable legislative and regulatory hurdles and to some extent still is. This is one of the main reasons for the relatively low level of FDI in China's services sector. However, the implications of China's accession to the World Trade Organisation (WTO) on 11 December 2001, especially for the services sector, have been considerable (UNCTAD 2004, p. 55). Among other things, China had to liberalise the services sector, especially banking and financial services, telecommunications, logistics and distribution, transport as well as wholesale and retail trades.<sup>7</sup> For this reason it

Most German FDI in China has gone to the car industry

<sup>7</sup> Since December 2004, it has been possible for insurance companies in China, in which foreigners have stake, to sell not only life insurance but also group policies as well as health insurance (Börsen-Zeitung 2004-1).

**Figure 3**



<sup>6</sup> According to M&A data from Thomson Financial.

is likely that the sectoral breakdown of foreign investment in China will undergo a marked change in the future.<sup>8</sup>

The sectoral breakdown shows a close interrelationship between German direct investment in China and German exports to China. According to Bundesbank data, exports of German machinery and equipment and of German cars, for example, accounted for more than half of all German merchandise exports to China in 2004. What is more, the percentage of German machinery and equipment exported to China was much greater than in Germany's total exports worldwide. Chemical products accounted for 7.4 percent of the deliveries of German goods to China.

### German portfolio investment in China has been negligible so far

German portfolio investment in China amounted to €214 million net in 2004 compared with total German portfolio investment abroad of just under €103 billion net. This means that China accounted for no more than 0.2 percent. However, these figures may be an insufficient reflection of China's significance for German portfolio investment as there are foreign quotations of Chinese shares, and, following the official listing of China Life Insurance Company Ltd. with an issue volume of about €3.5 billion in December 2003, a further seven Chinese enterprises were listed on the New York Stock Exchange up to October 2004. The original idea had been to list 40 companies on this US stock exchange during this period (Asia Times Online 2004). The London Stock Exchange and Euronext also announced that they were interested in a second listing of Chinese groups (Financial Times Deutschland 2004-1).

China's stock markets have still not attained any great significance for foreign investors. This is due primarily to the highly restricted investment opportunities for foreigners. Under Chinese law, since February

1992 foreigners can only acquire "B shares" traded in US dollars and Hong Kong dollars directly on the stock exchanges in Shanghai and Shenzhen (China Daily 2002). Sometimes these stocks are not very liquid, with the result that investors have to bear an increased risk. By contrast, the "A shares" quoted in Chinese currency are likely to be of greater interest to foreign investors (emagazine Credit-Suisse 2004). In principle, these cannot be purchased directly by foreign investors, but a group of "qualified foreign institutional investors", as they are called, have had a licence since mid-2003, which allows them to buy limited amounts of A shares. These institutions, in turn, offer products that are based on the A shares. By mid-October 2004, 22 foreign overseas institutions had acquired the right to hold these shares with a value equivalent to about \$2.8 billion (Asia Times Online 2004). There are plans to repeal all restrictions governing foreign investors' activities on the A share market. In the meantime, however, the quota for foreign investors is to be more than doubled (Neue Zürcher Zeitung 2005). It is also planned to merge the A share and B share markets (China & World Economy, 2004). However, the inadequate regulations governing the Chinese stock exchange floors, where foreigners can buy and sell, are another reason why cross-border dealing in Chinese shares has not got properly off the ground. For a long time, the standards on the Chinese stock exchanges were far below those in the industrial countries (and in some emerging markets). It was not until the autumn of last year that stricter requirements, which had long been standard international practice, were added to the framework of rules governing the Chinese exchanges and applied to listed companies.<sup>9</sup> The fact that more than half of the shares of officially listed Chinese enterprises are not freely tradable and that the enterprises are frequently controlled by the Chinese government does not add to the attractiveness of these firms for foreign investors either (Liu 2005). However, as announced by the China Securities and Regulatory Commission on 24 August 2005, the freely tradable shares of 1300 companies will gradually be increased by \$270 billion (Bloomberg 2005).

However, amendments to the laws and regulations governing the activities of Chinese companies abroad are also in preparation. A "Qualified domestic institutional investors" scheme similar to the

<sup>8</sup> A shift in the sectoral mix of German investment in China is already taking place. Deutsche Bank, for example, was allowed in the final quarter of 2004 to buy and sell shares on the stock exchange in Shanghai and Shenzhen, an activity which had hitherto been exclusively in Chinese hands. Furthermore, in October 2002 Allianz, the insurer, was the first international enterprise, along with its Chinese partner, to receive a licence for fund management (WirtschaftsWoche 2004). However, investing in the highly regulated Chinese insurance market has not yet proven to be a goldmine for foreign investors. No international insurer has acquired through its joint venture a market share of more than 0.2 percent in China, and profitability seems to be the exception rather than the rule (Börsen-Zeitung 2004-1). In addition, Deutsche Post sees great potential in China and wants to quadruple the number of branches (Frankfurter Allgemeine Zeitung 2004).

<sup>9</sup> "There is a saying in China: If you want to have a punt in this traditionally gambling-crazy country, you have two options – either head for Macao, the former Portuguese colony that is the only place on the mainland where gambling is legal, or invest in the stock market" (Asia Times Online 2004).

The composition of German FDI in China closely resembles that of its exports to China

“Qualified foreign institutional investors” scheme is also planned. However, its implementation has been repeatedly delayed as there have been fears that liquidity would be withdrawn from the Chinese market and that prices on the country's capital markets would come under further pressure. Then in an initial move in the middle of September 2004, the Chinese government announced it was prepared to allow Chinese insurance companies to invest abroad (Asia Times Online 2004). This measure is also seen as a means of promoting the convertibility of the Chinese currency (China Daily 2004).

There have also been rapid developments on the Chinese bond markets since the policy of opening up the Chinese economy to the outside world was set in motion in the late 1970s. However, the spread of corporate bonds has remained far behind that of government paper, and the promotion of corporate bonds was included in the tenth five-year plan (2001-05). As expected, the role played by bonds is not yet as great in China as it is in industrial countries. The value of bonds in China reached about 29 percent of GDP in 2002 whereas the corresponding ratio for the United States was 143 percent and for the European Union no less than 82 percent. The market for financial derivatives is also underdeveloped in China (China Daily 2003).

The People's Republic of China, in a bid to increase the attractiveness of its government bonds for European investors, announced on 12 October 2004 the issue of a ten-year euro bond with a volume of more than €1 billion, its largest euro-denominated issue to date (Börsen-Zeitung 2004-2). In order to meet the increasing need for information on the Chinese bond markets, Lehman and Xinhua established the Xinhua Lehman Bond Index last year. The index captures 136 fixed-interest securities with a market value of CNY 1.8 trillion (equivalent to about €170 billion) and was backdated to 1 January 2004 (Die Welt 2004).

These developments show that a great deal is happening in China's securities markets, too. In the longer term, this could also have positive implications for China's cross-border portfolio investment.

### Future developments

China's economic attractiveness is due to several factors. Low labour costs are the first of these.

Though they have already started to rise on the coast in particular, in the medium term they will presumably remain far below the level prevailing in industrial countries, with the result that China's importance as a manufacturing location for labour-intensive products will continue to be substantial. At the same time, Chinese firms now appear to be gaining a foothold in the high-tech sector.<sup>10</sup> China's role as an export market will also become more important in future<sup>11</sup>, and its position among the world's most important economies will be strengthened. Owing to its large population, even modest increases in per capita income would result in more significant changes in the purchasing power of the entire country than they would in other economies. The International Monetary Fund estimates that China can expect an 8.5 percent GDP growth this year and 8.0 percent next year. The conditions that China has already met in connection with its accession to the WTO and the further improvement in its underlying framework, once the remaining reforms have been completed, could provide additional stimuli to economic growth.

Further advances in China's economic role, especially for Germany, can be expected not only in absolute terms but, increasingly, also relative to the other foreign locations for German FDI, the reason being that not even 10 percent of direct investment in China since 1997 has originated in Europe, Germany being Europe's leading investor (IW 2004).

Despite all the optimism about China's future growth, however, the risks which investing in China entail and which have become more apparent recently should not be overlooked. Thus, a growing equity bubble in China is giving cause for concern. The Chinese government is taking restrictive measures in an attempt to prevent the economy from overheating.<sup>12</sup> The measures taken so far to curb output are already resulting in reductions in demand in some sectors. Particularly the restrictions in lending to households in conjunction with increasing traffic problems, especially in the conurbations, have led to

German portfolio investment in China may be understated

<sup>10</sup> At all events, this is the opinion of Heinrich von Pierer, chairman of the supervisory board of Siemens AG (Asian-Pacific Committee of German Business 2004).

