Whose afraid of a renminbi float?

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

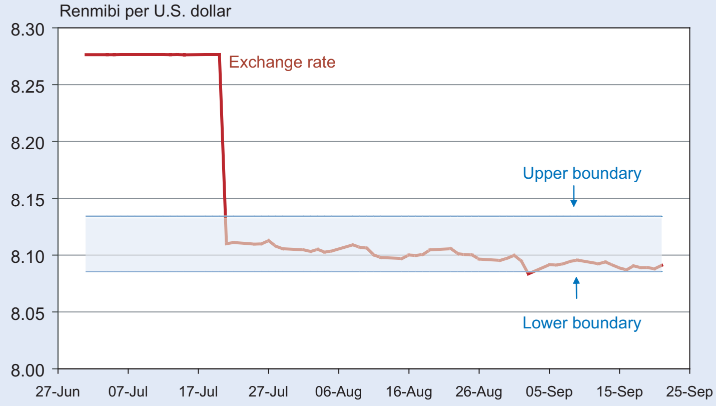
Some revaluation at last

How much flexibility?

As seen in Figure 1, the renminbi has exhibited somewhat more movement in the period since revaluation, but not much. As of this writing, the Chinese central bank has generally kept the value of the RMB relative to the dollar near its target level, with some drift in the direction of the lower bound. As for the new, expanded market basket, Figure 2 gives a glimpse of how the dollar has fared relative to the yen, the euro, and the won since revaluation. Among the eleven countries whose currencies are identified as part of China's reference basket, Japan, the euro-zone, and Korea account for roughly 73 percent of total non-US trade with China. As is apparent from the figure, there hasn't been enough volatility in the value of these other currencies relative to the dollar to provide a really good test of what broad-

Figure 1

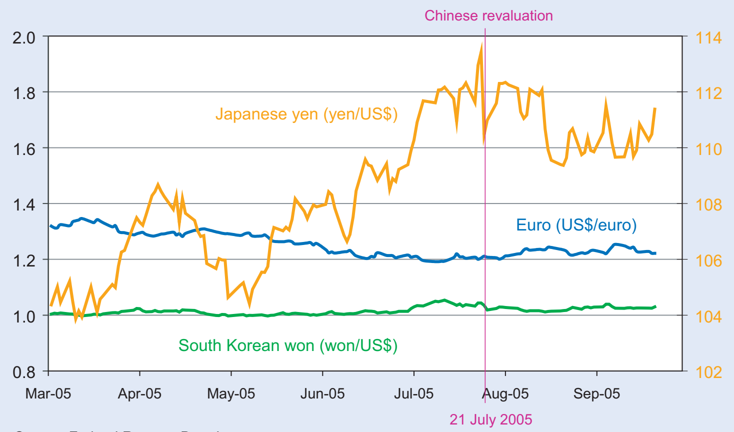
Chinese Exchange Rate Since Revaluation



Source: Federal Reserve Board.

Figure 2

Dollar Exchange Rates with China's Major Trading Partners



Source: Federal Reserve Board.

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

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

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

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

Just how overvalued is the RMB, anyway?

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

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

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

It is the *real* exchange rate that counts

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

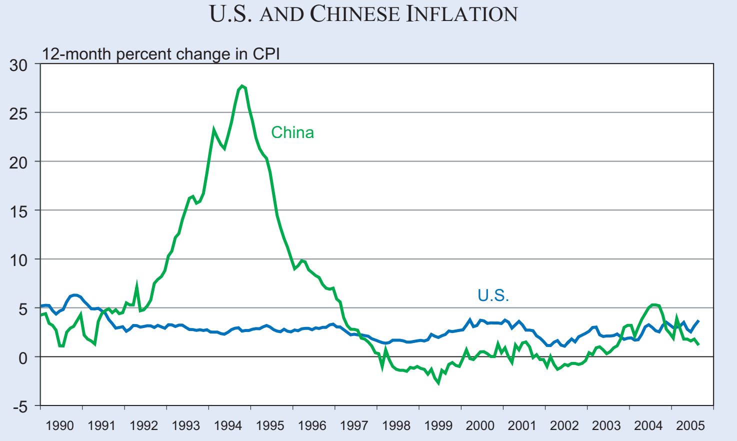
This simple example provides a flavor of the *real* exchange rate, which is the exchange rate concept that matters for questions about competitive advantage, trade deficits, and the like. The real exchange rate adjusts for changes in the purchasing power of one currency relative to another. Roughly speaking,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

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

[1] A good discussion of why this may be so can be found in Jeffrey Frankel's paper, cited in the references below.

