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CHINA'S ROLE IN THE CURRENT GLOBAL ECONOMIC IMBALANCE

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Abstract

This paper argues that the triangular trade established among China, the US, and the rest of the East Asia suggests that a unilateral renminbi revaluation will not help reduce the large US-China trade deficit. The paper shows further that China's economic overheating over the last two years had little to do with its "undervalued" currency. In fact, incentives to expand balance sheets, interest rate margin and liberalization, and continued interferences on bank lending by local governments contributed to rapid credit expansion and overinvestment. In light of the unsustainable US current account deficit, China and the rest of the East Asia are likely to experience continued and large capital inflows, which will make further sterilization less effective. China's exit from the current exchange rate regime could thus be coordinated with the currencies of the East Asia region as they together would have to make major adjustments.

Key words: Exchange rate regime and policy, capital controls, the renminbi, Chinese economy

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I. Introduction

Calls for the *renminbi* (RMB)—the Chinese currency—to revalue, first advocated by former officials of the Japanese Ministry of Finance in December 2002,¹ have since become a contentious international policy issue. The Kuroda-Kawai (2002) argument for RMB's revaluation was based on that China was spreading deflation “through export growth and a combination of domestic price deflation and an exchange rate pegged to the dollar.”² They then proposed that China should either reflate its economy through monetary expansion or allow the currency to appreciate. Their basis of argument, however, can not be corroborated by the trade statistics because of China's still relatively small share in the world trade.³ Furthermore, given that the production and distribution networks are dominated by the multinational corporations, the pricing power of Chinese firms in the world market is only limited.⁴ Ultimately, the monetary authorities in the industrial economies have much more influence on the price levels of the world economy.

Never mind of the soundness of the reasoning, the insistency for the renminbi to revalue, has found a life of its own in the United States, though from a different vein. Because China is running a large trade surplus with the US and the US has suffered from a large loss of manufacturing jobs (2.7 million by various reports) since President Bush took office, the election year politics has forced the Administration to act. China is naturally chosen as a target because of political expediency.⁵ On the trade front, the US has put restrictive quotas on three fast growing categories of textile and garments and heavy anti-dumping duties have been levied on Chinese made TV sets, shoes, furniture, and socks. On the financial front, Treasury Secretary John Snow, Federal Reserve Chairman Allen Greenspan⁶ and Commerce Secretary Don Evans, in various occasions, have all urged Beijing to either revalue its currency or move to a flexible exchange rate regime. US official concerns have also gained intellectual backing.⁷ Goldstein and Lardy (2003a and 2003b) and Williamson (2003) calculated that the renminbi was undervalued by 15-30 percent and therefore a large RMB revaluation against US dollar is warranted. They also suggested that the current

¹ See “Time for a Switch to Global Reflation” by Kuroda and Kawai, *Financial Times*, page 23, December 2, 2002.

² Ibid.

³ China's exports as a share of the world total, despite its fast growth, remain at 5 % in 2002 calculated using the IMF's Directions of Trade database. In contrast, the export share of Japan, the US, and the EU in the total world exports stands at 7%, 11%, and 38%, respectively.

⁴ For example, the Wal Mart Stores, Inc., in the US purchases about one eighth of total US imports from China. It has more than 80 percent of the 6000 factories in Wal-Mart's worldwide database of suppliers in China. Thus competition for Wal-Mart contracts in China is fierce, potentially pushing down supplier's price and wage rate in China. See “Chinese Workers Pay for Wal-Mart's Low Price,” *Washington Post*, February 8, 2004 and a related article, “Is Wal-Mart Too Powerful,” *Business Week*, October 6, 2003.

⁵ Indeed, Japan, EU, non-China and non-Japan Asia, Latin America, and other major OPEC countries contribute to the four fifths of US trade deficit.

⁶ Greenspan raised the issue from the view that large inflow of capital will make the current RMB-dollar fixed rate unsustainable. Therefore RMB would have to be revalued to reflect the market pressure.

⁷ Fred Bergsten claimed that the IIE was the first to raise the RMB issue. So the causation should be reversed.

pegged exchange rate regime in China is outmoded and China should quickly move to a flexible exchange rate regime.⁸

By the second half of 2003, China's economic growth had started to accelerate quickly mainly spurred by rapid bank credit expansions. The seemingly insatiable demand for raw materials from China was blamed for the recent hikes of world commodity prices, notably some key industrial raw materials such as iron ore, copper, aluminum, oil, cotton, and soybean. Indeed, the news came out from the State Council of China in May 2004 to reign in the overheating economy sent the stock market prices in some key commodity exporting economies into tumbles. China has since been regarded as an inflationary force in the world economy. Not surprisingly, the undervalued currency is also regarded as a cause of the overheating economy. The textbook explanation is that the under-valued RMB gives rise to the expectation of a near-term revaluation of the renminbi, which then draws in large capital flows and causes the monetary base to expand, thus leading to excessive credit growth. The pendulum has swung to the other extreme: China is now blamed for exporting inflation, rather than deflation, to the world economy.

The paper proceeds as follows: Section II examines whether RMB is very much undervalued. Section III argues that a bilateral nominal revaluation of renminbi against the US dollar will not help restore the Sino-US trade balances because of the triangular trade pattern and China's own structural factors. Section IV discusses the causes of its current macroeconomic overheating. Section V examines China's exchange rate regime at this stage of economic development. Section VI suggests that coordinating the next exchange rate realignment is in China and the rest of East Asia's interest. Section VII concludes.

II. Is the RMB Much Undervalued?

One of the reasons why the RMB valuation issue is so controversial is because China's capital account is closed and the renminbi is not traded and therefore there is no market determined exchange rate. Fortunately, a valuable piece of evidence one could still draw is to look at the non-deliverable forward (NDF) RMB-US dollar rate in Hong Kong (Figure 1).⁹ To be sure, the RMB NDF was viewed as mostly overvalued until November 2002 since its inception in 1996. The overvaluation was especially large during the 1997-98 Asian financial crises in which period the RMB NDF rate was on average at least 6 percent above its pegged rate with the US dollar. Since November 2002, the one-year RMB NDF has only shown a slight undervaluation and on average it is less than 2.5 percent from the official RMB-dollar exchange rate.¹⁰ Therefore, the RMB NDF market does not seem to indicate that the

⁸ *Asian Wall Street Journal*, September 12, 2003.

⁹ The renminbi NDF market is one of six large and active NDF markets in Asia. Because of capital and exchange controls, NDFs trade outside the country where the currency is the legal tender and their interest rate are not necessarily constrained by domestic interest rate (Ma, Ho, and McCauley, 2004 and Ishii, *et al*, 2001).

¹⁰ I was pointed out by Dr. Albert Keidel that in November 2002, the US dollar return was for the first time lower than that in China, thus making US dollar denominated capital inflow to China profitable, although it

RMB-US dollar exchange rate is way off its current fixed rate.¹¹ Indeed, China's inherent structural weaknesses as reflected by its large magnitude of non-performing loans in the banking sector (30-40 percent of GDP), a bleak outlook of its fiscal sustainability (gross debt to GDP ratio over 100 percent of GDP), severe structural imbalances (severe income inequality in terms of regions, urban-rural, and among individuals), and high political risks associated with its incomplete nature of economic transition by no means warrant a significant RMB revaluation. To some extent, these structural weaknesses appear to have been discounted into the RMB NDF rate.

The insistency for a renminbi revaluation is essentially motivated by bilateral trade surplus China has with the US, which stands at about \$124 billion¹² or about 10 percent of China's GDP in 2003, although China's global trade balance is still relatively small, only at 1.8 percent of its 2003 GDP (Table 1). To be sure, the large US trade deficit with the rest of the world is fundamentally determined by its large savings and investment imbalance. An appreciated renminbi might only change the geographic distribution of the US trade deficit, but can not help eliminate it.

The authorities in China, despite persistent pressures for it to revalue, have so far resisted a quick and large scale of revaluation. While the Chinese authorities agree a flexible exchange rate regime is beneficial for China, they also emphasize the lack of market infrastructure that is required by a flexible exchange rate system in the short run. Nevertheless, these pressures for a nominal RMB revaluation have already forced the Chinese government to react. They have greatly relaxed capital outflows at an unprecedented and rapid pace so as to ease the revaluation pressures on the RMB due to speculative capital inflows. However, these capital liberalization policies have to be sequenced carefully so as to avoid policy inconsistencies between fixed exchange rate and independent monetary policy as capital flows have become increasingly freer than before.

III. Why Won't a Nominal Revaluation of RMB Restore the Sino-US Trade Balances?

A. Four underlying factors: Other than the large US savings and investment imbalances, from the Chinese perspective, there are four underlying factors that would also help understand the argument that a nominal revaluation won't help restore the Sino-US trade balance.

is not clear as which country has higher return if risk premium is added into the calculation. However, one could not exclude the signal effect caused by the Japanese and US financial officials, either.

¹¹ One of course can argue that the NDF market is quite small and could not indicate the overall market sentiment. However, the same argument can be applied to other calculations of fundamental equilibrium exchange rate value as China's internal balance is difficult to assess as the economy is still moving towards a market one. The world economic model used by the IMF does not indicate a large undervaluation of the RMB, either (IMF, 2003).

¹² The official US number on US-China trade deficit does not account for the Hong Kong factor. After adjusting for Hong Kong re-export or re-import role, the Sino-US trade deficit number will be smaller than the US official number (Feenstra, et al. ..., 1999 and Fung, and Lau, 2003).

The first factor is related to China's trade structure and the trade triangle among China, the rest of East Asian economies, and the U.S. At present, about 55 percent of the Chinese exports are conducted in the form of processed trade (Table 2 and Figure 2): China imports intermediate components, mainly from Japan, South Korea, and Taiwan, and then assembles them for exports. The final products are then disproportionately exported to the US market. This pattern of trade has allowed China's powerful exporting neighbors, South Korea, Taiwan, and Japan, to divert their previously US-bound exports to China, thereby reducing their trade surplus with the US. If we look at China's trade growth by ownership, foreign affiliated firms are the engine of China's trade expansion (Figure 3, 4). If this triangular feature of the China-US trade were to be taken into consideration, the adjusted real trade balance between China and the US would be far smaller than the current number because China's value-added in the processed trade has been rather minimal, mostly in the form of low wages of the assembly workers.

But will a RMB revaluation help reduce the US-China trade deficit? Although a revaluation of RMB may appear to make the Chinese exports more expensive, it will also make its imports for processing cheaper. As long as exporters, the multinationals in this case, can internalize this exchange rate effect, the net export prices due to a nominal RMB appreciation from the processed trade sector may not be affected much.¹³ However, an appreciated RMB will disproportionately hit the exporters in the non-processed trade sector, or China's ordinary trade sector, which is primarily dominated by Chinese domestic firms, further exacerbating the painful restructuring and the wage depression process. In fact, China's ordinary trade has already been a big importer since 1996 and has been running a slight deficit (Figure 2).

