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Managing Capital Flows in Asia: Policy Issues and Challenges

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Masahiro Kawai and Mario B. Lamberte

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Masahiro Kawai is Dean and Mario Lamberte is Research Director of the Asian Development Bank Institute. This policy brief is based on various research papers produced under the ADBI-supported project Managing Capital Flows: Search for a Framework. The research papers include a survey of the literature on capital flows, five perspective papers, and nine country studies (People's Republic of China, India, Indonesia, Republic of Korea, Malaysia, Philippines, Singapore, Thailand, and Viet Nam).

1. Introduction

Capital inflows provide emerging market economies with invaluable benefits in pursuing economic development and growth by enabling them to finance investment, smooth consumption, diversify risks, and expand economic opportunities. However, large capital inflows, if not managed properly, can expose capital-recipient countries to at least three types of risks (Kawai and Takagi, 2008). The first is macroeconomic risk. Capital inflows could accelerate the growth of domestic credit, create economic overheating including inflation, and cause the real exchange rate to appreciate, thus affecting macroeconomic performance in a way not consistent or compatible with domestic policy objectives such as sustainable economic growth with price stability. The second is risk of financial instability. Capital inflows could create maturity and currency mismatches in the balance sheets of private sector debtors (particularly banks and corporations), push up equity and other asset prices, and potentially reduce the quality of assets, thereby contributing to greater financial fragility. The third is risk of capital flow reversal. Capital inflows could stop suddenly or even reverse themselves within a short period, resulting in depleted reserves or sharp currency depreciation. About 15% of the large capital inflow episodes over the past 20 years ended in crisis, with emerging Asia experiencing proportionately more episodes of hard landings (Schadler, 2008). The most devastating of these episodes occurred in 1997–98. This stresses the point that emerging Asian economies need to manage these risks well so that they can enjoy the benefits of capital inflows.

The nine emerging Asian economies included in this study[1] have posted remarkable growth rates since 2000, with the People's Republic of China (PRC), Viet Nam, and India showing the fastest growth rates. The International Monetary Fund (2007a) identified India, Pakistan, Thailand, and Viet Nam as Asian countries that were experiencing capital inflow episodes in the late summer of 2007. In contrast to the years before the crisis, all economies in the region except Viet Nam and India have experienced current account surpluses. One unhealthy development is the dramatic fall in investment ratios of crisis-affected economies after the Asian financial crisis, and there is no clear sign yet that the ratios will return to their pre-crisis levels in some countries. In contrast, the investment ratios of the PRC, India, and Viet Nam have risen and exceeded those of the crisis-affected economies in recent years.

Despite sizeable current account surpluses, many emerging Asian economies have received significant private capital inflows.[2] This has led to the accumulation of massive foreign exchange reserves in these economies. It is to be noted that capital inflows have considerably slowed in the past few quarters due to the deepening of the United States (US) subprime loan crisis and the uncertainty it has brought to the global financial

[1] This refers to the nine country studies. Unless otherwise specified, emerging Asian economies refers to People's Republic of China, India, Indonesia, Republic of Korea, Malaysia, Philippines, Singapore, Thailand, and Viet Nam.

[2] Net private capital inflows to emerging Asia, which at the mid-1990s peak were the largest (relative to GDP) of any region, have recently been well below those to emerging Europe (Schadler, 2008).

market. US financial institutions in particular have become cautious about extending loans and investment, domestically and internationally, in order to protect their balance sheets and capital bases. While realizing losses on their impaired assets, several major banks are trying to recapitalize through private sources. This is the factor behind the ongoing credit crunch in the US. However, once US financial stability is restored, financial institutions rebuild the capital base, and the credit crunch eases, capital inflows to Asia will likely resume and in a big way, posing serious policy challenges, including for macroeconomic management, exchange rate policy, and financial sector supervision. Emerging Asian economies must therefore be prepared to deal with another surge in capital inflows, even though the region as a whole is likely to maintain a surplus in its current account. Now is the time for emerging Asian economies to put in place measures to manage risks arising from such future surges.

