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Financial Markets Reform

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**THE MANAGEMENT OF CAPITAL FLOWS AND FINANCIAL
VULNERABILITY IN ASIA**

Yilmaz Akyüz¹

Introduction

It has been more than a decade since a virulent financial crisis has devastated several East and South East Asian economies with excellent track records in economic development and macroeconomic stability. The crisis was generally considered the outcome of a combination of misguided capital account and exchange rate policies coupled with overreaction of foreign lenders and investors to temporary shortfalls in international liquidity, rather than vulnerabilities emanating from structural payment imbalances and excessive external indebtedness. There is now almost a collective determination across the region never to allow a repeat of the crisis. There is also an increased awareness that vulnerability to financial contagion and shocks depends in large part on how capital inflows are managed, and that governments may have limited options in addressing the sudden stops and reversals that often mark short term capital flows.

As the current global financial crisis brews, it is natural to ask how will it affect emerging markets, especially *those in Asia*. How have the changes in global financial markets and emerging markets affected their vulnerability? The first draft of this chapter was written before the calamitous events of September 2008. In the spring of 2008, there was much discussion of decoupling, that the problems in the United States would not spread to Europe. Part of that hope was that the emerging markets, especially those in Asia, were sufficiently robust that their growth would be sustained and that growth would, in turn, sustain global growth. Many of the countries had instituted regulatory reforms. Some of these reforms had involved strengthened regulation, but some, following the prevailing “conventional wisdom,” had liberalized. Some feared that the liberalization measures would make them more vulnerable while others hoped that the increased reserves and regulatory reforms

would enable these countries to withstand the global storm. By late 2008, it was clear that this hope would not be realized. The crisis had spread to emerging markets. This chapter helps explain why the policies pursued in the past decade may have made Asia's financial markets less vulnerable to the problems that afflicted the region a decade ago, but perhaps more vulnerable to the kind of shock that confronted the global economy in 2008.

The recurrent currency, balance-of-payments, and financial crises in emerging markets, including the 1997 Asian crisis, suggest that there are at least four areas of vulnerability associated with surges in capital flows: (i) currency and maturity mismatches in private balance sheets and especially those of financial institutions; (ii) credit, asset and investment bubbles; (iii) unsustainable currency appreciations and external deficits; and (iv) reliance on the International Monetary Fund (IMF) for help and policy advice rather than self-insurance against sudden stops and reversals of capital flows.² These lessons for crisis prevention—namely, the need to prevent fragility in private balance sheets and external payments, to check financial and investment bubbles, and to build adequate self-insurance at times of surges in capital inflows—appear to be widely held among the policy makers in the region, including by countries not directly hit by the 1997 crisis.

After a brief interruption, capital flows to emerging markets recovered strongly in the earlier years of this decade, growing constantly and, in recent years, surpassing previous peaks. Asia has been among the main recipients. These flows have been greatly influenced by the very same factors that led to a surge in speculative lending in the United States and elsewhere in the developed world—notably, ample global liquidity resulting from a policy of easy money and search for yield. With the bursting of the subprime bubble these flows have declined drastically

and have even been reversed in several cases, and many emerging markets have become vulnerable to financial shocks and contagion in different ways and degrees.

This chapter discusses the management of the recent surge in capital flows in Asia with the aim of identifying existing financial fragilities and vulnerabilities to external financial shocks, notably the current turbulence triggered by the subprime crisis. Particular attention is paid to China and India because together these countries account for about four-fifths of the total output and two-thirds of the total trade of developing countries in the region. Examining the volume and composition of capital inflows and capital account regimes, the chapter shows that in recent years Asian policy makers did not generally opt for tighter restrictions over capital inflows as a means of reducing the likelihood of a repeat of the 1997 crisis. In fact, Asian capital accounts are invariably more open today than they were during the 1997 crisis—with few exceptions, they are almost fully open to non-residents and have become increasingly open to residents.

Rather than applying tighter counter-cyclical restrictions over capital inflows, most countries in Asia have chosen to relax restrictions over resident outflows and to absorb excess supply of foreign exchange by intervention and reserve accumulation. In this way, most of them have successfully avoided unsustainable currency appreciations and payments positions, and accumulated more than adequate international reserves to counter any potential current and capital account shocks without recourse to the IMF. However, they have not always been able to prevent capital inflows from generating asset, credit and investment bubbles or to improve the resilience of domestic financial markets to adverse spill-overs and contagion from financial instability abroad. These policies now expose them to certain risks, but not necessarily of the kind that hit the region in the 1990s.

Recent capital flows to Asian emerging markets

Beginning in the early years of the decade, the world economy went through a period of easy money policy as interest rates in major industrial countries, notably the United States and Japan, were brought down to historically low levels and international liquidity expanded rapidly.³ These, together with stagnant equity prices in most mature markets, led to a search for yield by creditors and investors and played a major role in the strong recovery of capital flows to emerging markets. After falling to some \$100 billion at the beginning of the millennium, private flows picked up rapidly reaching \$929 billion in 2007 before falling drastically to an estimated level of \$465 billion in 2008 (Table 12.1).⁴

<Insert Table 12.1>

The increase until 2008 was accompanied by a rapid narrowing of spreads on emerging-market sovereign debt. The average spread, which had climbed to 1400 basis points after the Russian crisis and fluctuated between 600 and 1000 basis points during the early years of the millennium, fell constantly from mid-2002 onwards reaching 200 basis points in the first half of 2007.⁵ It started to edge up in 2008 with the deepening of the subprime crisis, exceeding 400 basis points at the end of the year (IMF 2008a, Box 1.1).