Furthermore, as China is implementing its trade liberalization commitments made upon its accession to the WTO in the areas of both tariffs and non-tariff barriers (Table 3), it is likely that it will experience increased current account deficit from the experiences of most developing countries. Indeed, it appears that China has been moving towards this direction as it registered a small trade deficit in the first six months in 2004, although it is running a current account surplus largely because of the item of current transfers, which reflects speculative capital inflows (Table 4).¹⁴

The second factor has to do with China's value-added export rebate tax implemented in 1998.¹⁵ By addressing export subsidy issue first, China still has ample

¹³ US short and long term import price elasticity is -1 and -3, respectively and its short and long term import income elasticity is 1 and 1.8, respectively (Hooper, Johnson, and Marquez, 1998). These elasticities show that US imports are less sensitive to exchange rate changes but more sensitive to its domestic income changes.

¹⁴ Although by looking at the last column, trade balances, it does not appear to have direct positive correlation between China's tariff reduction and its trade balances. It can still be argued that China's WTO entry is a regime change because it will also remove many non-tariff barriers that are not necessarily accompanied with previous tariff reductions. That said, the impact of WTO entry on China's trade balances remains to be seen.

¹⁵ There were some value added export rebate taxes even before 1998. However, the 1998 export-rebate has been widespread, affecting all export sectors. Some have argued that reduction of the export taxes should

room to maneuver before considering the exchange rate appreciation. In the midst of the 1997-98 Asian financial crises, former Chinese Premier Zhu Rongji, while pledging not to devalue the RMB, also sought to placate the Chinese exporters by offering them a up to 17 percent value-added export tax rebate. This policy, still in effect today, has certainly contributed to a cost-based and real depreciation of RMB. The export tax rebates, which may have contributed to maintain China's export growth over the turbulent period of the Asian financial crisis, are no longer needed at a time of robust export growth.

To be sure, China's rapid export growth since the 1998 has made the export rebate tax too expensive to maintain. The export rebate tax, currently estimated at about \$24 billion or a quarter of China's trade surplus with the US, also runs the risk of impairing the credibility of the government as the Ministry of Finance have to backlog the payments to exporters for at least a couple of years.

Not only is the export rebate tax too expensive, it has also led to distorted incentives and increased corruption as some exporters round-trip their products in order to qualify for rebated taxes. From the income distribution point of view, the export rebate tax has a biased impact: tax payers in other sectors of the economy are subsidizing the export sector, which by far is the most profitable and fastest-growing sector of the Chinese economy. Furthermore, such a value-added export tax rebate is also a version of export subsidy. As the trade theory indicates, export subsidies are detrimental to a country terms of trade (TOT). Indeed, recent calculation has indicated that China's TOT has deteriorated markedly (Table 5) with respect to all of its trading partners. Its TOT deterioration against OECD economies is even more pronounced.

Because of China's large reserves of rural labor, one could never ignore the wage rate issue in the calculus of China's trade competitiveness. This is the third factor and perhaps the most important one that is affecting RMB's real valuation. China's export structure in terms of technology content has improved markedly over the years. However, it is puzzling that the wage rates in the labor intensive exporting sector have not changed much over the last ten years, roughly staying at around \$100 a month (Cheung and Xiao, 2003). The on-going restructuring in the state owned enterprise sector and the fact that China has an unlimited supply of labor from its vast rural area may have contributed to the stagnant wage growth.

In general, if the export sector is more productive, its wage rate should be higher than the rest of the economy. Thus, the higher wage rates in the export sector should lead to an overall domestic wage increase, usually observed in a country with large inflows of FDI where higher relative wages in the export sector tend to pull up the overall wage rate of the economy (Feenstra and Gordon, 2001). The Chinese case

be encouraged further as it reduces distortions of the export sector. I agree with this argument if and only if China moves to a consumption based tax system, rather than a production based tax system. At this moment, only allowing the export sector the privilege of value-added tax rebates but denying that of the other sectors will simply create more distortions.

shows that the export sector wage rate for assembly workers appears to have had only a downward flexibility and an upward rigidity. To some extent, this upward wage rigidity is also exacerbated by the collusion between the local government and the FDI-funded firms. It is commonly observed that in order to attract FDI to locate in their domiciles, local governments are often willing to accommodate the interests of foreign-funded firms at the expenses of that of the workers by not strictly enforcing labor rules and standards that are essential in bringing about a downward rigidity of wages. That said, the labor standards are in general even worse in some domestic and privately-owned small and medium manufacturing firms.

The fourth factor is related to China's FDI regime. Although China is the largest recipient of FDI in the world, close to 60 percent of its inflows are still from Taiwan and Hong Kong, as well as its own round tripped capital via Hong Kong and more recently and increasingly, from offshore banking centers such as the British Virgin Islands and Bermuda. These firms are mainly in small and medium size with a short investment horizon and low technology content. Their main motives are to take advantage of China's cheap labor, generous fiscal incentives offered by both central and local governments, and securer property rights protection not usually offered to domestic investors. For example, the income tax of foreign funded firms is a case in point. At present, the income tax rate is only 15 percent for foreign-funded and joint venture firms in economic zones, less than half of the 33 percent levied on domestic firms. In addition, foreign invested enterprises are privileged to have an income tax exemption in the first 2 years after making profits and an income tax reduction by half in the following 3 years. For the so-called FDI funded hi-tech firms, income tax reduction by half is extended for 6 years. These tax incentives are further sweetened by concessions that stipulate favorite treatment of land, raw materials, energy, and labor usage. Fiscal subsidies have made the real costs of capital of FDI-funded firms, especially of those firms in the processed trade sector, competitive in world markets.

That said, as long as these four underlying factors of China's export competitiveness are still in place, a simple revaluation of RMB, in spite of its expediency, will not be able to address the concerns of the policy makers in the US: reducing trade deficit with China and halting job losses in the manufacturing sector. Even if China were to appreciate its currency by 15 to 25 percent in nominal terms as suggested by Morris Goldstein and Nicolas Lardy of the Institute for International Economics (2003a, b), the nominal appreciation could easily be offset by downward wage flexibility, fiscal incentives, cheaper intermediate imports, and value-added export rebate taxes.

B. Dealing with the Sino-US Trade Imbalances: Then what should be China's appropriate responses to RMB's revaluation pressured by both the U.S. and the ensued market expectation? In fact, if properly framed, the RMB valuation policy could have a natural connection with China's continued structural reform in trade and its institutional convergence efforts by its WTO obligations.

In the near term, to deflect immediate pressures to revalue its currency, China should consider phasing out or even revoking the 17 percent value-added export rebate taxes implemented in 1998.¹⁶ By phasing out the export rebate tax completely, China would effectively allow RMB's real appreciation against the US dollar, thus mitigating protectionist pressure from the US. This policy initiative will show that China is a responsible partner in the global economic adjustment process. In fact, the most significant part of this policy is that it suits China's own interests well as the export rebate tax program has become outdated and too expensive to maintain.

Moreover, China could use this opportunity to take steps to streamline its FDI regimes and make them consistent with China's WTO commitment. In spite of China's large inflows of FDI, China is in fact an underachiever to attract FDI from large multinational companies of the OECD economies (Wei, 2000). There are reasons why multinational firms are still reluctant to relocate to China. For instance, a recent survey conducted by the Japan Bank for International Cooperation (JBIC)¹⁷ shows, despite the fact that China has become a favorite place for Japanese investors, its FDI policies and regulations still lack maturity, transparency, and predictability. The survey scores on China in those areas have been the worst among countries that Japanese firms have had investment. Even with extensive incentives in place, the current FDI related tax system remains opaque and is subject to frequent changes. A similar country case study done by the McKinsey Global Institute (2003) also corroborates the JBIC survey findings. The current FDI regime, despite its quantity success, needs to be improved further through greater transparency and predictability to reach a quality success by attracting large scale of investments from transnational companies, for they tend to offer high technology contents that will create large demand for high-skilled labor with higher wages, thus elevating the relative wage rate between the FDI sector and the domestic sector so that the overall wage rate in the economy can also be lifted. Such an effect will certainly generate large and sustained domestic demand.

In fact, making China's FDI regime consistent to the best practices of international norms now also serves to discourage speculative capital flows concealed in the form of FDI, which in turn will help reduce pressures on RMB.

These structural reform measures will also help secure China as a market economy status in the US anti-dumping cases. Without this status, it will be extremely difficult, if not impossible, for Chinese firms to win any anti-dumping cases in US courts.¹⁸

IV. Linking China's Exchange Rate with its Current Macroeconomic Overheating: Would a Revaluation Help Cool the Economy?

¹⁶ China just announced on October 15 there will be a three percentage reduction of the export rebate tax starting on January 1 2004.

¹⁷ The Annual Survey on Japanese Investment Overseas, Japan Bank for International Cooperation, 2002.

¹⁸ China has always been an easy target of US anti-dumping cases. It has occupied 15 percent of US anti-dumping cases since 1981.

*A. Economic Overheating and Torrid Pace of Investment*¹⁹: By various economic indicators, the Chinese economy until September of 2004 appeared to have entered into another cycle of rapid growth spearheaded by rapid fixed assets investment in 5 sectors: real estate development, steel, electricity generation, urban construction, and the chemical sector. These five sectors accounted for 59 percent of total fixed investment in 2003. Fixed assets investment as a share of GDP reached to 46.8 percent in the first ten months of 2004, one of the highest levels in history (Table 6). It is estimated that the projects under construction in 2003 amounted to the combined values of the last three years. In particular, investment in steel, aluminum, cement, and automobile leaped by 96.6%, 92.9%, 121.9%, and 70%, respectively.

In the first two month in 2004, investment in 16 out of 30 major industries in the manufacturing sector doubled. For example, investment in the steel industry and the construction material sector increased by 172.6% and 137.4%, respectively. With regards to steel, China already produced 200 million tons of steel in 2003, which has exceeded the total steel outputs of Japan and the US combined.

Given the current pace of investment, it is forecasted that China's auto output will double in three years. Such a torrid pace of investment has caused a rapid rise of the prices of raw industrial materials.

