Capital Account Liberalization and the Role of the RMB

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The conventional economic wisdom for many years was that capital account convertibility provides countries unambiguous economic benefits via both improved capital allocation and increased opportunities to smooth consumption via international borrowing. This wisdom, it turned out, was based primarily on an a priori argument rather than being supported strongly by empirics. Attempts to demonstrate a linkage between international financial integration via capital account convertibility, on the one hand, and economic growth, on the other, have been disappointing at best (Eichengreen 2001; Prasad and Rajan 2008). Moreover, substantial evidence has accumulated that under a variety of circumstances the introduction of capital account convertibility can precipitate financial crises. Finally, in some cases, such as during the Asian Financial crisis of the late 1990s, countries that had retained strong capital controls rather than moving toward convertibility came through crises better than those countries that had liberalized earlier. More generally, across a large number of crisis episodes countries with capital controls in place prior to the outbreak of a crisis suffered significantly lower drops in real economic output than countries without such controls.

Preconditions for capital account convertibility

Strength of the Domestic Banking System and Domestic Interest Rate Liberalization

The first precondition for a country moving toward capital account convertibility is a strong domestic banking system. When capital controls are relaxed typically domestic residents (or financial institutions holding funds on behalf of domestic residents) diversify the currency composition of their assets, leading to an outflow of funds from the domestic banking system. When a country's banking system is perceived as weak, opening the capital account can lead to even more rapid outflows as depositors move funds to the presumed relative safety of foreign banks. These outflows, in turn, can lead to a sharp decline in the value of the domestic currency. If there are currency mismatches, firms and individuals with foreign-currency denominated debts but only or largely domestic-currency denominated income will find the burden of their loan service rises sharply, potentially leading to a broad financial crisis. This concern is particularly salient in China where bank deposits by year-end 2009 reached RMB61.2 trillion, an extraordinary 183 percent of GDP (People's Bank of China, Monetary Analysis Small Group 2010, 1).[1] More than 90 percent of these deposits are controlled by households and non-financial corporations.

China's banks appear to be enormously stronger than they were in the mid-1990s when the largest financial institutions were insolvent, leading ultimately to massive government injections of capital and a write off of the non-performing loans that had accumulated in the banking system over many years (Ma Guonan 2006). This was followed by reforms in the governance of China's largest banks, further injections of capital by foreign strategic investors, and public listings of bank shares on the Hong Kong and Shanghai stock markets. The financial transformation of the banking system that resulted is reflected in a number of key indicators. First, total non-performing loans of China's major commercial banks came down sharply from RMB2,104 billion and 18 percent of loans outstanding at year-end 2003 to only RMB426 billion and 1.6 percent of loans outstanding by year-end 2009. Second, in 2003 only 8 domestic banks accounting for a mere 0.6 percent of total banking assets met China's minimum capital adequacy requirement. This rose to 239 banks accounting for 100 percent of total banking assets by the

end of 2009, when the risk-weighted average capital adequacy ratio of China's banking industry stood at 11.4 percent. Third, in 2009 after-tax profits of the banking industry as a whole were RMB670 billion, with the return on average equity at 16.2 percent and return on average total assets at 0.9 percent (China Banking Regulatory Commission 2009, 30-32, 127). These numbers on returns compare extremely favorably with well-regarded international banks such as HSBC and Standard Chartered. [2]

A number of questions could be raised about these data that reflect very good Chinese bank performance. Are bank capital adequacy ratios overstated by allowing dubious assets to be included in bank capital or by dodgy risk weighting? Probably not significantly. Regarding bank capital, for example, the regulator, the Chinese Banking Regulatory Commission (CBRC), allowed banks to issue subordinated debt and count it as part of their tier-two capital starting in 2004. During the global financial and economic crisis, when bank lending in China soared, the banks maintained their capital adequacy ratios by sharply stepping up their issuance of subordinated debt. But it eventuated the banks were merely selling much of this debt to each other.[3] The regulator, recognizing that these cross-holdings of subordinated debt did nothing to increase capital in the banking system as a whole, ruled in a matter of months that subordinated debt held by other banks could not be counted as part of a bank's capital.[4] Issuance of subordinated debt collapsed as a result. Instead in 2010 major banks are raising new capital via rights issues and the sale of convertible bonds. With regard to risk weighting of assets, the CBRC eliminated more than a decade ago such dodgy procedures as allowing banks to hold little or no capital against loans made to state-owned companies.

