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China's New Exchange Rate Policy: Will China Follow Japan into a Liquidity Trap?

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On July 21, 2005, China gave in to concerted foreign pressure—some of it no doubt well meant—to give up the fixed exchange rate it had held and grown into over the course of a decade. China's exchange rate had been successfully fixed at 8.28 yuan per dollar within a narrow range of plus or minus 0.3 percent with no restraints on the renmibi's value against non-dollar currencies. With this exchange rate anchor for its monetary policy, inflation declined and China's extraordinarily high real growth became more stable. However, the U.S. Congress had threatened, and still threatens, to pass a bill that would impose an import tariff of 27.5 percent on Chinese imports unless the renminbi was appreciated, and pressured the U.S. Administration to retain China's legal status as a "centrally planned" economy (despite its wide open character) so that other trade sanctions—such as anti-dumping duties—could be more easily imposed.

The Chinese authorities also announced on July 21 that they would allow greater exchange rate flexibility for the renminbi against a basket of currencies, in which the dollar would only be one of several currencies including the euro, the yen, the pound sterling, the won, the ruble, and so forth. However, they did not announce what the weights of these foreign currencies would be. Basket pegging is particularly favored by Japanese economists who want the yen be more heavily represented in the currency baskets of other East Asian economies. But, as we shall see, basket pegging is an idea that is ill defined and not sustainable.

Currency baskets aside, the probability of future appreciation of the renminbi against the dollar has become greater since the People's Bank of China abandoned its traditional "parity" rate of 8.28. True, the actual appreciation against the dollar since July 21 of the still tightly controlled renminbi has been trivial—less than 3 percent. And it is much less than the 20 to 25 percent appreciation called for by vociferous American critics of China's foreign exchange policy.[2] But the move signaled that further appreciations had become more likely in the guise of achieving greater exchange rate flexibility.

American pressure on China today to appreciate the renminbi is eerily similar to the American pressure on Japan that began almost 30 years ago to appreciate the yen against the dollar. There are some differences between the two cases, but downward

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[2] Many lodged in the Institute for International Economics in Washington, D.C. See the articles by Fred Bergsten, Morris Goldstein, Nicolas Lardy, and Michael Mussa in Bergsten (2005).

pressure on interest rates from foreign exchange risk could lead China into a zero-interest liquidity trap much like the one Japan has suffered since the mid-1990s.

From Japan to China Bashing

To understand the origins of the foreign exchange risk that could eventually lead to a zero-interest-rate trap, consider first the earlier mercantile interaction between Japan and the United States, and then the recent trade disputes between China and the U.S.

Figure 1 (courtesy of Kenichi Ohno) shows that Japan's bilateral trade surplus, largely in manufactures, with the United States began to grow fast in the mid-1970s, peaked out at about 1.4 percent of U.S. GNP in 1986, and remained substantial subsequently. Somewhat arbitrarily, I demarcated the period of intense "Japan bashing" by many Americans and Europeans as falling between 1978 and 1995. "Japan bashing" came to mean the continual threat of U.S. trade sanctions on Japanese exports unless Japan ameliorated competitive pressure on impacted American industries. Typically, these trade disputes were resolved by Japan's agreeing to serially impose temporary export restraints on steel, autos, televisions, machine tools, semiconductors, and so on, *coupled with* allowing the yen to appreciate[3]. Indeed, the yen did appreciate episodically all the way from 360 to the dollar in 1971 (just before the Nixon shock) to 80 to the dollar in April 1995.

By 1995, the Japanese economy had become so depressed by the overvalued yen (*endaka fukyo*), that the Americans relented and Secretary of the Treasury Robert Rubin announced a new "strong dollar" policy. The U.S. Federal Reserve Bank jointly intervened with the Bank of Japan several times in the spring and summer of 1995 to stop the yen's going ever higher. Since then, the yen has fluctuated widely (perhaps too much so), but has never again gone so high as 80 to the dollar—and Japan bashing more or less ceased. Nevertheless, Japan has still not fully recovered from its lost decade of the 1990s.

Now China bashing has superseded Japan Bashing. China's bilateral trade surplus with the United States was insignificant in 1986, but then began to grow much more rapidly than Japan's after 1986. By 2000, figure 1 shows that China's was as large as Japan's bilateral surplus, and by 2004, it was twice as large. However, Japan, with its still much bigger economy in 2004, had an overall current account surplus (measured multilaterally) of US$172 billion and China's was "only" US$70 billion. Nevertheless, a large and growing *bilateral* trade surplus concentrated in competitive manufactures with the United States has triggered U.S. threats of trade sanctions and demands for currency appreciation—pressure that China had felt for a least four years before giving in last July.

Interestingly, in Japan's great high-growth era of the 1950s and 1960s, its manufactured exports to the United States grew even more rapidly than in subsequent

[3] The syndrome of the ever-higher yen is described in Ronald McKinnon and Kenichi Ohno *Dollar and Yen: Resolving Economic Conflict between the United States and Japan*, (MIT Press 1997; Japanese translation: Nihon Keizai Shimbun 1998).

decades, much like China's today. But back then, Japan had roughly balanced trade (no saving surplus) with the rest of the world. Because Japan's imports of both primary products and manufactured goods, many from the United States, also grew rapidly, Americans broadly tolerated rapid increases in manufactured imports from Japan. Painful restructuring in American import-competing industries were offset by export expansion, often in manufacturing. So pressure for *net* contraction in American manufacturing was minimal because there was no overall American current account deficit.