2. Capital Flows in Emerging Asia

Patterns of Capital Inflows

Capital inflows into emerging economies have been facilitated by liberalization of the capital account. Although most emerging Asian economies have maintained various types of controls on cross-border capital flows as reported in the International Monetary Fund's *Annual Report on Exchange Arrangements and Exchange Restrictions, 2007*, their capital accounts are much more open than they appear to be, as suggested by the high and generally rising ratios of total stocks of foreign assets and liabilities to gross domestic product (GDP). Capital inflows have also been facilitated by “push” and “pull” factors. The push factors have included low interest rates globally, slow growth and the lack of investment opportunities, and deregulation that has allowed greater global risk diversification in industrial countries. The pull factors have included the robust economic performance and the improved investment climate in emerging Asian economies, which are the results of a series of trade, financial-sector, and legal reforms and other economic liberalization measures.

Turning to the composition of capital inflows, foreign direct investment (FDI) began to take the dominant role in total capital flows in the middle of the 1990s. By the late 1990s, FDI accounted for more than half of all private capital flows to emerging Asian economies as portfolio investment shrank. The total FDI inflows in emerging Asian economies amounted to US$147 billion in 2006, of which more than half went to the PRC. FDI is expected to remain an important source of capital inflows in the region.

Portfolio equity inflows have increased in the region since the Asian financial crisis. Most Asian economies have reduced barriers to investment on equity markets to recapitalize ailing banks and non-financial corporations. As a result, equity financing rapidly increased in 1999, but its momentum was reversed in 2000 due to the bursting of the IT bubble and the subsequent recession in the US. Portfolio equity inflows resurged in recent years in the region from US$4.8 billion in 2002 to US$60 billion in 2006. The recent increases in equity inflows were dominated by the PRC (US$43 billion) and India (US$10 billion). Moreover, equity inflows have shown volatile movements in the last several quarters as the US subprime loan crisis deepened.

Unlike equity, portfolio debt financing is a relatively small component of capital inflows in emerging Asia. Underdevelopment of the local currency bond market was pointed out as one of the main reasons behind the Asian crisis. Several policy initiatives have been undertaken to promote local-currency denominated bond markets, and the size of regional bond markets has been expanding. In recent years, debt-financing inflows are increasing, especially in the Republic of Korea (hereafter Korea).

Bank financing in Asia has shown the most volatile pattern, plummeting first in the early 1990s and again in the middle of the Asian financial crisis in 1997–98. Since then, bank lending has accounted for a negligible proportion of capital inflows in Asia. However, bank loans are picking up in recent years for the PRC, Korea, Singapore, and, to a lesser extent, India.

Total capital outflows from emerging Asia have also increased, reaching US$328 billion in 2006. Capital flows in the region have therefore become increasingly two-way in recent years. The PRC had the largest amount of capital outflows in 2006; its US$160 billion accounted for more than half of the total outflows in these economies that year, followed by Singapore and Korea. Countries with large capital outflows appear to be seeking risk diversification in their wealth holding.

As the amount of total capital outflows has increased since the Asian financial crisis, the composition of capital outflows has also changed. Portfolio equity outflows increased dramatically in 2006. Singapore had been a dominant equity investor abroad, but that year Korea surpassed Singapore's equity investment abroad. Portfolio debt outflows also increased in 2006. The PRC's debt outflows reached US$110 billion in 2006, which was 80 percent of emerging Asian economies' total portfolio debt outflows for the year.

Even though more than half of net capital inflows to the world's emerging market economies went to transition economies of eastern and central Europe, emerging Asia's share has increased recently while flows to Latin America have remained weak. It is noteworthy that although the volatility of net flows varies greatly across countries in the region, it is generally high (Burton, 2008).