Are profits overstated because of lax loan classification standards and weak provisioning requirements? Again, probably not significantly. The CBRC modeled China's loan classification scheme on international standards and has imposed tough provisioning requirements; by year-end 2009 loan-loss provisions set aside by commercial banks stood at RMB663 billion, putting the provisioning ratio at

155 percent, up dramatically from only 20 percent in 2003 (China Banking Regulatory Commission 2010, 131).

The more relevant question is to what extent is bank income inflated by the central bank's control of interest rates? The People's Bank of China has controlled the interest rate structure for both deposits and loans of commercial banks for many years. There was some liberalization through the fall of 2004, which took the form of allowing increasing flexibility upward from benchmark lending rates. But there has not been any subsequent interest rate reform since. This protracted stall in interest rate reform seems somewhat surprising given the statement of Premier Wen Jiabao at the National People's Congress in the spring of 2009 that China "will carry forward market-based reform of interest rates."[5]

The potential flattering effect of central bank control of the interest rate structure on bank earnings arises because the central bank sets a floor on bank lending rates but a ceiling on bank deposit rates. Thus the central bank directly controls the spreads that banks earn on their deposit taking and lending activities. The effect of the central bank's control of interest rates for years has been a key issue in the assessment of Chinese bank performance by outside analysts. Its importance, however, is not doubted by leading Chinese bankers. No less an authority than Xiao Gang, the Chairman of the Bank of China (China's 4th largest bank by assets), acknowledged in a posting on the bank's web site that because of non-liberalized interest rates net interest margins Chinese banks earn on RMB loans are almost double that in the international market.[6]

If Xiao Gang's estimate that interest rate liberalization would cut banks' net interest margins by as much as half is roughly correct, what would this do to Chinese bank earnings? Clearly net interest income would fall by almost half. Since net interest income accounted for 63 percent of the profits of banking institutions in 2009, central bank control of the interest rate structure could be said to result in an inflation of bank profits by as much as 45 percent (China Banking Regulatory Commission 2010, 32).

Similarly, interest rate liberalization would reduce reported return on equity and return on assets by the same proportion. In short, interest rate liberalization would reduce bank earnings substantially and Chinese bank performance would look much weaker in comparison with international peers.

The central bank's control of the structure of interest rates results in a form of financial repression that imposes a heavy implicit tax, particularly on the household sector (Lardy 2008). Although the non-financial corporate sector was a slightly larger source of deposits in China's banking system at year-end 2009, the sector was actually a net borrower. Households supplied slightly less deposits than corporates, but households were a large net depositor since household borrowing at year-end 2009 was less than a third of household deposits. In 2009-2010 banks paid only 0.36 percent on demand deposits and rates ranging from 1.71 percent on three- month time deposits to as much as 3.60 percent on five-year time deposits.[7] The average cost of household deposits in 2009 was 1.94 percent, 1.78 percent, and 1.52 percent at the Industrial and Commercial Bank of China, the China Construction Bank, and China Merchants Bank, respectively. But at the same banks the average yield on loans to households was 4.93 percent, 5.37 percent, and 5.07 percent, respectively. As reflected in Table 1, these numbers mean that these banks achieved spreads on lending to households that exceeded the net interest spread these banks enjoyed on their entire range of assets and liabilities by approximately from two-fifths to as much as two-thirds. This differential arose for two reasons. First, these banks held other assets that earned much less than their earnings on lending to households. For example, they earned only 1.6 percent on required reserves placed at the central bank and only slightly more on their large holdings of bonds issued by the central bank to sterilize increases in the domestic money supply resulting from its intervention in foreign exchange markets. And second, banks had to pay substantially higher interest on some of their liabilities than they paid on household deposits. For example, in 2009 the China Construction Bank paid 3.81 percent interest on the bonds that it issued, more than twice what it paid on household deposits.