However, the situation changed dramatically in the late 1970s and 1980s when the U.S. first began to run large overall current account deficits—including large bilateral trade deficits with Japan (figure 1). These overall deficits were widely attributed to an American saving shortage from large U.S. fiscal deficits: the famous twin deficits of the era of President Ronald Reagan in the 1980s. Heavy U.S. international borrowing, largely from Japan, could only be transferred in real terms by the United States' running a deficit in tradable goods or services—and Japan's principal export was manufactures. America ran a large trade deficit in manufactures, leading to a net contraction in the size of its manufacturing sector. Because political lobbies in American import competing sectors hurt by Japanese competition became stronger than those in the shrinking export sector, Japan bashing became more intense in the 1980s before peaking out in 1995.

In the new millennium, China's emergence as a major trading nation has coincided with a new round of war-related deficit spending by the U.S. federal government, and surprisingly low personal saving by American households—perhaps because of the bubble in U.S. residential real estate. This American saving deficiency results in an enormous overall current-account deficit of about 6 percent of American GDP in 2004 and 2005—much bigger then the combined current account surpluses of Japan and China.

Rather than a saving deficiency in the United States, the alternative, or perhaps complementary, theory is that there is a saving glut in the rest of the world—not only in East Asia but increasingly in oil-producing countries in the Middle East and elsewhere (Bernanke, 2005). Indeed, Zhou Xiaochuan, Governor of the People's Bank of China, has stressed that the best way to bring down China's overall (multilateral) current account surplus is to increase consumption in China itself[4]. But most East Asian countries have current account (saving) surpluses—some of which are a larger proportion of their GNPs than is China's. Whether the problem is a saving deficiency in the United States, or a saving glut elsewhere, or both, the result is a substantial widening of the American trade deficit in manufactures—for which there is no exchange rate solution, as we shall see.

Why then is China bashing in the U.S. now so much more intense than Japan bashing or Germany bashing when the latter two countries still have larger manufactured exports and larger overall current account surpluses than China's? Because of the idiosyncratic way in which world trade, and Asian trade in particular, is organized, China's *bilateral* trade surplus with the United States is bigger and more noticeable to American politicians. Virtually all East Asian countries today have overall current

[4] *Wall Street Journal* Oct 7, 2005.

account surpluses, and several have bilateral trade surpluses with China. China buys high- tech capital goods and industrial intermediate inputs from Japan, Korea, Taiwan, Singapore, and European countries such as Germany—and also buys raw materials from many sources in Asia, Latin America, Africa, and elsewhere. China then transforms these inputs into a wide variety of middle-tech manufactured consumer goods for the U.S. market. Many of China's exports are from final processing industries, where valued added per good produced in China itself isn't high because many of the components come from Asian neighbors and elsewhere.

However, Americans see the proliferation of "Made in China" labels in the huge influx of imported of finished consumer manufactures, and American politicians myopically blame China for being an unfair competitor. But China is merely the leading edge of a more general, albeit somewhat hidden, East Asian export expansion into the United States—which in turn reflects very high savings rates by Asians collectively and abnormally low saving by Americans.

Selective Restraints on Exports

China bashing today primarily takes the form of pressuring China to appreciate its currency, or to let the yuan/dollar rate be more "flexible." China's ongoing accumulation of dollar claims from its trade surplus and inflows of foreign direct investment (FDI) would lead to an indefinite upward spiral in the renminbi if it was floated.[5]

By contrast, in the earlier 1978-95 period of Japan bashing, American demands for a general appreciation of the yen were often coupled with the demand that Japan impose "voluntary" restraints on exports of particular products. Because past waves of Japanese exports into the world and American markets were successively concentrated in heavy industries— such as steel, autos, televisions, semi-conductors, and so on— it made sense to soften the impact on different American import-competing industries by temporarily restricting Japan's export growth in these particular products. American industrial lobbies in heavy industries were concentrated and politically potent.

In contrast, recent Chinese exports into the American market have been low to middle tech products of light industry. Rather than being concentrated in particular heavy industries, they are spread across the board, and protectionist lobbies for specific industries in the United States are not so ardent as in the earlier Japan-bashing campaigns. The one big exception is textiles and apparel, where China's position has been complicated by the expiration on January 1, 2005, of the international multi-fiber agreement (MFA) that had limited Chinese textile exports into world markets. However, as a matter of practical politics for relieving foreign distress, China could voluntarily, but temporarily, re-impose constraints on its own textile exports through tariffs or quotas—as per Japan's earlier restraints on its exports—although neither were (are) legally obligated to do so.

[5] See McKinnon 2005, ch. 5.

The Exchange Rate and the Trade Balance

Although temporary restraints on particular export products, whose rapid growth disrupts markets in importing countries, are all well and good, America's demand that China appreciate its currency against the dollar is as unwarranted now as was the earlier pressure on Japan to appreciate the yen. A sustained appreciation of a creditor country's currency against the world's dominant money is a recipe for a slowdown in economic growth, followed by eventual deflation, as Japan found to its sorrow in the 1990s[6]. But the net effect on its trade surplus is indeterminate.

Nevertheless, a reading of the recent financial press and writings of many influential economists on both sides of the Pacific Ocean suggests that a major depreciation of the dollar is needed to correct the current account and trade deficits of the United States. For this purpose, they argue, East Asian countries should stop pegging their currencies to the dollar. Especially China should substantially appreciate the renminbi and then move to unrestricted floating.

This mainstream view rests on two crucial presumptions. The first is that an appreciation of any Asian country's currency against the dollar would significantly reduce its trade surplus with the United States. The second is that a more flexible exchange rate is needed to fairly balance international competitiveness. But under the regime of the international dollar standard, neither presumption holds empirically. Consider the effect of the exchange rate on the trade balance first.