China is now facing a severe energy and electricity shortage with frequent blackouts in the coastal region. One sign that the economy is red hot is that the electricity consumption almost doubled in 2003 over the average of the previous ten years (Figure 5). One comparison is rather telling: Although China's GDP is only one fifth of Japan's, its electricity consumption has already outpaced Japan's and China's oil imports have also surpassed Japan as the second largest oil importer in the world. This broad-brushed comparison indicates that China's industries are suffering from energy efficiency problem and probably due to the lack of scale of economies.²⁰

B. Relationship between overheating and undervalued currency: As the Chinese economy is a bank-based economy (Table 7), the fixed asset investments are primarily funded by the banking sector. Indeed, the growth rate of M2 has returned to its historical high after several years of deceleration (Table 4). Some have attributed the overheating in China to an undervalued currency (for example, Eichengreen, 2004). The rationale behind it is that China's undervalued currency raises the expectation of a revaluation in the future, which then draws large capital inflows into the country and therefore expands the monetary base. In order to sterilize the impact of capital inflows, the monetary authority has to engage in open market operations to buy foreign assets and sell domestic assets at the equal amount. However, this operation also creates demand for domestic assets and will eventually drive up their

¹⁹ Please also see Ma and McCauley (2004b) for a detailed account of overinvestment in selected sectors.

²⁰ A recent national survey shows that there were 870 steel plants across the country of which 600 were small and low tech built over the last two years (James Kynge, "The Locomotive's Reassuring Slowdown," P6, Financial Times, October 1 2004).

returns. The monetary authority is also facing a dilemma: It can not raise the interest rate to cool the red hot investment for the fear that it would attract further capital inflows, which will in turn cause the monetary base to expand further. Thus, the only way out is to revalue the currency.

However, this textbook explanation on the cause of China's current economic overheating needs some reality check.²¹ First, China is not facing a fundamental policy inconsistency between its exchange rate stability and its autonomous monetary policy as long as it still maintains capital controls. In spite of some recent steps that may have made capital control more porous, China still maintains strict capital control in areas related to portfolio investment and bank loans. Should they wish, the authorities can still tighten its capital controls by discouraging speculative capital inflows.²² There is no reason that China can not raise its interest rates at this time to discourage over investment. The issue really lies at whether the interest rate instrument is *effective* enough under the current macroeconomic context.

Second, a statistical test does not seem to support the causal relationship between China's accumulations of foreign exchange reserves and its M2 growth. A Granger causality test, which uses the monthly data of China's foreign exchange reserves and M2 from 2000 to the first quarter of 2004, indicates that the foreign exchange reserves do not Granger cause M2, although the M2 Granger causes the reserve accumulations (Table 8).

There are, however, three alternative micro-level factors that can perhaps better explain the causes of this cycle of China's economic overheating. The first factor has to do with the competition among the big four state-owned commercial banks (SOCBs) to get listed in stock market. The second one is related to the on-going interest rate liberalization. The third one is connected to the local government overinvestment because of the lack of domestic market integration.

B.1. Competition to get listed first: China's big four SOCBs still suffer from large bad loans, inadequate capital and loan loss provisions, poor risk-management skills, ineffective corporate governance, over-staffed labor forces in over-extended branches, and constant government interferences. As China is opening up its banking sector for foreign competition under its WTO commitment, the Big Four's current financial state poses as a serious risk to the economy. Obviously, China's new leadership has recognized the serious nature of the problem and they have put banking sector reform as one of the highest priorities.

²¹ This explanation explicitly assumes that China's capital control is ineffective. However, Ma and McCauley (2004) show that despite a leaky capital account, China's capital control is still effectiveness as indicated by large onshore and offshore interest rate differentials.

²² Indeed, as argued above, making the FDI regime consistent with China's WTO obligation by reducing the existing pervasive fiscal incentives can serve as an effective deterrence to keep some speculative flows imbedded in the form of FDI out of the country.

The present strategy to banking sector reform has some resemblance to what the government has done to the state-owned enterprises: improve corporate governance via gradual ownership change. It is believed that once the banks are listed in overseas stock markets, the SOCBs will be subject to international accounting standards and the international norms of corporate governance. The management of these SOCBs will thus improve, so will their profitability. However, banks are quite different from industrial firms, they have to maintain a minimum 8 percent capital in order to be able to operate, let alone getting listed. By all means, none of the Big Four SOCBs at this juncture can satisfy the minimum requirement to get listed overseas because of their negative net worth. Despite recent aggressive measures to deal with NPL problems²³, including using \$45 billion of foreign exchange reserves to write off NPLs, only two SOCBs, the Bank of China and the Construction Bank of China, are currently close to reach a minimum of 8 percent of equity of the BIS standard.

The existing government guidelines for stock market listing are that as long as NPLs can be controlled under ten percent and capital adequacy ratio is above the minimum 8 percent, any SOCBs can get approval for listing in overseas stock markets. Apparently, getting listed first will show that the bank managers are doing a good job and such recognition appears to be important for their future careers. Thus, great emphases have been attached to reducing NPLs at least on the book in order to get listed first²⁴. The question is how to do it. Based on their existing profitability and no-further external assistance to write off bad loans, Chan-Lee, Liu and Yoshitomi (2002) estimated that it would take the SOCBs 10 to 15 years to grow out of their NPL problems under the assumption that the SOCBs will have no new bad loans accrued during the same period of the time.

However, there appears to be an easy way out of the problem at least in the short run and this has been supported by many inside China. This view purports that China's NPL problem is not as serious as what the observers in the West feared. As NPLs are measured as a share of total loans, from the accounting point of view, as long as the denominator, the total loans, can grow fast enough each year, the NPL ratio will tend to shrink yearly. This view is based on one implicit assumption, that is, there are no new NPLs or smaller amount of NPLs accruing in the future. It also means that for banks to be able to fulfill such a goal, the banks' behavior would have to change. That is, they must possess better corporate governance and risk management skills so that new NPLs will have to be maintained at a minimum level. The growing out strategy can be illustrated using a numerical example: Suppose the current NPLs in a bank are 28 percent of the loans and the annual growth rate of loans per year is 10 percent. So after one year, the NPL will decline automatically by 2.5 percent ($.28/(1+.1)=25.5$). If the loan growth rate is 10 percent per year, it means that every 7 years the total amount of loans will double. Consequently, the NPLs will be shrunk by half. However, if the assumption is modified to allow the possibility that a

²³ See Liu (2003) for a detailed account of these measures.

²⁴ Other measures such as transferring bad loans to asset management companies have also been done. But the disposal has been quite slow.

10 percent of new loans will turn bad per year, the NPL ratio as a share of total loans will be reduced by only 2 percent in 7 years!

Although the argument of using the balance-sheet approach to reducing NPLs is dubious, it will probably have some immediate effect on banks' balance sheet in the short term because new NPLs take time to emerge. Therefore, the incentive to expand the balance sheet to shrink NPLs on the book has prompted banks to start lending aggressively again. Unlike previous cycles of rapid bank credit expansion, this time the bank lending has been able to bypass the loss-making state-owned enterprises and go directly to firms that appear to be profitable under the current market conditions. In particular, property sectors, residential mortgage, consumer loans, and local government guaranteed corporations have seen a rapid rise of loans. Indeed, examining the loan growth data of the big four state-owned commercial banks, except for Bank of China, all have registered rapid loan growth. In particular, Construction Bank of China had a loan growth rate of 27.8 in 2003.

B.2. Large Interest Rate Margin and Interest Rate Liberalization: Another factor that may have contributed to rapid extension of credit has to do with favorable interest rate margin. Until the end of 2002, China was still lingering on deflation (Figure 6). Both lending and in particular deposit rates were cut to encourage investment and consumption. The officially set interest rate margin for both one-year lending and deposit rate was 3.33% [5.31%-1.98%] until the interest rate liberalization on January 1 2004. The large interest rate market also encourages banks to extend loans in addition to the growing out of the NPL motives.

China's interest rate liberalization starting on January 1 2004 also contributed to excessive lending in the banking system. The on-going interest rate liberalization follows a sequencing strategy that liberalizes the lending rate and then the deposit rate so as to prevent excessive competition for deposits among banks. Lending rates were until October 29th 2004 allowed to be fluctuated within a range of minus 10% and positive 170% of the standard lending rate of 5.31 percent set by the central bank. Because the deposit rate has been lowered over the last couple of years to a historic low (for example, one year deposit rate is only 1.98 percent and the real interest rate has turned negative for depositors), the interest margin after the interest rate liberalization has made banks even more profitable to lend than before.

B.3. Local government behavior: Local governments have played a positive role in promoting local economic development and they are a part of the institutional foundations of China's transition to market economy (Qian, 1999). Because local governments can not use debt financing, their financial sources are limited to tax revenues and bank loans. Before 1995, local governments were able to influence local branches of the big four SOCBs to lend to local government-owned SOEs or to local government sponsored enterprises. After 1995 and until recently, this channel of influence was less effective as the lending decisions of the big four SOCBs have been centralized at the headquarters and loan officers are made responsible for loans they made over the life time of the loans.

However, with the emergences of regional and city commercial banks in which the local governments are often the major share holders, local governments can still have access to bank loans from their own regional banks. This is perhaps the reason why in this current economic cycle, the loan growth rate of the second tier banks (regional and city commercial banks) is on average 38 percent, as against 13 percent of the big four SOCBs. In addition, enterprises sponsored by local government can use land and local government issued guarantees to gain access to loans both from regional city commercial banks as well as the big four SOCBs.

Bank financing allows local governments to engage in large scale of urban sector renewal projects by building landmarks and in investment in sectors that are at this moment in the upturns of the economic cycle such as automobiles, steel, cement, and construction materials. In the first two months of 2004, the central government sponsored fixed asset investment only increased by 12.1 percent, whereas the local governments-sponsored fixed asset investment increased by 64.9 percent. Local government involvement in fixed asset investment is mainly motivated by local jobs and growth performance and these targets are often used as criteria for promotion of local officials. Another factor that led local governments to rush to invest in similar types of industries is that China's domestic market still has many barriers to internal trade, often erected by the local governments themselves, thus reducing specialization and the scale of economies.²⁵

C. Will inflation accelerate further? China's lingering deflation ended in January 2003. Inflation rate accelerated quickly in 2004, peaked at 5.3 in July and dropped to 4.3 percent in November 2004 (Figure 6). The biggest rise in the CPI component is food and within the food category, the grain price has jumped up quickly since the end of 2003. It rose 34 percent in April 2004 from the same time period last year. A couple of factors have contributed to the sharp increase of grain prices in China. One is that the grain price in China has been stagnant and it is relatively lower than the international price for some time, thus discouraging farmers' incentive from planting grains. The share of acreage devoted to grain production in the total acreage sown per year has declined steadily from 73.43 percent in 1995 to 67.2 percent in 2002. In recent years, the rate of decline has accelerated. For example, the rate of decline in terms of total acreage devoted to grain production was 2.2 percent per year from 1999 to 2002. As the per-unit yield of grain crops has not increased much, China's total output of grain dropped and consequently the grain price was driven up.

