Massive and Persistent Resistance to Substantial and Necessary Appreciation of the Remninbi by the Chinese Authorities: A Comment on McKinnon and Schnabl

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Thank you very much Mr. Chairman. It is a great pleasure to participate in this Conference honoring Bill White on the occasion of his retirement as the Chief Economist of the BIS. I have known Bill for seventeen years, first when he was Deputy Governor of the Bank of Canada and more recently in his role at the BIS. Like most of you here, I have not always agreed with Bill on every point, although I have agreed with him far more often than not. Even when we have disagreed, I have always admired that Bill's papers and comments made important points clearly and succinctly, leaving no doubt about the facts and analysis backing Bill's position.

Following in that tradition, I note that while there are a number of points where I agree with the analysis of McKinnon and Schnabl, their basic conclusion is economic nonsense.[1] Since 2002, the Chinese renminbi has become increasingly undervalued on a real effective basis, as is reflected in a massive expansion of China's current account surplus to over 11 percent of GDP in 2007 and to a world record of 372 billion U.S. dollars. The Chinese government's policy of massive, mainly sterilized intervention to resist appreciation of the renminbi is both a key cause of this massive and growing balance of payments disequilibrium and a violation of China's obligation under the IMF Articles of Agreement to "avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or gain unfair competitive advantage over other members."

[1] For this comment, I draw extensively on Mussa (2008).

This criticism of China's exchange rate policy does not, as McKinnon and Schnabl assert, extend back to "…the mid 1990s." As a senior official of the IMF with direct responsibility for exchange rate surveillance, I know as a fact that while the Fund was already becoming concerned about the overvaluation of the U.S. dollar (relative to longer-term fundamentals) in 1999-2001, the Fund expressed no general view that the renminbi was undervalued at least through June of 2001 (when I stepped down as Economic Counsellor). Prominent critics of China's recent exchange rate policy, most notably my Peterson Institute colleagues Morris Goldstein and Nicholas Lardy, did not launch their analyses until 2003; see Goldstein (2004 and 2006) and Goldstein and Lardy (2003, 2006 and 2008)

The Behavior of China's Exchange Rate and Balance of Payments

The facts about China's exchange rate and related policies since 2002, in comparison with the preceding decade, are relevant to examining this controversy. Figure 1 shows two widely used measures of China's real effective exchange rate, as well as an estimated longer-run equilibrium path for this real exchange rate. The suggested equilibrium path embodies the assumption that the B; Balassa(1964)/Samuelson(1964) effect for China induces a 2 percent annual rate of appreciation of the real effective exchange rate. (Recent evidence on very rapid productivity growth in China's manufacturing industries suggest that the rate of appreciation of the equilibrium real effective exchange rate has probably picked up in the past few years; see Lardy 2007.)

Figure 1 indicates (by construction) that China's real effective exchange rate was somewhat undervalued relative to its longer run equilibrium path in the years immediately following the reform of the exchange rate regime at the beginning of 1994. Rapid domestic inflation in China (above the rates prevailing in its trading partners) soon eliminated this undervaluation. By 1997-98, much lower Chinese inflation, the general appreciation of the U.S. dollar (to which the renminbi was pegged) and the collapse in the foreign exchange values of many Asian currencies against the dollar and the renminbi induced moderate overvaluation of the renminbi relative to its longer-term equilibrium path. In 2000-2001, the upward trend in the longer-run equilibrium rate and the recovered in the values of key Asian currencies from their crisis lows broadly offset the effects of continued general appreciation of the dollar against non-Asian currencies,

leaving the real effective exchange rate of the renminbi approximately on its longer run equilibrium path in 2002.

As reported in Table 1, during the nine years from 1994 through 2002, China's current account surplus as a share of GDP fluctuated from a low of 0.2 percent in 1995 to a high of 3.8 percent in 1997 and averaged 1.8 percent of GDP. The bulge up in this share in 1997-98 plausibly reflected the usual lagged response to the relative weakness of the renminbi exchange rate (relative to its longer-term equilibrium path) in 1994-96, and the decline in this share in 1999-2001 plausibly reflected the lagged response to the relative strength of the renminbi's real effective exchange rate in 1997-99.