<sup>11</sup> Bernd Pischetsrieder, chairman of the board of directors of Volkswagen AG, is also convinced of the great potential of the Chinese market: “In zehn Jahren wird china wohl der größte Markt der Welt sein [in ten years China will likely be the largest market in the world]”. (Financial Times Deutschland 2004).

<sup>12</sup> The Chinese authorities are walking a tightrope. They are trying, on the one hand, to prevent the economy from overheating and, on the other, to avoid a hard landing, and this set of circumstances could be fraught with social and political tension owing to the large number of additional labour coming on to the labour market (Neue Zürcher Zeitung 2004-1).

a significant decrease in car manufacturers' sales on the Chinese market. The German car industry has also been affected by this slump in demand. However, in other sectors, too, notably mobile telephones and real estate, there appears to be overcapacity (Handelsblatt, 2004-2).

Electricity supply is fraught with additional imponderables, and environmental pollution is gradually becoming a topic of discussion. Generally speaking, improvements in the infrastructure, which have to keep pace with the rapid rate of economic growth, pose an enormous challenge for the Chinese government. The institutional framework is also unsatisfactory in some respects, notably the legal uncertainties that still exist in certain areas and the lack of market transparency. Although legally acquired private property has enjoyed protection since the constitutional reform in the spring of 2003, judiciary independence is not yet fully guaranteed. The lower courts are still materially dependent on local governments (Neue Zürcher Zeitung 2004-2).

Despite high GDP growth in China, the risks of investing there are high

### Summary

China has boasted high growth rates, and its future economic potential appears considerable. In view of the Chinese government's policy of opening the country up to the outside world, many promising opportunities have been emerging for foreign investors despite all the remaining imponderables. With regard to Germany's financial transactions with China, the country will assume greater importance, especially as a destination for German foreign direct investment. Although German FDI in China has already grown considerably, notably in the 1990s, its importance relative to FDI flows to other countries is still comparatively low. Loans, primarily trade credits, also play a fairly important role from Germany's point of view. Conversely, Chinese investor interest has so far concentrated on German bonds, although lending, too, has led to net capital inflows from China over the past few years. Considerable reform is still needed in portfolio investment, mainly because, after decades of a socially planned economy, the capital markets are still underdeveloped and the Chinese currency is not yet convertible, although on 21 July 2005 the peg of the currency was switched from the US dollar to a basket consisting primarily of the US dollar, the euro, the yen and the Korean won as well as several other currencies.

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## PROPOSALS FOR A TAX REFORM IN GERMANY

### IN FAVOUR OF A FLAT TAX<sup>1</sup>

PAUL KIRCHHOF\*

The present German tax system suffers from an excess of steering elements, exceptions and privileges. Hundreds of special elements in the income and corporation taxes make the tax payer believe that he is privileged and causes him to defend this preference and to attain additional privileges. The politicians reaped applause for these gifts and hope to get more applause still. Nobody seems to realize that one taxpayer's privilege must be paid for by another, that the abolition of all privileges would make all taxpayers better off.

If the legislative were able to get rid of all exceptions and privileges in the tax statutes and to return the thus increased tax revenue to the general public by reducing the tax rates, a general top tax rate of 25 percent would suffice. In addition, there is a triple gain in freedoms: the taxpayer's economic behaviour remains unencumbered by tax law paternalism, a reduction in tax rates allows him to keep more of his earned income, and tax simplification permits him to understand the system and to escape the present uncertainty in planning and provision.

If seven types of income are substituted with just one type of profitable use of an income base, the equality of the tax burden is guaranteed from the start. If there is no longer a distinction between labour income and capital income, there is no longer the risk that capital income is subject to lower taxation and labour income to higher taxation. We should also no longer distinguish between a personal income tax and a corporation tax, especially between the taxation of unincorporated and incorporated businesses, because the choice of the legal

form of organisation does not justify differences in taxation. Profits taxed at the level of the legal person, regardless of whether this is a partnership or a corporation, that are passed on to the owners or shareholders are income that has already been taxed or wealth and therefore not subject to personal income taxation. This would be a boom for the German capital markets.

The current tax law with its complexity and inconsistencies impairs the freedom of people to thrive economically and thus proves to be a disadvantage for Germany as a business location. If, however, the tax burden were distributed equally across all taxpayers (with lower marginal tax rates of 0 percent, 15 percent and 20 percent for the lower income brackets), the taxpayers could enjoy their freedom much more fully: decisions on investment, organisation, supply would no longer be distorted; the tax law would remain decision neutral. Above all, the inescapable, therefore measured tax burden would guarantee that at least 75 percent of each income could be utilised privately and up to 25 percent would flow into the general government budget. This would increase the work incentive of the income recipient and at the same time guarantee the participation of the general public in this individual's earnings success.



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## FOR A DUAL INCOME TAX<sup>1</sup>

WOLFGANG WIEGARD\*

German income taxes and business taxes are complicated, in an international comparison they are too high, at least regarding business, and they distort investment and financing decisions and the choice of the form of business organisation. The major purpose of a tax reform is, therefore, tax reduction, especially for internationally mobile capital income as well as the introduction of a decision neutral and thus at the same time simple tax system. Toward this end, the corporation tax must be integrated into income taxation; great importance in this context must be assigned to cross-border investment. Tax reform proposals which fail to include corporation taxes or treat them only in passing, miss the essential problems of taxation.

If a synthetic income tax is to be retained, and there are convincing reasons to do so, a flat tax, i.e. a schedule with a uniform (marginal) tax rate, combined with a comprehensive tax base and relatively high exemptions, would best serve the need for a great tax reform. In order to make Germany an attractive tax for location decisions, the rate of a flat tax should not exceed 30 percent; even better would be a uniform rate of 25 percent. It is likely that the value added tax would have to be raised simultaneously in order to limit revenue losses. I am convinced, however, that the political powers will not be able to force themselves to enact such a courageous tax reform within the next few years. On the other hand, there is the unmistakable need for action; tax competition is getting increasingly fierce.

A pragmatic compromise suggests itself in the form of a dual income tax, patterned on that introduced in Norway, Sweden and Finland in the early 1990s. A dual income tax subjects labour income and comprehensively defined capital income to different tax

rates. Labour income would be subject to a progressive income tax, with a top marginal rate of 35 percent. Capital income would include profits of proprietorships and personal ownership firms, dividends, interest, rents as well as private capital gains; it would be subject to a flat tax of 25 percent. Taxing corporate profits at the same rate would fully integrate the corporate income tax in the tax on capital income. The dual income tax is primarily attractive under efficiency points of view. The “Achilles heel” of the dual income tax consists in the delineation of labour income in the form of imputed entrepreneurial salaries and capital income in personal ownership firms.

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## FISCAL POLICY AND FISCAL RULES IN THE EUROPEAN UNION\*

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### Introduction

In his revolutionary work, the godfather of modern fiscal policy, Lord Maynard Keynes, gave a central role to discretion in fiscal policy. Thus, in some ways, he, and even more his followers, who probably pushed his ideas beyond where he would have liked, gave policymakers what many of them had always wanted: a justification for spending more or, in particular cases, for reducing taxes without cutting public spending. A correct or effective discretionary fiscal policy is difficult to pursue because it requires information and attitudes that are often in short supply. When countries try to fine-tune their fiscal policy, they often end up making mistakes. This paper will focus on those difficulties within the European context. It will discuss problems that have not received the attention that they deserve.<sup>1</sup>

Since it was first proposed, and then endorsed by the Keynesians, with a revolutionary fervor that at times paralleled that of true religious believers, counter-cyclical fiscal policy has been subjected to occasional criticism. Three major lines of criticism can be distinguished.

First, there is the existence of various lags. It was noticed from the beginning that there are likely to be lags in: (a) the recognition that fiscal action is needed; (b) in the taking of the action; and (c) in the time that passes between when the action is taken and when the economy begins to feel its effects. These lags reduce the effectiveness of counter-cyclical policy. This criticism was frequently heard in the 1950s and the early 1960s but, although it is certainly valid and important, it seems to have largely disappeared from recent writings. A good discussion of the early criticism can be found in Stein (1969).

