



DEBATING CHINA'S EXCHANGE RATE POLICY

MORRIS GOLDSTEIN
NICHOLAS R. LARDY
EDITORS

PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS

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PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS
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Preface

A substantial portion of the Peterson Institute's research and publications over the years has focused on exchange rates of the major industrial economies. In the early 1980s, John Williamson developed the concept of the "fundamental equilibrium exchange rate," an idea elaborated in his edited volume, *Estimating Equilibrium Exchange Rates* (1994). The yen-dollar relationship was the subject of two studies. I coauthored the first, *The United States-Japan Economic Problem* (1985, 2d ed. 1987) with William Cline and the second *Reconcilable Differences: United States-Japan Economic Conflict* (1993) with Marcus Noland. Other studies followed.

In the first half of the this decade the Institute organized two major conferences, one in September 2002 and the other in May 2004, to analyze the growing strength of the US dollar in the second half of the 1990s and the subsequent emergence of very large trade and current account deficits of the United States. This led to two volumes that I coedited with John Williamson, *Dollar Overvaluation and the World Economy* (2003) and *Dollar Adjustment: How Far? Against What?* (2004). Both these conferences on the dollar gave some attention to the Chinese renminbi, though at the time China's external surplus position was modest and China was in a relatively early stage of accumulation of what would become an unprecedentedly high holding of foreign exchange reserves.

Morris Goldstein and Nicholas Lardy—in a steady string of op-eds, Peterson Institute working papers, articles in leading economic journals, and contributions to other Peterson Institute volumes on international economic issues—have been analyzing the growing misalignment of the renminbi since 2003.

The Institute decided to organize a conference on October 19, 2007 focusing on China's exchange rate policy for two reasons. The first was the massive expansion of China's trade and current account surpluses, which

continued to accelerate after the introduction of a modified exchange rate regime in July 2005. By 2006 China's current account surplus was far and away the largest of any economy in the world in absolute terms, and relative to the size of its economy had reach a level unprecedented for one of the world's top ten trading countries. The second was the continuing controversy over the role of the exchange rate of the renminbi in the adjustment of China's external surplus. The result is this volume, which analyzes all of the critical issues faced by China's economic policymakers as they affect the currency policy decisions that country must address.

The Peter G. Peterson Institute for International Economics is a private, nonprofit institution for the study and discussion of international economic policy. Its purpose is to analyze important issues in that area and to develop and communicate practical new approaches for dealing with them. The Institute is completely nonpartisan.

The Institute is funded by a highly diversified group of philanthropic foundations, private corporations, and interested individuals. About 30 percent of the Institute's resources in our latest fiscal year were provided by contributors outside the United States, including about 12 percent from Japan.

The Institute's Board of Directors bears overall responsibilities for the Institute and gives general guidance and approval to its research program, including the identification of topics that are likely to become important over the medium run (one to three years) and that should be addressed by the Institute. The director, working closely with the staff and outside Advisory Committee, is responsible for the development of particular projects and makes the final decision to publish an individual study.

The Institute hopes that its studies and other activities will contribute to building a stronger foundation for international economic policy around the world. We invite readers of these publications to let us know how they think we can best accomplish this objective.

C. FRED BERGSTEN
Director
March 2008

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MORRIS GOLDSTEIN
NICHOLAS R. LARDY

China's Exchange Rate Policy: An Overview of Some Key Issues

MORRIS GOLDSTEIN and NICHOLAS R. LARDY

More than two and a half years have passed since China announced a number of changes to its foreign exchange regime on July 21, 2005. During this period, the debate on the pros and cons of China's exchange rate policy, which had begun in earnest several years earlier, intensified. In this introductory chapter, we seek to convey the flavor of that ongoing debate by identifying and discussing several key issues. We also provide a summary of the other contributions to this volume—a reader's guide, if you will. All of these contributions (papers, discussants' comments, and remarks made during the conference's wrap-up panel) were originally presented at a conference on China's Exchange Rate Policy held at the Peterson Institute on October 19, 2007.