If a discrete exchange rate appreciation is to be sustained, it must reflect relative monetary policies expected in the future: relatively tight money and deflation in the appreciated country and relatively easy money with inflation in the country whose currency depreciates. There are three channels through which this necessarily tighter monetary policy imposes deflationary pressure in a creditor economy that appreciates.

First, there is the effect of international commodity arbitrage. An appreciation works directly to reduce the domestic currency prices of imported goods whose world market prices are more or less fixed in dollars. (The pass-through effects of an exchange rate change for countries on the periphery of the dollar standard are much stronger than in the United States itself.) And because domestic exports are seen to be more expensive in foreign exchange, the fall in foreign demand for them directly bids down their prices measured in the domestic currency. This fall also indirectly reduces domestic demand elsewhere as the export and import-competing sectors contract.

Second, there is a negative investment effect. A substantial appreciation makes the country look like a more expensive place to invest, particularly in export or import competing activities. This applies strongly to foreign direct investment (FDI) as well to purely national firms looking to compete in foreign markets. Even foreign investment in domestic nontradables, service activities of many kinds, will be somewhat inhibited because most potential foreign investors are capital constrained. That is, they are limited

[6] McKinnon and Ohno 1997 *op.cit.*

by their equity positions or net worth—and an exchange rate appreciation will require more equity in dollars to buy any given amount of domestic physical capital. The upshot is that, in the country with the newly appreciated currency, investment slumps.

Third, there is a negative wealth effect from being an international creditor with net dollar assets. Because these dollar assets lose value in terms of the domestic currency, the deflationary impact of an exchange appreciation is accentuated. This negative wealth effect further reduces domestic consumption as well as investment and aggravates the slump (growth slowdown) in the domestic economy.

So we have three avenues through which the impact of an appreciation reduces domestic spending and sets (incipient) deflation in train within a creditor country holding dollar assets. The resulting fall in aggregate domestic demand also reduces the demand for imports even though imports have become cheaper. True, the relative price effect of an appreciation also makes domestic exports more expensive to foreigners, so exports decline. But the fall in imports could be sufficiently strong so as to leave the net trade balance indeterminate theoretically[7]. For example, when Japan was cajoled (forced) into appreciating the yen several times from the mid-1980s into the mid-1990s, it was thrown into a decade-long deflationary slump with no obvious decline in its large trade surplus measured as a share of its GNP.

The Exchange Rate as Monetary Anchor

Beyond wanting to "adjust" the trade balance, many economists and commentators in the financial press—including such heavyweights as the International Monetary Fund—also argue for exchange rate flexibility in order to insulate domestic macroeconomic policy from the ebb and flow of international payments. The IMF advises China to make its exchange rate more flexible in order increase its "monetary independence," particularly from the United States. But is this good advice for a rapidly growing developing country whose financial system is still immature?

Outside of Europe, the dollar is the prime invoice currency (unit of account) in international trade in goods and services. All primary products—industrial materials, oil, food grains, and so forth—are invoiced in dollars. A few mature industrial countries invoice some of their exports of manufactured goods and services in their own currencies. But even here, the international reference price of similar manufactures is seen in dollar terms. So manufacturers throughout the world "price-to-market" in dollars if they can. Because most East Asian countries invoice their trade in dollars, these countries collectively are a natural dollar area. Japan is the only Asian country that uses its own currency to invoice some of its own trade. Even here, almost half of Japan's exports and three-quarters of its imports are in dollars. But when China trades with Korea, or Thailand with Malaysia, all the transactions are in dollars.

[7] Hong Qiao, "The Exchange Rate and the Trade Balance under the Dollar Standard", Stanford University SCID Working Paper, 2005.

For three closely related reasons, each East Asian country has a strong incentive to peg to the dollar, either formally or informally, thus hitching its monetary policy to that of the center country.

First, as long as the purchasing power of the dollar over a broad basket of tradable goods and services remains stable, as it has from the mid-1990s to the present, then pegging to the dollar anchors the domestic price level. The extent of dollar-invoiced trade among neighbors in East Asia is now much greater than trade with the United States itself[8]. Thus the anchoring effect for any one country pegging to the dollar is stronger because East Asian trading partners are also pegging to the dollar.

Second, East Asian countries are strong competitors, particularly in manufactures, in each other's markets as well as in the Americas and Europe. No one East Asian country wants its currency to appreciate suddenly against the world's dominant money. This would lead to a sharp loss in mercantile competitiveness in export markets, followed by a general slowdown in its economic growth, followed by outright deflation if appreciation continued.

Third, domestic financial markets in a high-growth developing country such as China now, or Japan in the 1950s and 1960s, exhibit both rapid transformation and incomplete liberalization. In China's immature bank-based capital market, domestic money growth is high and unpredictable, while many interest rates remain officially pegged. Thus the People's Bank of China (PBC) cannot rely on observed domestic money growth or interest rates as leading indicators of whether monetary policy is being too tight or too easy. Whence the importance of relying on an external monetary anchor—360 yen/dollar in the 1950s and 60s for Japan, and 8.28 yuan/dollar from 1995 to July 21, 2005 for China—as a *benchmark* for the national monetary (and fiscal) authorities. To secure their well-defined exchange rate target, the authorities can then use a range of ad hoc administrative controls over bank credit, reserve requirements, limited interest rate adjustments, and sterilization of the monetary impact of accumulating official exchange reserves. The incidental or indirect effect is then to stabilize the domestic price level.