But will inflation continue to accelerate? The consumer price index, once peaked at 5.3 percent, has already shown a downward trend. Because a set of macroeconomic adjustment policies have been put in place to reduce excessive investment in steel, construction materials, chemical, and automobile sectors since the second quarter of 2004, it is expected that investment will certainly experience a hard landing. Indeed, the consumer goods sector probably is not likely to experience a rapid increase of prices at all. Out of 600 essential consumer products, 473 of them still exceed demand and 127 of them have a balanced demand and supply (Huang, 2004). Because of

²⁵ See Section V for further details.

newly added production capacity, the supply of these key consumer products will likely continue to exceed demand. This is perhaps the reason why the overall CPI has not increased sharply as the food price has because the non-food consumption basket occupies 60 to 70 percent of the weight in the overall CPI.

But would the grain price continue to soar? Probably not for two reasons: One is that acreage devoted to grain production has rebounded by 20 million mu or 8 percent of 2002 total grain acreage because of increased incentive package for grain production. Second, China's imports of grain are likely to increase to partly offset the temporary shortage of grains. In fact, the grain imports could be linked to the US trade politics by adding the grain purchase as one of the important import items on the shopping list.

Another important reason is that there is no general wage-led inflation unlike the high inflation episode in 1988 and 1993. The unemployment pressure is still high because of on-going SOE restructuring and China's large rural labor pool, despite the fact that the wage rate for skilled labor has increased. The estimated urban unemployment is still hovering around 11 percent. Thus, it is unlikely that a wage-led general price increase will materialize. Indeed, this round of rapid economic expansion is largely investment driven. To put this number into context, the consumption as a share of GDP in China is only 60 percent, while it is 80 percent for developed countries, 74 percent for developing countries, and 69 percent for East Asian economies. The only difference this time is that the private investment has picked up.

D. Will China have a soft-landing this time around? The central bank has applied a set of both direct and indirect monetary policy instruments to cool down the growth by cutting back credit expansions. These measures include: Issuing central bank bills for the purpose of conducting open market operations to mop up excessive liquidity, raising required reserve ratio to 7.5 percent, using window guidance (moral suasion) to reduce lending to property development, steel, electricity generation, urban construction projects, and chemical sector. As some of the investments are insensitive to interest rates, some administrative controls are also implemented. The State Council has initiated a set of multi-agency coordination policies to reign in the run-away economy. The Bank Supervision Commission has started on-spot bank examinations on loans to the 5 restrictive sectors. The National Development and Reform Commission is instrumental in reigning in investment in construction material sector (steel, cement, and aluminum). It has taken steps to approve to close unauthorized development zones, return illegally claimed farm land, and terminate inefficient investments that do not have economies of scale. Ministry of Land and Natural Resources has closed 27000 development zones so far. Ministry of Finance has recently postponed issuing of treasury bonds of 110 billion and has announced that its active fiscal policy is now at a neutral position. In addition, China's Security and Regulatory Commission stopped taking application of IPOs for firms in steel, cement, and aluminum related sectors and listed firms in these three sectors have been constrained from issuing new shares.

These coordinated policy measures have started to take shape, but their effectiveness still remains to be seen. Because the big four commercial banks are still within the control of the state which dominate the banking sector, as long as the policy makers can effectively decelerate rapid bank lending to the 5 overheating sectors, it is still possible for the central government to cool down the red hot sectors and bring the economy to a soft-landing. However, whether the soft-landing will be a smooth one will hinge on whether the central government can use more market based measures to cool down the economy.

Recent statistics have shown that M2 and credit growth have been under control. The inflation rate has also moderated greatly. More importantly, the consolidation of political power to President Hu will make dissenting voice against administrative controls less tolerable. Thus, the probability for the government to secure a soft-landing becomes much higher.

V. An Optimal Exchange Regime for China

Exchange rate regimes are generally classified as fixed, intermediate, and floating arrangements. Within each category there are also finer distinctions that depend on frequency of adjustment and degrees of changes. Table 9 presented a simple classification of exchange regimes. The question is, at this stage of economic development, what is the optimal exchange rate regime for China? Before answering this question, let's first examine empirical evidences as what types of exchange rate regime bring about better results in terms of price stability and economic growth in the long run. According to an IMF study (2003), among 5 categories of exchange rate regimes, the one with limited flexibility has the best track record because it is associated with the highest per-capita GDP growth and the lowest annual inflation during the period between 1970 and 2001. The managed floating regime has the second best per-capita income record but rather high annual inflation. The pegged exchange rate regime has a slightly lower growth record than the managed floating but its inflation performance is better than managed floating. In both categories of income growth and inflation rate, freely floating and dual or multiple exchange rate regimes performed the worst (Table 10).

Open economies will always face the trilemma problems: The tradeoffs among independent monetary policy, stability in the exchange rate, and the free movement of capital (Mundell, 1963). Among the three objectives, only two policy objectives can be reached simultaneously. Figure 7 puts the three objectives at the vertices of a triangle and the three connecting lines represent the tradeoff for any two policy objectives to be achieved simultaneously. At this juncture, China does not allow freedom for capital to move in and out of the country. Thus it can have a fixed exchange rate regime and autonomy of its monetary policy. In fact, recent steps in liberalizing capital outflows (See box 1) have certainly made China's capital controls more porous, which in turn will threaten the inherent policy consistency between the fixed rate and its autonomous monetary policy. If China chooses to relax its capital

control further, it should then think of moving to a more flexibility exchange rate regime. Otherwise, it should choose to tighten its capital control.

Box1: Recent Changes on Regulations on Foreign Exchange Controls

- March 2003: Beijing, Tianjing, Sichuan, and Helongjiang started experiments to relax Chinese firms overseas FDI requirement. RMB assets can be used to exchange foreign currency for FDI purposes.
- May 2003: If a payment made by the foreign currency credit card exceeds the foreign currency deposit, the difference can be paid using RMB.
- August, 2003: Multinational corporations' non-trade related payments are allowed to be conducted using either foreign currency or RMB.
- September, 2003: Firms do not have to submit foreign exchange earned from current account related earnings such as international engineering contract, labor contract, international shipping and fees from shipping service.
- September, 2003: Residents and non-residents can bring in and out \$5000 per person. Domestic residents for overseas travel can carry up to \$5000 cash per person (State Administration of Foreign Exchange, 2004)

A. Why is the current fixed exchange rate regime still workable? Although both the US Treasury and some prominent economists have advised that China will be better served if it were to move to a flexible exchange rate regime (Eichengreen, 2004, Goldstein and Lardy, 2003), the Chinese government, while acknowledging its intention to eventually move to a flexible exchange rate regime, has maintained the importance of RMB's stability in the short term. One could simply interpret such intransigence as that the Chinese government does not want to yield to foreign pressure. On the other hand, if we take China's development strategy and its state of institutional convergence to a market economy into consideration, its hesitance to move to a flexible exchange rate is quite understandable.

China is in fact using the pegged exchange rate as a nominal anchor so that it could leverage on credibility and better institutions of the US. It is in fact running an adjustable pegged exchange rate akin to the pre-1971 Bretton Woods System for two reasons. The first reason is related to its export-led development strategy and such a strategy requires a stable if not under-valued currency, capital controls and accumulation of foreign exchange reserves largely denominated in the center country currency, the US dollar (Dooley, Folkerts-Landau, and Garber, 2003). The second reason is related to the lack of development of its own credible domestic institutions. China's central bank is directly under the control of the State Council and it has limited independence in conducting monetary policy. The limited role of independence may also result from the fact that the financial sector is still dominated by the state. Thus, central bank independence does not make much difference. Under the current circumstances, the central bank independence in China could run the risk of becoming bureaucratic independence because to which branch of the government

the central bank is accountable is not clear.²⁶ Thus, if the institutional credibility is not yet formed, some kind of pre-commitment such as the fixed peg may be a better way to prevent the time inconsistency problem. In a theoretical framework, Barro and Gordon (1983) demonstrated convincingly that by instituting a monetary rule, policy makers can prevent monetary policy inconsistency caused by surprise inflation under rational expectation.

At a more technical level, although China's central bank is able to use open market operations, its main monetary policy instrument remains to target the quantity of money, rather than the interest rate, because the market mechanism of interest rate determination is still pre-mature. China's under-developed money market and its shallow government bond market will pose great challenges for the authorities to manage a flexible exchange rate regime.

Thus, given its development strategy and its stage of institutional development, it is a rational choice to use the exchange rate as a nominal anchor so the country can leverage on a better foreign institution that has greater credibility. In the past, for countries that do not have domestic institutional credibility, tying one's currency to gold is an act of credible commitment (Bordo, 2003). This is similar to the period of pre-collapse of the Bretton Woods System when the US dollar was used as a nominal anchor by the periphery countries as long as the US is running a prudent monetary policy. The reason that China has pegged its currency for so long is because the Greenspan-led Fed has done a good job in maintaining price stability and robust growth rate in the US. By leaving the difficult task of managing the exchange rate to the Fed, the Chinese policy makers can pursue its domestic development agenda with more focus as long as they can maintain effective capital control. Indeed, this strategy has worked well for Japan and the Western European countries before the fall of the Bretton Woods System in 1973. These economies had quickly recovered from their ruinous war-torn economies. As their per capita income caught up with that of the US, their institutional credibility was also regained. As a result of such strategy, these economies could graduate to move to the center (Dooley, Folkerts-Landau, and Garber, 2003).

It may be argued that China may not have the luxury as those economies that have successfully moved to the center because today's international monetary arrangement no longer allows such strategy to take place. In particular, the US has less a tolerance nowadays for running a large current account deficit and accumulating foreign debt. In addition, the global financial markets are more integrated and capital control has become much more difficult to enforce. Indeed, Cheun-Chinn-Fujii (2003) examine three criteria of economic integration, namely real interest parity, uncovered interest parity, and relative purchasing power parity. They find that China is surprisingly positive for integration with the US. If this evidence can stand the rigorous test of statistics, it is indeed a positive sign for pegging the dollar for reasons of both economic and institutional convergence. Such convergence will also help shore up

²⁶ If it is accountable to the National People's Congress, its independence will be even less given the rubber stamp nature of the legislative branch of the Chinese government.

China's own institutions eventually. On the other hand, the Cheun-Chinn-Eiji result also indicates that as capital controls become less restrictive, China's ability to conduct independent monetary policy has thus become less effective.

B. Preconditions to move to a flexible exchange rate regime: While China's pegged exchange rate regime is still in place, recent policy initiatives to relax capital controls indicate that China's capital account will become more open in the future. As capital controls are gradually relaxed, the monetary authority will therefore face increased difficulty in maintaining its exchange rate stability and conducting independent monetary policy, thus raising fundamental policy inconsistency. If China ever decides to further relax its capital controls, it should now have a concrete strategy to make a transition from the current system of using the exchange rate as a nominal anchor to a system that relies on credible domestic nominal anchors, which in turn require some minimum institutions that can support a domestic nominal anchor credibly. These basic institutions should include central bank independence in the sense of independent from financing the government fiscal deficits, inflation targeting to establish credibility in maintaining price stability (Bordo, 2003 and Svensson, 2002), and institutions that can monitoring currency mismatches due to increased volatility of a flexible exchange rate regime (Goldstein, 2002).