The existence of lags may help explain why empirical studies of fiscal policy often find it to be pro-cyclical rather than counter-cyclical. See for example, OECD (2004) and IMF (2004). It may be worthwhile to cite the IMF study: “Discretionary fiscal policies in Euro area countries over the past three decades have generally been pro-cyclical – that is, [they have been] expansionary in good times, contractionary in bad times – thereby undermining the role of automatic stabilizers.” (p.111). This was a concern of those who stressed the significance of these lags. For other groups of countries, fiscal policy has also been found to be pro-cyclical. For example, a study of 104 countries found that “fiscal policy is pro-cyclical (i.e. government spending increases in good times and falls in bad times ...);” see Kaminsky, Reinhart and Vegh (mimeo, September 2004). The citation is from the abstract to the paper. Gavin and Perotti (1997) found pro-cyclical fiscal policies for Latin American countries and Talvi and Vegh (2000) found pro-cyclical fiscal policy for the whole developing world.

Thus, the problem of pro-cyclicality seems to be common rather than the exception. However, that problem has not been related, in recent writings, to the existence of these lags. It has not reduced the policymakers’ and economists’ enthusiasm for fiscal discretion and for counter-cyclical fiscal policy. This enthusiasm is largely at the base of the attacks against the Maastricht rules, which are accused of impeding such a policy.

Second, there is the criticism associated with the so-called Ricardian equivalence. This criticism was often heard in the late 1970s and in the 1980s after Robert Barro reformulated and publicized a theory (first advanced by Ricardo) that had been well known in the Italian literature on public finance for a very long time; (see Barro, 1974). This theory assumes that individuals react to government deficits and public debt by increasing their own savings in anticipation of higher future taxes to repay the debt. By so doing, they may neutralize fully, or at least to some extent, the potential effect on the economy of the fiscal policy action.

There has been considerable controversy about the extent of this presumed reaction or compensation on the part of individuals. Some, including Vilfredo Pareto almost a century ago, have been skeptical that individuals have the foresight to anticipate future tax increases. However, while many econo-

\* Forthcoming in *Europe after Enlargement*, edited by Anders Aslund and Marek Dabrowski (Cambridge University Press).

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<sup>1</sup> Some of the issues discussed in this paper have been dealt with in some detail, for the Italian context, in Tanzi (mimeo, 2005).

mists have rejected the notion of a *full* compensation, many would agree that there is some compensation. This is more likely to happen now, when the information about the existence of fiscal deficits and public debts is more generally available, than in Ricardo's times. A recent analysis, conducted by the OECD, has concluded that in OECD countries, "The evidence of partial, yet substantial, direct offsetting movements in private saving is strong. The aggregate initial offset is about half in the short term ... rising to around 70 percent in the long run;" see OECD (2004), p. 143.

The third line of criticism can be based on the observation that it is easier to find countries whose economies have grown faster *after fiscal contractions than after fiscal expansions*. It is, in fact, hard to find specific countries where a counter-cyclical fiscal policy led to a fast recovery from a cyclical downturn. Some would point to the United States after 2001, when record expansionary measures were taken by the Bush administration that, in the view of some observers and claims from the Bush administration, pulled the country out of the downturn. However, in 1993, the country came out of an even steeper downturn while contractionary fiscal measures were being taken, and the expansion of the 1990s became one of the longest in U.S. history. Furthermore, in 2001 to 2002, the Fed took extraordinary measures by reducing interest rates to historically low levels. Work by Giavazzi and Pagano (1996), followed by works by Alesina and Ardagna (1998), Schuknecht and Tanzi (2005) and others, have shown that fiscal contractions can be expansionary for a variety of reasons, but mainly because they reduce the worries about future fiscal developments, thus helping change the psychology of economic agents and investors. "Animal spirits" are certainly influenced by the psychological attitudes of individuals.

I would like to add one additional difficulty encountered in the pursuit of counter-cyclical fiscal policies. It is a difficulty, or criticism, based on public choice considerations. An implicit and fundamental assumption of countercyclical fiscal policy is that taxes and public spending can be changed with the same facility *in both directions*. Thus, there is no bias in the application of Keynesian policies. However, in reality, there is often asymmetry in the use of fiscal instruments, because it is generally far easier, politically, for governments to cut taxes and raise spending, than to do the reverse. This asymmetry tends to lead to structural fiscal deficits and to high debts

even in normal periods, as the European experience indicates; see Tanzi (2004).

The above criticisms should have reduced the enthusiasm of many for the possibility of using countercyclical policy in the real world. But apparently they have not. The enthusiasm for discretionary fiscal policy remains strong. In this paper, I will not elaborate on the above criticisms. Rather, I will deal with issues that, though important, have received far less attention, perhaps because they require a kind of insider's knowledge not easily available to many economists who write papers on fiscal policy. These are issues of particular importance for European countries and especially for the application of the Stability and Growth Pact.

The rest of the paper is organized as follows. Section II describes the process by which fiscal rules have become progressively more relaxed over the years. They have lost their bite. Section III discusses problems of a practical nature that arise in the real life implementation of counter-cyclical fiscal policy. Section IV discusses briefly fiscal policy in the European Union. Finally, Section V summarizes the arguments and draws some conclusions.

### The progressive relaxation of fiscal rules

As a consequence of the Keynesian "revolution," fiscal rules that had traditionally guided fiscal actions were dismissed as archaic or reflecting the views of "dead economists." The proponents of the Keynesian revolution were very critical, especially in the formative years of the 1950s and 1960s, when the "revolution" was in full swing, vis-à-vis these rules and vis-à-vis policymakers who still abided by them. For example, in 1958, James Tobin would state that, "[o]rthodox fiscal doctrines have ... dominated our policies ... and ... have brought the nation to the brink of catastrophe ... (Tobin, 1966, p. 57).

The "orthodox fiscal doctrines," alluded to by Tobin, that had guided fiscal policy, at least since Cicero's time, were the "balanced budget rule" and the belief that the level of public spending and of taxes should be as low as possible. These doctrines collided with the Keynesian view that the public sector should be larger and the budget did not need to be in balance.<sup>2</sup>

<sup>2</sup> Citing again Tobin, "increased taxation is the price of growth" (ibid, p. 87); and citing Galbraith, the "conventional wisdom of balanced budgets ... [has become obsolete]." Galbraith (1958, p.18).

Of course it had always been recognized that when exceptional events occurred, such as wars, major catastrophes, major public works and so on, the balanced budget rule could be broken and was broken. Over the centuries, these events had occasionally led to (temporary) tax increases and to debt accumulation. But, once normal times returned, the governments were expected to fully repay the debts they had accumulated by running fiscal surpluses, to reduce the exceptional spending and taxes, and, as soon as feasible, to return to the balanced budget rule. This “tax smoothing” was consistent with a rule that required zero debt and balanced accounts in normal times.

Keynes added the business cycle to the reasons that justify violation of the balanced budget rule. It should be noted, however, that he was writing during the Great Depression, an event that surely qualified as exceptional.<sup>3</sup> The Keynesians added the *normal* business cycle (as distinguished from a depression) to the list of events that required the abandonment of the balanced budget rule. More recently, the policymakers who met in Brussels in March 2005 and modified the Maastricht arrangements on fiscal policy added, implicitly, a slowdown in economic growth (which is different from a cycle) to the list of events that can justify the abandonment of fiscal rules.<sup>4</sup>

Some policymakers have been arguing for special treatment, in the fiscal accounts, for a whole range of categories of public spending (public investment, R&D, defense, contributions to the EU, expenditures for structural reforms) or even for reductions in public revenue due to tax cuts. They have argued that these expenditure increases or revenue reductions would justify larger fiscal imbalances. In their view, the measure of the fiscal deficit that should determine whether a country is in compliance with the general Maastricht rules should be corrected to reflect these fiscal actions. Thus, we have been witnessing a progressive slackening of the discipline that used to guide the policymakers in charge of fiscal policy. We seem to have gone from a straitjacket to one that may approach complete laxity. According to this thinking, the relevant gauge for assessing fiscal policy must be adjusted for the effect

of the cycle *and* for that of particular expenditures or even particular tax cuts.