In 2003, China's current account surplus (relative to GDP) begins its ultimately spectacular rise above the levels experienced in 1994-2002 (and in earlier years), reaching in 2007 a share of nearly 12 percent of GDP. Contrary to the intimations of McKinnon and Schnabl, this rapid and massive rise in China's current account surplus is not similar to the current account performances of Japan and Germany on another non-commodity exporting country of substantial size.

Looking for an explanation of this extraordinary recent surge in China's current account surplus, one naturally turns to the established tenants of international economics and the usual empirical regularizes linking current account balances and movements in real effective exchange rates. As illustrated in Figure 1, since 2002 the real effective exchange rate of the renminbi has depreciated very substantially relative to its longer-run equilibrium path. One would normally expect that, with a lag, this real effective depreciation of the renminbi would be reflected in a substantial widening of China's current account surplus. There is no big surprise here. The standard analysis and empirical regularities of international economics work very well.

The Role of Chinese Exchange Rate and Related Policies

The behavior of the real effective exchange rate of the renminbi can be attributed to four proximate factors, but in the end is fundamentally the consequence of China's exchange rate and related policies. The four proximate factors are (1) the continued and probably accelerating real appreciation of the longer-run equilibrium real exchange rate of the renminbi reflecting very rapid productivity growth in China's traded goods industries;

(2) substantial nominal and real depreciation of the U.S. dollar against most of the world's currencies (including recently other important Asian currencies) except the renminbi; (3) a low inflation rate in China through 2006 that was on average below that in the United States and (excluding Japan) China's other major trading partners; and (4) a nominal exchange rate for the renminbi that remained pegged at 8.28 to the U.S. dollar until July 2005 and subsequently depreciated at about a 5 percent annual rate.

Of these four proximate factors, (1) and (2) were largely or entirely independent of China's exchange rate and related policies, but (3) and (4) were critically dependent on these policies. The nominal exchange rate of the renminbi did not remain constant and then appreciate only slowly against the U.S. dollar because of the unimpeded operation of market forces. Since 2002, the Chinese authorities have had to intervene in the foreign exchange market on an increasing massive basis to prevent the renmimbi from appreciating rapidly against the dollar. Cumulatively, the extent of this intervention is reflected in the enormous build up in China's official foreign exchange reserves (and probably some disguised reserve build up) since 2002 to become the world's largest, exceeding $1.5 trillion in 2007 and probably headed above $2 trillion in 2008.

Meanwhile, to prevent the massive accumulation of foreign exchange reserves from exploding the size of the domestic monetary base and generating rapid domestic inflation (potentially on the order of 25 to 30 percent per year), the Chinese authorities have sterilized the monetary effect of the reserve inflows. Between 2002 and 2006 (the last year for which data on monetary aggregates is available), these sterilization operations amounted to almost 3 trillion renminbi, taking the net domestic assets of the People's Bank of China (PBOC) down from 2.2 trillion renminbi to minus 0.8 trillion renminb. As indicated in Table 1, sharp annual declines in net domestic assets averaged more than 4 percent of China's GDP and offset much ot the annual gains in foreign exchange assets, which averaged about half of the annual gains in foreign assets of the PBOC. The net result was annual increases in the monetary base that averaged about 4 ½ percent which was consistent with meeting the growing demand for base money implied by a rapidly expanding real economy with quite low inflation (with the ratio of base money to GDP remaining very near its normal ratio of 0.37).

What plausibly would have happened if the Chinese authorities had not sterilized most of the monetary effect of the foreign exchange reserve

inflows resulting from their policy of determined restraint of appreciation of the renminbi? Indeed, what plausibly would have happened if the Chinese authorities had maintained the same ratios of net domestic assets and foreign exchange assets in the monetary base (both about 50 percent) that prevailed in 2002? We have a clear indication of the likely result from China's experience in 1994-96 when both the net domestic assets and the foreign exchange assets of the PBOC were growing quite rapidly, leading to quite rapid growth of the monetary base. In this period inflation in China was quite high and (as illustrated in Figure 1) the real effective exchange rate of the renminbi appreciated considerably, both absolutely and relative to its longer-run equilibrium path. With the usual lag of about two years or so, this strong real appreciation was reflected in a narrowing of China's current account surplus (indicated by the data in Table 1).