At this juncture, although China does not have the true sense of central bank independence, it does still have some of the basic elements. That is, its 1995 Central Bank Law clearly stipulates that the central bank is forbidden to monetize government fiscal deficits.

China has taken a gradual approach to interest rate liberalization. It is very likely that during the course of interest rate liberalization that the monetary authority will face challenges in maintaining goals of inflation targeting as the interest rate liberalization tends to increase uncertainties in financial contracts and therefore increases volatility. In addition, interest rate liberalization can also erode the franchise value of the banking sector, thus raising macroeconomic instability. Therefore, the on-going domestic interest rate liberalization will certainly complicate China's move to a monetary regime that is centered on inflation targeting. During the transition period, domestic market development such as money market, forward exchange rate market, developing hedging instruments, and forming the habit of using hedges to manage risks is also critical to creating credible domestic nominal anchors.

It is not inconsistent to move towards a flexible exchange rate regime while still keeping the capital control in place (Eichengreen, 2004). Capital controls can still give policy makers breathing time to build strong domestic monetary institutions. But the question is what kind of intermediate regime is best suited for China. Some have offered a band, a basket peg, and a crawling peg after China has exited from the existing pegged exchange rate regime (Williamson, 2003, Chan-Lee, *et al*, 2002). Despite the advantages of flexibility of these intermediate regimes, they are nevertheless susceptible to big shocks, either internal or external, inability to induce stabilizing speculation, and furnishing credible nominal anchor (Goldstein, 2002).

Thus, a managed floating regime with enhanced monitoring of capital flows, a version of an intermediate regime proposed by Goldstein (2002) that allows inherent exchange rate flexibility, if it is also supported by credible nominal anchor such as inflation targeting and central bank independence and complemented by closely monitoring currency mismatches, can probably work better for China. However, because of the close production cum distribution network established in Asia, China's future exchange rate arrangement should also take into consideration of its neighboring economies. Its participation in the arrangement of the regional exchange rate system will help resolve the current global imbalance.

VI. Coordinating the Next Exchange Rate Realignment with the East Asian Economies is China's Interest

Over the past two years, the Bush administration has pursued a policy that attempts to address the US trade deficit bilaterally with China alone by trying to jawbone the country to revaluing the renminbi (RMB). Not surprisingly, the policy has not worked for an obvious reason: The exchange rate issue is traditionally a macroeconomic one and should be discussed by looking at multilateral rather than bilateral trade balances. In addition, China is now at the center of an East Asian trade triangle, importing technology-intensive and sophisticated intermediate goods such as parts and components as well as commodities from Japan, the newly industrialized economies (Korea, Taiwan, Singapore), and the ASEAN countries. Thus, China alone cannot become the world's workshop. Only the East Asian region as a whole can play that role. If the onus of exchange rate adjustment falls on China alone and other countries do not do their part, a "free rider" problem will arise and the U.S.-East Asia imbalance will not be resolved. Moreover, a large one-time revaluation of the RMB would likely create a massive asset price bubble in China, a repeat of Japan's experience after the 1985 Plaza Accord.

While China can still use some structural measures as suggested in Section III to reduce pressures on immediate RMB revaluation, these measures will increasingly become less effective if the US twin-deficits become unsustainable and result to a collapse of the US dollar, which in turn will induce large capital inflows into China and make the sterilization operations become less effective in the medium term. Absent a policy change, China will run the risk of encouraging large, speculative, short-term capital inflows, pushing its foreign exchange reserves still higher. The monetary base and domestic credit supply could thus expand rapidly, leading to soaring inflation again.

Indeed, the likelihood of a further large US dollar decline is real. The U.S. is currently running large and unsustainable twin deficits (the budget and trade deficit), both at close to 5% of GDP in 2003. At the same time, the East Asian region is collectively running a large trade surplus with the U.S. and rapidly accumulating foreign exchange reserves, which are then largely returned to the U.S. to finance its budget deficit.

This arrangement will come under great stress if the U.S. economy slows substantially. Recent movements in the U.S. 10-year bond rate to slightly over 4%, a rather low rate, in spite of four consecutive quarter-point interest rate increases by the Federal Reserve Board, indicate that the market has begun to discount the probability of a major economic slowdown after the November presidential election. The U.S. economy, which already peaked earlier this year in an upward election year cycle, will eventually have to make major adjustments given the twin deficits. Although it is uncertain how the adjustment process will play out, one remedy is both fairly clear and fairly likely based on past experience: The dollar will have to depreciate substantially so as to allow the U.S. trade balance to return to a sustainable path. A recent OECD study (2004) shows that it would take a 22.5% decline in the trade-weighted value of the dollar in order for the U.S. current account deficit to fall by one percentage point of GDP. Extrapolating from this, the dollar would have to fall by 45% to return the U.S. trade deficit to a tolerable 3% of GDP.

Obviously, the currencies of East Asia will have to play a major part in this adjustment. Although in the past year or so the dollar has already declined significantly against the euro, appreciation of the East Asian currencies has been negligible (Figure 8, 9, 10). This is because the large capital flows into East Asia have been effectively sterilized as Japan, China, and other economies in the region were on the brink of deflation or rapid disinflation, making the costs of sterilization insignificant.

However, sterilization cannot continue indefinitely. The East Asian region has already accumulated substantial foreign exchange reserves in the past year and accelerating inflation has become a real policy concern. Even Japan, the country most marred by deflation, is contemplating monetary policy options beyond its current zero interest rate policy as its economic recovery gathers strength. Although there is still room for China to further sterilize capital inflows, depending on the portfolio allocation of China's foreign exchange reserves, capital losses have already occurred on the short-term side of the portfolio allocation (Figure 11).

The production cum distribution networks established in East Asia underscore the importance of price stability throughout the region. The large trade component of GDP in the region suggests that exchange rate stability remains an important policy objective. To some extent, China and the rest of the East Asian economies are in a classical "Prisoner's Dilemma" scenario. The first mover to revalue will likely to receive the worst reward if others in the group do not follow suit, thus giving rise the "free rider" problem. Thus an optimal and stable equilibrium is coordination in their next currency realignment against the US dollar.

Clearly, the lack of policy coordination experience and the weak financial infrastructure still make it premature for East Asian countries to move toward an EMS-type, mutually-pegged, joint floating with a band. Nevertheless, the region should take the first step toward a negotiated agreement as how much appreciation against the dollar each currency concerned has to undertake. Each country in East

Asia should then allow its currency to move within a band set around the new exchange rate level according to its own market and macroeconomic conditions. The band can be set narrowly, for example, plus or minus 5%-6%, for countries with greater policy credibility; for those economies with relatively less policy credibility, the band can be set wider, say, plus or minus 10%-12%. Each economy in the region should then make a commitment to defend the lower bound of the band.

There are three reasons why such a band would be appropriate for and defensible by East Asia: First, the region has traditionally had good macroeconomic fundamentals, which helps instill market confidence. Second, given the lack of adequate legal, regulatory, and informational institutions in the region, the developing East Asian economies such as China can still apply Chilean-type capital controls to reduce volatile short-term capital flows, as a substitute for effective market-based intuitions. Third, the lessons of the Asian financial crisis have shown that the IMF, under the strong influence of the United States, could not act as a global lender of last resort during the capital account crisis that took place in Asia in 1997 because the U.S. Congress rightly realized that U.S. taxpayers' money should not be used to bail out non-U.S. institutions caught in emerging-market crises. Given the limited funds each emerging economy in East Asia can draw on, it is simply impossible for them to stem massive capital outflows. This, in turn, highlights the need for a regional monetary facility specifically aimed at the type of capital account crisis that has strong spillover effects in terms of regional contagion. The region has already started to pool its foreign exchange reserves to prevent such a crisis from recurring. It is only prudent for East Asia to redouble its efforts to strengthen the existing regional swap facility (i.e., the Chiang Mai Initiative) as the region moves to a collective exchange rate adjustment, which is a concrete first step toward closer monetary and exchange rate policy coordination. With further development of regional financial markets and policy coordination mechanisms, it is not difficult to envision a mutually pegged, jointly floating regional exchange regime emerging in the region in the medium term.

Of course, coordinating exchange rate adjustment collectively presents many challenges to policy-makers in East Asia because, at the moment, the region lacks formal institutions for coordinating macroeconomic policies. But it also offers a rare opportunity for these countries to start engaging in intensive policy dialogues on the issue of currency adjustment. Since China has already become an integral player of the production cum distribution networks in East Asia, it is thus in its own interest to actively participate in the coordination of the next round of the exchange rate realignment vs. the US dollar.

VII. Concluding Remarks

The controversies surrounding the renminbi are mainly motivated by China's large bilateral current account imbalances with the United States. As the US is running the twin deficits again at a large magnitude, the presidential election trade politics in the US has further complicated the issue. In fact, the RMB-dollar non-deliverable future market does not indicate that the RMB is very much undervalued.

At this stage, China could simply use some structural measures such as phasing out or even revoking the value-added export rebates and reducing fiscal incentives to attract FDI to effectively address the controversies surrounding the RMB's valuation issue. In addition, China can address the US concerns over China's large trade surplus through some proactive bilateral trade initiatives.

Some have also linked China's current macroeconomic overheating to its undervalued currency. However, the empirical evidence does not seem to support this standard textbook explanation. China's economic overheating was fundamentally caused by the banking sector's incentive to expand balance sheet so to reduce the NPL ratio on the book, its on-going interest rate liberalization, and the incentives of the local government to over-invest. Unlike the previous cyclical upturns, the present one is not likely to cause a runaway inflation because China has not completely overcome the problem of over capacity in its industrial sector. The recent rapid expansion in fixed assets investment will only exacerbate the over capacity problem in the near future. The large increase of the grain price, however, is cyclical in nature and can be partially offset by increased imports and by increasing the acreage devoted to grain production in the coming years.

China's pegged exchange rate regime does not reveal any fundamental policy inconsistency as long as the capital control is in place and can be strengthened. However, to deflect the pressure of capital inflows, China has recently sped up its capital account liberalization, thus making its capital control more porous and intensifying the policy inconsistency between stable exchange rate and autonomous monetary policy. If China intends to make its capital account more open, it should then think of moving to an intermediate exchange rate regime preferably taking the exchange rate regimes of its neighbors into consideration. However, such a move requires credible domestic nominal anchors such as central bank independence and inflation targeting and they should be complemented with mechanism that can closely monitor potential currency mismatches. Thus some policy sequencing is urgently needed.