The strong and favourable global “push” factors explain why recovery in private capital flows has been broad-based. But country-specific conditions (the pull factors) explain why inflows have been stronger in certain parts of the developing

world than in others.⁶ International financial markets have not always differentiated among countries with respect to economic fundamentals (such as growth and price stability, and external payments, debt or reserve positions), but focussed occasionally on opportunities for short-term capital gains and arbitrage profits.

Such flows can be divided into three categories which assume different importance in different parts of the world. The first category is capital attracted by carry trade profits due to large interest rate differentials with industrial countries, notably Japan, of which highly-leveraged hedge funds have been among the main beneficiaries.⁷ The second category is capital inflows seeking gains from prospective currency appreciations in countries with undervalued exchange rates and large current account surpluses, notably China. The third category is investment in asset markets, which has been a common feature of capital flows to emerging markets in different regions.

It is notable that during 2004-08 emerging markets in Central and Eastern Europe received more foreign private capital than those in Asia, even though their total income is one-fifth of the total income of Asia. In several countries in that region, the combination of high interest rates with floating exchange rates has resulted in currency appreciations and growing current account deficits which reached on average 7.1 percent of GDP in 2008 (IMF 2008; table A12). High interest rates in some larger emerging economies (e.g. Turkey and Brazil) attracted large amounts of capital linked to carry trade. There have also been considerable intra-regional carry trade activities in these regions where funds borrowed in low-interest currencies have been invested in the same region in higher-interest currencies. High local interest rates have also attracted international investors to domestically issued local-currency

debt, as these investors have become more willing to assume the exchange rate risk in return for much higher yields.⁸

In gross terms, capital inflows to Asia as a proportion of GDP have been close to historical highs, but in net terms they have been around the long-term average due to increased resident outflows (IMF 2007b; IIF October 2007). The share of equity investment in total private capital inflows has been higher in Asia than in most other regions. Since 2003 more than two-thirds of these equity inflows to Asia have been in direct equity and one-third in portfolio equity.⁹ Equity flows have been particularly strong in China and, more recently, India. But most of India's equity investments have been portfolio rather than foreign direct investment (FDI). This is also true for Malaysia where cumulative portfolio inflows between 2002-07 were nine times the cumulative inflows of FDI (Khor 2008).

Following the cutback in bank lending after the 1997 crisis, international bank inflows to Asia started to exceed repayments in the early years of the decade. While restrictions on foreign participation in domestic bond markets have generally been maintained, in countries such as Malaysia and Indonesia there have been marked increases in foreign holding of local-currency debt instruments. In the region as a whole, local claims of foreign banks including local bond holdings, as a percentage of all foreign banks' claims, more than doubled since the beginning of the decade.

While capital flows to emerging markets as a whole fell by one-half between 2007 and 2008, the decline in Asia was more marked, having fallen by more than two-thirds (Table 1). Although direct investment flows remained relatively resilient, due to the deepening of the credit crunch in the United States and Europe, there was a sharp drop in commercial bank credits (\$156 billion to an estimated \$30 billion) and this is expected to turn negative in 2009 (IIF January 2009). Net portfolio equity

flows to Asia, including outflows by residents, were already negative in 2007 and they are expected to have become even bigger in 2008, reaching \$55 billion.¹⁰

Redemption by highly-leveraged hedge funds from the United States and United Kingdom appears to be an important reason for this expected increase. These institutions were very active in Asian equity markets in the earlier years, with assets managed by them being estimated to have grown sevenfold between 2001 and 2007. These institutions have been hit hard by the crisis, and their deleveraging appears to be a main reason for the exit of equity portfolio investment, not only from Asia, but from emerging markets as a whole.¹¹

Credit, asset and investment bubbles

Vulnerability to a sudden stop and reversal of capital flows is often assessed on the basis of short-term external foreign-denominated liabilities.¹² Thus the increased fraction of capital inflows to Asian emerging markets in the form of equity (as well as local currency debt) is generally considered to be more favourable to stability because with foreign investment in equity and local-currency debt the exchange rate risk is assumed by investors.

However, for vulnerability what matters is not simply currency denomination but also liquidity of liabilities. A move by non-residents away from domestic equity and bond markets could create significant turbulence in currency and asset markets with broader macroeconomic consequences, even though losses from asset price declines and currency collapses fall on foreign investors.¹³ This potential source of instability naturally depends on the relative importance of foreign participation in local financial markets. Extensive foreign participation raises exposure to adverse

spill-overs and contagion from financial instability abroad. The increased correlation between global and emerging-market equity returns since 2004 is consistent with financial market integration and the increased exposure to such spill-overs.¹⁴

Figures for *net* equity inflows understate the rapid increase of foreign presence in Asian equity markets because, as noted, there has also been a rapid growth of resident outflows—and it is this increased foreign presence, together with the liberalization of resident outflows, which generates the increased vulnerability. Available evidence shows that non-resident holding of Korean equities reached almost one half of market capitalization (McCauley 2008). In China, foreign share as a percent of market capitalisation rose from 2.5 percent in 2001 to 23.2 percent in 2006, and in India from 6.6 percent to 10 percent in the same period (BIS 2009: table E1). According to a recent study on foreign net purchases and net sales of equities in Asian markets, the share of foreigner transactions in 2005 in average daily turnover was around 20 percent in Korea, 30 percent in Thailand and 75 percent in Taiwan (China).¹⁵

There is also strong evidence that foreign investors tend to move in and out of some of the different Asian markets simultaneously. This may be because of “bandwagon effect”—foreign investors’ perceptions of various Asian markets move together, and seeing some investors move into or out of one Asian country, others investors do not want to be left behind; or because of correlated changes in returns to Asian markets.¹⁶

For most of the countries in the region, equity inflows appear to have been driven not so much by gains from anticipated currency appreciations as by local market returns. However, a relatively large proportion of financial inflows to China appears to have been motivated by expectations of appreciation of the yuan (Setser

2008; Yu 2008). Some of these are reported to have entered the country through over-invoicing of exports. According to some market participants, the so-called “hot money” amounted to \$5 to \$10 billion a month during 2007 (Anderlini 2007).