The recent relaxation of the Maastricht rules is an almost natural extension of the relaxation of the balanced budget rule that started with the Keynesian revolution. In the early 1960s, a sophisticated version of the Keynesian counter-cyclical fiscal policy introduced the theoretically important distinction between *actual* revenue and expenditure and their *cyclically adjusted* counterparts; see *The Economic Report of the [U.S.] President* of 1962. According to this version, the *actual* budgetary outcomes could be compared with the *counterfactual* or *virtual* budgetary outcomes that would have occurred if the economy had been at its “potential.” The differences between these variables would indicate whether current fiscal policy provided the needed stimulus or whether it was “deflationary” or “expansionary.” It would thus signal whether some restrictive or stimulative policy action was needed. The theory assumed that potential income was a variable that could be estimated objectively (even though it existed only in its virtual form) and that its future growth could be forecast. One could project with some confidence, using past trends, how potential income would evolve in future years and use this projection for determining the needed discretionary fiscal action.<sup>5</sup>

A fiscal policy judged to be sound required a balance between the cyclically adjusted revenue and the cyclically adjusted public expenditure. In other words, *it required a balanced budget rule applied to (unobservable) virtual variables.*<sup>6</sup> If these cyclically adjusted variables were not in balance, policy action was required. This policy could be used to stimulate the economy or to slow it down.<sup>7</sup> If cyclically adjusted revenue exceeded cyclically adjusted expenditure, fiscal policy would justify more spending or less taxation. If the reverse were true, fiscal action would promote less spending or higher taxes. A cyclically adjusted budget that was balanced would, thus, be consistent with an (actual) fiscal deficit in a recession (when “potential” income fell below actual income) and a fiscal surplus during a boom (when actual income exceeded “potential” income).

<sup>3</sup> During the Great Depression, 25 percent of the American labor force was unemployed. GDP fell from \$97 billion in 1930 to \$58 billion in 1933. Between 1930 and 1941, when the United States entered the war, the fiscal deficit of the US government fluctuated between a surplus of 0.8 percent of GDP in 1930 to a deficit of 5.9 percent of GDP in 1934. For other years, it was generally around 4 percent of GDP.

<sup>4</sup> In this case, the rule that would be compromised would be the one that constrains the deficit to three percent of actual domestic product.

<sup>5</sup> At that time, American economists believed that business cycles were well behaved. There were courses on business cycles in universities and these courses explained the average length of cycles and their average amplitude. Also, productivity growth was assumed to be largely a constant.

<sup>6</sup> That is, it required fiscal balance at potential income.

<sup>7</sup> By the way, the role of monetary policy in this context was always vague.



Built-in stabilizers would make the response of fiscal variables to the cycle more accentuated. They would create larger surpluses in boom time and larger deficits in recession and help reduce the amplitude of the cycles. There was a push in the 1960s to make income taxes more progressive and the taxes on corporations more important because these taxes reacted more to fluctuations in income helping to stabilize the economy. The sensitivity of the tax system to changes in income was a variable that received much attention in the 1960s and 1970s; see for example Tanzi (1969) and Tanzi and Hart (1972). Flat rate taxes and low taxes on enterprises now in fashion, especially in the new market economies of Europe, would reduce the built-in stabilizing properties of the fiscal variables and require larger discretionary actions during business cycles.

A “cyclically-neutral” fiscal policy, applied faithfully and correctly, would produce *a zero fiscal deficit over the cycle and, thus, would not lead to long-term debt accumulation*. The debt accumulated during a recession should be repaid during the upswing. However, with rare exceptions (Luxembourg, Norway, Estonia), countries have ended up with large public debts, even in periods when no major wars, depressions, catastrophes, or big pushes in public works have occurred. This is evidence, if one were necessary, that more constraining fiscal rules are needed. Large public debts divert valuable tax resources toward the servicing of the debt and make it more difficult for countries to have their fiscal accounts in balance. There is some empirical evidence that interest payments on public debts reduce public investment; see Tanzi and Chalk (2000).

Some European countries’ authorities have, on the one hand, argued that the high public debt makes it difficult for the country to have good fiscal accounts. On the other hand, they have supported the push towards more fiscal relaxation that could easily lead to the further accumulation of public debt. Furthermore, when public debt is towards foreigners, the cost of servicing it becomes higher and the potential danger associated with it also grows. For economies that had been centrally planned, the public debt is often foreign debt, because they do not have developed domestic financial markets. For these countries, the sustainable public debt is likely to be lower than in more advanced countries with more developed financial institutions; see Coricelli (2005).

### Pitfalls in the implementation of discretionary policy

Surprisingly, while the *theory* of counter-cyclical fiscal policy has received a lot of attention over the years, and is routinely taught in economics courses, its *implementation* has received very little attention. The view must be that what is true in theory must be correct and feasible in practice. Or, alternatively, it is possible that those who teach the theory are not fully aware of the many difficulties faced in its implementation.<sup>8</sup> In the rest of this paper, I will focus on the practical implementation of the theory. I have little difficulties with the theory itself. In a perfect world, I would want to follow it. But then a perfect world would not have economic fluctuations.

Cyclically adjusted fiscal policy compares *actual* variables (revenue, expenditure, fiscal deficits and even public debt) with *counterfactual* variables, that is with variables that are not observed and that must, somehow, be estimated as if they existed. This is far more difficult than is assumed. In this process, mistakes tend to creep in, and they may not always be honest or random errors. Furthermore, even the measurement of *actual* current fiscal variables has proven to be difficult, as Eurostat, now, and the IMF, over many years, have found out.<sup>9</sup> Thus, it is easy to imagine the difficulties that exist in estimating *counterfactual* variables. The issues discussed below are complex. They would deserve a more extensive treatment. But I hope to convey a sense of the difficulties. I will discuss first the *technical* requirements for adopting a counter-cyclical fiscal policy and then focus briefly on *political* difficulties.

Consider first the technical requirements:

First, a counter-cyclical policy requires the estimates of “potential” income for the *current* and relevant *future* periods. How far is the actual income from the potential income? The theoretical literature assumes that the question can be answered easily. Unfortunately, this is not the case. Business cycles are not well behaved and it is difficult or impossible to determine whether current changes in the growth of income reflect the effect of a genuine business cycle or a change in trend caused by structural obstacles. A

<sup>8</sup> Once again, I am ignoring here the difficulties connected with lags that did receive attention. I am also ignoring the theoretical criticism associated with the so-called Ricardian equivalence. This criticism dominated the economic literature in the 1980s, but it seems to have almost disappeared from recent discussions.

<sup>9</sup> Eurostat has recently made embarrassingly large revisions to the deficit estimates for some countries (Greece, Italy) for past years. The IMF has often discovered that the deficits reported for some countries were substantially wrong.



good example of this difficulty is provided by Japan. A decade or so ago, when the Japanese economy slowed down, the IMF and the OECD mistook the change in that country's income for a cyclical slowdown, rather than a change in trend. Thus, these organizations strongly and vocally recommended expansionary fiscal policies to inject additional demand. After some hesitations, the Japanese endorsed the recommendation. The result has been that a country that in the early 1990s had by far the best fiscal accounts among OECD countries now has the worst, with a public debt that is 170 percent of GDP and a gaping fiscal deficit that gives no sign of shrinking. This sharp deterioration in the fiscal accounts (a) did not produce any positive effects on the real economy and (b) is likely to constitute a major obstacle to the future growth of that economy.<sup>10</sup> Are we confident that the recent slowdown in several European countries, and especially in the large ones, is part of a cycle and not the beginning of a new slower growth trend? And are we confident that a relaxation of the Maastricht constraints will stimulate growth and not repeat the Japanese mistake?

Second, the pursuit of a correct counter-cyclical policy requires that the effect of the cycle on the fiscal accounts can be isolated from the effect of discretionary changes on the revenue and the expenditure sides of the budget. Most economists do not appreciate how difficult it is to isolate changes in fiscal variables *due to discretionary measures* (including those of an administrative character) from those *due to the cycle*. In many countries, this separation is impossible to make, but it is still reported. In many countries, discretionary changes, either of a policy type or, more often, of an administrative type, take place *all the time*. Especially tax administrations are very active and their activities can have significant effects on tax revenue.

This is an area where the US experience has influenced thinking. In the United States, until recent years, and especially on the tax side, there were few if any discretionary changes in most years. Only infrequent tax reforms introduced such changes. The Internal Revenue Service is required to administer the taxes in a consistent way. The policy changes come at discrete times and are highly advertised. Thus, cyclical adjustments that might have had some

justification when applied to the United States have been applied to countries with very different situations. In the footnote to the table that reports the output gap relative to potential GDP, the European Commission cautions that, "Output gaps are often non-observable concepts and can be measured in different ways. *Analysis based on them should be treated with prudence.*" The IMF warns that, "Estimates of the output gap and of the structural balance are subject to significant margins of uncertainty."<sup>11</sup> Unfortunately, they do not seem to be treated with "prudence", and the "significant margins of uncertainty" are ignored.