China's pegged exchange rate regime will come under greater pressure in the medium run should the US dollar require large decline to return the US current account into sustainable path. Since the East Asian region jointly is running a large current account surplus with the US, the region's currencies need to play a major role in the adjustment process. China, a key player in the East Asian production network, should play a leadership role in coordinating with the key East Asian economies in the next round of the exchange rate realignment.

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Table 1: Bilateral and Global Trade Balances as a Share of GDP of Key East Asian Economies and the USA (2003)

	China	Hong Kong	Taiwan	Korea	Japan	Thailand	Malaysia	Philippines	Indonesia	Vietnam	Singapore	USA	Sub Total	Global Total
China		4.6	-0.1	-1.6	-1.0	-0.4	-0.6	-0.2	-0.1	0.1	-0.1	4.2	4.7	1.8
Hong Kong	-41.5		-18.5	-4.2	-9.8	-1.3	-2.4	-1.0	-0.4	0.4	-4.5	18.4	-64.7	-5.5
Taiwan*	0.7	10.4		-1.4	-5.5	0.0	-0.4	-0.6	-0.4	0.7	0.3	3.1	7.0	1.3
Korea	3.8	1.1	0.6		-3.6	0.1	-0.1	0.2	-0.4	0.4	-0.4	1.4	3.1	1.3
Japan	0.3	0.3	0.3	0.5		0.1	0.0	0.0	-0.2	0.0	0.2	1.2	2.7	1.8
Thailand	3.3	1.3	-0.1	-0.6	-2.8		-0.4	0.2	0.4	0.6	1.7	4.3	8.0	3.1
Malaysia	7.6	3.6	1.0	0.8	1.3	0.6		0.2	-1.2	0.4	-5.3	11.4	20.5	20.4
Philippines	4.2	2.0	2.2	-1.8	-2.6	-0.4	-0.2		-0.9	-0.3	-0.9	0.5	1.7	-4.9
Indonesia	0.7	0.3	0.6	1.3	4.8	-0.3	0.6	0.4		0.1	1.0	3.5	13.0	15.3
Vietnam	-4.5	-1.6	-4.8	-5.9	1.2	-2.4	-1.1	0.5	-0.5		-4.5	7.8	-15.7	-12.8
Singapore	1.8	7.7	-0.9	2.4	-10.2	-2.8	6.0	0.8	-2.1	1.9		2.8	7.2	17.6
USA	-0.6	-0.3	-0.1	-0.1	-0.6	-0.1	-0.1	0.0	-0.1	0.0	0.0		-1.9	-5.6

Source: Author's calculation using data from MF Directions of Trade (2004). Taiwan's data are from its Board of International Trade and data are for 2002.

Table 2: Breakdown of China's Trade by Main Partner and Custom Regimes (in % of total Trade and Billions of \$)

Imports (%Percent)						
	World	3 Dragons*	Japan	EU15	USA	ROW
1993						
Imports by all custom regimes	100	28	22	15	10	25
Ordinary Imports	37	3	8	8	5	13
Imports for processing	35	18	8	2	2	6
Other custom regimes	28	7	7	6	3	6
2002						
Imports by all custom regimes	100	26	18	13	9	33
Ordinary Imports	44	7	6	8	5	17
Imports for processing	41	16	8	2	2	12
Other custom regimes	15	3	3	3	2	4
Exports (% Percent)						
	World	3 Dragons*	Japan	EU15	USA	ROW
1993						
Exports by all custom regimes	100	29	17	13	18	22
Ordinary Exports	47	12	10	7	6	13
Exports from processed imports	48	16	7	7	13	6
Other custom regimes	5	0	0	0	0	4
2002						
Exports by all custom regimes	100	25	15	15	21	24
Ordinary Exports	42	8	6	7	7	15
Exports from processed imports	55	16	9	8	14	8
Other custom regimes	3	1	0	0	1	1
Trade Balances (In Billions of Dollars)						
	World	3 Dragons*	Japan	EU15	USA	ROW
1993						
All custom regimes	-12.2	-2.4	-7.5	-3.5	6.3	-5.1
Ordinary Trade	5.2	8	0.7	-2	0	-1.5
Processed Trade	7.9	-3.8	-1.3	-4.2	9.7	-1
Other custom regimes	-25.2	-6.6	-6.9	-5.8	-3.4	-2.6
2002						
All custom regimes	30.4	3.2	-5	9.7	42.7	-20.2
Ordinary Trade	7.1	3.4	1.1	-3.1	6.7	-1
Processed Trade	57.7	5.9	3.1	19.6	39.9	-10.9
Other custom regimes	-34.4	-6.1	-9.3	-6.8	-4	-8.2

* 3 dragons are Hong Kong, South Korea, and Taiwan

Source: China Customs Statistics, and Gaulier, *et al* (2004)

Table 3: China's Tariff Reduction, 1982-2002 (Percent and Billions of US Dollars)

Year	Unweighted Average	Weighted Average	Dispersion	Maximum	Trade Balance
1982	55.6	..	..	..	3
1985	43.3	..	..	..	-14.9
1988	43.7	..	..	..	-7.8
1991	44.1	..	..	..	8.1
1992	42.9	40.6	..	220	4.3
1993	39.9	38.4	29.9	220	-12.2
1994	36.3	35.5	27.9	..	5.4
1995	35.2	26.8	..	220	16.7
1996	23.6	22.6	17.4	121.6	12.2
1997	17.6	16	13	121.6	40.4
1998	17.5	15.7	13	121.6	43.4
2000	16.4	..	..	..	29.2
2001	15.3	9.1	12.1	121.6	24.1
2002	12.3	6.4	9.1	71	30.3

Source: IMF World Economic Outlook, 2004 and China Customs Statistics, Various Issues

Table 4: China's Balance of Payment Statistics

DESCRIPTOR (billions of USD)	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004 (1-6)
CURRENT ACCOUNT	12.0	1.6	7.2	37.0	31.5	21.1	20.5	17.4	35.4	45.9	7.5
Trade in goods	9.2	18.1	19.5	46.2	46.6	36.0	34.5	34.0	44.2	44.7	5.9
Trade in services	1.5	-6.1	-2.0	-3.4	-2.8	-5.3	-5.6	-5.9	-6.8	-8.6	-5.9
Balance on goods and services	10.7	12.0	17.6	42.8	43.8	30.6	28.9	28.1	37.4	36.1	0.0
Net Current transfer	0.3	1.4	2.1	5.1	4.3	4.9	6.3	8.5	13.0	17.6	9.9
FINANCIAL ACCOUNT	3.3	38.7	40.0	21.0	-6.3	5.2	2.0	34.8	32.3	52.7	66.8
Capital Account	n.a.	n.a.	n.a.	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
Foreign Direct Investment	2.7	33.8	38.1	41.7	41.1	37.0	37.5	37.4	46.8	47.2	30.5
Portfolio Investment	n.a.	0.8	1.7	6.9	-3.7	-11.2	-4.0	-19.4	-10.3	11.4	27.7
Other Investment	0.8	4.0	0.2	-27.6	-43.7	-20.5	-31.5	16.9	-4.1	-5.9	8.6
ERRORS AND OMISSIONS	-3.2	-17.8	-15.5	-22.1	-18.9	-17.6	-11.7	-4.7	7.5	18.4	-7.3
OVERALL BALANCE	12.0	22.5	31.7	35.9	6.2	8.7	10.7	47.4	75.2	117.0	67.0
FINANCING	-12.0	-22.5	-31.7	-35.9	-6.2	-8.7	-10.7	-47.4	-75.2	-117.0	-67.0
RESERVE ASSETS CHANGE	-12.0	-22.5	-31.7	-35.9	-6.2	-8.7	-10.7	-47.4	-75.2	-117.0	-67.0

Sources: FS for 1990-2002 and SAFE (2003, 2004, January to June)

Table 5: Declining Terms of Trade with Key Trading Partners (1993-2000)

Products	USA	EU	Japan	NIES	ASEAN	Other LDCs
All Products	-23	-28	-26	-17	-8	-3
Non-Fuel Primary Products	0	-36	4	5	34	15
Manufactured Goods	-24	-27	-28	-20	-24	-21
Labor or Resource Intensive Products	-48	-12	-37	-2	-9	-7
Low-Tech Products	-27	-36	-15	-5	-14	-13
Medium-Tech Products	-42	-28	-31	-28	-26	-59
High-Tech Products	13	-23	-35	-29	-43	-7

Source: Zheng and Zhao (2002) based on statistics from the Chinese Customs Statistic Yearbook

Table 6: China's Annual Fixed Assets Investment (2001-October 2004) (Billions of Yuan)

	2001			2002			2003			2004 (1 to October)		
	Total	Growth Rate	Share	Total	Growth Rate	Share	Total	Growth Rate	Share	Total	Growth Rate	Share
Total Fixed Assets Investment (TFAI)	2782.7	13.7	100	3294.2	17.4	100	4264.3	28.4	100	4355.6	29.5	100
Real Estate Development	624.5	25.3	22.4	773.6	21.9	23.5	1010.6	29.7	23.6	806.4	26.6	18.5
Central Government Investment	645.8	3.7	23.5	637.4	-2.7	19.4	607.9	-4.6	14.2	666	4.9	15.3
Local-Level Investment	2127.8	17.1	76.5	2656.7	23.4	80.6	3656.4	36.2	85.3	3689.5	35.2	84.7
Funding Sources												
National Budget	200.8	20.3	7.2	254.4	26.8	7.5	250.8	-1.5	5.5			
Loans	621	9.1	22.2	773.5	24.6	22.8	1077.9	39.3	23.5			
Bonds	14.2	-22	0.5	17.8	26.4	0.5	15.3	-14.5	0.3			
Foreign Funds	152.7	4.4	5.5	175.8	15.1	5.2	217.6	23.8	4.8			
FDI	94.8	21	3.4	119.4	25.9	3.5	159.4	33.5	3.5			
Self Raised Funds	1292.6	21.3	46.3	155.7	20.5	45.8	2175.3	39.7	47.5			
Others	509.9	23.7	18.3	620.6	21.7	18.3	843.1	35.9	18.4			
Memorandum Items												
TFAI/GDP	29.0			32.2			36.5			46.8		

Sources: State Statistic Bureau (2004)

Note: Growth rate is from the same period of the previous year. Third quarter GDP of 2004 is used to calculate TFAI share for 2004 so there are over estimation of the 10 month figure for 2004. Local-level projects may include both state and non-state investment.