This section summarizes developments since China's exchange rate regime change in July 2005. The next section discusses four key challenges facing the Chinese authorities in light of the increasingly undervalued exchange rate and the accelerating buildup of foreign exchange reserves, namely: (1) maintaining a gradual pace of currency reform while trying to use monetary policy as an effective instrument of macroeconomic management; (2) reducing excessive reliance on external demand to sustain

Morris Goldstein has been the Dennis Weatherstone Senior Fellow at the Peterson Institute since 1994. Nicholas R. Lardy has been a senior fellow at the Peterson Institute since 2003. The authors are indebted to Doug Dowson and Giwon Jeong for excellent research assistance.

economic growth; (3) preventing the defense of the present currency regime from handicapping unduly efforts to strengthen and transform the banks into truly commercial entities; and (4) containing the risk of protectionism abroad in response to China's very large global current account surplus. The last section offers a brief scorecard on the leading options for China's exchange rate policy going forward, contrasting the features of a "stay the course" policy with those of a bolder "three-stage" approach that seeks to reduce more rapidly the current undervaluation of the renminbi.

China's new currency regime ended the fixed nominal exchange rate vis-à-vis the US dollar, which the authorities adopted at the time of the Asian financial crisis.¹ The official bilateral rate appreciated 2.1 percent, moving the rate from RMB8.28 to RMB8.11 to the dollar. By September 2007 the renminbi-dollar bilateral rate stood at RMB7.53, reflecting a cumulative nominal bilateral appreciation against the US dollar of 10 percent.² On a real trade-weighted basis, the renminbi appreciated somewhat less, only 7.4 percent according to JPMorgan.³

China's global current account surplus has expanded substantially over recent years. It stood at \$68.7 billion (3.6 percent of GDP) in 2004 but rose to \$160.8 billion in 2005 (7.2 percent of GDP) and then \$250 billion (9.5 percent of GDP) in 2006 (National Bureau of Statistics of China 2007, 95; State Administration of Foreign Exchange, Balance of Payments Analysis Small Group 2007, 8).⁴ By 2006 China's absolute current account surplus was, by a wide margin, the largest of any country in the world. Based on annual data on trade in goods, we estimate that China's current account surplus in 2007 will approach \$400 billion, about 11 percent of 2007 GDP. A surplus of this magnitude relative to GDP is "unprecedented for a country of China's size and stage of development" (McGregor 2007).

1. Many analyses assert incorrectly that China adopted a fixed exchange rate in 1994. On January 1, 1994 the authorities eliminated their dual exchange rate system by raising the official exchange rate to the then prevailing market rate of RMB8.7. However, the authorities then continually adjusted the official rate until it appreciated to RMB8.28 in October 1997. That remained the official rate until July 21, 2005.

2. In early February 2008 the renminbi-dollar rate was RMB7.118, reflecting a cumulative nominal bilateral depreciation against the dollar of 15 percent. On a real trade-weighted basis, the degree of appreciation was much smaller, 8 percent, according to JPMorgan. The rate of renminbi appreciation relative to the dollar has not been uniform over this period. If one takes the annualized one-month change, the rate of appreciation has varied from less than 2 percent (even going slightly negative at one point in 2006) to almost 20 percent in late 2007 and early 2008 (Anderson 2007c, 2008).

3. Between the dollar peak in February 2002 and January 2008, the renminbi has actually *depreciated* on a real effective basis by between 0.4 and 9.8 percent, according to measures of real effective exchange rates published by JPMorgan, Citigroup, and the Bank for International Settlements.

4. Again, if one goes back to 2001, the expansion of China's global current account surplus is much larger, as it stood at only 1 percent of GDP at that time.