Third, the pursuit of a correct counter-cyclical policy requires the availability of well-established and robust quantitative relationships between public revenue or public spending, on one side, and national income, on the other. These relationships must have been estimated for long periods of time by netting out the effects of discretionary actions, which, as already stated, is often almost impossible to do. These relationships have proven unstable in various situations, as for example in the later years of the Clinton administrations when the profits from the "new economy" distorted tax revenues. Recently, they have also proven unstable in the UK and Germany. Therefore, past relationships may be poor predictors of future relationships *even in the absence of discretionary changes*. When these estimates of past relationships are based on only a few years, as it must be the case for new members of the European Union, they would be particularly suspect.

Finally, the pursuit of counter-cyclical fiscal policy requires a precise determination of where a country is at a given moment. What is its true current fiscal situation?<sup>12</sup> Unfortunately, as strange as it may sound, definitive, objective measures of current revenue, spending, fiscal deficit, and even income are often not available. There are practical or even conceptual difficulties in providing these measures and *ex post* changes in the measures are common and at times embarrassingly large.

Estimates of the fiscal deficit were traditionally based on *cash* payments to and from the government. These are the easiest to calculate when all the flows can be controlled. That is when there are no extra budgetary flows. However, they lend them-

<sup>10</sup> Also, the emphasis on the fiscal expansion and the pressure on the Japanese coming from the international organizations and from the G-7 countries distracted the Japanese authorities from the major obstacles to growth that were structural in nature. The statements of the G-7 always emphasized the need for a fiscal expansion over the need for structural reforms.

<sup>11</sup> See IMF (September 2004, p. 188).

<sup>12</sup> The fact that this question is now being asked almost daily in countries such as the United States, Italy, Germany and so on indicates that the question is not rhetorical.

selves to maneuvers aimed at making the deficits look smaller for given periods, and at times do not cover the whole public sector, but only a part of it. Partly for the first of these reasons and partly because “accrual” concepts are supposed to better reflect the time when the measures have an impact on the real economy, statisticians tend to prefer measures based on accrual concepts. Eurostat has favored accrual measures. These, however, are not easy to determine and often can only be determined with considerable lags.<sup>13</sup> Also, there remain several grey areas in the Eurostat methodology that create debates and invite interpretation on the part of the countries’ experts.<sup>14</sup> A consequence has been that large “revisions” to the estimates are often made years after the data have been provided by the governments. In particular cases (Greece and Italy), these revisions have amounted to several percentage points of GDP. Unfortunately, the revisions are in one direction. They all raise the size of the fiscal deficit suggesting that the errors may not have been purely random. Because of political pressures, the incentives for the national experts have been to interpret the Eurostat rules in ways that tend to reduce the size of the fiscal deficits.

A related point is that in some cases, as in Italy, there have been uncomfortably wide differences between the cash measure of the fiscal deficit and the accrual or, better, Eurostat measure. Furthermore, there have been differences even between supposedly conceptually identical definitions, but measured by different institutions. This raises two questions: First, which measure of the deficit is the correct one? Second, which is the one relevant for the pursuit of a counter-cyclical policy? When one measure gives a deficit of, say, two percent of GDP and another a deficit of, say, four or five percent of GDP, which measure should drive counter-cyclical fiscal policy? Unfortunately, these questions have been largely ignored by economists, even though they are fundamental to the conduct of counter-cyclical policy.

Consider now the political requirements of an effective counter-cyclical policy. Political cycles must not be present; elections must not influence the fiscal decisions of governments; there must be no incentive to present biased data; and there must not be any incentive to manipulate the data through “financial engineering” or through once-for-all (*una tantum*)

measures. Unfortunately, tax amnesties; sales of public assets; creation (*à la Enron*) of extra budgetary accounts to which some debt is shifted; the assumption of contingent liabilities on the part of the government not shown in the accounts; attempts to push some institutions outside of the budget; postponement of some payments, as for example tax refunds, to creditors; anticipation of some future revenue, for example by pressuring some enterprises in which the government has a controlling interest to anticipate the distribution of dividends; and so on, are only too frequent occurrences, as various papers and the events of some countries have shown; see Koen and den Noord (2005); and Brixi (2005). “Financial engineering” has come to strongly influence fiscal policy. In the ministries of finance of some countries, “financial engineers” have replaced, in influence at least, traditional fiscal experts. Their role is to “package” the financial accounts to make them look better than they are. Unfortunately, some policymakers seem to be more interested in making the accounts look good than at genuinely improving them. At times, they lose the ability to distinguish the genuine accounts from the “packaged” ones.

Add to all of this the view, now popular with some policymakers, that fiscal deficits are good for growth (and not just to help a country get out of a *temporary* recession) and it is easy to see the potential problems encountered when a broadly defined “balanced budget rule” is abandoned. The problems mentioned above become greater when flexibility is introduced in a rule that already allows fiscal deficits of three percent of GDP and public debts of 60 percent or more of GDP. It would be better if the rule required a zero fiscal deficit and a zero public debt *as the normal objective* recognizing that this objective could not be achieved every year or immediately by countries that started their membership in the European Union by being far from it. The flexibility should be in the speed of transition toward a zero deficit and a near zero public debt and not *vis-à-vis* much less ambitious goals. When a three percent deficit and a 60 percent debt, as proportions of GDP, are allowed, these tend to become the minimum, as it has happened recently.

### Fiscal policy in the EU

The abandonment of a strict interpretation of the whole package of Maastricht rules (excessive deficit provision and procedure plus the Stability and

<sup>13</sup> This, for example, is the case of health expenditure in Italy.

<sup>14</sup> The Eurostat methodology is still partly dependent on cash flows and thus it is not purely accrual.

Growth Pact proper) signals a worrisome trend. A few years from now we may be lamenting the recent decisions by the Council of Ministers. But, by that time, other ministers would be on the scene and would suffer the consequences of the March 2005 decision taken by their predecessors.

The pre-Maastricht period was fiscally friendly. There were no wars, no major catastrophes, and no major depressions in EU countries. There was yet no fiscally unfriendly aging of the population and no, or little, negative impact on tax revenue coming from tax competition and globalization. The economic competition from lower spending and lower taxing countries (China, India, Mexico, other countries from South East Asia) was still very limited. Therefore, in this fiscally friendly, pre-Maastricht period, one would have expected healthy fiscal outcomes for European countries. One statistic is sufficient to convey a sense of fiscal developments in that period. For the 12 EU countries combined, the share of public debt in GDP rose from 31 percent in 1977 to 75.4 percent in 1997! This was a phenomenal change that took place in a fiscally friendly period.<sup>15</sup> With all its faults and possible tricks, Maastricht brought that growth to a temporary stop. Before Maastricht, some among the 12 EU countries were risking to go the Argentine way. The growth in public debt seems to have started again and from a much higher level. Such growth, combined with, or promoted by, higher interest rates, could create a truly worrisome debt dynamic.

The bad experiences of many countries with fiscal outcomes, both within and outside Europe, have brought back some interest in fiscal rules. Many different rules have been proposed and some have been introduced into the laws or the constitutions of some countries, including the Netherlands and Poland. But these rules remain controversial because they go against the political and short-run interests of policymakers, who worry about the next elections, and against the entrenched intellectual beliefs of many economists, who have spent too little time in the real world and too many in the Keynesian world. In some way, as Milton Friedman once remarked, at some point, we all became Keynesians. This often means that, when we come to fiscal policy, we pay little attention to structural impediments to growth and we put our faith in an active fiscal policy.

<sup>15</sup> In the three largest countries of the EU, the debt share of GDP rose as follows: from 26.8 to 61.0 percent in Germany; from 20.1 to 59.3 percent in France; and from 56.4 to 120.2 percent in Italy.

Unfortunately, this policy is often implemented from a position in which the fiscal accounts are already in difficulty and they are already sending worrisome signals to the public. At this point, counter-cyclical fiscal policy is not likely to do much good because whatever stimulative effect it may have on consumers is balanced by the negative effects on investors and economic agents that originate from and accompany deteriorating fiscal accounts. When, for example, a government wants to stimulate an economy by spending more or taxing less, but the message that economic agents receive daily is that the discretionary action will make precarious fiscal accounts even more precarious, why should we expect a positive impact from the fiscal action?