In short, Chinese banks are highly dependent on their business with households for two reasons. First, the net interest spreads on this business are much higher than the average net spreads that banks achieve. And second, households are the dominant source of bank funding. Capital account liberalization under these conditions might well compel banks to raise deposit rates to prevent large outflows of deposits, particularly from the household sector. An increase in average deposit rates of only 110 basis points in 2009 would have eliminated all bank profits.

Interest rate liberalization is also an important precondition for capital account liberalization for two reasons. First, as the above analysis suggests, it is essential to gradually reduce and finally eliminate financial repression prior to liberalizing the capital account. Otherwise depositors, particularly households, may shift their funds out of the domestic banking system, potentially creating a banking crisis.

Second, in the long-run interest rate liberalization is essential to the strengthening of China's banking system. As long as banks operate in a highly cosseted interest rate environment, competition in the banking system will remain limited and banks will have insufficient ability and incentive to price risk appropriately and operate on a commercial basis.

Level of Development of the Financial System

A second prerequisite for the liberalization of the capital account is a well-developed capital market. There are at least two reasons for this. First, capital markets can provide an additional source of funding for the corporate sector thus providing more competition for local banks, hastening their transition to operation on a fully commercial basis. Second, deeper local debt markets make it easier for a country with no restrictions on capital flows to absorb large capital inflows while avoiding asset bubbles in local markets and currency and maturity mismatches.

China's local debt market is not well developed. The size of the market is tiny, especially when measured against the funding provided to the corporate sector through the banking system. Moreover, issuance is dominated by a handful of large state-owned institutions, notably the Ministry of Railroads and the major banks. Finally, trading volumes appear to be quite small. At the end of 2007 the total value of corporate bonds outstanding was only RMB768.3 billion (Chinese Securities Regulatory Commission 2008, 6-9). That was less than 3 percent of the RMB27.77 trillion outstanding in loans from the banking system and also less than 3 percent of 2007 GDP. At year-end 2007 outstanding subordinated debt issued by banks, RMB370 billion, was about half the size of outstanding corporate bonds. By year-end 2009 corporate bonds outstanding grew by more than two-fifths to reach RMB1,097 billion (Asian Bond Monitor 2010, 46). But bank loans and GDP had expanded almost as rapidly to reach RMB33.6 trillion and RMB34.051 trillion, respectively, so the ratio of corporate bonds outstanding to bank loans outstanding and to GDP was only a few tenths of a percentage point higher than in 2007.

Flexibility of the Exchange Rate

A third precondition for a successful transition to capital account convertibility is an exchange rate that is reasonably close to its underling equilibrium level. A move to capital account convertibility when an exchange rate is substantially under- (over-) valued will precipitate capital in (out) flows that can be destabilizing. The preponderance of evidence suggests that the RMB is significantly undervalued. A survey of 18 studies of the Chinese exchange rate found that: all but one argued that the RMB was undervalued; the average estimate of the needed appreciation in the real effective exchange rate was 19 percent; and that the needed appreciation of the real exchange rate was higher for those studies based on data from the period 2005-2007 than studies based on data from the period 2000-2004 (Cline and Williamson 2008, 131-132). More recently Cline and Williamson pegged the RMB undervaluation at

21 percent and 14 percent (both on a real effective basis) in 2009 and 2010, respectively (Cline and Williamson 2009; Cline and Williamson 2010).

In addition to these direct estimates of the degree of undervaluation, Chinese government intervention in the foreign exchange market to prevent the RMB from appreciating also clearly suggests that the RMB is undervalued. This intervention has led to a buildup of official foreign exchange reserves, from $412 billion at year-end 2003 to $2,648 billion at the end of the third quarter of 2010, that is unprecedented in global history. The vast bulk of this build up is attributable to China's surpluses on current account rather than to surpluses on the capital and financial account as a result of large net inflows of foreign direct investment, portfolio capital, and so forth.[8] The magnitude of the official intervention in the foreign exchange market is so large that it strongly suggests that the government has made little or no progress in achieving the goal it announced in 2005—that the value of the exchange rate would be based more on "market supply and demand." Equally unprecedented in the history of the international monetary system is the large-scale open market operations that the central bank has undertaken to partially sterilize the domestic monetary expansion caused by foreign exchange intervention (Cappiello and Ferrucci 2008, 16-17). This in turn, has prevented real appreciation of the RMB via the price mechanism.