Looking more hypothetically at the period since 2002, suppose that we accept (temporarily) McKinnon and Schnabl's assertion that the current account balance is not sensitive to the real exchange rate. We may also accept their argument that some of the foreign exchange gains of the PBOC since 2002 (or al least since July 2005) reflected intervention needed to offset capital inflows motivated by expectations of appreciation of the renminbi—intervention that might not have occurred if the Chinese authorities had maintained a rigid exchange rate peg to the dollar. Thus, suppose that the rise in the foreign exchange assets of the People's Bank of China from 2.3 trillion renminbi in 2002 was "only" to 7 trillion renminbi in 2006 rather than to the actual figure of 8.6 trillion renminbi. Rather than the aggressive sterilization policy pursued by the PBOC, assume instead that the PBOC expanded net domestic assets pari passu with gains in foreign exchange assets—a policy similar to that pursued (on average) from 1994 through 2002. The monetary base would have expanded from 4.5 trillion in 2002 to 14 trillion renminbi in 2006, rather than the actual figure of 7.8 trillion renminbi. Clearly, massive sterilization rather than pari passu expansion of net domestic assets makes an enormous difference for the behavior of the monetary base (especially under the McKinnon and Schnabl assertion that the behavior of the current account would have been unaffected by the real appreciation of the renmimbi induced by much more rapid domestic inflation).

It does not require a rabid monetarist to recognize that a doubling of China's monetary base (relative to the actual outcome) would necessarily imply a very much higher domestic price level in 2006 than that which

actually prevailed. With the nominal exchange rate of the renmimbi assumed to have followed the path it actually traversed (or even assuming that it remained pegged at 8.28 renminbi to the dollar as McKinnon and Schnabl would have preferred), there is no doubt that much higher Chinese inflation between 2002 and 2006 would have produced a very substantial real effective appreciation of the renminbi, in accord with the price-specie-flow mechanism that David Hume (1752, reprinted in Cooper 1969) so insightfully described 256 years ago. Thus, the real effective exchange rate would have followed a path much closer to the upward rising path of the renminbi's longer-run equilibrium exchange rate depicted in Figure 1.

Dispensing with McKinnon and Schnabl's bizzare notion that China's current account balance would have been unaffected by this alternative path for the the real effective exchange rate, it is apparent that this alternative policy on sterilization (especially with pari passu expansion of net domestic assets of the PBOC) would have forestalled much if not all of the spectacular rise in China's current account surplus. Of course, smaller current account surpluses would have meant less accumulation of foreign exchange reserves and less pari passu expansion of net domestic assets of the PBOC. The monetary base would still have grown more than it actually did under the actual policy of aggressive sterilization but significantly less than under the assumption of an unchanged path for the current account surplus. Accordingly, domestic inflation would have been higher than under the actual policy of aggressive sterilization but lower than under the (absurd) assumption that the current account would have been unaffected by the alternative path of the real effective exchange rate. The implied, moderate but still substantial, real effective appreciation of the renminbi relative to its actual path would presumably have delivered current account surpluses much closer to those experienced between 1994 and 2002.

This entirely standard analysis establishes how the exchange rate and related policies adopted by the Chinese authorities have prevented effective balance of payments adjustment—in contravention of China's clear obligation under Article IV of the IMF Articles of Agreement. Chinese policies effectively precluded the operation of both of the available mechanisms for adjusting the real effect exchange rate in response to an increasingly wide divergence of the actual rate from its longer-run equilibrium path. First, persistent and increasingly massive official intervention in the foreign exchange market countervailed clear market pressures for substantial appreciation of the nominal exchange rate of the

renminbi against the dollar and thus the appreciation of the real effective exchange rate in line with the upward path of its longer-run equilibrium value. Second, the policy of massive sterilization of the monetary effect of huge foreign exchange reserve inflows frustrated the other normal mechanism for adjustment of the real effective exchange rate—Hume's price-specie-flow mechanism—through which foreign exchange inflows pump up the domestic price level and achieve adjustment of the real effective exchange rate without altering the nominal exchange rate. With both mechanisms of adjustment effectively closed down by Chinese policy, proximate factors (1) and (2) listed above led to an increasing undervaluation of the real effective exchange rate of the renminbi relative to its longer-run equilibrium path, thereby inducing a massive upsurge in China's current account surplus.