The buildup of official holdings of foreign exchange reserves has accelerated since July 2005.⁵ In the 12-month periods through June 2005 and June 2006, reserves rose by \$240 billion and \$230 billion, respectively. But in the twelve months through June 2007, reserves rose by \$391 billion, about three-fifths more than in the previous two 12-month periods. At the end of December 2007, total reserves reached \$1,530 billion (People's Bank of China 2008).⁶

It is important to note that the relative importance of the current and capital account surpluses as contributors to the reserve buildup has changed dramatically. In 2004 the capital account surplus was more than half again as large as the current account surplus and thus accounted for most of the reserve buildup. In 2005, however, the current account surplus was 2.5 times the capital account surplus (National Bureau of Statistics of China 2007, 95). By 2006 the current account surplus was 25 times the capital account surplus and accounted for the entire reserve buildup (State Administration of Foreign Exchange, Balance of Payments Analysis Small Group 2007).⁷ Thus, for 2005 and 2006, it is incorrect to argue that China's rapid reserve buildup was due primarily to large capital inflows rather than a growing current account surplus.

Challenges Facing the Chinese Authorities under the Existing Currency Regime

Any methodology that defines the equilibrium exchange rate for the renminbi as the real effective exchange rate that would produce "balance" in China's global current account position, or in its basic balance, or in its overall balance-of-payments position, yields the qualitative conclusion that the renminbi is significantly undervalued and probably by an increasing margin over time. As noted earlier, an increasingly undervalued exchange rate and the concomitant accelerating buildup of foreign ex-

5. Increases in official holdings of foreign exchange reserves are a downward-biased estimate of the magnitude of official intervention in the foreign exchange market for three reasons. First, through the end of 2006 the central government transferred \$66.4 billion in official foreign exchange reserves from the State Administration of Foreign Exchange (SAFE) to the Central Huijin Investment Company (Kroeber 2007). Huijin has used the funds to recapitalize four banks and four insurance companies. Second, SAFE has engaged in swap transactions with state-owned commercial banks that have removed large amounts of foreign exchange from its balance sheet. Third, starting in 2007, on several occasions when the central bank raised the reserve requirement, it required banks to deposit the additional amounts in the form of foreign exchange.

6. China's annual exchange market intervention was roughly 10 percent of its GDP during 2004–06 but substantially higher at 14 percent in 2007.

7. The capital account surplus was \$10 billion, and errors and omissions reflected an unrecorded outflow of \$13 billion.

change reserves pose several economic challenges for the Chinese authorities. In this section, we discuss those challenges for the independence of monetary policy, the “rebalancing” of economic growth, the continuing efforts to reform China’s banking system, and China’s external adjustment and its contribution to correcting global payments imbalances.

Independence of Monetary Policy

A fixed exchange rate regime typically imposes a substantial constraint on a country’s monetary policy for the simple reason that if domestic interest rates diverge too much from foreign rates, the country could be subject to destabilizing capital flows. This is particularly likely to be the case for small countries that are price takers in international goods and capital markets. Capital controls, in theory, could prevent large inflows (outflows) when domestic interest rates are higher (lower) than foreign rates, but in practice it is difficult to maintain effective controls over time, particularly in an economy that is very open to trade. Even when controls are effective in limiting capital inflows or outflows, a country with an undervalued fixed exchange rate, and thus a large current account surplus, will face the challenge of sterilizing the increase in the domestic money supply resulting from the large-scale purchase of foreign exchange (i.e., sale of domestic currency). Otherwise, the growth of liquidity in the banking and financial systems will lead eventually to inflation, which will result in an appreciation of the real exchange rate. Even when the authorities use sterilization successfully to control the growth of domestic liquidity, when the currency is increasingly undervalued, they will need over time to sell greater quantities of bonds to acquire the funds necessary for sterilization. This, in turn, causes an increase in the interest rate the central bank must pay on these bonds. Eventually, the interest the central bank pays on these bonds could exceed its earnings from its holdings of interest-bearing foreign currency–denominated financial assets, imposing a substantial financial constraint on sterilization operations.