Large capital inflows to equity markets—together with the consequent expansion of liquidity resulting from, *inter alia*, incomplete sterilization of currency market interventions, discussed below—have been both the cause and effect of sharp increases in stock prices in several Asian markets.¹⁷ This is also suggested by a strong correlation between changes in net portfolio equity flows and stock prices in Asia—much stronger than that observed in Latin America (IIF October 2007: chart 13). For the region as a whole the equity market index increased by almost fourfold between 2002 and 2008, with increases exceeding 500 percent in China and India. The price/earnings ratios also rose rapidly until 2008, and seemed unrelated to improvements in underlying fundamentals—suggesting a bubble in the making (IIF March 2005: 4). China increased the stamp duty on stock market transactions in order to restrain the bubble, only to reverse it after the decline resulting from the fallout from the subprime crisis. Indeed, the bubble has now burst with equity prices in China and India losing almost half of their values in 2008 due to global retrenchment in risk appetite and exit of foreign capital from emerging market funds.

The two largest countries, China and India, which have seen the strongest surge in capital inflows and largest increases in stock prices have also experienced a boom in the property market. Again liquidity expansion resulting from capital inflows and foreign demand for property played an important role. During 2002-06 in real terms residential property prices rose by over 8 percent per annum in China and 10 percent in India.¹⁸ In these countries the price-to-rent ratio rose by more than 20 percent during the same period. There was also an acceleration of property price

increases in Korea (15%), Singapore, and Vietnam during 2006-07. While these were not as dramatic as increases in the United States—where the price-to-rent ratio rose by 30 percent over the same period—there are large pockets in China, India, Korea and the Philippines where increases were comparable and even greater.¹⁹ In some cases house prices also outstripped strong growth in incomes.²⁰

These booms in property markets too are now coming to an end. In China, house prices declined in December 2008 for the first time since the government started releasing the data in 2005, and urban fixed asset investment has been falling since September 2008. The government is now taking measures to revive the property market (Xinhuanet 2009a, Forbes.com 2008). In Korea, the slump that started in 2008 is now threatening to set off a process of debt deflation, reminiscent of the 1997 crisis when housing prices fell by some 13 percent (Citigroup 2009).

Such boom-bust cycles in asset markets generate considerable instability in economic activity. There is evidence, not only from industrial countries, but also from a number of Asian emerging markets, including Hong Kong (China), Indonesia, Korea, Malaysia, the Philippines, Singapore, and Thailand that asset booms (defined as periods in which asset prices exceed their trend by more than 10 percent) significantly raise the probability of output being eventually pushed below its potential level and the price level above its trend with the bursting of the bubble (Gochoco-Bautista 2008). This implies that monetary and capital account policies should not neglect developments in asset markets since their longer-term consequences may undermine economic stability and growth. That is, of course, precisely what happened in the United States and elsewhere.

Rapid domestic credit expansion and low interest rates have played an important role in bubbles in equity and property markets in Asia. As in some mature

economies, monetary policy has been highly expansionary and real policy interest rates have been considerably lower than those in other regions. However, the surge in capital flows is part of the reason for rapid expansion of liquidity since interventions in foreign exchange markets could not be fully sterilized. After 2003, private credit growth in real terms reached nearly 9 percent per annum in China and 5 percent in other countries.²¹ The failure to adequately regulate and control capital inflows thus was an integral part of the macroeconomic story.

The ample liquidity not only fed into asset prices, but translated, especially in the case of China, into investment levels that may not be sustained over the longer term with the return to normal financial conditions.²² This increase appears to have been associated with considerable excess capacity and wastage of capital: 40 percent of China's state-owned industrial enterprises are reported to have been running losses and facing declining rates of return on capital (BIS 2007: 56). It is expected that in the event of a sharp upward adjustment in the exchange rate and a severe downturn in exports, the capacity built in some industries may become unviable, with attendant consequences for the banking system.²³

Current account balances, exchange rates and reserves

While major Asian emerging markets have not been able to prevent capital inflows from making an important contribution to asset and investment bubbles, they have been more successful in managing their impact on exchange rates and the current account. Developing countries of the region taken together had a current account surplus of 7 percent of GDP in 2007 and over 5 percent in 2008, up from 1.5 percent in 2001. This is largely due to China's strong export performance, but a number of

other countries have also been enjoying surpluses. By contrast India, Pakistan, and Vietnam have been running growing current account deficits since 2006, while Korea started to run deficits on its current account in 2008 for the first time since 1997 (IMF 2008; Table A12), and these are expected to widen further in coming years with the severe downturn in the world economy.

Since the Asian crisis, several countries in the region have moved towards more flexible exchange rate arrangements. But they have followed various shades of managed floating rather than leaving their currencies entirely to the whims of international capital flows. Most countries have strived to absorb excess supply of foreign exchange generated by strong capital inflows and/or current account surpluses in reserves through interventions in foreign exchange markets, rather than allowing them to push up currencies to unsustainable levels and undermine their trade performance. To keep liquidity expansion and inflation under control, attempts have been made to sterilize such interventions, mainly by issuing government and/or central bank debt and by raising reserve requirements in the banking system, and these attempts appear to have been reasonably, though not fully, successful.²⁴ In China, where for much of the early years of this decade the worry was about deflation, capital inflows did not lead to inflation in goods and services, but, as noted earlier, contributed to the increases in asset prices.