However, this external monetary benchmark was not useful in the earliest stages of China's transition to a market economy. After 1978, China began gradually to dismantle internal price controls but left restrictions on foreign trade largely intact—except for a few special economic zones. For almost a decade and a half afterward, the economy was not generally open to free international commodity or financial arbitrage. Foreign trade was organized by state trading companies that (tried to) insulate domestic from foreign relative prices independently of the exchange rate—the so called air lock system. Indeed, beginning at the overvalued but meaningless level of about 1.7 yuan per dollar in 1978, the renminbi was devalued several times in the 1980s to reach 5.5 yuan per dollar in 1992 without much impact on domestic prices. The exchange rate was not, and could not be, an anchor for domestic monetary policy and the price level in this early phase of China's financial transformation

[8]McKinnon and Schnabl 2004, McKinnon 2005

In effect, before 1994, China was following a national monetary policy that was largely independent of the foreign exchanges. Gregory Chow (2002, ch.7) documents how the Chinese lost monetary control and over issued domestic money in 1984, 1988-89, and 1993-94. Thus domestic price inflation followed the roller coaster ride shown in figure 2[9] without any smoothing effect coming through the foreign exchanges. This early Chinese experience with highly variable rates of inflation illustrates how difficult it is for a very high growth economy to stabilize its national price level independently.

In 1994, however, China unified its exchange rate regime and moved toward current account convertibility in international payments for exporting and importing. (In 1996, China formally accepted Article VIII of the International Monetary Fund defining currency account convertibility. But the process was well begun before then.). This new regime now permitted direct price arbitrage in markets for internationally tradable goods and services. All well and good. But in unifying its official exchange rate with so-called swap-market rates, the PBC devalued the official rate too much—from 5.6 to 8.7 yuan/dollar, where 8.7 was the previous swap market rate (figure 3). This large, although somewhat accidental, depreciation then aggravated the burst of inflation over 1994-96. Figures 2 and 3 show that the CPI increased more than 20 percent in 1995—a penalty for over depreciating the exchange rate in the post-1994 regime of greater economic openness.

However, from 1995 to July 21, 2005, the Chinese authorities held the now-unified exchange rate constant at 8.28 yuan/dollar (plus or minus 0.3 percent). For these 10 years, they subordinated domestic monetary and fiscal policies to maintaining the fixed exchange rate—including not devaluing in the Asian crisis of 1997-98 when they came under great pressure to do so. They also further dismantled tariffs and quotas on imports faster than their WTO obligations required.

This move to greater economic openness, coupled with the fixed nominal exchange rate, ended the roller coaster ride in China's domestic inflation. Using four different measures of domestic inflation, Figure 2 shows the inflation slowdown in China's after 1996. Not coincidentally, figure 3 shows the convergence of inflation in China's CPI to that experienced by the United States—now the nominal anchor. So far in 1995, China's CPI increased less than 2 percent year over year. (In 2004, a substantial blip in primary commodity prices including oil was not fully passed through to the retail level.) In the new millennium, this international monetary anchor of a fixed exchange rate greatly helped China stabilize its domestic price level compared to its earlier "roller coaster ride".

But more was involved than just stabilizing inflation in China. Figure 4 shows that, after 1994, China's very high growth in real GDP also became more stable. No doubt that other explanations of the end of China's roller coaster ride in both inflation and real growth rates are possible. However, the data are consistent with my hypothesis that fixing the nominal exchange rate provided the much needed anchor. (The downside,

[9] Figure 2 and the expression "roller coaster ride" are courtesy of Michael Funke (2005)

of course, would be if the United States itself lost monetary control and inflated too much. And the U.S, Federal Reserve Bank did seem to be too easy, i.e. kept interest rates too low, in 2004 into 2005—but seems to be recovering in late 2005.)

Behind the scenes in this remarkable convergence of Chinese to American rates of price inflation is the high rate of growth in money wages in China. In China's "catch up" phase, where the level of output per person is much less than in mature industrial economies, growth in productivity per worker is naturally very high. However, as long as money wages grow very fast to reflect this productivity growth, currently 10 to 12 percent per year, then international competitiveness remains balanced. And this is what happened in China in the past 10 years, and in Japan in its fixed exchange rate period from 1950 to 1970. As long as the nominal exchange rate remains securely fixed, then wage growth in the peripheral country naturally tends to track productivity growth in the most open tradable sector, i.e., manufacturing for China now and for Japan back in its 1950s and 1960s[10].

This high growth in money wages, reflecting high productivity growth, then secures the convergence of the rate of inflation in the peripheral country to that in the center country (figure 3) and secures the sustainability of the fixed exchange rate. But if the exchange rate appreciates and future appreciation seems more likely, then employers in the tradables sector will bid more cautiously for workers so money wage growth slows below the rate of productivity growth. This slowdown in wage growth then becomes integral to the general deflationary pressure arising from anticipated exchange appreciation—as in Japan from the mid-1980s into the 1990s[11].

A Liquidity Trap for China?

Partly arising out of codicils to the accord that secured China's entry into the WTO, financial liberalization remains an important objective of China's government. "Liberalization" has both an internal and external dimension. The government wants to move toward the decontrol of domestic interest rates, particularly on bank deposits and loans. Then, with freer interest rates, a more robust domestic bond market at different terms to maturity can be established. Eventually, the liberalization of capital controls in the balance of payments will permit a more active forward market for hedging foreign exchange risk to develop.

These are important and laudable objectives for improving the efficiency of China's capital markets in the long run. Now, however, with China's economy threatened by ongoing appreciation of the renminbi, liberalizing the financial system could have perverse short-run consequences. In the face of undiminished foreign exchange risk, i.e., the probability that the renminbi could appreciate, a near zero interest rate liquidity trap is possible—even likely. Figure 4 shows China's interbank interest rate in mid-2005 falling toward 1 percent even as the U.S. federal funds rate (coming off all time lows) rose to 3.5

[10] See my previous article for *The Weekly Economist* in Japanese in September 2004. (Also translated into English in *China & World Economy*, Sept –October (2005)
[11] *The Weekly Economist, op.cit.*

percent. Although the PBC still pegs bank deposit and some loan rates, China's interbank interest rate is fairly freely determined. (Figure 4 also shows Japan's short-term interest rate being stuck close zero since 1996: the dreaded liquidity trap.)