McKinnon and Schnabl argue that China should have rigidly maintained the nominal peg of the renminbi to the U.S. dollar for reasons of monetary and financial stability. However, they are clearly unwilling to allow the domestic inflationary consequences that would result from non-sterlization of China's rapidly rising current account surplus (or of that part of net private capital inflows into China that is not motivated by expectations of appreciation of the renminbi's nominal exchange rate against the dollar). This is neither economically sensible nor legal under international law. Changing conditions in the world economy require that the balance of payments positions and the real effective exchange rates of different countries adjust over time. Market pressures may not always be an infallible guide to the direction and extent of exchange rate adjustments needed to achieve desirable balance of payments adjustment. But, persistent and massive official resistance of real exchange rate adjustments that market pressures indicate are warranted—especially on the enormous scale pursued by the Chinese authorities since 2002—is unambiguous evidence that necessary and desirable adjustments in real effective exchange rates and balance of payments positions are being frustrated by official actions. The IMF Articles of Agreement proclaim such actions to be illegal.

Japan, Germany, and Switzerland

McKinnon and Schnabl point to the experiences of Japan and Germany as somehow supportive of their arguments about China. I find that this entirely off the mark. To make my point more emphatically, since this

conference is in Switzerland, I add it to my discussion of Japan and Germany.

Forty years ago, under the Bretton Woods system, all three countries maintained nominal exchange rates that were effectively pegged to the U.S. dollar. In 1968, before the Bretton Woods system began to collapse, the Japanese yen was pegged at 360 yen to the dollar, the German deutsche mark at about 25 cents U.S., and the Swiss franc at about 20 cents U.S. Since the collapse of the Bretton Woods system in 1973, all three of the countries have allowed their exchange rates against the U.S. dollar to fluctuate in response to market forces. Movements of these exchange rates have been approximated random walks (with drift); monthly percentage changes have averaged more than 3 percent and annual changes have averaged about 10 percent. Over the past forty years, all three currencies have appreciated substantially against the U.S. dollar in nominal terms and somewhat less so in real terms: The yen has appreciated more than 200 percent nominally and by more than 100 percent in real terms. The German currency (the deutsche mark until 1999 and the euro subsequently) has appreciated a little less than 200 percent nominally and has about doubled in real terms. The Swiss franc is the appreciation champion, rising nominally by almost 400 percent and more than doubling in real value against the dollar.

Since the collapse of Bretton Woods, the German and Swiss authorities have intervened occasionally to influence exchange rates against the U.S. dollar, but the scale and persistence of such intervention has been trivial in comparison with the actions of the Chinese authorities since 2002. The Japanese authorities have intervened more actively (most notably in 2003 through the first quarter of 2004), but not on the scale and with the persistence of recent Chinese actions. Clearly, none of these countries saw it as wise to try to maintain a nominal peg of their currency to the U.S. dollar—at the rates prevailing forty years ago or at any other fixed rates—and rightly so.

Take the case of Switzerland. If the Swiss franc had been kept pegged at 20 cents U.S., there clearly would have been enormous difficulties for the Swiss economy from wide fluctuations of the exchange rate of the Swiss franc against the currencies of Switzerland's most important trading partners if the deutsche mark and other European currencies floated freely against the dollar. Leaving this aside, there clearly would have been a longer-run

inflation problem for Switzerland resulting from a policy of pegging the franc at 20 cents U.S. Under this pegging policy, the real exchange rate of the Swiss franc might be somewhat different from what it actually is today; but it would not plausibly be more than 20 percent or so above or below its present real value against the dollar. To achieve this real exchange rate with the nominal dollar rate pegged at 20 cents, Switzerland would have had to endure at least 300 percent domestic price inflation cumulatively over the past forty years, which is equivalent to an increase by 3.5 percent in the annual inflation rate. The Swiss authorities and the Swiss people were clearly not willing to tolerate such a higher rate of inflation.

The story for Germany and for Japan is essentially the same. These countries and many others did not want to accept the domestic economic consequence implied by maintaining nominal exchange rates pegged to the U.S. dollar. For its part, the United States was not prepared to sacrifice key domestic objectives for its policies—especially monetary policy—in order to meet the objectives of other countries whose currency values were rigidly pegged to the dollar. Indeed, the Bretton Woods system collapsed precisely because there was no way to resolve this fundamental difficulty. Eventually, after the collapse of Bretton Woods, all of these countries came to understand that substantial adjustments of nominal and real exchange rates against the U.S. dollar are necessary and desirable over time in order to accommodate both different national priorities for domestic inflation and the need for effective balance of payments adjustment.