There have been relatively sizeable appreciations in some countries, but these are moderate in comparison with those in other emerging markets where exchange rates are left to float. Moreover, appreciations in Asia have occurred under much more favourable current account positions and faster economic growth.²⁵

In China, government control over the financial system has allowed it to keep the fiscal cost of intervention down.²⁶ Reserve requirements of banks were constantly

raised from 7 percent in 2003 to 17.5 percent in 2008, and banks have come to hold over 80 percent of central bank securities issued for that purpose, with their share in total bank assets exceeding 20 percent (Yu 2008, BIS 2009; Box D4). In India the cash reserve ratio was also increased in several steps, from 4.75 percent in 2003 to 7.5 percent in 2008, but because of higher interest rates, the cost of intervention is reported to have reached 2 percent of GDP in 2007—more than half of the central government deficits.²⁷

As of the end of 2008, total reserves in developing Asia (excluding Newly Industrialized Economies (NIEs)) exceeded \$2.2 trillion and 86 percent of these were generated after 2001 (Table 12.2).²⁸

<Insert Table 12.2>

Asian reserves now account for more than half of total reserves of the developing world. The twin surpluses that the region as a whole has been running on its balance of payments (that is, on both current and capital accounts) have been fully converted into reserves.²⁹ Of the \$2.4 trillion reserves accumulated after 2001, 60 percent are earned from current account surpluses. The rest is accumulated from capital inflows; that is, they are “borrowed” in the sense that they accompany increased claims by non-residents in one form or another, including direct and portfolio equity investment, which entail outward income transfers. This stands in sharp contrast with most other regions where reserve increases came mostly from capital inflows. However, excluding China, almost three-quarters of Asian reserves in

recent years were also from capital inflows. In countries running current account deficits, such as India, reserves are one hundred percent “borrowed.”

Asian reserves are greater than required for preventing a crisis, under the Greenspan-Guidotti rule noted above. They are several times the total short-term external debt of the region, which stood at around \$400 billion at the end of 2008, and more than twice the total external debt of some \$1160 billion (IMF 2008; Table B21-22). They now cover more than nine months of imports, much higher than the three months of imports traditionally considered as adequate for addressing the liquidity problems arising from time lags between payments for imports and receipts from exports.

A policy of accumulating reserves at times of strong capital inflows and using them during sudden stops and reversals might appear to be a sensible counter-cyclical response to instability in international capital flows. By intervening in the foreign exchange market and accumulating reserves, a country facing a surge in capital flows can both reduce its external vulnerability by preventing appreciations and trade deficits—or at least reducing their magnitudes—and secure self-insurance against possible speculative attacks. In other words, if inflows are believed to be temporary, at first blush, it might be rational to resist an inward transfer that would result in an increase in domestic consumption and/or investment.³⁰ However, such a strategy implies that a country is borrowing from abroad to buy short-term foreign assets—which typically yield a lower return than the borrowing costs³¹—in order to pay back the lenders and investors when they exit.

In previous decades the current account in Asia was generally in deficit so that a very large proportion of reserves held at the beginning of this decade was “borrowed” rather than earned reserves. If this is added to reserves accumulated from

capital inflows since 2001, about half of the total stock of reserves in Asia now would be “borrowed” reserves. This is a little more than the existing stock of external debt of the region. Assuming a moderate 500-basis-point margin between the interest cost on debt and the return on reserves, this would give an annual carry cost of some \$60 billion for the region as a whole.³² This is how much the region as a whole could save per year by paying up its external debt by drawing on reserves.³³

Some Asian central banks appear to have invested an important part of these reserves in debt issued by the United States Government Sponsored Enterprises, including mortgage firms Fannie Mae and Freddie Mac.³⁴ Had the United States government not bailed out these institutions, losses would have been severe.³⁵ Moreover, should the dollar come under pressure, countries with a large stock of dollar reserves stand to incur considerable exchange rate losses.

The high carry cost of reserves in excess of possible liquidity needs, together with the risk of exchange-rate-related losses, raise the question of alternative investments in higher-yielding foreign securities, as done by several fuel exporters and Singapore through sovereign wealth funds (SWFs). Like China, fuel exporters as a group also generate large current account surpluses, but unlike China, they run deficits in their capital accounts. About two-thirds of oil surpluses generated since 2002 have been used for reserve accumulation and one-third for investment abroad. Many of these have recently been acquiring high-risk equity in western banks hit by the subprime crisis, thereby acting as a global force for stability while suffering significant losses.

SWFs in fuel exporters and Singapore are established from earned reserves and fiscal surpluses except that in the former case reserves are directly acquired by the government from oil exports while in the latter they are purchased from private

exporters. These are quite distinct from SWFs that could be established with borrowed money—that is, where reserves come from capital inflows not current account surpluses, and governments acquire them by issuing domestic debt rather than generating fiscal surpluses, as has been the case in India. Investing these into foreign equity would seriously expose the economy to deterioration in global financial conditions which could not only lower the value of investment but also raise the need for reserves by leading to sudden stops and reversals in capital flows and/or sharp increases in current account deficits. In such countries the case for not borrowing them in the first place (rather than investing them in highly volatile assets) is strong.