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

Figure 3



Source: National Bureau of Statistics of China.

The Chinese central bank: dollar collector

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

Due to sterilization, dollar accumulation has not led to inflation

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

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

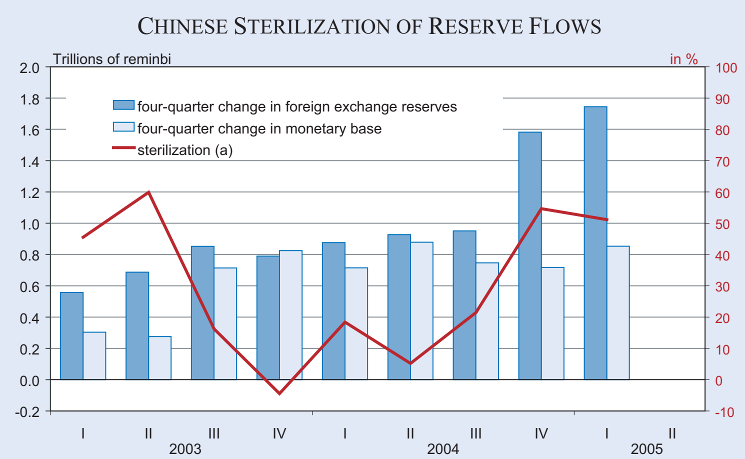
The fact seems to be, we haven't. I have borrowed Figure 3 from an article written by Patrick Higgins and Owen Humpage, both from the Federal Reserve Bank of Cleveland. The figure shows consumer price inflation in both China and the United States, up through August. There has been some upward drift in Chinese inflation over the past three years, but it has essentially stabilized (near US levels) in the past couple of years, even as the central bank was accelerating its purchases of dollar assets.

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

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

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

Figure 4



(a) Percent of reserve flow not reflected in the increase of the monetary base.
Source: Central Bank of China.

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

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

The inflation solution

In the literature on exchange rate determination, there is one case most sympathetic (in my opinion) to the view that even sterilized interventions have an effect on exchange rates. That case occurs when the intervention serves as a signal about the policy the government intends to pursue going forward. If the renminbi is in fact undervalued, and the Chinese government is absolutely committed to sustaining a particular level of the nominal exchange rate, or limiting the amount by which the rate appreciates, they can quite likely get away with it. And market participants will help if an accelerated pace of intervention – even sterilized intervention – signals a willingness of the government to make it happen.

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

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

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

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

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

Hard landing/soft landing

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

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

Managing expectations to reduce likelihood of a hard landing

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

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

Pretty scary, but in my mind there are several problems with this scenario. The first is the one alluded to above: Appreciation is but one road to bringing the nominal exchange rate back into line with fundamentals. To be sure, allowing a domestic inflation is not ideal. But it may beat the alternative. If the costs of portfolio losses on dollar reserves are so large as to cause a stampede out of the dollar capable of trashing the US economy – which would almost surely rebound to the detriment of global economic growth – why would governments not choose an alternative policy path?

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

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

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

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

As time goes on, market participants will become increasingly able to protect themselves from swings in currency values. This is the explicit objective behind the Chinese government's decision to allow domestic markets in currency-related derivative instruments. As those markets develop and mature, and hedging opportunities grow, the possibilities for limiting exposures to RMB-gains/dollar-losses expand. Indeed, offshore markets for these hedging activities already exist in the form of non-deliverable forward contracts for renminbi (and the currencies of other emerging-market economies). It is difficult to know exactly how much protection these contracts afford today, and how quickly these markets can develop within China. But this activity is a clear sign that both private markets and governments are actively engaged in developing a financial-market infrastructure capable of inhibiting the emergence of worst-case scenarios.

To where will foreign funds run?

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

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

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

The interpretation seems to be that trade deficit growth was somehow organic in the 1990s, but artificial in the first half of the present decade. Even conceding that government deficits and the like explain the rise in the current account deficit after 2001, there remains the question of why the trend toward surpluses in emerging-market economies took hold in the earlier period. There are reasonable-sounding explanations for this that include explicit foreign-government policies aimed at stimulating export-related industries, controls that inhibit both total consumption and consumption derived from imports in emerging-market countries, governments' desire to build reserve positions in "safe" currencies, and private sector concerns about accumulating wealth in emerging-market assets.

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

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

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

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

Cautious optimism

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

[3] See Bernanke (2005).

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

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

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