Progress to Date on Capital Account Liberalization

While China achieved full current account convertibility in 1996, its progress on capital account convertibility has proceeded slowly and in discrete stages. In December 1993, China's authorities publicly stated that, "The long-term goal of China's foreign exchange reforms is to realize the convertibility of the RMB. In order to reach this goal, we must move gradually and in the proper sequence of events." In effect this has meant achieving convertibility on current account transactions

before capital account transactions and loosening restrictions on capital inflows before loosening restrictions on capital outflows.

In the decade following China's reform and opening, the government showed a new willingness to use foreign capital to fund domestic investment. The majority of this capital came in the form of foreign loans from international financial institutions, such as the IMF and the World Bank, and foreign governments. China's objective was to attract long-term stable forms of investment and take advantage of favorable lending rates abroad. These loan inflows marked a major policy shift but remained modest in size, reaching a peak of just 1.68 percent of GDP in 1990.

China took more significant steps toward liberalization when it loosened constraints on foreign direct investment (FDI) beginning in the early 1990s. These liberalization policies included: 1) shifting decision-making power regarding the screening and approval of FDI from the central government toward local governments; 2) relaxing ownership restrictions away from joint-venture requirements and allowing a greater proportion of FDI to come from wholly-owned foreign enterprises; 3) increasing managerial autonomy relating to pricing and financial decisions; 4) offering concessions on customs duties, income taxes, and taxes on profit remittances; and 5) relaxing sectoral controls and opening up the services sector, including the banking, retailing and telecommunications industries.

Inward FDI is now almost completely liberalized in China with the exception of restrictions in some "strategic" sectors and, in some cases limits on the extent and form of foreign ownership. Foreign companies are permitted to make withdrawals from their foreign exchange accounts and convert local currency to make external current accounts payments of profits and dividends so long as the payments are consistent with their business scope, and, in the case of joint venture companies, approved by the firm's board of directors. China's accommodative stance toward FDI has made it the world's second largest destination for FDI.

China's recent measures to further liberalize FDI in response to the global economic crisis reflect the major role that FDI has played in driving economic growth over the past thirty years. When FDI inflows reached their peak in 2008, foreign invested enterprises made up just 3 percent of total enterprises, yet contributed to 30 percent of China's total industrial output value, 21 percent of total tax revenues, and 55 percent of total exports.[9] This trend reversed in due to the global financial crisis when FDI growth fell from 20 percent in 2008 to negative 13 percent in 2009, the first time that FDI growth had turned negative in a decade.

To stabilize and expand FDI inflows, in July 2009 the Ministry of Commerce submitted a 42-point proposal to the State Council containing a number of policy recommendations, including measures to further delegate FDI examination and approval rights and to relax the examination and approval process for individual foreign investments. Of particular significance was a proposal to simplify and moderately relax the foreign exchange registrations procedures imposed on foreign investors who invest in Chinese real estate enterprises, thereby easing the so-called "foreign capital restraining order."[10] There were also proposals to adjust the catalogue of permitted uses for foreign investment and give local governments more latitude to use preferential policies to attract foreign capital.

While China opened itself up to FDI inflows from a relatively early stage, measures to liberalize portfolio outflows have remained quite limited. In 1997, officials announced their intention to make the capital account fully convertible by 2000 but this goal was dropped from the immediate policy agenda after the outbreak of the Asian financial crisis.[11] China's subsequent efforts to liberalize portfolio flows have been cautious and motivated primarily by the need to honor its WTO commitments to open its financial system to foreign participation and to provide domestic businesses with greater flexibility in foreign currency transactions as their international activities expand.