In this respect, China stands in between fuel exporters and India in that its reserves are largely earned from current account surpluses but acquired by the government by issuing domestic debt. At some \$200 billion, the assets of the recently established China Investment Corporation (CIC) are only a fraction of the total reserves of the country, and only a small part of these appear to have been used for investment abroad.³⁶ There is certainly scope for considerable expansion of Chinese investment abroad, including for securing greater control over supply of natural-resource-based commodities, notably minerals. However, given the deep suspicion and misgivings about Chinese government investment in some advanced countries, a large proportion of its reserves cannot be expected to be quickly translated into investment in more lucrative, less risky assets in these countries.³⁷ An alternative would be to recycle them in the region for, *inter alia*, infrastructure projects in low-income countries in need of development finance. This may best be achieved through a genuinely regional development bank, established and owed by the developing countries of the region along the lines of the recent Banco del Sur in Latin America or the previously existent Corporacion Andina de Fomento (CAF).

Capital account measures

From a “flow of funds” perspective, it makes little sense for a country to hold excess reserves beyond its liquidity needs and even less sense for it to borrow from abroad to hold money in reserves—which are in effect lent abroad at lower interest rates. There are external effects from foreign borrowing, both in terms of exposure to foreign exchange rate changes, with the attendant macroeconomic consequences, and in terms of the requisite offsetting reserve holdings.³⁸ At the very least, these external costs should be imposed on capital inflows. This brings up the broader issue of measures to manage the capital account—regulations that would affect emerging market exposure to global financial market volatility.

Many Asian emerging markets are incurring high reserve costs and facing macroeconomic policy dilemmas mainly because they have chosen to keep their economies open to the surge in capital inflows, rather than imposing tighter counter-cyclical measures of control.³⁹ Indeed, capital accounts in the region are more open today than they were during the Asian crisis.⁴⁰ In China, for instance, one of the countries with the tightest restrictions, calculations based on an IMF formula are said to show that 80 percent of the capital account has been liberalized.⁴¹

In several cases the opening to inflows has been selective, such as raising the limits on the QFII (qualified foreign institutional investors) in China. Countries such as India have liberalized sectoral caps on FDI. Foreign banks have generally been allowed greater freedom to operate, with many domestic borrowers receiving funding from such banks directly from abroad or through their local offices.

However, there have been some efforts to bring greater transparency to capital inflows. For instance, in 2007 India, in a move that was designed not so much to relieve the upward pressure on the rupee as to bring greater transparency by restricting the activities of hedge funds, adopted a proposal by the Securities and Exchange Board to restrict the foreign buying of shares through offshore derivatives, despite an adverse initial reaction from the stock market.

There have been, to be sure, some efforts to curb excessive inflows in order to ease the upward pressure on their currencies. In 2006 China extended to foreign banks the restriction over borrowing abroad to fund domestic dollar assets. In 2007 its foreign exchange regulators felt obliged to take action against ten international banks for breaching capital account regulations by “assisting speculative foreign capital to enter the country disguised as trade and investment” (Anderlini 2007). Exporters have been required to park their export revenues in temporary accounts in order to enable the officials to check and verify that invoices are backed by genuine trade transactions.

In December 2006, Thailand imposed a 30 percent unremunerated reserve requirement on capital inflows held less than one year, including portfolio equity flows, in order to check continued appreciation of the currency by reducing the effective return on capital inflows. This provoked a strong reaction from the stock market, forcing the government to exempt investment in stocks from the requirements. The remaining restrictions were removed in March 2008. With a continued surge in capital inflows, India reversed the liberalization of the limits on external commercial borrowing, tightening them in 2007. Similarly, Korea restricted external funding of domestic lending by foreign banks and reintroduced limits on lending in foreign currency to domestic firms.

However, the main response to the surge in capital inflows has been to liberalize outward investment by residents. This is partly motivated by a desire to allow national firms to expand abroad and become important players in world markets. This has particularly been the case in China and India. However, while in China assets acquired abroad are financed from trade surpluses, in India these are, in effect, funded by capital inflows.⁴² As remarked by an observer:

the global flood of money (and attendant hubris) has enabled Indian companies like Tata to buy themselves a place on the world stage rather than earning it through export success or technological advance (Bowring 2008a).

There has also been considerable liberalization of portfolio outflows. For instance, China took a decision to permit investment by its residents in approved overseas markets and raised the limits on corporate and individual purchases of foreign currency for mitigating the pressure for appreciation through its QDII (qualified domestic institutional investor) scheme. The share of portfolio investment in the total international assets of China in 2006 was three times that of FDI abroad.

In Malaysia where limits on foreign assets held by some institutional investors were increased significantly, cumulative portfolio outflows during 2004-07 were slightly below cumulative portfolio inflows and nine times direct investment abroad. In 2007 there was a net outflow of capital (excluding reserve accumulation) which absorbed as much as half of the current account surplus (Khor 2008). India, Korea, and Thailand have all liberalized rules limiting portfolio investment abroad and Thailand abolished the surrender requirement for exporters.

Capital account opening for residents as a response to a surge in inflows is clearly an alternative to sterilized intervention and has the advantage of avoiding carry costs for reserves. But, like interventions, it effectively does nothing to prevent currency and maturity mismatches in balance sheets, or instability and vulnerability to shocks associated with greater presence of foreigners in domestic asset markets. Its rationale as a longer-term strategy for closer integration with global financial markets is highly contentious. Besides, in countries such as China where property rights are not clearly defined, liberalization of resident outflows could encourage asset stripping and money laundering (Yu 2008). As a counter-cyclical measure, it can be even more problematic—once introduced for cyclical reasons, it may not be easily rolled back when conditions change. Thus, unlike official reserves, these do not provide self-insurance against payments and currency instability and may even aggravate them when market sentiments change.