Table 7: Sources of Finance (100 million yuan)

	Total			Weights		
	2001	2002	2003	2001	2002	2003
Total Finance	16555	23976	35154	100	100	100
Bank Finance	12558	19228	29936	75.9	80.2	85.1
Debt Finance	2598	3461	3525	15.7	14.4	10
Corporate Bond	147	325	336	0.9	1.4	1
Equity Finance	1252	962	1357	7.6	4	3.9

Source: Huang (2004)

Table 8: Granger Causality Test between M2 and Foreign Exchange Reserves

Dependent Variable: M2

Variables	F-Statistics	Significance
M2	10.53	0
Foreign Exchange Reserves	0.67	0.75

Dependent Variable: Foreign Exchange Reserve

Variables	F-Statistics	Significance
M2	2.57	0.04
Foreign Exchange Reserve	52.7	0

Source: Statistical test conducted by the author

Table 9: Exchange Rate Regimes**I. Fixed Arrangements**

- a) Currency Unions
- b) Currency Boards (Dollarization)
- c) Truly Fixed Exchange Rates

II. Intermediate Arrangements

- a) Adjustable Pegs
- b) Crawling Pegs
- c) Basket Pegs
- d) Target Zone and Bands

III. Floats

- a) Managed Floats
- b) Free Floats

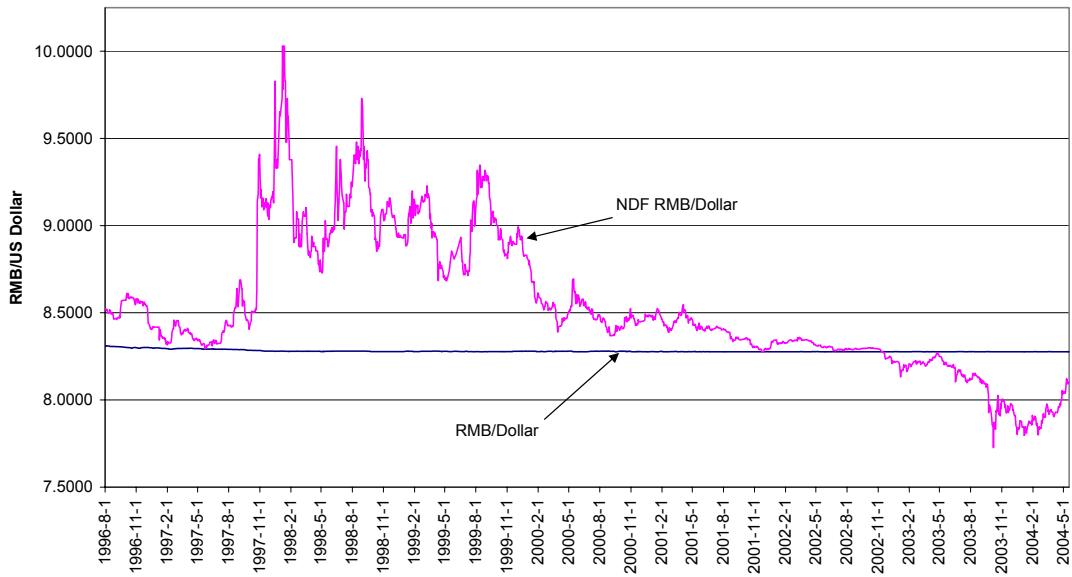
Source: Frankel (1999)

Table 10: Performance of Exchange Rate Regimes

Classification Scheme	Peg	Limited Flexibility	Managed Floating	Freely Floating	Dual or Multiple Exchange Rates
Annual Inflation Rate					
Standard	38.8	5.3	74.8	173.9	n.a
Dual Rates	20.7	10.1	29.7	45.5	167.4
Per-Capital GDP Growth					
Standard	1.4	2.2	1.9	0.5	n.a
Dual Rates	1.7	2.6	1.5	1.1	0.8

Source: IMF, World Economic Outlook.

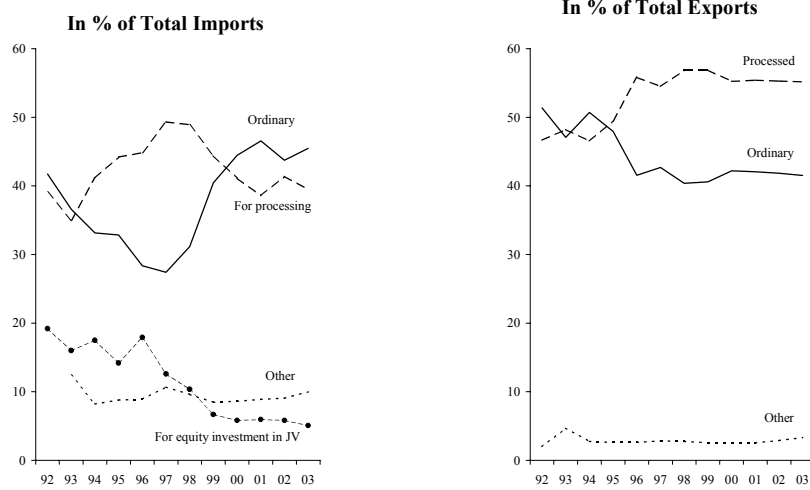
Figure 1: Non-Deliverable Forward RMB-Dollar Rate



Daily rate from 01/08/96 to 05/17/04

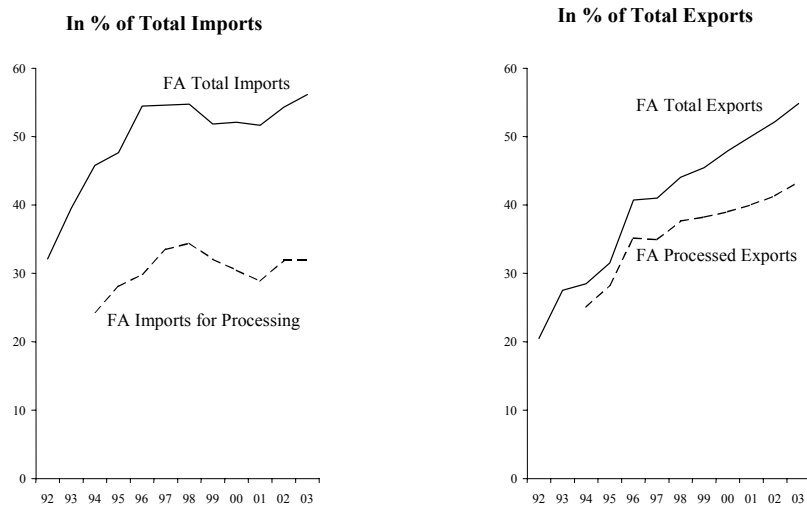
Source: (1) 1996-97: Prebon Yamane (Hong Kong) Ltd. (2) From 1998 onwards: Reuters, and HKMA

Figure 2: Processing Trade Drives China's Exports



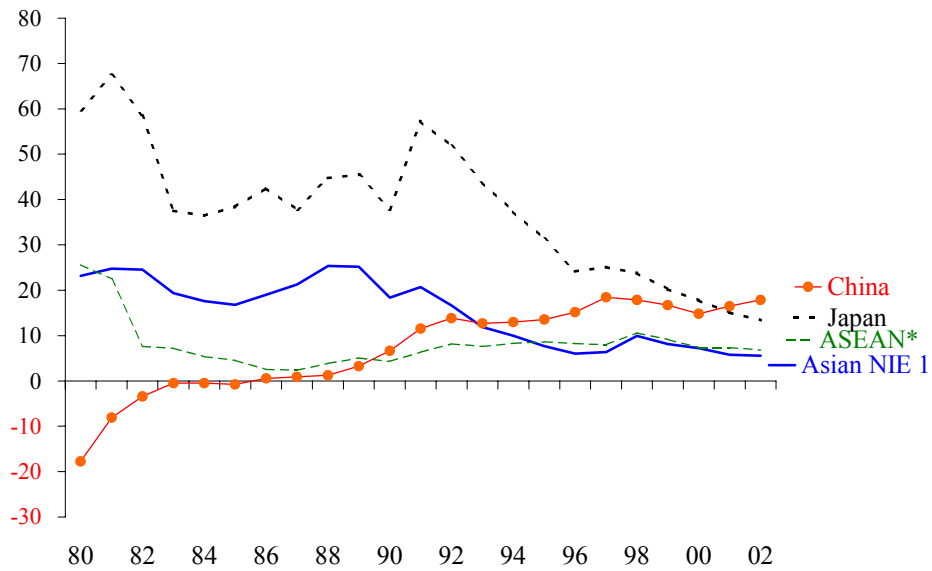
Source: China Customs Statistics and Lemoine (2004).

Figure 3: Foreign Affiliates are the Engine of China's Trade Expansion



Source: China Customs Statistics and Lemoine (2004).

**Figure 4: East-Asian Countries' Share in Total US Trade Deficit
(% of US Total Trade Balance)**



Source: CEPII-CHELEM Database and Lemoine (2004)