China's Qualified Foreign Institutional Investor (QFII) program, adopted in 2002, allows a limited number of foreign institutional investors to invest in a specified range of domestic financial assets using funds from abroad. The program sets subject quotas on inbound portfolio investment for each participating foreign institution as well as the overall amount. To encourage long-term investments in the capital markets and discourage sudden capital outflows, the authorities imposed a number of restrictions on QFII activities. QFIIs were initially permitted to offer only closed-end funds and their investments were subject to a three-year lock-up period before the full amount placed could be withdrawn and repatriated. QFIIs have since been permitted to offer open-end funds and restrictions on repatriation have been significantly relaxed, but the authorities continue to attempt to influence the composition of capital flows by imposing higher minimum investment requirements on banks and securities companies than on mutual funds and insurance companies.

The QFII scheme was small at its inception and has been allowed to expand only marginally since then. As of June 2010 only 89 foreign institutions were licensed to participate in the program. The expansion of fund quotas has been gradual as well. While the authorities raised the global ceiling from $10 billion when the program began to $30 billion at the end of 2007 and increased the maximum initial investment amount for each new institutional investor from $800 million to $1 billion in August 2008, the program is still small in scale. Approved investment funds accumulated stood at $17.72 bn in the first half of 2010, just 0.6 percent of China's A-share market capitalization. By keeping fund quotas low, the authorities have limited foreign financial institutions from playing a significant role in the domestic markets and hindered capital market development.

China's Qualified Domestic Institutional Investor (QDII) program, introduced in 2006, allows domestic financial institutions to invest abroad using a structure similar to that of QFIIs. While initial QDII investments were limited to fixed-income instruments, it was broadened in 2007 to include

equities allowing it to expand rapidly in size and scope. Early quota demand was driven by the desire of domestic investors to diversify away from domestic markets and take advantage of expected high returns abroad. Most QDII investments are concentrated in instruments traded on the Hong Kong exchange but agreements between Chinese financial supervisory authorities and counterparts in other countries indicates that investments are likely to diversify into other markets in the future.

Retail investor interest in QDII funds declined dramatically in response to the global economic crisis after nearly two years of steady quota expansion. In the 17 months to end-September 2009, the number of QDII licensed institutions and total approved investment funds accumulated remained fixed at 56 and $50.7 billion, respectively.[12] Demand for quotas was so weak during this period that, by end-August 2009, domestic investors had invested only half their total approved funds abroad, prompting the State Administration of Exchange Control (SAFE) to warn that it would reduce quotas for QDII investors that did not make full use of them.[13] However, once global markets recovered and fears of capital outflows subsided, SAFE quickly resumed its quota approvals. Improved foreign market expectations and growing concerns over domestic overheating and Shanghai A-share market volatility have led to renewed interest in QDII quotas. By June 2010, the number of QDII licensed institutions had increased to 81 and total approved investment funds grew to $64 billion.

Nevertheless, the relatively small size of the QDII program means that it cannot provide households with a significant means to diversify their savings and enjoy portfolio income in excess of what they currently earn from low-yielding bank deposits. Total approved QDII investments accumulated as a share of total Chinese household savings deposits has never risen above its 2007 peak of 2.09 percent. This share was only 1.52 percent at the end of the first half of 2010. Furthermore, as discussed earlier, QDIIs do not always invest all of their approved investments.

Outbound foreign direct investment (OFDI) has traditionally been limited in China due to government policies designed to favor inbound foreign investment and domestic capital accumulation. More recently, however, China has begun to view OFDI as a valuable way to secure commodity inputs needed for growth and further integrate itself into the global trading system. ODFI also provides a way for China to diversify its foreign investments away from U.S. Treasuries and help preserve the value of its foreign exchange reserves by slowing the pace of reserve accumulation.

The government began to take a more favorable stance toward OFDI as early as 1999 when it announced the breakthrough "Go Global" policy with the primary goal making it easier for domestic firms secure commodities abroad. Over the past decade, government agencies relaxed restrictions on ODFI and actively supported firms going abroad through subsidies, tax breaks, and providing services to improve firm access to financing. For example, the Ministry of Commerce has gradually eased approval procedures over time by delegating greater responsibility to local agencies. In May 2009, it introduced new project approval rules to reduce approval time, lift value thresholds, and increase the authority of local MOFCOM branches. Similarly, the CBRC issued guidelines in December 2008 allowing commercial banks to provide loans to firms for use in cross-border M&A.