Conclusion

The Asian emerging-market economies are now much more closely integrated into the international financial system than they were in the run-up to the 1997 crisis. Foreign presence in Asian markets has increased not only because of historically high non-resident portfolio inflows, but also because of increased penetration of foreign-owned banks and other financial firms. Furthermore, due to liberalization of resident outflows, portfolio investment abroad has reached unprecedented levels.⁴³ Closer integration has resulted in greater fragility of the domestic financial system by contributing to asset, credit and investment bubbles. It has also increased the susceptibility of the Asian economies to shocks and contagion from the current global

financial turmoil even though payments and reserve positions of many countries in the region are strong enough to provide insurance against balance-of-payments and exchange rate instability of the kind experienced during 1997.

Several Asian countries, notably China, India, and Korea, experienced bubbles in equity and property markets after the early years of this decade, with price increases going well beyond levels justified by fundamentals. These have also been accompanied by rapid and unprecedented increases in investment in China and India, not only in construction and property, but also in industry. The surge in capital flows made an important contribution not only directly, but also by giving rise to a rapid liquidity expansion, since central bank interventions in foreign currency markets aiming at preventing appreciations could be only partially sterilized. However, monetary policy stance also played an important role. Although, unlike the United States, some efforts were made to cool the bubble in asset markets, monetary policy has generally been loose, resulting in rapid credit expansion.

It appears that asset bubbles have now come to an end, particularly in equity markets. The global retrenchment of risk appetite and the exit of foreign investors have no doubt played a key role. This cycle in Asian asset markets has many features reminiscent of those in the 1990s, but is different in an important respect. In the current cycle asset deflation is not associated with currency crises and interest rate hikes, but severe trade shocks. The combination of asset deflation with sharp drops in exports and consequent retrenchment in investment can no doubt wreak havoc in the real economy.⁴⁴ This explains why in Asia “the slump in industrial production has been more significant and more rapid than in 1997-98.”⁴⁵

It is important to avoid destabilizing feedbacks between the real and financial sectors, particularly in China because of its wider regional ramifications. A sharp

drop in growth can threaten the solvency of the banking system given the high degree of leverage of many firms, which can in turn lower growth further.⁴⁶ It remains to be seen whether or not the massive fiscal package proposed by the government will prevent such an outcome. In any event, the challenge faced by China is not only to overcome the deflationary impulses from the subprime crisis, but also to shift to a growth trajectory led by the expansion of domestic consumption.⁴⁷

Even though the region as a whole has strong payments and reserve positions, the behavior of capital flows, including resident outflows, is likely to continue to exert a strong influence on the space available for policy response to external shocks and hence the performance of several economies of the region. Because of the sharp slowdown in total capital flows and reversal of portfolio flows, several currencies that had faced constant upward pressure against the dollar (and the yuan) after 2003, particularly the Indian rupee, Korean won, and Thai baht, have been falling sharply against both currencies since summer 2008. Given strong deflationary impulses from the crisis, this may be viewed as a welcome development, and unlike in 1997, governments now seem to be wary of throwing all their reserves into stabilizing their currencies. However, in some of these countries, notably India and Korea, reserves have been declining rapidly as a result of exit of capital and growing current account deficits. For such countries the deepening of the global crisis can pose serious risks for currency and payment stability.⁴⁸

It seems that Asia may have learned some of the wrong lessons from the last crisis. It improved domestic regulation. It improved transparency. It strengthened external payments. It accumulated large reserves. These put it in better stead than it otherwise would have been in the current turmoil. But its greater integration into the global financial system seems to have brought “risk without reward” (Stiglitz 2002).

The large gross private inflows and capital market integration—with low levels of net flows—means that Asia has been exposed to greater risk, with little direct gain from access to more capital. Prior to the financial meltdown, some might have claimed that it was buying “intermediation services,” i.e. Western banks did a better job in credit assessment, monitoring, and enforcement. But today, it is hard to make such a claim. More importantly, Asia allowed itself to be more integrated into the global financial system, without putting into place counter-cyclical regulatory mechanisms that would have provided protection against the vicissitudes of global financial markets. It focused on internal macro-management, failing to note that many of the disturbances come from abroad. It failed to note the macro-externalities that arise from capital inflows. This has not put the region in a good position to withstand this particular storm coming from the United States and Europe.

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² Not all Asian countries hit by the crisis manifested vulnerability in all these areas – see UNCTAD TDR (1998) and Akyüz (2000).

³ See IMF (2007c) for the notion of global liquidity and the role of monetary policy in advanced economies and financial innovation in global liquidity expansion and risk appetite. See also BIS (2007: 8-10) for a similar discussion.

⁴ The underlying figures in Table 1 are on net-net basis for equity flows and gross basis for debt flows; that is, net outflows of FDI and portfolio equity by residents are deducted from net inflows by non-residents. Thus, the current account balance plus private capital flows minus net lending by residents (and errors and omissions) would give changes in reserves – see IIF (October 2007: Box 3). The countries included are China, India, Indonesia, Malaysia, Philippines, South Korea and Thailand in Asia; Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, Uruguay and Venezuela in Latin America; Bulgaria, Czech Republic, Hungary, Poland, Romania, Russian Federation, Slovakia, Turkey and Ukraine in Europe; and Algeria, Egypt, Morocco, South Africa and Tunisia in Africa/Middle East. The latest figures are from IIF (January 2009).

⁵ See World Bank (2007) and IMF (2007a). That improvements in underlying economic fundamentals in the recipient countries are not always the main reason for this unprecedented decline in spreads was also recognized by the IMF (IMF 2004: 66).

⁶ That the push factor is generally more important in boom-bust cycles in international capital flows is also noted by the World Bank (2003: 26): the “dynamics of net capital inflows and the changes of official reserves over the cycle do indeed indicate that the push factor is more important for middle-income countries, while the pull factor dominates in high-income countries.”

⁷ On different forms of carry trade and interest differentials, see BIS (2007: 83-88), UNCTAD TDR (2007; chap. I) and IIF (October 2007).

