16 August 2006

Living with Inflation in the United States: A New Monetary Rule for China?

by

Ronald I. McKinnon
Stanford University

To anchor China's national price level from 1994 to September 21, 2005, the People's Bank of China focused monetary policy on keeping the renminbi fixed at 8.28 yuan to the dollar. Using the dollar exchange rate as an external monetary anchor for more than a decade was a great success. Inflation in China's CPI came down from over 25 percent in 1994-95 to average just 1 to 2 percent in recent years. Growth in real GDP, averaging 9 to 10 percent per year, remained high while becoming more stable.

However, in 2006, inflation in the United States is spiraling upward—to 4.3 percent in the U.S. consumer price index and 4.9 percent in the U.S. producer price index up through last June. Clearly, the monetary anchor that China had been using is slipping. Worse, the U.S. Federal Reserve Bank has been indecisive about caging the inflation dragon. On August 8, 2006, the Fed paused from slowly increasing domestic nominal interest rates. It left the interbank federal funds rate at just 5.25 percent—thus leaving the U.S. real (inflation adjusted) interest rate unduly stimulatory at somewhere between zero and one percent.

So what should China do? Since July 21, 2005, when the PBC unhooked the renminbi, and allowed a discrete appreciation of 2.1 percent, it has followed a tightly controlled upward crawl with cumulative appreciation reaching about 3.3 percent up to July 21, 2006—the first anniversary of the new exchange rate policy. The initial motive for unhooking was probably to defuse (or confuse!) American political pressure to appreciate. The Schumer-Graham bill before the U.S. Senate would impose a 27.5 percent tariff on imports from China unless the renminbi was substantially appreciated. But the bill's premise that appreciation of the renminbi would reduce China's large and growing trade surplus, though widely held, is wrong. The trade imbalance between China and the United States results from high saving in China combined with low saving in the U.S., neither of which is predictably affected by changing the yuan/dollar rate.

However, inflation in China is predictably affected by sustained exchange rate changes. Although unhooking the yuan/dollar rate to reduce China's trade surplus was wrongly motivated, with the benefit of hindsight the subsequent small appreciation has helped insulate China from the surprisingly high price inflation now emanating from the United States. Thus, small controlled exchange appreciation should now become China's monetary guideline for maintaining internal price stability.

More precisely, China's CPI inflation is just 1.5 percent over the year from last June while the U.S. rate was 4.3 percent. This inflation differential of 2.8 percentage points was consistent with the renminbi's appreciation of 3.3 percent year over year (chart 1). That the inflation differential mimicked the appreciation so closely is partly a statistical coincidence and not likely repeatable. Nevertheless, cause and effect are also important. Beyond just U.S.- China trade, the dollar is an international currency widely used for pricing goods and services entering foreign trade in Asia and the world more generally. Thus, when a highly open economy such as China gears its domestic monetary policy to a slow, but well signaled, appreciation against the dollar, its price inflation can be expected to fall correspondingly below the American rate.

How should the PBC formulate its monetary rule for the future? Pick some target rate for annual inflation in China's CPI, say 1 percent (it could be as high as 2 percent), then see how much higher American inflation, say 4.3 percent, is above China's internal target rate. The difference, in this case 3.3 percent, then becomes the planned annual upward rate of crawl of the central renminbi rate against the dollar. (China would still keep its narrow band of ± 0.3 percent variation around this appreciating central rate.) As is already the case, the crawl would be tightly controlled by the PBC, with only tiny movements in the central rate on a day-to-day basis. And the exact timing of these movements would be randomized so that speculators don't get any free lunches. Finally, if Fed Chairman Ben Bernanke does succeed in reducing American inflation, China's upward crawl would slow accordingly—and stop altogether when American inflation stabilizes at China's internal target rate.

Although this new monetary rule is straightforward enough, it has strong implications for the behavior of renminbi interest rates, which are already (and would be) endogenously determined by the expected path of the exchange rate. Chart 2 shows the paths of one-year interest rates for China and the United States and the yield spread. In May 2006, the yield on dollar bonds quoted in London was 5.4 percent while that on central bank bonds issued by the PBC was just 2.3 percent—a spread of just over 3.1 percent. Chart 2 then superimposes the path of the renminbi's appreciation since July 21, 2005. Remarkably, by June 2006, the two curves conjoin: the 3.28 appreciation over the year about equals the interest differential! Investors in renminbi assets were willing to accept a lower return because they expected the renminbi to appreciate a little over 3 percent. This interest differential of 3 percent or so would continue as long as investors projected that the renminbi would continue to appreciate by that amount—as per our new monetary rule for targeting China's domestic rate of price inflation at a lower level than in the United States.