Figure 5: Electricity Generation and GDP Growth Rate

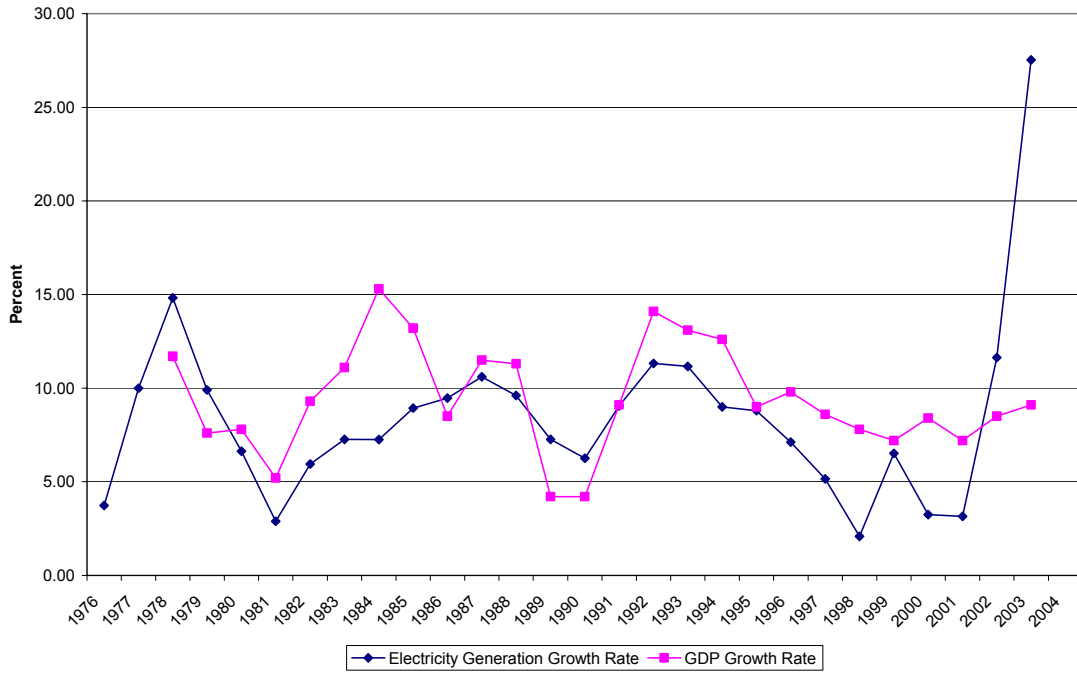
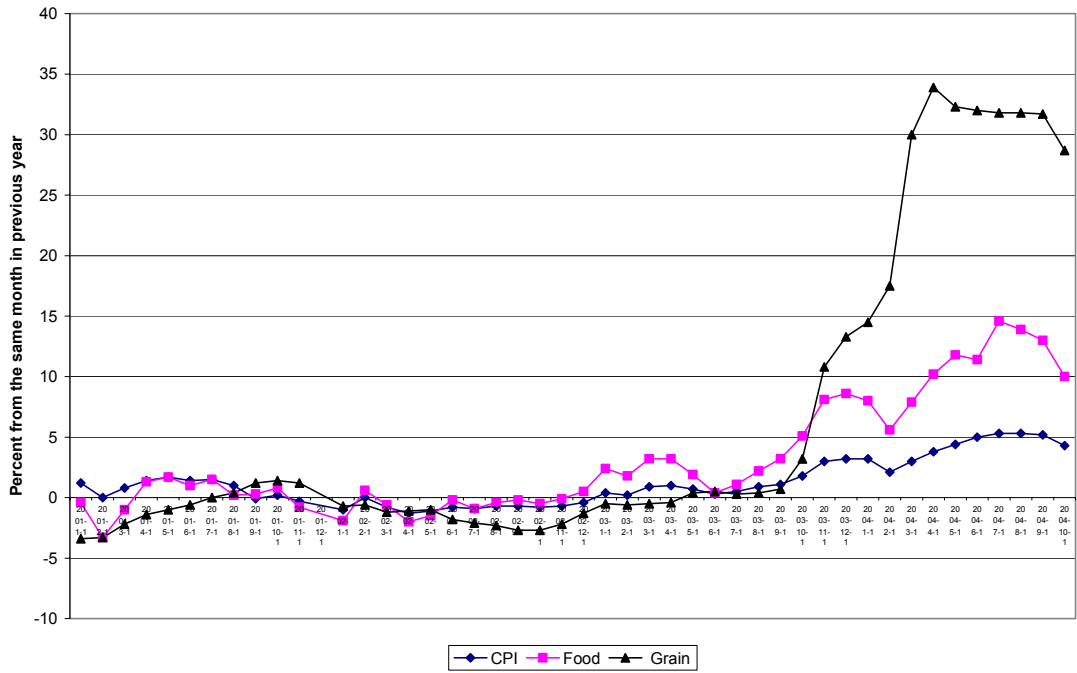
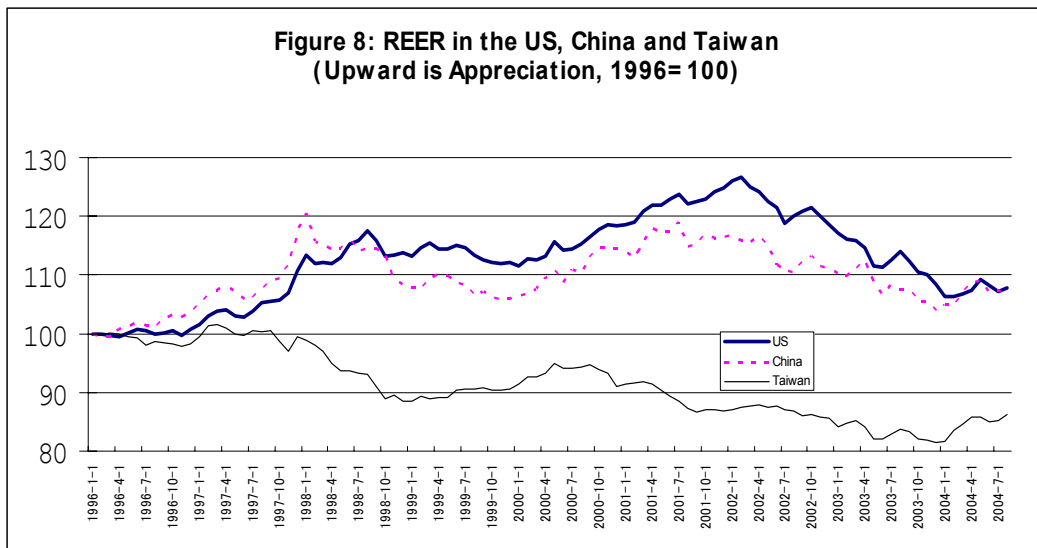
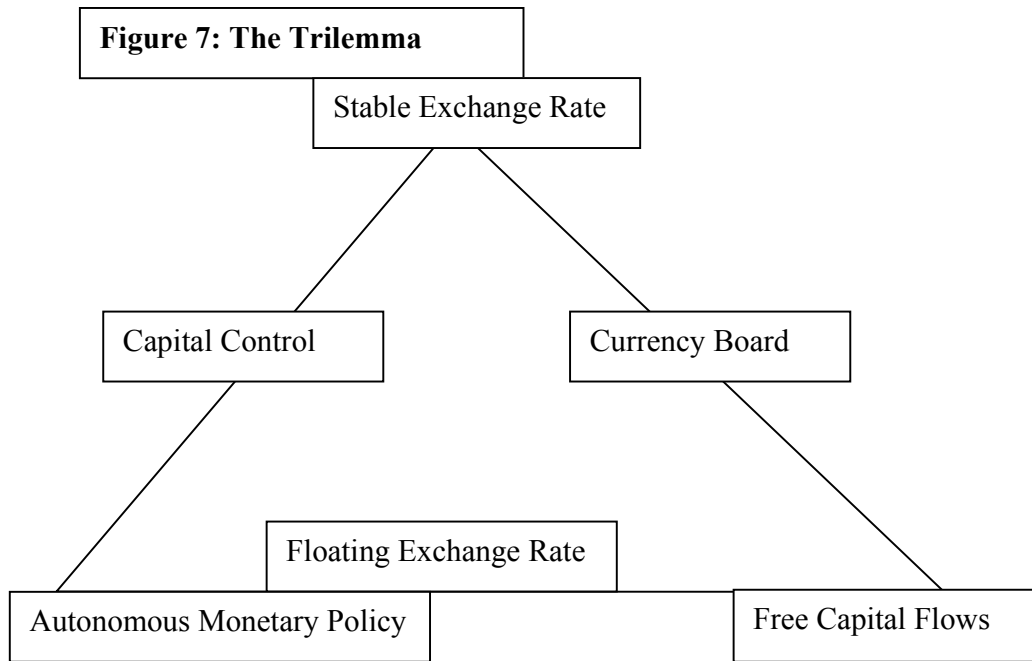


Figure 6: Overall Consumer, Food, and Grain Price Indexes





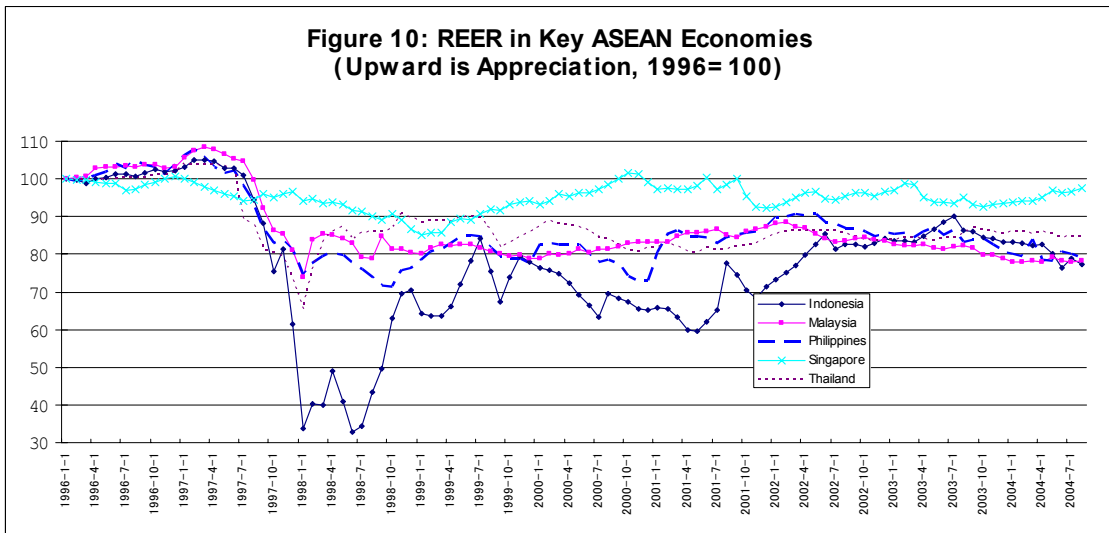
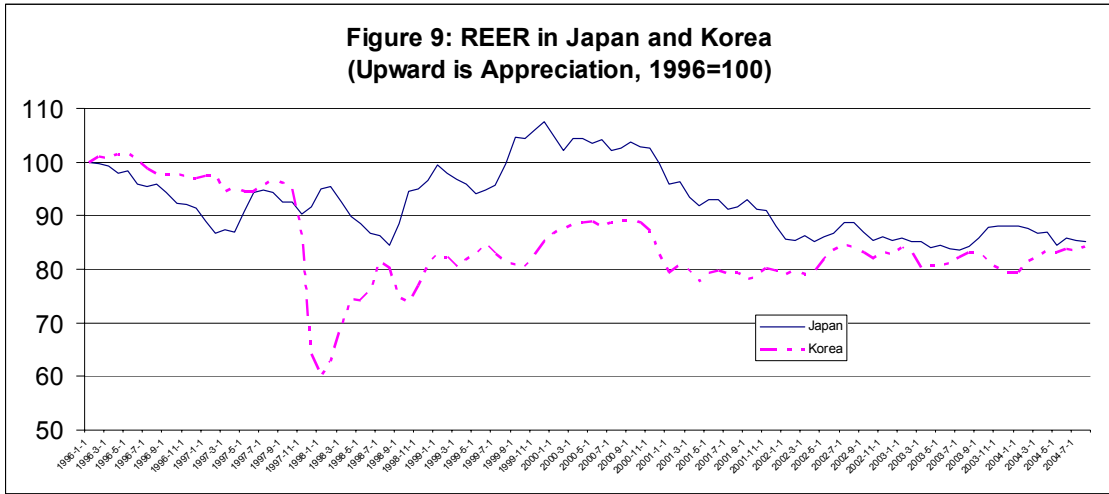


Figure 11: Comparison of PBOC 3-Month Relending Rates and US Treasury and Agency Debt Yields