The basic problem is one of achieving portfolio balance between the holding of dollar and renminbi interest-bearing assets. In a liberalized capital market, investors must be compensated by a higher interest rate on dollar assets because of the risk that the renminbi might appreciate. But interest rates on dollar assets are given in world markets independently of what China does. Thus, the only way in which the market can establish the necessary interest differential is for interest rates on renminbi assets to fall below their dollar equivalents. If interest rates on renminbi assets don't fall immediately, then short-term capital ("hot" money) flows into China as investors try to switch their dollars into renminbi. The resulting upward pressure for exchange appreciation then forces the PBC to enter the foreign exchange market and buy the dollars to avoid an upward spiral. The huge buildup of dollar foreign exchange reserves, now almost US$800 billion, and consequential internal expansion of the domestic monetary base then drives down domestic short-term interest rates—at least until they hit zero.

Notice that just letting the renminbi float upward, or appreciate discretely, does not resolve the dilemma. Indeed it worsens it. Actual appreciation would lead to actual deflation with further downward pressure on domestic interest rates. From Japan's earlier experience of an erratically appreciating yen, we know that interest rates on yen assets were compressed toward zero in the ensuing deflation. And since actual appreciation need not reduce China's trade surplus, American pressure on China to appreciate further would only continue—as it did on Japan before 1995.

The first-best solution is to fix China's exchange rate in a completely credible way so that there is no fear of currency appreciation. Then financial liberalization could proceed with market interest rates remaining at normal levels, i.e., close to world or American rates. But the recent abandonment of China's "traditional parity" of 8.28 yuan per dollar, which it had held for 10 years, makes a new credibly fixed exchange rate strategy more difficult—and certainly not possible for some time.

Failing this, the second-best solution is for China to continue, and possibly strengthen, its foreign exchange restrictions on liquid financial inflows—thus limiting the foreign pressure to drive interest rates down. In addition, the PBC may have to continue to peg some bank interest rates on both deposits and loans above the relatively free interbank rate of interest. Unless lending rates remain comfortably above zero, normal bank profit margins cannot be maintained.

The prolonged experience of Japan from the early 1990s to the present, with interest rates compressed toward zero, was to sharply reduce the normal profit margins of commercial banks. This made it virtually impossible for them to work off old bad (nonperforming) loans, and they became reluctant to extend new bank credits—thus deepening Japan's slump in the 1990s.[12]

[12] See Goyal and McKinnon 2003, and McKinnon 2005, ch. 4).

China's Dysfunctional Currency Basket

Because of complaints from foreign exchange dealers, on September 23, 2005, China announced a sudden doubling of its exchange rate band against non-dollar currencies to plus or minus 3 percent. But these complaints mask the deeper problem that China's new policy of achieving greater exchange rate flexibility by pegging to a basket of foreign currencies is dysfunctional.

While keeping the traditional policy of pegging to the dollar within a narrow range of plus or minus 0.3 percent (but with a slightly more flexible central rate), the People's Bank of China (PBC) interpreted the currency basket as a mandate to also intervene directly against other major currencies. Before September 23, the PBC tried to establish trading ranges of plus or minus 1.5 percent against the yen, euro, and so on. Unfortunately, the Chinese authorities did not understand, and many foreign advocates of basket pegging do not understand, that any country can have at most only one independent foreign exchange intervention. If the PBC pegs against the dollar, it cannot also peg against other currencies without causing an impasse as these other currencies vary against the dollar.

It is reminiscent of the old N-1 problem. If there are N currencies in the world, only N-1 independent foreign exchange interventions are possible. Putting aside the euro's relationship to Eastern Europe, the world is largely on a dollar standard where the Nth or center country is the United States which cannot itself consistently intervene. But for every other country, the simplest solution is to pick the dollar as the common intervention currency because it is the most widely used in practice. Then each of the other N-1 countries has just *one* independent intervention against this dominant international money without causing trouble. China should intervene *only* against the dollar. Otherwise, if the PBC intervenes to peg the dollar rate at, say, 8 yuan per dollar, and to peg the euro at, say, 10 yuan per euro, it will be trying to impose a cross rate of one euro = 1.25 dollars. But this particular cross rate is only notional. Outside of China, if the open market rate for one euro moves away from $1.25, the PBC won't be able to hold both intervention targets unless it enters the vast international market in foreign exchange to fix the dollar/euro rate at 1.25. This would require massive intervention by the PBC that could never be sustained—not even by China with its huge foreign exchange reserves.

However, if the PBC keeps the dollar as the sole intervention currency for the RMB, it could still give more weight to the yen or euro by simply changing the dollar intervention points in keeping with its basket mandate. If the yen appreciated against the dollar, it could have a sliding scale where the RMB appreciated by, say, one third as much (if the weight assigned to the yen was one third) against the dollar. While technically possible in the sense of avoiding inconsistencies, the results would still be a mess because on every day the euro, yen, pound, won, and so on fluctuated against the dollar, the PBC would have to keep changing its intervention point for the RMB against the dollar. With lags involved, it would probably be "front run" by Goldman Sachs and other investment banks who would anticipate what the PBC had do. (No wonder that

countries who say they are on basket pegs don't publish the weights!)