The basic problem with the policy that the Chinese authorities are pursuing and the even more rigid exchange rate policy recommended by McKinnon and Schnabl is that it denies this fundamental truth. The actual and recommended policy objective is both the set a rigid path for the nominal exchange rate of the renminbi against the dollar and to isolate the domestic Chinese price level from the international influences implied by massive accumulation of foreign exchange reserves. Despite the intimations of McKinnon and Schnable, the experience and the policies of countries like Germany, Japan and Switzerland since the collapse of the Bretton Woods system provides no rationale or support either for what the Chinese authorities are doing or for what McKinnon and Schnabl recommend.

It is true, of course, that the large real appreciations of the Japanese, German and Swiss currencies over the past forty years have not been associated with large deteriorations in the current account balances of these

countries—quite the contrary. Correspondingly, the very large real effective depreciation of the U.S. dollar over the past forty years has been associated not with an improving current account balance but rather with a deteriorating one. Houthakker and Magee (1969) pointed out a key reason for this forty years ago, and subsequent analysis (see Baily and Lawrence 2006) has confirmed their research. The income elasticity of U.S. demand for imports is about 1.5 or somewhat higher while the foreign income elasticity of demand for imports from the U.S. is around l or a little lower. Also, the sum of the relative price elasticities of demand for imports in the United States and abroad is somewhat but not much larger than unity, implying that fairly large changes in the real effective exchange rate of the dollar are needed to have much of an effect on the trade balance. [2] It follows that, with U.S. potential GDP growth not that much lower than its trading partners (on average), the real effective exchange rate of the dollar must depreciate at a moderately rapid pace in order to maintain any given level of the U.S. current account balance (relative to GDP). For other reasons, the U.S. has moved from a net exporter to a net importer of financial capital and other countries have been comfortable with this situation. The result has been that the U.S. current account position has moved from moderate surplus forty years ago to persistent deficit in more recent years, and the real effective exchange rate of the dollar has depreciated less over the last forty years than would have been necessary if U.S. and foreign residents the shift in the longrun pattern of international capital flows.

These longer-term developments do not, however, belie the principle that *ceteris paribus* an improvement in the U.S. current account balance and corresponding worsening of the current account balances of other countries must be associated with a real depreciation of the dollar (relative to its

[2] It is also relevant here that the sum of the marginal propensities to spend on imports by U.S. residents and on imports of U.S. goods and services by foreign residents is much less than one—only about 0.25. In accord with the standard analysis of the "transfer problem," this empirical fact assures that a depreciation of the real effective exchange rate of the dollar must accompany an improvement in the U.S. current account which, in turn, must be associated with a reduction in U.S. expenditure relative to income and an equal rise in foreign expenditure relative to foreign income. Thus, as Professor McKinnon has argued elsewhere, Ohlin (1929) was right theoretically in his debate with Keynes (1929) over the transfer problem; *a priori* it is not possible to say whether the sum of the marginal propensity to spend on imports is less than or greater than one. Accordingly, as a purely theoretical matter, it is possible that an improvement in a country's current account balance could be associated with an appreciation of its real exchange rate; see Johnson (1956). As an empirical matter, however, Keynes was right. The United States and China and all other countries of any significant size spend well more than half of their incomes on domestically produced goods and services (including many non-traded goods), with the implication that, as a matter of empirical fact, the sum of the marginal propensities to spend on imports in the transfer problem criterion is decidedly less than one.

longer-run equilibrium trend). Empirical research has documented this relationship for nearly three decades, and the relationship holds up for other relatively large economies. Indeed, earlier discussion in this commentary provides clear evidence that the relationship holds for China where the recent upsurge in the current account surplus is clearly associated with the real effective depreciation of the renminbi relative to its longer-run equilibrium trend.

It is also true, as McKinnon and Schnabl point out and as most (if not quite all) international economists agree, that there are occasions when fluctuations in exchange rates among major currencies have been excessive, for example, the dollar was too strong in 1984-85, the yen appropriated too rapidly in 1986-87, the dollar weakened too much in early 1995. Such episodes of apparent exchange rate overshooting in response to market forces raise both legitimate concerns that macroeconomic stability is being impaired and some frustration that more effective means are not available to limit these problems. However, attempting to move back to the Bretton Woods system is clearly not a sensible or viable cure for this problems. For one country, such as China, to attempt this alone is even less sensible because, as we have seen since 2002, fluctuations of exchange rates between the U.S. dollar and other important currencies (the euro, the yen, sterling, and so forth) substantially alter the real equilibrium value of the renminbi relative to the dollar.