Impact of Capital Flows

The combination of persistent current account surpluses, rising capital inflows, and accumulation of foreign exchange reserves in Asia with persistent US deficits has exerted upward pressure on the exchange rates in emerging Asian economies. More specifically, the real effective exchange rates in the nine emerging Asian economies have tended to appreciate since the early 2000s regardless of their exchange rate regimes.

Accumulation of massive foreign exchange reserves is one of the most significant changes in the region's landscape since the Asian financial crisis. The reserve accumulation has been the result of intervention in the currency market to stabilize exchange rates vis-à-vis the US dollar with varying degrees. Much of this has been sterilized. Sterilized interventions adopted by emerging Asian economies include the sale of government securities and/or central bank debt instruments to absorb liquidity. In Korea and India, the national governments issued securities and deposited the proceeds with their central banks to mop up excess liquidity brought about by the central banks' currency market interventions. This has made the operation of sterilization in these countries more transparent to the general public with appropriate checks and balances between the ministries of finance and the central banks.

Equity prices in most Asian economies have increased markedly since late 2003. Indonesia's equity market started to boom in 2003. The PRC and India had shown strong price hikes in equity markets for three years until recently. However, there have been significant reversals in stock price booms over the past quarters following the US and global credit market turmoil. A future surge in capital inflows to emerging Asia could once again lead to stock price booms and even create another bubbly sentiment in the market.

In contrast to equity prices, until recently goods and services price inflation had stayed at lower levels, albeit inflation rates in Indonesia, Philippines, and Viet Nam were generally higher than those of other countries. However, the risks of higher inflation have increased over the last several quarters as a result not only of the monetary impact of rising foreign exchange reserves, but more importantly of increases in the prices of oil, food, and other commodities in the global markets.

Challenges

The deepening of the subprime crisis has reduced the volume of capital inflows, particularly the volatile portfolio capital, into emerging Asia in recent months. In August and November 2007 alone, foreign investors liquidated over US$12 billion in six Asian markets (McCauley, 2008).[3] Partly as a consequence of this, equity prices in the region have dropped significantly. Nonetheless, many of these economies indicate signs of robust economic growth, with economic overheating still a concern in some of them—including the PRC. The Korean won and Indonesian rupiah have started to depreciate, while other Asian currencies remain strong against the US dollar. At the same time, inflationary pressure from rising oil and food prices has continued to build up. These have added to the challenges in managing capital flows.

Following the restoration of US financial stability and the easing of the ongoing credit crunch, capital inflows to emerging Asia will likely resume in a big way given the robustness of the region's economy relative to the US economy. This will pose serious policy challenges for macroeconomic management, exchange rate policy, and financial sector supervision. Allowing one's currency to appreciate in response to significant capital inflows is desirable for better macroeconomic and financial-sector outcomes—from the perspective of containing domestic inflationary pressure and incipient asset price bubbles and reducing financial sector vulnerability—as it can prevent the accumulation of foreign exchange reserves, ensure more prudent monetary policymaking, and set the ground for facilitating

[3] The countries include India; Indonesia; Korea; Philippines; Taipei,China; and Thailand.

possible external adjustment. However, it could damage international price competitiveness of the concerned country.

3. Policy Issues

To manage persistently large capital inflows, policymakers in the region must address the following questions:

- Of the measures tried before, which work better and why?
- What other domestic policy options should be mobilized?
- Is there a scope for collective action, particularly at the regional level?

This section discusses possible policy measures to manage surges in capital inflows, which are summarized in the table on pages 12–15.

Doing More of What Has Been Tried Before

Sterilized intervention. Sterilization has been the favorite tool applied by many emerging Asian economies to prevent nominal and real exchange rate appreciation and economic overheating. Because net foreign exchange inflows from the current and capital accounts have been sustained for quite some time now, intervention in the foreign exchange market has been unidirectional, making sterilization an increasingly costly method of preventing overheating of the economy.[4] The need to allow greater exchange rate flexibility is thus becoming more

[4] Some estimates for the period 2000–2007 suggest that sterilization has become increasingly costly as capital inflows are sustained for a long period.

compelling. Making this an attractive policy option for the region's authorities is an important challenge that is explored below.