⁸ The proportion of domestic-currency sovereign debt held by non-residents in emerging markets is estimated to have reached 12 percent – Mehl and Reynaud (2005) and De Alessi Gracio, Hoggarth and Yang (2005). The expansion appears to be particularly rapid in Latin America due to high levels of sovereign debt. Available data shows that foreign investment in local-currency government securities went from less than \$15 billion at the beginning of 2003 to \$200 billion by the end of 2006 – see Tovar and Quispe-Agnoli (2008). Moreover, some Latin American countries have been able to issue local-currency-denominated global bonds at rates below those in domestic markets because of lower jurisdiction spreads (Tovar 2005; IMF 2005).

⁹ For further discussion of components of capital flows to Asian emerging markets, see BIS (2007), IMF (2007d and 2007e) and McCauley (2008).

¹⁰ Net portfolio investment outflows in 2008 from emerging markets as a whole is estimated to have been \$89 billion (IIF January 2009). It appears that all of the money that came into emerging markets funds in 2007 came out again in 2008 (Citigroup 2008).

¹¹ Wall Street Journal, 17 October 2008; see also RGE Monitor (2008). The tendency of investors to liquidate their holdings in emerging markets in order to cover mounting losses and margin calls means that, as suggested by McCauley (2008: 1), emerging markets are providing “liquidity under stressed conditions to portfolios managed in the major markets.”

¹² For instance according to the so-called Greenspan-Guidotti rule formulated after the Asian crisis, in order to avoid a liquidity crisis, international reserves in emerging markets should meet short-term external (foreign denominated) liabilities, defined as debt with a remaining maturity of up to one year. For a discussion of the adequate level of reserves, see UNCTAD TDR (1999; chap. V). For an attempt to empirically determine the optimum level of reserves based on welfare criteria, see Jeanne and Rancière (2006). For a discussion of the underlying theory, see Furman and Stiglitz (1998).

¹³ The degree of vulnerability in this sense can be measured in terms of stock of foreign portfolio investment as a percentage of reserves. In 2008 this ratio was greater than unity in Korea, Indonesia and the Philippines and exceeded 80 percent in Singapore, Russia and Malaysia; see ESCAP (2008).

¹⁴ See BIS (2007: 51) which points out that this correlation has been higher during the most recent periods of global market volatility.

¹⁵ See Chai-Anant and Ho (2008). The evidence is from six emerging Asian markets – India, Indonesia, Korea, the Philippines, Taiwan (China) and Thailand.

¹⁶ IMF (2007e) finds that institutional investors introduce considerable volatility in equity prices in emerging markets because of herd behaviour. BIS (2009: 69) argues that increased market liquidity resulting from greater participation of foreigners in equity markets tends to reduce day-to-day volatility, but notes that “even highly liquid markets do not insulate EME equity markets from a global retrenchment in risk appetite or a withdrawal of foreign investors.”

¹⁷ In China the equity market is segmented between residents and non-residents in A-share and B-share markets, with the former being reserved exclusively for residents. Both residents and non-residents are allowed to use foreign exchange to invest in B shares. Large inflows of capital, together with growing current account surpluses, affect A-share equity prices mainly through liquidity expansion.

¹⁸ For an analysis of developments in Asian housing markets, see IMF (2007b) which somewhat underplays the extent of the bubble and the risks involved, but nevertheless points out that speculative dynamics cannot be ruled out, notably in China, India and Korea.

¹⁹ Korean and the United States data from OECD (2007: annex table 60). For the others, see BIS (2007: 50) and IMF (2007b). In Korea bank lending to households grew rapidly after 2005, and household debt has reached 140 percent of disposable income – above the level of household indebtedness in the United States (ADB 2007).

²⁰ In some cases, authorities did not directly take actions to dampen the bubble, in others, they did. Concerned by the growing speculative spree, China adopted a number of measures to stem increases in property prices, including higher interest rates and larger downpayments on both residential and commercial property loans (ESCAP 2007: 10). Even before the global financial meltdown, housing prices in parts of China began to soften (Forbes.com 2008).

²¹ For credit conditions and interest rates in Asia, see BIS (2007: 39-41), Mohanty and Turner (2006: 43), and IMF (2007c: 5).

²² In China gross fixed capital formation has been growing 4-5 percentage points faster than real income, with the share of investment in GDP now reaching 46 percent and exceeding the share of consumption. Similarly, in India growth in investment has been faster than GDP by more than 5 percentage points per annum, with the investment ratio rising to over 30 percent of GDP from less than 24 percent in the early years of the decade. Investment rates in most other Asian countries did not fully regain their pre-crisis levels.

²³ See Goldstein and Lardy (2004), Nagaraj (2005) and Branstetter and Lardy (2006) on excess capacity, waste and sustainability of the investment boom in China.

²⁴ See various studies in BIS (2005), notably, Disyatat and Galati (2005) and Mihajjek (2005). See also Mohanty and Turner (2006). These findings stand in contrast to a recent IMF study which argues that sterilized intervention in emerging markets is likely to be ineffective when the influx of capital is persistent, and tends to be associated with higher inflation (IMF 2007c: 122-24).

²⁵ Most Latin American and European emerging markets have experienced sizeable appreciations in real effective exchange rates – see UNCTAD TDR (2007) and IIF (October 2007). According to UNCTAD figures, real effective exchange rates were relatively stable in India and China during 2002-06 while Indonesia saw an appreciation of over 20 percent and Malaysia close to 10 percent. Appreciations in Korea and Thailand were in the order of 10 percent – see also BIS (2007). India, the Philippines and Thailand saw relatively strong appreciations in 2007.