The United States Pursuing Chinese Policies

Another useful way to illustrate problems with China's exchange rate and related policies and with the recommendations of McKinnon and Schnabl is to consider what would happen if the United States pursued similar policies. Suppose that the U.S. authorities decided that it urgently important to eliminate the U.S. current account deficit and move to at least a modest current account surplus. To achieve this result, the U.S. authorities announce a policy of massive intervention in the foreign exchange market to drive down the value of the dollar by at least one-third against the euro (and presumably other currencies. This policy will be implemented for at least three years and for as long thereafter as necessary.

Normally, I argue that intervention has very little ability to affect the exchange rate of the dollar against the euro or other major currencies. Accordingly, intervention is primarily useful as a signaling device to be used

infrequently, in concert with other national authorities, and in circumstances when market forces appear to be driving exchange rates far away from levels implied by economic fundamentals. Such interventions have been carried out by the U.S. authorities during the Clinton Administration and following the attacks of September 11, 2001. The amounts involved in these interventions have not exceeded a few billion dollars. The results achieved were quite modest but, in my view, were beneficial.

A flood of spam messages persistent reminds me (albeit in a different context) that—size matters. Rather than the piddling scale of past interventions, suppose that the U.S. authorities announce that they will purchase euros for dollars at the rate of 100 billion euros—per month. I assume that this will drive the dollar value of the euro from a little over $1.50 at present to somewhat over $2.00 per euro. Hence, somewhat more than $200 billion would be issued each month in the intervention operations. This scale of intervention (1.2 trillion euros and over 2.4 trillion dollars per year) is enormous, but relative to the size of the U.S. economy (which is about 5 times as large as the Chinese economy measured in U.S. dollars), these amounts of intervention are no larger than what the Chinese authorities have recently been undertaking.

Of course, the Federal Reserve could not simply expand the monetary base by more than an additional $200 billion per month. The base at present is about $830 billion. Adding more than $200 billion per month would rapidly induce unacceptably dire inflation, as well as undermining the real depreciation of the dollar which is the objective of the exercise. Instead, the Federal Reserve (like the PBOC) would sterilize the dollars issued in the intervention. In slightly more than four months, these sterilization operations would eliminate all of the net domestic assets of the Federal Reserve. Subsequently, the Federal Reserve (like the PBOC) would have to sterilization bonds, at a pace of more than $200 billion per month.

What plausibly would be the effects of this adoption by the U.S. authorities of a Chinese-like exchange rate policy. Leaving aside the likelihood that the whole world, including the U.S., would react with horrified panic, it is reasonable to suppose that the dollar would depreciate substantially in real effective terms and, in accord with previously observed empirical regularities, this would (with a lag) bring substantial improvement to the U.S. current account. In addition, it is clear that the massive sterilization operations would exert a powerful negative effect on spending

by U.S. residents—thereby contributing directly to improvement in the current account. More than $2.4 trillion of annual borrowing by the Federal Reserve (on top of $200 to $400 billion of borrowing by the Treasury) would more than absorb the total supply of domestic savings and present net capital inflows into the United States. Nothing would be left for U.S. businesses to finance investment or for U.S. households to finance mortgages or consumer credit; and any conceivable increase in net capital flows to the United States would not substantially ameliorate this situation. Indeed, with due regard to the fact that the normal saving rate in China is far higher than in the United States, this depressive effect on domestic spending arising from the exchange rate and related policies pursued by the Chinese authorities is something that we observe in China. As I explain in more detail in Mussa (2008), this effect provides at least an important part of the explanation of why the national saving rate in China, which was already very high in the 1990s, has jumped up further to unprecedented levels since 2002. This, in turn is reflected in the extraordinary recent performance of China's current account surplus.