As of end-2007, total foreign exchange reserves in the world were more than US$5 trillion with the emerging Asian economies accounting for half of it. However, there is a growing consensus—based on standard measures of reserve adequacy, e.g., in terms of months of imports of goods and services, and in terms of ratios (of reserves) relative to external debt, to GDP, or to domestic money supply—that these foreign exchange reserves are excessive. Even though it is difficult to come up with a reliable estimate of the optimal level of reserves, the current total foreign reserves in Asia exceed the level that is needed for mitigating abrupt capital reversals or external financing in crisis. The countries' apparent desire for large reserves may be reduced if there is a credible reserve-sharing arrangement at least at the regional level. Such an arrangement, like an expanded, multilateralized Chiang Mai Initiative, would collectively insure member countries against short-term capital reversals without each member holding unnecessarily large reserves, which is costly.

Summary of Policy Measures

Policy tools	Intended outcome	Possible limitations	Evidence on effectiveness	Recommended policy responses
Macroeconomic measures				
Sterilized intervention	Prevent nominal and real appreciation while neutralizing the growth of base money	Rising quasi-fiscal cost; higher interest rates that attract additional inflows; unable to prevent real appreciation over the medium term due to eventual inflation	Some evidence of effectiveness in the short term, but not in the medium to long term	Limit the use of sterilized intervention as a short-run measure; reduce international reserves through a reserve-sharing arrangement (like a multilateral Chiang Mai Initiative)
Greater exchange rate flexibility	Direct monetary policy for macroeconomic management; discourage speculative capital inflows by creating two-way risks	Loss of international price competitiveness	Limited evidence on the response of speculative flows	Allow greater flexibility through regional cooperation (see the discussion of regional collective action)
Fiscal policy tightening	Contain inflationary pressure; discourage capital inflows by reducing interest rate pressure; prevent real appreciation	Lack of flexibility and timeliness; a natural limit to the degree of tightening; reduction of the provision of some basic services and infrastructure investment; possibility of a positive signaling effect to attract additional inflows	Some evidence of effectiveness in preventing real appreciation and keeping better growth performance following capital flow reversals	Exploit the automatic stabilizer function of the budget; that is, the government may implement planned infrastructure investment and basic services delivery without increasing spending out of higher tax revenues or reducing tax rates

Continued on next page

Summary of Policy Measures—*Continued*

Policy tools	Intended outcome	Possible limitations	Evidence on effectiveness	Recommended policy responses
Structural measures				
Financial sector reform	Minimize the negative impact of capital flow reversals by promoting risk management	Not achievable in the short run	n.a.	Strengthen financial-sector supervision and regulation; develop and deepen capital markets
Controls on capital inflows	Limit capital inflows	High administrative capacity required, which is lacking in many emerging market economies	Some evidence of effectiveness in lengthening the maturity of inflows without much impact on the volume; effectiveness tends to weaken over time	For financially open economies, carefully design selective, temporary, market-based controls and avoid a system of extensive administrative controls. For financially closed economies, pursue capital account liberalization in a well-sequenced way together with institutional development
Easing restrictions on capital outflows	Reduce net inflows by encouraging outflows; allow residents to diversify risks	Insufficient pent-up demand for foreign assets; possibility of a positive signaling effect to attract additional inflows	Some evidence of promoting additional capital inflows	Ease outflow controls together with complementary measures such as strengthening financial sector supervision