The introduction of fiscal rules runs, of course, into the problem of different initial positions. Two countries that have very different fiscal situations cannot be expected, overnight, to move to identical fiscal outcomes. This was, especially, the situation on the public debt in 1997 because of the high debts of Italy, Belgium and Greece. It may be the situation on the fiscal deficit today for Poland, Hungary and some other countries, which start with higher fiscal deficits. Thus, flexibility is required *as to the time needed to conform to the rule*, but the rule should not be relaxed to the point of making sinning more acceptable for everyone.

### Concluding remarks

Theories may experience cycles just as economies do. They may be popular at some point in time, then lose their popularity to regain it once again. This seems to have happened to counter-cyclical fiscal policy. The theory became popular in the 1950s and especially in the 1960s. It started to lose some popularity in the 1970s, because of stagflation and the various intellectual attacks on it that came with the Ricardian equivalence, with rational expectation theories, with the implication of the permanent income hypothesis, with technologically based real business cycles, and so on. By the 1980s, that theory seemed to be under retreat. More recently, however, it has made a comeback especially, but not only, at the political level. Political figures have used it to justify more spending, or even cutting taxes, on the grounds that these actions would stimulate growth. In part, the attacks against the Stability and Growth Pact have been justified largely on Keynesian grounds.

The new popularity of this theory is puzzling mainly because it is difficult to find countries where it has clearly worked. In fact, it is easier to find countries where fiscal *consolidation* seems to have promoted healthier economic performance. Fiscal consolidation may reduce worries and concerns about the future and may stimulate economic decisions that promote growth. However, the promotion of fiscal stimuli, through increases in public spending or cuts in taxes, in situations when the fiscal accounts are already in a precarious state (with high public debts and large fiscal deficits), is likely to produce negative reactions from investors and the public in general. This is especially the case in a world where fiscal policy is continually discussed in the media so that the worries of experts become general worries.

This paper has discussed some of these issues. However, the main focus of the paper has been to show that the pursuit of counter-cyclical fiscal policy is, on technical or practical grounds, much more difficult than it is normally assumed, even by economists. Often, the needed information is not available and the variables often used (potential income, structural balance, fiscal reaction functions, etc.) depend on assumptions that are often wrong.

Counter-cyclical fiscal policy should *not* be abandoned in depressions and it could be tried in milder slowdowns when the fiscal accounts of a country are in good initial conditions (deficit close to balance, debt close to zero). However, there are strong doubts on whether it should be tried by countries that have their fiscal accounts already in precarious conditions. In the view of this writer, fiscal accounts with public debts of 60 percent of GDP and fiscal deficits at three percent of GDP are in a precarious stage.

The implications of this conclusion for the Stability and Growth Pact are obvious. But the problem remains of how to introduce more conservative fiscal rules in a situation where the initial conditions are widely divergent and the political decision is to encourage countries to join a monetary union and not wait until their accounts are under control. The paper has concluded that the countries should be given more time to converge rather than relax the long-term standards, as it was done in the March meeting of European ministers. But of course, how to do this needs a lot more thinking.

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## ELASTICITY ASYMMETRY IN THE UNITED STATES

The huge US trade deficit has many reasons. The one most often cited is that US consumers are spendthrifts in general and that a lot of their spending goes for imports. But that is not the whole explanation, as there are two sides to a trade balance. For a trade deficit to be sustained, US consumers must spend more of their income on buying imports than foreigners are spending on US exports. In fact, even if the US economy were growing at the same rate as the rest of the world, the US trade deficit would widen as US consumers suck in relatively more imports. This is known as the Houthakker-Magee Asymmetry<sup>1</sup>: US income elasticity for imports is greater than the foreign income elasticity for US exports.

A recent article by the OECD (2004) spells out four explanations for the asymmetry:

- **Demographics:** Younger populations tend to consume a relatively higher proportion of imports, and fewer domestic services like health care, while immigrants tend to maintain their tastes for products from home.
- **Supply factors:** There is a tendency for countries with higher growth rates to produce a larger variety and quality of goods for export, which in turn increases the foreign demand for those countries' products. This supply effect is sufficiently important that it may account for around half the estimated income elasticities of US import demand.
- **Production relocation and vertical integration** as well as improvements in global and regional market access.
- **The composition of US trade:** There is evidence that the elasticity asymmetry is present only for trade in goods and reverses for trade in services. The implication is that the U.S. has a greater comparative advantage in services than in goods.



Can anything be done? Two main channels for narrowing or reversing the elasticity asymmetry suggest themselves. The first would involve an expansion of services exports. This could happen by further liberalisation of trade in services, for as investment in new economy services deepens globally, the export performance of services within US trade would rise. The second would involve continued strong productivity growth in the United States, accompanied by a pick-up in the variety and quality of goods and services for export.

There are a number of risks, however. First, a further liberalisation of trade in new economy services may be hampered by protectionist pressures. Second, deeper integration of new economy services may enable US trading partners to produce a greater variety and quality of goods for export. This could directly offset the assumed supply-side improvement in US export performance.

H.C.S.

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<sup>1</sup> After Houthakker and Magee (1969) – the first to document the trend.



## NORWAY AND THE EU – IT IS EXPENSIVE TO BE A NON-MEMBER

Norway is a member of the European Economic Area EEA, but not of the European Union (EU). This means that it pays a lot of money to Brussels every year without having any say on internal market policies. Not a good deal.

The election of Jens Stoltenberg as the new prime minister from the social democratic camp may move Norway a bit closer to the EU. But he knows only too well that any application for membership must be preceded by a clear “yes” of the population – which said “no” in 1972 and 1994. The Norwegians are in no hurry to join the EU; after all, as a member of the EEA they have full access to the Internal Market. The free movement of goods does not include agricultural

products, however. This should have angered the Norsemen recently when the EU imposed anti-dumping tariffs on Norwegian Salmon with the argument that it was being sold in the EU below cost.

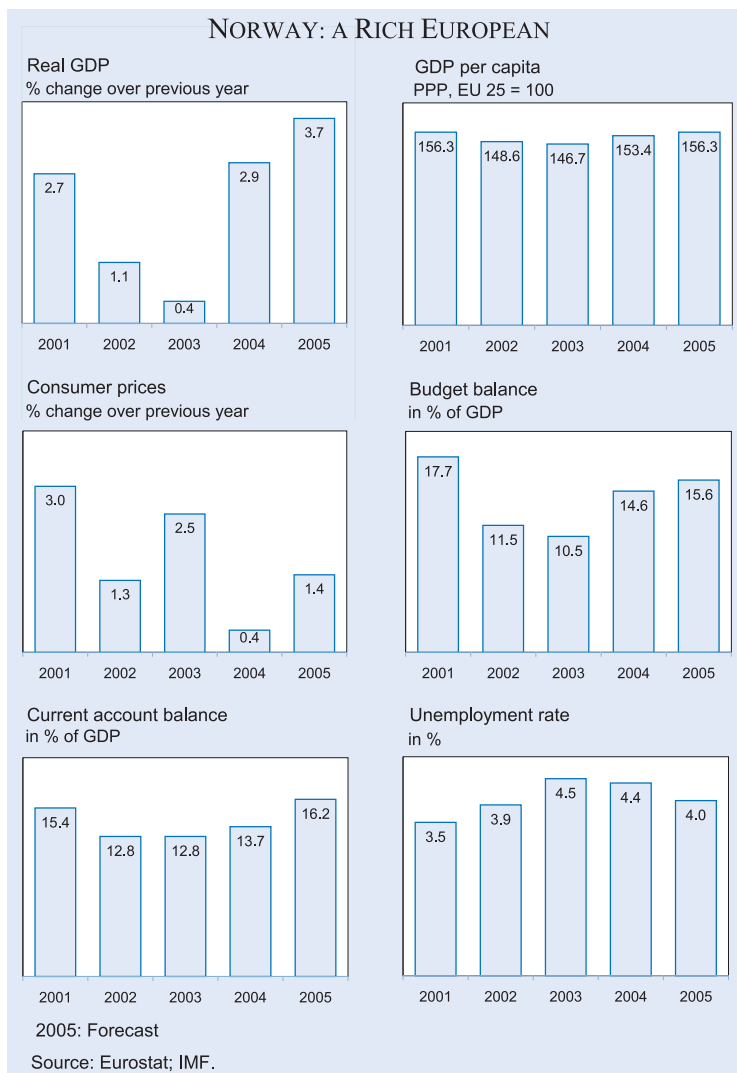
Furthermore, membership in the EEA is very expensive: Since 2004, Norway has had to pay close to 227 million euros annually to the EU, about ten times the past amount. This money is primarily to help the new EU accession countries to move up, economically and socially, to the old EU members. Despite this generous participation in EU politics, Oslo must accept the decisions on the Internal Market and implement them in national law. Only by becoming an EU member could the country have a voice in EU decision-making.