I do not, of course, present this analysis as a suggestion of what the U.S. authorities ought to do. Along with many others, I have argued that the U.S. current account deficit, which reached 6 ½ percent of GDP in 2006, has grown too large to be sustainable in the longer-term (see Mussa (2004, 2005 and 2007), and a downward correction of this deficit to no more than about 3 percent of GDP is needed over the medium term. That correction is already underway, with the current account deficit falling to about 5 ½ percent of GDP last year. With the significant further depreciation of the dollar on a real effective basis over the past two years, and with the prospect that the slowing of U.S. domestic demand growth visible in recent quarters will persist for some time, it is reasonable to expect that the U.S. current account deficit will continue to correct downward. A more sensible Chinese exchange rate policy would contribute modestly but meaningfully to that desirable result.

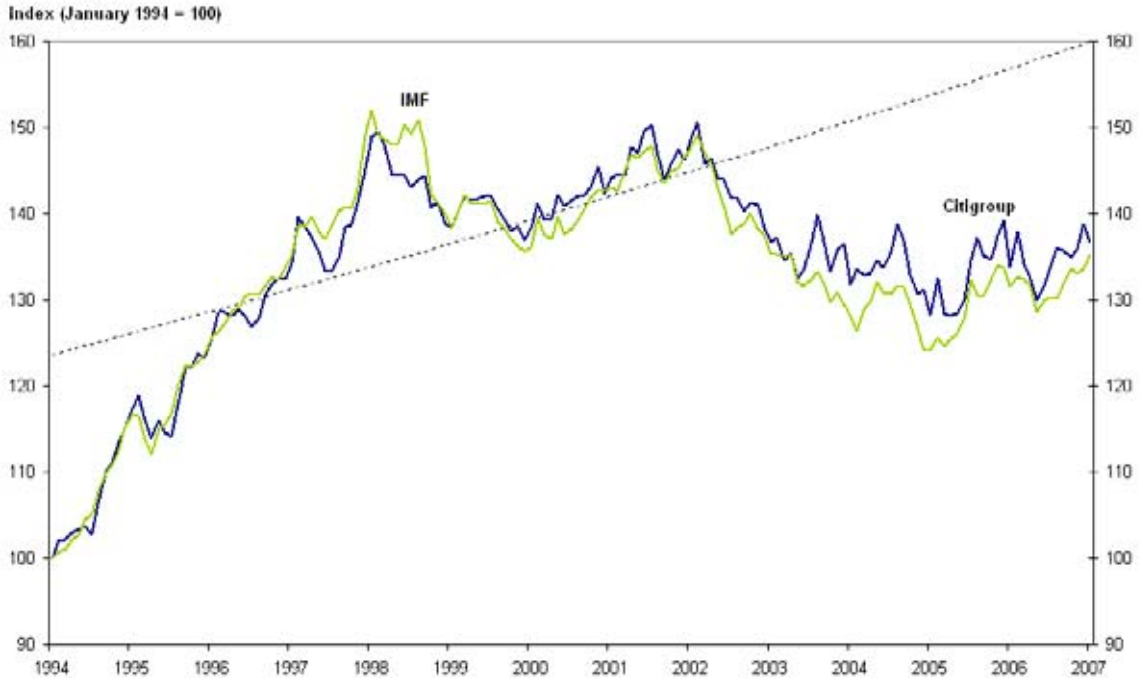
Table 1

Current Account and Monetary Data for China, 1994-2006
All figures are percent

Year	CA/GDP	B/GDP	DB/GDP	DN/GDP	DF/GDP
1994	1.2	35.7	8.44	2.43	5.81
1995	0.2	34.2	5.82	2.17	3.55
1996	0.8	37.8	8.61	4.55	4.06
1997	3.8	38.8	4.74	-0.19	4.86
1998	3.1	37.1	0.84	0.47	0.37
1999	1.4	37.5	2.54	1.32	1.22
2000	1.7	36.8	2.89	2.17	0.72
2001	1.3	36.3	3.06	-0.84	3.90
2002	2.4	37.1	4.40	1.59	2.81
2003	2.8	38.9	5.67	-0.14	5.81
2004	3.5	36.8	3.77	-6.14	9.91
2005	7.0	35.0	2.98	-5.98	8.96
2006	9.4	36.1	6.36	-4.23	10.59
2007	11.3				

CA = current account surplus, B = monetary base; N = net domestic assets; F = foreign assets; D means “change in;” and GDP is nominal GDP. Underlying data are from the IMF *International Financial Statistics Yearbook 2007*.

Figure 1: Real effective exchange rate of the renminbi, January 1994–September 2007



Source: Citigroup and IMF.

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