SAFE has provided firms with easier access to foreign exchange by relaxing capital controls over time and has provided firms investing with more opportunities to raise capital. SAFE draft regulations, published in May 2009, allow domestic firms to register the source of their foreign exchange financing after their investment overseas rather than requiring approval in advance.[14] These new rules also permit firms to raise capital from more sources, including domestic foreign exchange loans, foreign exchange purchased with RMB, foreign currency funds already possessed by the firm, and retained profits from overseas.

Yet, China's investment outflows are dwarfed by FDI inflows and its ODFI remains low by most measures.[15] At the end of 2009, China's share of global ODFI flows was 4 percent and its share of the stock was 1.2 percent—a significant increase compared to previous years but still small considering China is now the world's second largest economy.[16] [17] Overseas FDI assets as a share of GDP were less than 5 percent in China in 2009, compared to 6 percent for India, 10 percent in Brazil, and 26 percent in Russia.

Other channels for outbound capital flows include cross-border lending by China's banks and sovereign wealth fund investments. Policy banks do the bulk of China's external lending, often for the purpose of securing commodities abroad or supporting the outward investments of state-owned enterprises. However, these banks have engaged in a wider variety of international lending recently, including concessionary multi-billion dollar loan agreements with developing countries for local energy and infrastructure projects. China Investment Corporation (CIC) has continued to increase its outward investment despite its losses it incurred as a result of the financial crisis. According to some estimates, it invested $58 billion abroad in 2009, increasing its total overseas holdings to about $100 billion.[18]

Finally the internationalization of the RMB could ultimately facilitate the transition to capital account convertibility. China launched this initiative in 2004 when it allowed Hong Kong residents to open RMB deposit accounts in Hong Kong banks. By July 2010 RMB deposits in Hong Kong banks totaled RMB103.7 billion or 1.8 percent of total bank deposits (Subacchi 2010, 9).

The effort to internationalize the use of the RMB was further boosted in July 2009 when China introduced cross-border trade settlement in RMB. Initially this program ran as a pilot and was restricted to trade between five Chinese cities and Hong Kong, Macao, and ASEAN countries. In 2010 it was widened to include trade transactions between twenty provinces and cities and the rest of the world. The volume of RMB trade settlement expanded from RMB3.6 billion in the second half of 2009 to

RMB70.6 billion in the second half of 2010. However, this is a miniscule portion of China's international trade transactions.[19] The vast majority of transactions are still settled in US dollars.

To further enhance the incentive for off shore holdings of the RMB the Chinese have gradually expanded the issuance of RMB-denominated bonds in Hong Kong. Initially, starting in 2007, issuance was limited to domestic Chinese financial institutions but in 2010 the first foreign company was authorized to issue an RMB-denominated bond in Hong Kong. Increasing the availability of RMB-denominated assets other than bank deposits certainly is critical to the increased international use of the RMB

China certainly stands to gain from this internationalization of the RMB. Increased off-shore holdings of RMB reduce the pressure for RMB appreciation. When Chinese trade contracts are denominated in RMB and trade settlement is in RMB Chinese firms escape foreign exchange risk without assuming any hedging costs.

The more uncertain question is whether internationalization will ultimately help pave the way for capital account convertibility. Since historically capital account convertibility has preceded the international use of currencies we are to some extent in uncharted territory. To date the source of all off-shore RMB deposits derives from current account transactions, for example RMB earnings from exporting to China. Whether or not foreign investors are happy to hold significant amount of RMB assets offshore while China's capital account remains largely closed will determine the success of the internationalization strategy, as currently pursued by the Chinese authorities.

Policy and Recommendations

China has made some progress in relaxing capital controls over the past three decades. Inbound foreign direct investment was aggressively liberalized from the outset of the reform process. And the authorities have substantially liberalized outbound foreign direct investment over the past decade. But substantial obstacles still impede the move to complete capital account liberalization, particularly the liberalization of cross-border flows of portfolio capital.