If one introduces bands around central rates, the basic N-1 inconsistency problem remains, but seeing it becomes more complex. The PBC is right to retain small margins against the dollar but is not right to try to set any band width against other currencies. Doubling its already wide bands against other important currencies to plus or minus 3 percent won't resolve the problem for long. For some days or weeks after September 23, these new band limits could well remain redundant and require no official intervention to maintain. But once time passes, some other major currency is going to move cumulatively in one direction by more than 3 percent against the dollar. Then the PBC's new widened band limits will inevitably be violated, and inconsistencies will show up all over again. To avoid further damage to its credibility, the PBC is better off scrapping any mention of band limits against—or weights given to—non-dollar currencies.

Although the PBC has embarked on inconsistent foreign exchange interventions, a bigger problem of inconsistency lies with United States. As befits the Nth or center country under the world dollar standard, the U.S. quite correctly seldom intervenes in the foreign exchange market. Without the U.S. Federal Reserve Bank targeting any exchange rate, each of the other N-1 central banks is free to exercise one independent intervention against the dollar without conflict. However, if the U.S. government then complains about the rates other central banks choose, the possibility of serious conflict arises. Today the U.S. is bashing China to force an unwarranted appreciation of the RMB against the dollar. But just 20 years ago, Japan bashing to force ongoing appreciations of the yen ultimately led to Japan's disastrous deflation and "lost decade" of the 1990s.

Conclusion: A Slowdown in Financial Liberalization?

Unfortunately, the unhinging of China's exchange rate as of July 21, 2005 must slow progress in liberalizing China's financial markets if it is to avoid falling into a Japanese-style liquidity trap. By "slowdown", I mean retaining capital controls on inflows of highly liquid "hot" money from dollars into renminbi, and continuing to peg certain interest rates such as basic deposit and loans rates in China's banks—in order to better preserve their profitability. This slowdown is, of course, an unfortunate detour from China's remarkable progress toward a market economy. Financial liberalization can be all well and good *provided that* no uni directional exchange rate change is threatened or in prospect.

If China does fall into a zero interest rate trap like Japan before it, then the PBC, like the BOJ, will be unable to offset deflationary pressure in the economy should a large exchange appreciation actually occur. The ongoing threat of further appreciation would continue because, contrary to popular opinion, China's trade surplus need not diminish as its currency appreciated. Thus, forward-looking exchange rate expectations would tend to drive any "freely" determined market interest rates in China's financial system toward zero. Then, with short-term interest rates locked at zero, the PBC would helpless to re-expand the economy. True, China's economy is now growing robustly and is not likely to

face actual deflation anytime soon, but the PBC would be in poor shape to offset deflationary pressure should it occur.

China is now in a nebulous no man's land regarding its monetary and foreign exchange policies—and its experiment with inconsistent basket pegging doesn't help. Instead of clear guidelines with a well-defined monetary (exchange rate) anchor and a clear mandate to finish liberalizing its financial system, China's macroeconomic and financial decision making will be ad hoc and anybody's guess—as was, and still is, true for Japan.

References

Bernanke, Ben, The Global Saving Glut and the U.S. Current Account Deficit, At the Sandridge Lecture, Virginia Association of Economics, Richmond, Virginia March 10, 2005

Bergsten, C. Fred, and the Institute for International Economics, *The United States and the World Economy*, Institute for International Economics, Washington D.C. 2005.

Chow, Gregory, *China's Economic Transformation*, Blackwell Publishers, 2002.

Funke, Michael, "Inflation in Mainland China: Modelling the Roller Coaster Ride", Hong Kong Instiute for Monetary Research, Working Paper No.15/2005 August 2005.

Goyal, Rishi, and Ronald McKinnon, "Japan's Negative Risk Premium in Interest Rates: The Liquidity Trap and Fall in Bank Lending", *The World Economy* 26, 3, 339-63, 2003.

McKinnon, Ronald, *Exchange Rates under the East Asian Dollar Standard: Living with Conflicted Virtue*, MIT Press 2005. (Translations: Chinese 2005, Japanese forthcoming 2007).

_____ "Exchange Rate or Wage Changes in International Adjustment: Japan and China versus the United States", *The Weekly Economist*, Mainichi Press, Tokyo, September 2004.

McKinnon, Ronald, and Gunther Schnabl, "The Return to Soft Dollar Pegging in East Asia: Mitigating Conflicted Virtue", *International Finance* 7:2, 2004.