Views on the extent to which China’s exercise of monetary policy actually is handicapped by its undervalued exchange rate vary widely. One school of thought argues that China diverges substantially from the small open economy in which a fixed exchange rate means that a country’s monetary policy is determined abroad. According to Jonathan Anderson (2004), “China can run an independent monetary policy under any renminbi regime.” He believes China’s capital controls are relatively effective and that sterilization—implemented mainly via the sale of central bank bills and increases in the required reserve ratio for banks—has been successful and can be maintained indefinitely. Thus, increases in China’s international reserves—whether generated via a growing current account surplus, via the capital account (motivated by the expectation of currency

appreciation, rising Shanghai property prices, or a booming domestic stock market), or via errors and omissions in the balance of payments—“. . . have had virtually no impact on domestic liquidity conditions” (Anderson 2006a, 19).

Stephen Green of Standard Chartered Bank holds a similar view. He has tracked carefully the sterilization operations of the People’s Bank of China (PBC) and has shown that even in the first half of 2007, when capital inflows through various channels increased dramatically, the central bank had little difficulty in retaining control of the growth of the domestic money supply (Green 2007a, 2007b).

The alternative school of thought is that China’s (quasi) fixed exchange rate already has diminished the effectiveness of monetary policy and that this erosion is likely to continue. Thus, increased currency flexibility is needed to reduce the risks of macroeconomic instability, whether of domestic or external origin (Goldstein and Lardy 2006; Lardy 2006; Prasad, Rumbaugh, and Wang 2005). There are several strands to this argument.

First, central bank control of the growth of monetary aggregates in some periods has depended on the reintroduction of credit quotas for individual banks and various types of “window guidance” on bank lending rather than the use of interest rates. These much blunter instruments, rather than market signals, may lead to a much less efficient allocation of credit (Goldstein and Lardy 2004, 7–8; Goodfriend and Prasad 2006, 24).

Moreover, this alternative school of thought believes that the resultant policy mix has left China with an interest rate structure that is far from optimum. On the lending side, real interest rates have been relatively low for a rapidly growing economy. For example, in late July 2007 the central bank adjusted the one-year benchmark bank lending rate upward to 6.84 percent. But inflation, as measured by the corporate goods price index, was running at 5.4 percent, making the real rate less than 1.5 percent in an economy expanding at more than 11 percent in real terms.⁸ This contributes to the underlying excess demand for credit and rapid growth of lending from the banking system.

From the point of view of savers, deposit rates are also low. In late July 2007, demand deposits yielded only 0.81 percent and one-year deposits 3.3 percent, in the face of headline consumer price index (CPI) inflation of 5.6 percent and a 5 percent tax on interest income (reduced from the previous 20 percent rate at the same time as the upward adjustment in interest rates in late July). Low or negative real returns on bank savings have been a major contributor to the boom in the property market and, more recently, in equity prices on the Shanghai stock exchange. By late August 2007, the Shanghai stock index was up more than fivefold compared with

8. The corporate goods price index is a more relevant indicator of inflation for firms than the CPI, which in 2007 was pushed up largely because of rising prices for several food items. Food currently accounts for about one-third of China’s CPI.

July 2005. Companies listed domestically were trading at a relatively lofty 38 times estimated 2007 earnings. Even more problematic, half the growth of earnings of listed companies in the first half of 2007 came not from core operations but from profits from stock trading (Anderlini 2007).

In short, China might be regarded as a prototypical example of the general pattern that keeping exchange rates low requires keeping interest rates low (Eichengreen 2004). As in other countries maintaining undervalued exchange rates, the Chinese authorities have frequently been slow to raise the general level of interest rates for fear of attracting higher levels of capital inflows that at some point could prove more challenging to sterilize. But one consequence is real estate and stock market booms that heighten financial risk.

A second strand to the argument that increased exchange rate flexibility would enhance the effectiveness of monetary policy is that while the PBC has successfully sterilized the increase in the domestic money supply associated with the buildup of foreign exchange reserves, this sterilization entails hidden costs or risks. These include the risk of a capital loss on dollar assets in the event of eventual appreciation of the renminbi (Goldstein and Lardy 2006).