It is important to keep the rate of renmimbi appreciation moderate and in line with the inflation differential between the two countries. Suppose the rate of appreciation was speeded up to 6 percent, with U.S. inflation remaining at 4.3 and the dollar interest rate at 5.4. Then in the first instance financial markets, which are very fast to adjust, would bid interest rates on renminbi assets toward zero—from which they would be bounded from below: the infamous liquidity trap. In the second instance, in goods markets, which are

slower to adjust, inflation would begin to fall below the 1 percent target—and then could even fall below zero so as to create outright deflation.

Alternatively, suppose that U.S. inflation slowed to, say, 2 percent and dollar interest rates came down toward 3 percent. Then if the PBC stayed with its current policy of a slightly more than 3 percent annual upward crawl of the renminbi, Chinese interest rates would again be forced toward zero with the threat of outright deflation in the general price level. Instead, the correct strategy of the PBC then becomes to slow the rate of appreciation to 1 percent per year or slightly less.

A major policy mistake would be to float the renminbi leading to a large initial appreciation. China's trade (saving) surplus would continued unabated with a continued accumulation of dollar claims by the private sector that would force successive appreciations of the renminbi until the PBC was again forced to intervene and stabilize the rate at a much appreciated level. By then expectations of ongoing appreciation and deflation in China would be firmly in place much like what happened to Japan with its ever higher yen in the 1980s to the mid 1990s—leading to Japan's deflationary slump with a zero interest liquidity trap and its "lost" decade of the 1990s.

The bottom line is that the PBC must carefully watch inflation and interest rates in the United States, at the center of the world dollar standard, when formulating its own exchange-rate based monetary strategy. Any exchange rate changes against the dollar should be tightly controlled and gradual—as with the appreciation over the past year.

Chart 1: CPI inflation of China and the United States, and Yuan/Dollar Exchange Appreciation 2004-06

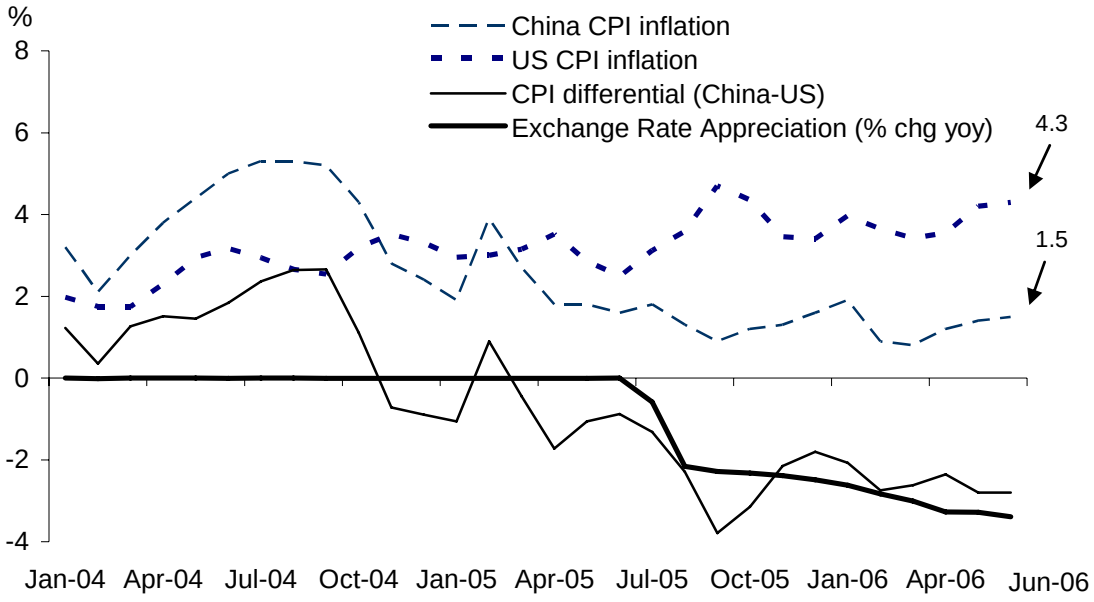

Chart 2: Interest Rates of China and the United States, and Yuan/Dollar Exchange Appreciation 2004-06