Continued on next page

Summary of Policy Measures—*Continued*

	Policy tools	Intended outcome	Possible limitations	Evidence on effectiveness	Recommended policy responses
	Rebalancing growth	Reduce current account surpluses by refocusing sources of growth from external to domestic demand; contain upward pressure on the real exchange rate	Policymakers' reluctance to abandon existing policies	n.a.	For former-crisis economies, stimulate infrastructure investment. For PRC, reduce corporate and household savings and redirect investment toward social sector protection
	Further trade liberalization	Reduce current account surpluses by encouraging imports; contain upward pressure on the real exchange rate	Failure of net imports to rise when the tradables sector becomes more competitive as a result; possibility of a positive signaling effect to attract additional inflows	n.a.	Sustain ongoing efforts to liberalize trade
Collective action					
Global solutions	Greater transparency	Minimize the volatility of capital flows by strengthening the role of fundamentals	Lack of sufficient attention to fundamentals by market participants	Occurrence of crises despite the rise in transparency	Support ongoing international transparency initiatives
Global solutions	Counter-cyclicality in financial regulation	Minimize herd behavior resulting from imperfect and asymmetric information	Unlikely to receive wide support	n.a.	Consider this measure as part of the agenda for future research

Continued on next page

Summary of Policy Measures—*Continued*

	Policy tools	Intended outcome	Possible limitations	Evidence on effectiveness	Recommended policy responses
Regional solutions	Regional exchange rate coordination	Maintain macroeconomic and financial-sector stability without much affecting international price competitiveness	Not viable without a mechanism for conducting intensive policy dialogue and cooperation	n.a.	Utilize existing policy dialogue processes such as ASEAN+3 ERPD and EMEAP to achieve collective currency appreciation
	Regional financial market surveillance/ integration	Monitor regional financial markets and capital flows; mitigate the impact of investor herd behavior and financial contagion	Not viable without an effective institution	n.a.	Establish a new, high-level "Asian Financial Stability Dialogue" on regional financial-sector issues
	Regional cooperation on capacity building	Enhance capacity of financial regulators and supervisors to manage increasing financial risks in the markets	Not viable without an effective institution	n.a.	Include this measure among important functions of the "Asian Financial Stability Dialogue"

Strengthening national financial markets. One important lesson learned from the Asian financial crisis and from the recent US subprime crisis is that the banks and other financial institutions must be well governed and their risk management capacity must be high. Thus, there is now great appreciation of the importance of financial-sector supervision and regulation in each country, in inducing banks and non-bank financial institutions to manage large capital inflows in a prudent way. Efforts must be intensified to (i) improve prudential regulations such as limiting the practice of concentrating lending to a few individuals or business entities and moving towards Basel 2 capital adequacy standards, (ii) ensure stronger governance and risk management of financial institutions through greater transparency and better disclosure, and (iii) enhance the capacities of regulatory bodies.

At the same time, reforms to accelerate the development and deepening of domestic capital markets and to put in place efficient market infrastructure must be pursued to enhance the absorptive capacity of domestic financial markets to match large capital inflows. The Asian Bond Markets Initiative (ABMI) is in support of such national efforts. The growth of domestic capital markets would provide alternative channels for intermediating ample domestic savings and foreign funds for domestic investment and would help alleviate the burden put solely on the banking sector.

Controls on capital inflows. Capital controls are a common tool for limiting capital inflows in emerging market economies. While capital controls can take a variety of forms, for countries that have substantially liberalized the capital account, more market-based controls—such as the Chilean unremunerated reserve requirement imposed on capital inflows—have been the predominant option in recent years. Thailand adopted this measure in December 2006, but encountered a severe side effect of rapidly falling stock prices, suggesting that designing and implementing capital inflow control is not an easy task. To these economies, returning to the days of draconian capital controls or recreating a system of extensive administrative controls is no longer a viable option.