The EU, on the other hand, would greatly welcome Norway in its midst, since the country is economically and financially strong (see the charts). In 2004, the Norwegian economy grew by 2.9 percent, and thus

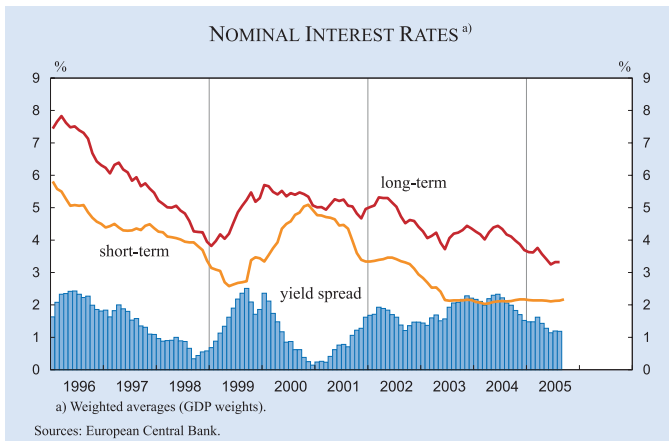
above the EU average. And income per capita (at PPP) was 53 percent above the EU average, thanks to oil and gas production. Oil and gas production is also responsible for a budget surplus of 15.6 percent of GDP and a current account surplus of 16.2 percent of GDP. Who would not want to open his doors to such a rich neighbour?

Norway is the third biggest exporter of petroleum after Saudi Arabia and Russia. Oil and gas production contributes one fifth to GDP. Earnings from oil and gas have been feeding a petroleum fund since the 1990s. At the end of April 2005, the accumulated assets amounted to close to 135 billion euros – about 65 percent of Norwegian GDP. Only 4 percent of the assets per year (approximately equal to the interest earned) is allowed to go into the budget. The bulk serves as a reserve for the time when oil will no longer be so plentiful.

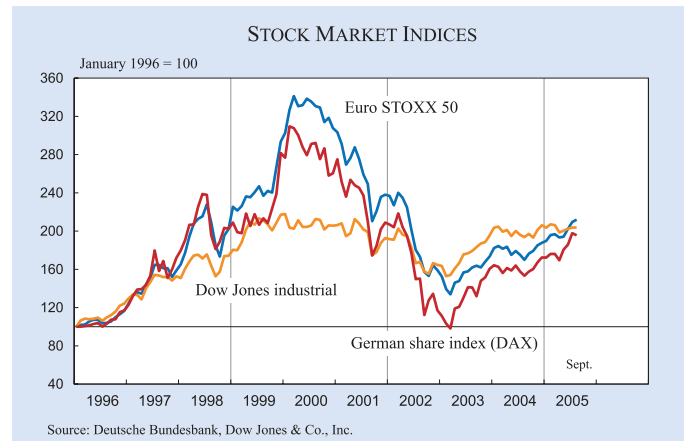
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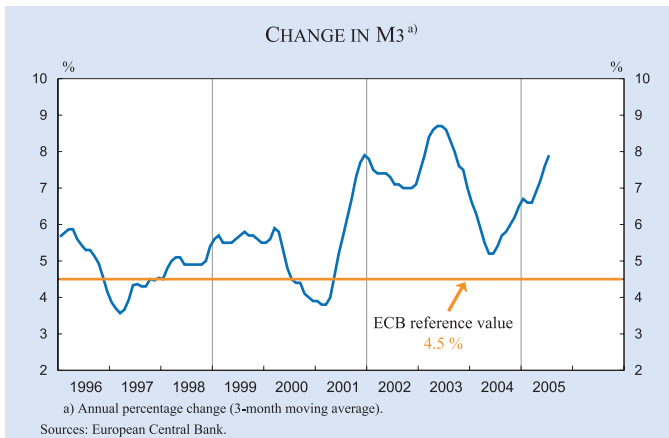
## FINANCIAL CONDITIONS IN THE EURO AREA



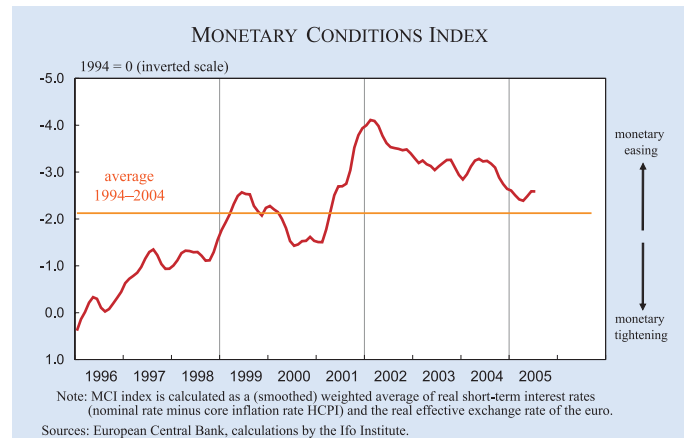
In the euro area, the key interest rate remained unchanged at 2%. This is reflected in the 3-month money market rate that has averaged 2.14% since January and stood at 2.13% in July and August. Ten-year bond yields have also stayed at 3.32% in July and August, leaving the yield spread at 1.19%.



The monthly average of the German DAX rose steeply through July, suffering a temporary decline in August, but finally climbing above the threshold of 5,000 in September. The Euro STOXX continued on its upward trend, averaging 3,303.3 in August. The Dow Jones Industrial moved sideways at a level slightly above 10,500.

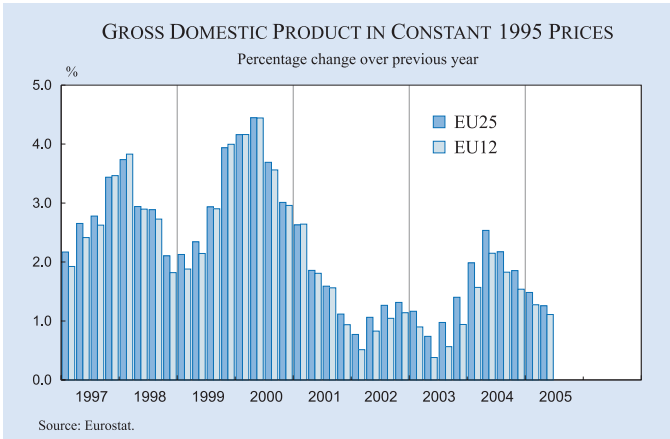


During past months, the annual growth rate of M3 continued to rise, reaching 8.1% in August compared to 7.9% in July 2005. It averaged 7.0% in the second quarter and 6.6% in the first quarter of the year. The three-month moving average of the annual M3 growth rates over the period from June to August 2005 rose to 7.9% compared to 7.6% in the previous three-month period. The strong growth of M1 contributed most to the dynamics of M3. The annual growth of M1 rose to 11.5% in August from 11.1% in July.

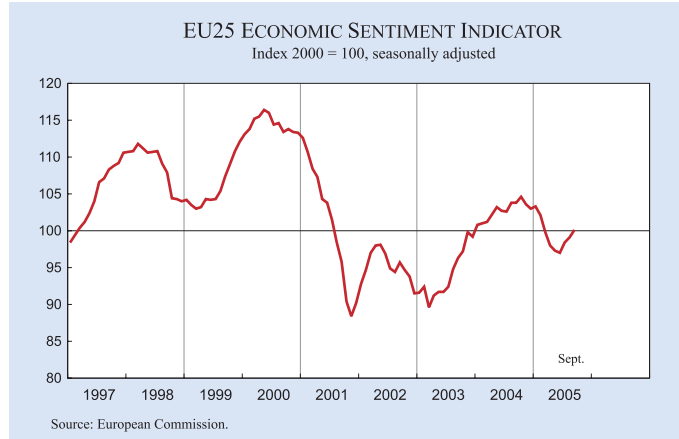


In June and July, the monetary conditions index remained unchanged after having risen during the previous two months signalling monetary easing. Real short-term interest rates declined in August, whereas the real effective exchange rate of the euro rose.