Equally important, the sustained large-scale sale of low-yielding central bank bills and repeated increases in required reserves both have an adverse impact on the profitability of state banks, hindering their transition to operation on a fully commercial basis (Yu 2007a, 20). In 2003 the central bank, having sold all of its holdings of treasury bonds, began to issue central bank bills to sterilize increases in the domestic money supply associated with its foreign exchange operations. By end-June 2007, total outstanding central bank bills held by banks reached RMB3.8 trillion (People's Bank of China, Monetary Policy Analysis Small Group 2007, 8). From mid-2003 through September 2007, the central bank also raised the required reserve ratio for banks by 50 or 100 basis points on 12 occasions, taking the ratio from 6 percent of deposits to 12.5 percent. The increase in the required reserve ratio compelled banks to deposit with the central bank RMB2 trillion more than would have been the case if the required reserve ratio had remained at 6 percent. The yield on three-month central bank bills at mid-year 2007 was only about 3 percent, and the central bank pays only 1.89 percent on required reserves. Because the benchmark one-year lending rate at mid-year was 6.6 percent, the RMB5.7 trillion increase in bank holdings of these low-yielding assets represents a large implicit tax on Chinese banks; indeed, that tax in 2006 was two-thirds of the pre-tax profits of the entire Chinese banking system.⁹

9. Abstracting from the issue of risk and assuming holdings of these two categories of assets by the banks at mid-year is equal to the average holding of these assets during the year, the implicit tax on the banking sector can be estimated as the sum of RMB3.8 trillion times 3.6 percent (the difference between the 6.6 percent benchmark lending rate and the 3 percent

Last but not least, it is one thing to argue that sterilization operations can be continued indefinitely because the interest rate on China's reserve assets exceeds that on its sterilization bills.¹⁰ It is another thing entirely to argue that sterilization can be continued indefinitely while simultaneously reducing China's large external surplus. This is because large-scale sterilization blocks the monetary, interest rate, and relative-price mechanisms that would otherwise operate (via their effects on the saving-investment balance and on net capital flows) to reduce China's external imbalance. For example, in chapter 8 of this volume, Michael Mussa argues that when large-scale sterilization produces a negative growth rate in the net domestic assets of the PBC while the demand for base money is growing briskly, then that demand for money will be satisfied solely through an increase of the net foreign assets of the central bank, which is of course equivalent to an increase in international reserves.¹¹ In short, China can either continue its large-scale intervention and sterilization operations or significantly reduce its large external surplus. It cannot do both.

In the end, there is no definitive methodology to measure which of the two alternative views on the independence of monetary policy is correct. It appears to be a matter of judgment. Supporters of the status quo point to studies showing that capital controls continue to provide some degree of independence to China's monetary authority (Ma and McCauley 2007). And they are not persuaded that the resulting interest rate structure leads to excess investment. Despite China's uniquely high rate of capital formation in recent years, some studies show no evidence of a decline in the rate of return to capital (Bai, Hsieh, and Qian 2006). Some go even further, arguing that financial repression is positive since it allows low-cost bank financing of infrastructure and other strategic public investments that underpin China's economic expansion (Keidel 2007).

In contrast, those who believe China should allow greater exchange rate flexibility acknowledge that sterilization so far has limited the inflation and credit growth consequences of large and rapid reserve accumulation but emphasize the negative aspects of the resulting financial repression. It contributes to growing risks in property and stock markets,

interest banks receive on central bank bills) and RMB2 trillion times 4.7 percent (the benchmark lending rate minus the 1.89 percent interest banks receive on required reserves) or RMB231.4 billion. In 2006 the pretax profits of the entire Chinese banking sector were RMB338 billion (Chinese Bank Regulatory Commission 2007, 33).

10. The central bank has traditionally earned a profit on its sterilization operations. However, the combination of the falling yields on short term US treasury bonds, because of recent large decreases in the federal funds rate, and the rising rates the central bank is paying on its own sterilization bonds means these profits are under pressure and could even turn into losses.

11. For further elaboration of the "monetary approach" to the recent evolution of China's balance of payments, see the discussion later in this section on alternative explanations for the post-2003 surge in China's net exports.