The first obstacle to complete capital account liberalization is state of the domestic banking system. The banking system has been strengthened substantially over the past decade, but its apparently robust recent financial performance may owe as much to the central bank's interest rate controls as to the improved ability of banks to price risk appropriately. As Xiao Gang has acknowledged, "Growing big is the best way for Chinese banks to make more money under the current financial environment. This model of growth, however, neither assures the long-term sustainable development of the banking sector nor satisfies the need of a balanced economic and social structure." Gradual relaxation of remaining interest rate controls, particularly the ceilings on rates for deposits of various maturities, is an essential precondition to the emergence of a robust, fully commercially-oriented banking system. While this goal was embraced by China's premier in early 2009 little if any progress is yet visible on this front.

Second, parts of China's financial system are woefully underdeveloped. While progress has been made in the development of the forward market for foreign exchange, China's local corporate debt market remains tiny, only around 3 percent of GDP.

Third, China's exchange rate remains significantly undervalued. A premature move to fully liberalize the capital account before the value of the RMB is closer to an underlying equilibrium level likely would generate large-scale speculative capital inflows based on the expectation of a large RMB appreciation. These inflows could undermine the ability of the central bank to maintain price stability.

Thus allowing gradual appreciation of the currency and greater exchange rate flexibility is an essential precondition to moving toward further liberalization of the capital account.

Table 1: Net Interest Rate Spreads

	Total[1]	Households[2]
ICBC	2.16	2.99
CCB	2.30	3.20
Merchants	2.15	3.55

Notes: 1. The yield on the average annual balance of interest-generating assets less the cost of the average annual balance of interest-bearing liabilities.

2. The average percent yield on personal loans less the average cost of household deposits.

Sources: Industrial and Commercial Bank of China Ltd., 2009 Annual Results Announcement, pp. 4, 14, 16.
China Construction Bank Corporation, Annual Report 2009, pp. 23, 25-26.
China Merchants Bank Co. Ltd., Annual Report 2009, pp. 26-28.

References

Asian Development Bank. 2010. *Asia Bond Monitor* (October). Manila.

Cappiello, Lorenzo and Gianluigi Ferrucci. 2008. *The Sustainability of China's Exchange Rate Policy and Capital Account Liberalization*. Occasional Paper No. 82 (March). Frankfurt: European Central Bank.

China Banking Regulatory Commission. 2010. *2009 Annual Report*. Beijing: China Banking Regulatory Commission.

Chinese Securities Regulatory Commission. 2008. *China Securities and Futures Statistical Yearbook 2008*. Beijing.

Cline, William R. and John Williamson. 2008. "Estimates of the Equilibrium Exchange Rate of the Renminbi: Is There a Consensus and If Not, Why Not?" In Goldstein and Lardy (2008, 131-154).

Cline, William R. and John Williamson. 2009. "2009 Estimates of Fundamental Equilibrium Exchange Rates." Policy Briefs in International Economics 09-10 (June). Washington: Peterson Institute for International Economics.

Cline, William R. and John Williamson. 2010. "Estimates of Fundamental Equilibrium Exchange Rates, May 2010." Policy Briefs in International Economics 10-15 (June). Washington: Peterson Institute for International Economics.

Eichengreen, Barry. 2001. "Capital Account Liberalization: What Do Cross-Country Studies Tell US?" *The World Bank Economic Review* 15, No. 3:341-365.

Goldstein, Morris and Nicholas R. Lardy, eds. 2008. *Debating China's Exchange Rate Policy*. Washington: Peterson Institute for International Economics.

Ma Guonan. 2006. "Who Pays China's Bank Restructuring Bill?" CEPII Working Paper No. 2006-4.

Lardy, Nicholas R. 2008. *Financial Repression in China*. Policy Briefs in International Economics 08-8 (September). Washington: Peterson Institute for International Economics.

People's Bank of China, Monetary Policy Analysis Small Group. 2010. *Report on Implementation of Monetary Policy, Fourth Quarter 2009* (February 11). Beijing. Available at www.pbc.gov.cn (accessed on February 11, 2010)

Prasad, Eswar S. and Raghuram G. Rajan. 2008. "A Pragmatic Approach to Capital Account Liberalization." *Journal of Economic Perspectives* 22, No. 3:149-172.

Prasad, Eswar S., Thomas Rumbaugh, and Qing Wang. 2005. "Putting the Cart Before the Horse? Capital Account Liberalization and Exchange Rate Flexibility in China." IMF Policy Discussion Paper, 05/01.