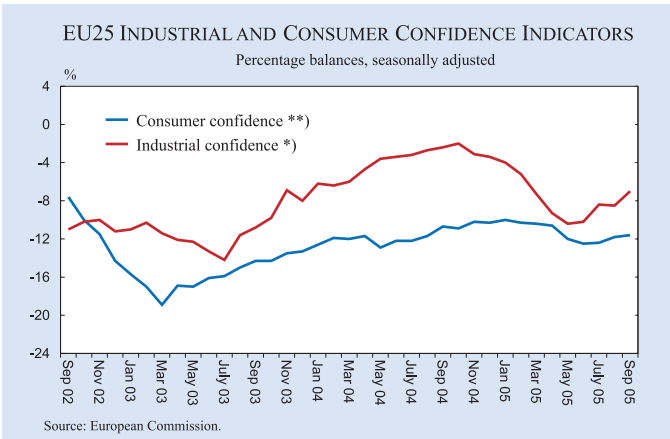
# EU SURVEY RESULTS



In the second quarter of 2005, real gross domestic product (seasonally adjusted) of the 25 EU countries rose by 0.3% over the first quarter, the same growth rate as in the euro area. Year-on-year, real GDP growth of the EU25 countries was 1.3%, versus 1.1% in the euro area.



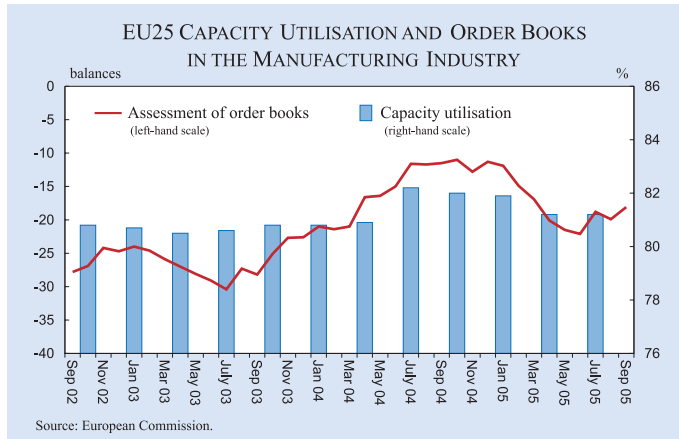
In September, the EU Economic Sentiment Indicator increased to 100.1, the third continuous rise since June 2005. Consumer confidence continued to improve but only slowly and still stood at a low level. Industrial confidence continued along its rising trend, improving quite strongly in August. Confidence was also up in other business sectors, recovering in retail trade, remaining fairly stable in services, and showing considerable improvement in construction.



\* The industrial confidence indicator is an average of responses (balances) to the questions on production expectations, order-books and stocks (the latter with inverted sign).  
\*\* New consumer confidence indicators, calculated as an arithmetic average of the following questions: financial and general economic situation (over the next 12 months), unemployment expectations (over the next 12 months) and savings (over the next 12 months). Seasonally adjusted data.

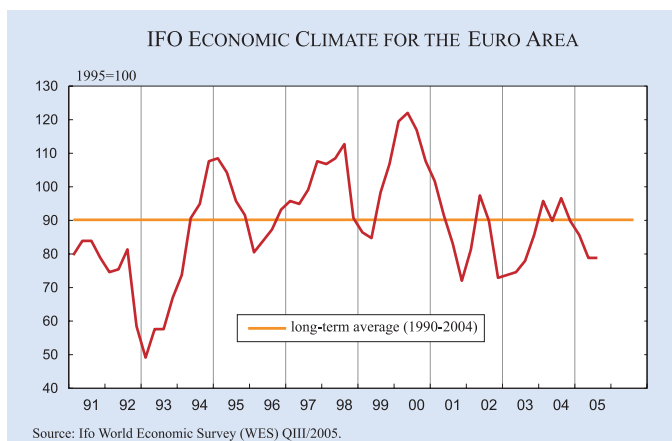
The EU industrial confidence indicator rose to -7 in September from -9 in August and -8 in July. Deterioration in the confidence indicator was registered in France, Sweden and Denmark. Only in the Eastern European countries did industrial confidence move in the positive range.

The EU consumer confidence indicator remained steady during August/September. The underlying components of the indicator developed in a slightly less stable manner. While households' expectations regarding the general economic situation improved, they worsened with regard to their financial situation. Only unemployment expectations improved slightly in September.

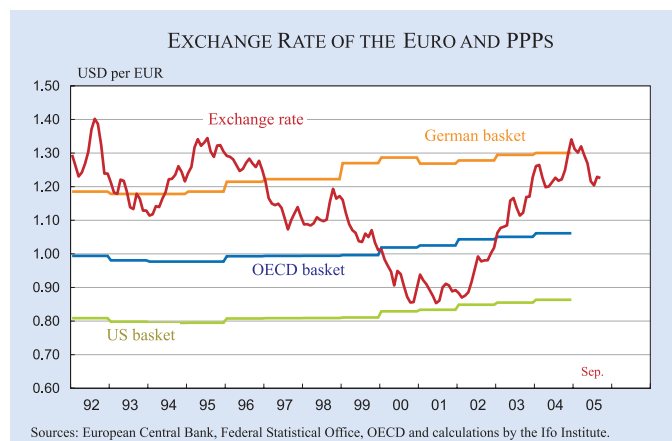


The slight increase of EU industrial confidence in September was caused by an improvement in the assessment of order books, whereas production expectations remained unchanged. Capacity utilisation remained stable at 81.2 in the third quarter of 2005.

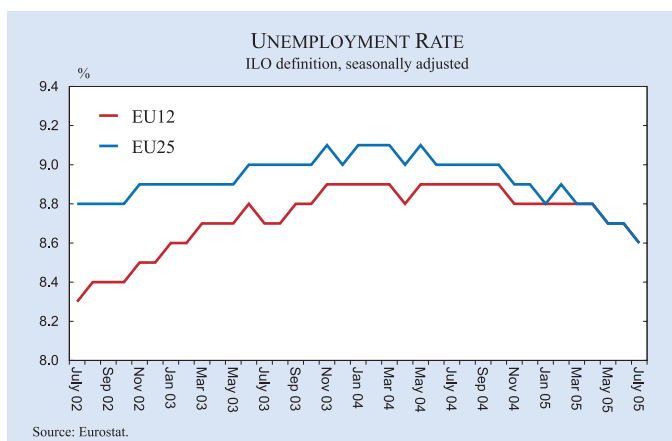
## EURO AREA INDICATORS



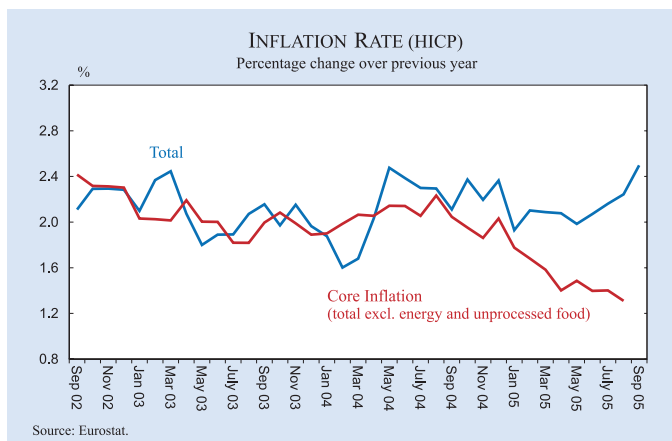
The Ifo World Economic Survey for the Euro area remained unchanged at 78.8 in the third quarter of 2005, after having fallen for three quarters in succession. Whereas the assessments of the current situation continued to decline, expectations for the next six months improved.



The exchange rate of the euro against the US dollar remained constant at an average of 1.22 in September. This is a slight recovery after a continuous decline since its rate of 1.34 US dollars in December 2004.



Euro-area unemployment (seasonally adjusted), like that in EU 25, stood at 8.6% in July 2005, down from 8.7% in May and June. The lowest rates were again registered in Ireland (4.3%), the UK (4.76% in March), Denmark (4.8%), the Netherlands (4.8%) and Austria (5.1%). Unemployment rates were highest in Poland (17.6%), Slovakia (15.2%), Greece (9.9%) France (9.7%), Spain (9.4%) and Germany (9.3%).



The annual inflation rate of the euro area (HICP) is expected to be 2.5% in September, according to a flash estimate issued by Eurostat on 30 September. It was 2.2% in August. In August, the lowest annual rates were observed in Finland and Sweden (both 1.0%), the Czech Republic (1.4%) and Cyprus (1.5%). The highest rates were registered in Latvia (6.3%), Luxembourg (4.3%), Estonia (4.2%) and Greece (3.6%). Year-on-year core inflation (excluding energy and unprocessed foods), which had remained stable in July, declined in August.





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