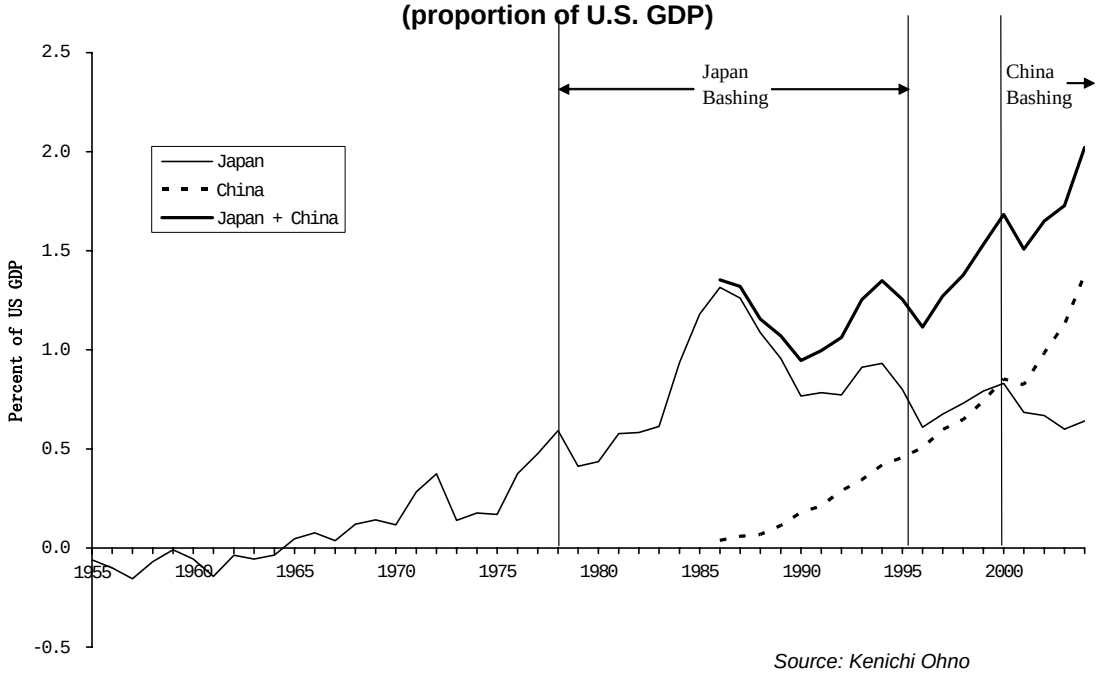
McKinnon, Ronald, and Kenichi Ohno, *Dollar and Yen: Resolving Economic Conflict between the United States and Japan* MIT Press, 1997 (translations: Japanese 1998, Chinese 1999).

Qiao, Hong, "Exchange Rates and Trade Balances under the Dollar Standard" SCID Working Paper, Stanford University, August 2005.

Wall Street Journal, October 7, 2005.

Figure 1

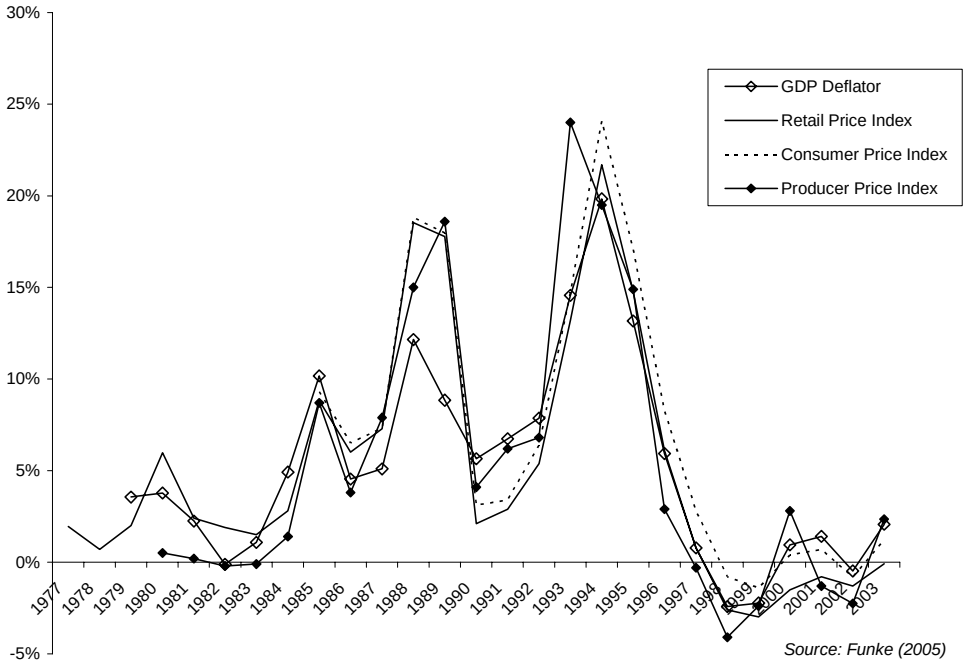
Bilateral Trade Surpluses of Japan and China with the US, 1955 - 2004
(proportion of U.S. GDP)



Source: Kenichi Ohno

Figure 2

China: Alternative Annual Inflation Rates, 1978-2003



Source: Funke (2005)