²⁶ Ignoring exchange rate changes, the fiscal (or quasi-fiscal) cost of each dollar of reserves acquired through intervention can be written as: $i_g - i_r = (i_g - i_x) + (i_x - i_r)$ where i_g , i_r and i_x are the rates, in common currency, on government domestic debt, reserve holdings and external borrowing, and typically $i_g > i_x > i_r$. The margin between i_x and i_r is determined mainly by the credit risk and between i_g and i_x by the exchange rate risk. When non-resident claims are only in foreign currencies, the first term on the right-hand side of the equation is captured by the holders of public debt at home and the second term is the net transfer abroad – what Rodrik (2006) calls the social cost of foreign exchange reserves. For the distinction between the two types of transfers and costs see UNCTAD TDR (1999: chap. V). Mohanty and Turner (2006) provide some estimates of fiscal cost of intervention in emerging markets.

²⁷ Fiscal cost from ESCAP (2007: 21) and central government deficits from IMF (2007d: 20).

²⁸ It should be noted that reserve figures are subject to a valuation effect which can be large because of sharp changes in cross rates among reserve currencies.

²⁹ Here capital account surplus is used in the conventional sense; that is, surplus on non-reserve financial account.

³⁰ See Williamson (1995) on the rationality of reserve accumulation under such conditions. Polak and Clark (2006: 555) refer to fear of floating in explaining reserve holding in China, Korea and Singapore.

³¹ In fact, it is more so for equity flows for the acquisition of ownership rights of existing assets since rates earned by transnational companies exceed the cost of international borrowing by a very large margin (UNCTAD TDR 1999: chap. V).

³² This figure appears quite modest if one takes the average spread over the full boom-bust cycles in capital flows to emerging markets. For instance the average spread of emerging-market bonds exceeded 700 basis points during the 1990s and never fell below 400 basis points. For similar calculations of the cost of reserves, see Rodrik (2006) and Stiglitz (2006).

³³ Since “borrowed” reserves of some countries fall short of their total external debt, realization of this aggregate benefit would require lending by countries with excess reserves to those with deficits at rates earned on reserves.

³⁴ Holding by central banks outside the United States of such debt is estimated to be in the order of \$1 trillion and large amounts are also known to be held in private portfolios. China’s holding of United States agency debt is estimated to be at least 10 percent of its GDP, mostly in Fannie and Freddie assets (Pesek 2008).

³⁵ The Bank of China is reported to have lost some \$2 billion on its holdings of collateralized securities, including those backed by United States mortgages (Pearlstein 2008). Standard Chartered, in which Singapore’s sovereign wealth fund, Temasek, owns a 19 percent stake, is reported to have been walking away from its \$7.5 billion SIVs sold in Asia and the Middle East (Bowring 2008b).

³⁶ Its first batch of investment abroad in the Blackstone Group has not been very lucrative but quite controversial in China; see Bradsher (2007).

³⁷ Such investment is sometimes considered as cross-border nationalization; see Weisman (2007). Several commentators including Summers (2007) and Truman (2007) call for greater transparency and accountability – something visibly missing in the case of western institutional investors and hedge funds. Others such as Wade (2007) see SWFs as “a partial redress to the unlevel playing field.”

³⁸ These are discussed at greater length in Stiglitz (2003) and Korinek (2008).

³⁹ These include direct restrictions over foreign borrowing by residents and access of non-residents to domestic securities markets, supplemented by market-based or administrative restrictions over maturity and currency mismatches in banks’ balance sheets and restrictions designed to limit exchange-rate-related credit risks – for a discussion, see Akyüz (2008b).

⁴⁰ For recent measures in Asia, see BIS (2007), IMF (2007b and 2007e) and McCauley (2008).

⁴¹ See Yu (2008). It has been argued that China’s capital controls remained substantially binding during the period of a de facto dollar peg until July 2005, as suggested by sustained and significant gaps between onshore and offshore renminbi yields. It is also found that since July 2005 there has been a partial convergence between onshore and offshore yields; see Ma and McCauley (2007).

⁴² For a discussion of inward and outward FDI in India, see Chandrasekhar (2008).

⁴³ This pattern of integration is quite different from that pursued by Korea and Japan where resident portfolio investment abroad emerged at a much later stage of development, after a global expansion of highly successful indigenous firms through direct investment. Japanese corporations had already established themselves as global players through direct investment abroad and sustained surpluses in manufacturing trade long before its financial and savings institutions were allowed to invest freely in foreign assets as a result of financial liberalization brought about by the 1984 United States-Japan accord. A key provision of that accord was relaxation of restrictions on the purchase of foreign bonds by Japanese residents – see Osugi (1990).

⁴⁴ On some accounts, on its own, the bursting of asset bubbles in China would lower growth only by a couple of percentage points; see, Chancellor (2008).

⁴⁵ IIF (January 2009; 11). According to preliminary estimates, as of January 2009, some Asian countries, notably Korea and Singapore, experienced severe contraction in output during the last quarter of 2008. In China where manufacturing output also dropped and loss of employment reached some 20 million, more recent indicators seem to be more encouraging; see Xinhuanet (2009b).

⁴⁶ BIS (2007: 56) notes that in China the bulk of recorded profits are earned by relatively few enterprises while the rest have high leverage so that if growth slows significantly a substantial proportion of bank loans can become non-performing.

⁴⁷ That the only viable alternative to exports is domestic consumption and this requires faster growth in wages and higher share of wages in GDP, see Akyüz (2008a).

⁴⁸ For the behaviour of reserves on India and Korea during 2008 see Obstfeld, Shambaugh and Taylor (2009) and RGE Monitor (2009a and b).