State Administration of Foreign Exchange International Balance of Payments Analysis Small Group. 2010. *Report on china's International Balance of Payments in the first Half of 2010* (October 12). Beijing. Available at www.safe.gov.cn (accessed on October 12, 2010).

Subacchi, Paola. 2010. "'One Currency, Two Systems': China's Renminbi Strategy." Chatham House Briefing Paper 2010/1 (October). Available at www.chathamhouse.org.uk (accessed November 2, 2010).

[1] China's 155 percent ratio of deposits to GDP in 2005 was substantially higher than any other relevant country. In emerging Asia the ratio was 60 percent, Latin America 25 percent, and Eastern Europe 45 percent (Cappiello and Ferrucci 2008, 22). China appears to have become even more of an outlier by 2009.

[2] Return on average total assets at these two banks in 2009 was 0. percent and percent, respectively.

[3] Fang Huilei, Zhang Man, Chen Huiying, and Feng Zhe, "New draft rules on subordinated bonds will lower banks' capital adequacy ratios and reduce the systemic risk of cross-holding," *Caijing,* August 24, 2009. Available at http://english.caijing.com.cn (accessed August 24, 2009).

[4] Liu Mingkang, "Chinese bankers carry hopes for future balanced development." Speech to the Asian Financial Forum in Hong Kong, January 20, 2010. Available at http://www.cbrc.gov.cn (accessed February 18, 2010).

[5] Wen Jiabao, "Report on the Work of the Government," delivered at the second session of the Eleventh National People's Congress, March 5, 2009.

[6] Net interest margin is net interest income divided by the average balance of total interest-earning assets. Xiao Gang, "Don't blame it on the government," August 26, 2010 at http://www.boc.cn (accessed August 27, 2010).

[7] The central bank adjusted interest rates effective October 20, 2010. The People's Bank of China left the deposit side the benchmark rate on demand deposits unchanged at 0.36%, raised the one-year deposit rate by 0.25%, and raised the rates on longer term deposits by somewhat larger amounts. The five-year deposit rate, for example, was raised 0.6%.

[8] From 2004 through the first half of 2010 the cumulative current account surplus was 3.0 times the cumulative capital and financial account surplus (State Administration of Foreign Exchange International Balance of Payments Analysis Small Group 2010, 13).

[9] Continuous drop of FDI leads to promulgation of new FDI policies. *China Economic News*. No. 25. July 6, 2009.

[10] The "foreign capital restraining order" refers to the system in which several government departments actively manage the foreign debts and foreign exchange registration and settlement of foreign investors investing in China's real estate sector.

[11] Groombridge, Mark A. "Capital Account Liberalization in China: Prospects, Prerequisites, and Pitfalls" Cato Journal, Vol. 21, No. 1 (Spring/Summer 2001)

[12] Many suffered sharp losses during this period, including one fund that had to be liquidated in April 2008 after losing half its principle.

[13] Anderlini, Jamil. "QDII scheme back after 17-month break", *Financial Times*. November 2, 2009.

[14] "China to encourage overseas investment with easier procedures", Xinhua. May 19, 2009. Accessed on May 19, 2009 at http://english.people.com.cn

[15] China's outward investment in 2009 was $229.6 billion, less than a quarter of the size of the $997.4 billion China received from inbound foreign investment, according to a SAFE statement on China's International Investment Position, released May 5, 2010. See www.chinadaily.com/business/2010-05/04/content_9808404.htm, accessed November 4, 2010.

[16] World Bank. "Robust Recovery, Rising Risks", East Asia and Pacific Economic Update 2010, Volume 2. October 2010, pp. 26.

[17] Between 2000 and 2006 China accounted an average of about 0.8 percent of global FDI flows--more than India and Brazil, which had 0.4 and 0.7 percent, respectively, but less than Russia which accounted for 1.1 percent despite its much smaller economy.

[18] World Bank. "Robust Recovery, Rising Risks", East Asia and Pacific Economic Update 2010, Volume 2. October 2010, pp. 26.

[19] In the first half of 2010 China's total international trade transactions were RMB9.25 trillion.