Figure 3

China - US Inflation Differential and Exchange Rate, 1993-2005

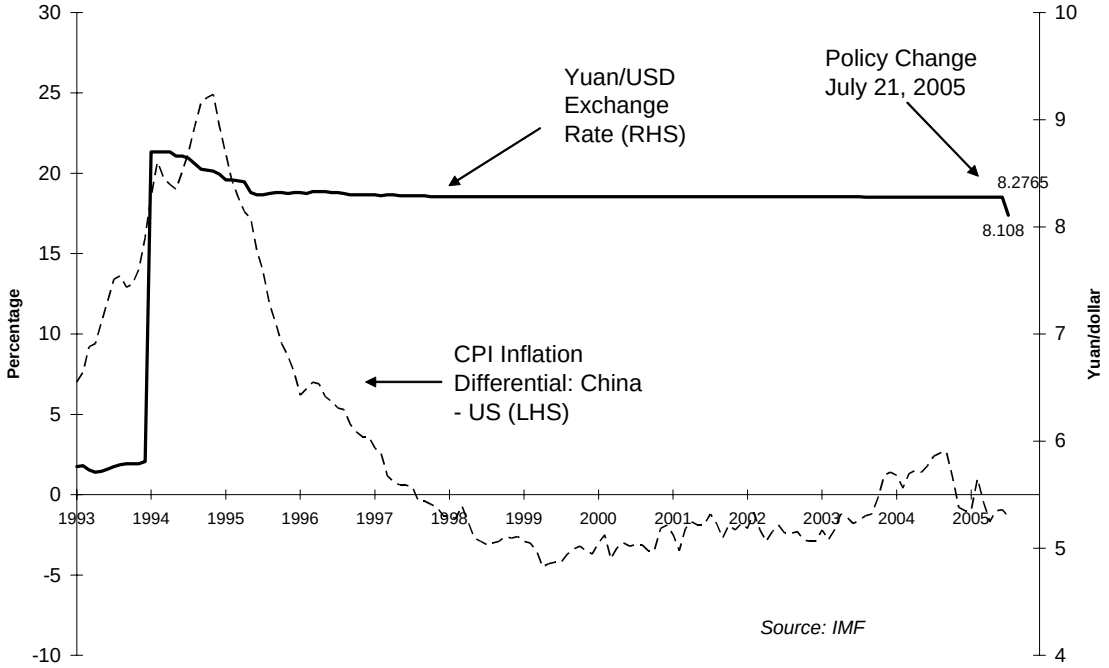


Figure 4

Real Growth and Inflation in China, 1980-2005

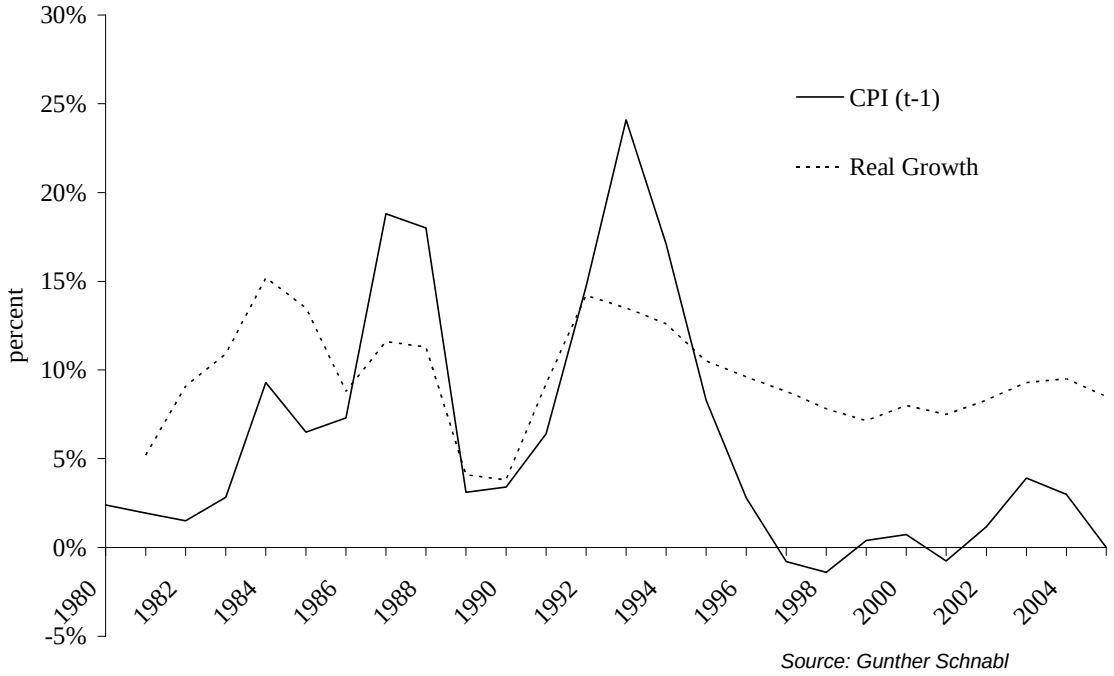
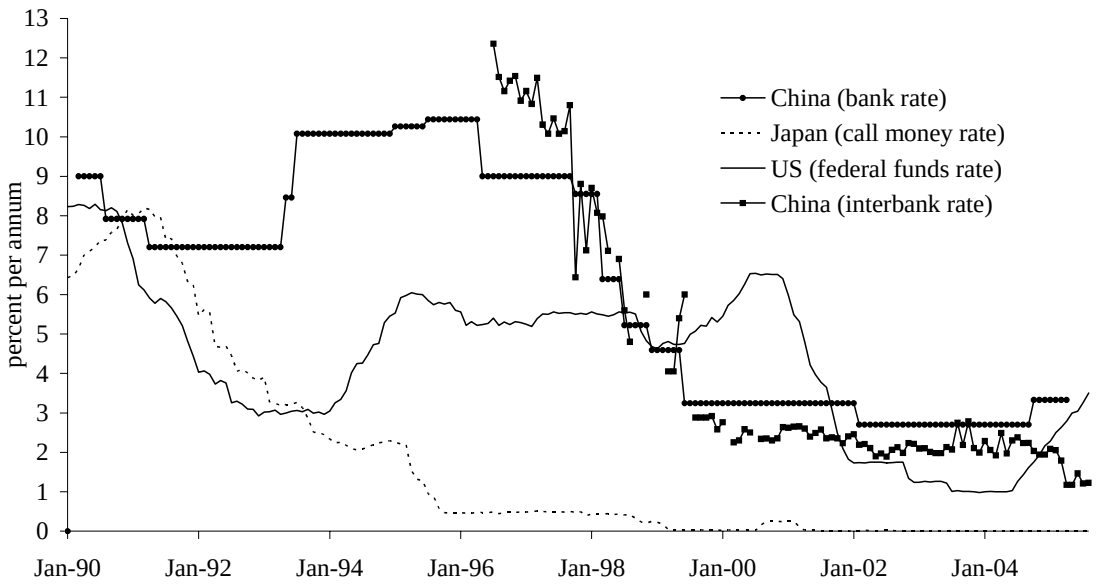


Figure 5

Short-Term Interest Rates: China, Japan and the United States



Source: IMF, Gunther Schnabl