Evidence on the effectiveness of capital inflow controls is mixed. Country experiences suggest that the best market-based controls can be expected to do is to lengthen the maturity of inflows; such controls can have little impact on the volume. The effectiveness of capital control measures tends to weaken over time as agents in the markets find ways to circumvent them. At the same time, capital controls can produce adverse effects: they tend to increase domestic financing costs, reduce market discipline, lead to inefficient allocations of financial capital, distort decision-making at the firm level, and be difficult and costly to enforce. To the extent that capital controls are effective only for relatively short periods of time, such measures might be used at the time of surges of inflows rather than as a permanent measure (Grenville, 2008). But again, effective implementation is not an easy task. Administering capital controls requires high administrative capacity, as country authorities must constantly look out for unwanted flows—often disguised—entering through other channels.

The story may be different for countries such as the PRC and

India, which have not substantially opened their capital accounts and maintain restrictions on some types of capital transactions. In a way, they have been successful in managing the process of gradual capital account liberalization by moving to adopt investor-based controls and prudential-like measures. Capital account liberalization needs to be well-sequenced, proceed within an integrated framework to improve macroeconomic and financial-sector management, and be accompanied by the development of institutions that can ensure markets' continued stability.

Easing restrictions on capital outflows. Countries with significant capital controls have tried easing restrictions on capital outflows in a limited manner to reduce net capital inflows. Easing restrictions on capital outflows is expected to generate some capital outflows, reduce the size of net capital inflows, and hence mitigate the upward pressure on exchange rates. This is the policy that used to be pursued by many East Asian economies, like Japan, Korea, and Taipei,China during the periods of large balance of payments surpluses. It has been adopted by the PRC in recent years.

As these measures are expanded, it must be kept in mind that a more liberal capital outflow policy could invite more capital inflows. Thus, to be effective, these measures need to be combined with other measures mentioned above, such as strengthening financial sector supervision.

Exploring Other Options

The countries in the region can explore other policy options that they have not rigorously pursued in the past in order to contain, mitigate, or cope with the adverse impact of surges in capital inflows.

Fiscal policy tightening. In emerging Asia, fiscal policy has not yet been explored thoroughly as an instrument for managing large capital inflows. Although there is no definitive theoretical presumption on the impact of fiscal policy on capital flows, evidence from country experiences suggests that countries that use fiscal tightening tend to perform better than others in managing the adverse consequences of large capital inflows (Schadler, 2008). Tightening fiscal policy or more generally making the fiscal policy stance countercyclical to surges in capital inflows has often been found to help reduce the risk of an overheating economy and the appreciation pressure on the domestic currency. This lessens the need for the monetary authorities to engage in costly and often ineffective sterilized intervention in the foreign exchange market. Exploring ways to make fiscal policy flexible in the face of surges in capital inflows therefore should receive high priority.

The appropriateness of this policy for emerging Asia must be assessed carefully because in recent years, most economies in the region have been running very slim fiscal deficits, if not fiscal surpluses. Tightening fiscal policy further can be achieved only if governments are willing to forego the provision of some basic services or curtail much needed investment in infrastructure. A realistic option in the face of surges in capital inflows and the associated economic boom would be to exploit the automatic stabilizer function of the budget. That is, the government may implement planned infrastructure investment and basic services delivery without increasing spending out of higher tax revenues or reducing tax rates. This automatic fiscal tightening can offset the impact of the economic boom associated with surges in capital inflows and lead to a better macroeconomic outcome.

Rebalancing growth. In the context of the economies affected by the 1997–98 financial crisis—Indonesia, Korea, Malaysia, Philippines, and Thailand—there is a need to increase private investment, thus refocusing the engine of growth from external demand to domestic demand. Public investment especially in soft and physical infrastructure is a key measure to stimulate domestic demand in the short run.

In the context of the PRC, there is a need to reduce savings. The PRC's investment-GDP ratio is very high and the savings-GDP ratio is even higher. The challenge for the PRC is to reduce corporate and household savings and redirect investment towards soft investment with high social rates of return. One effective way would be for the authorities to absorb a large portion of corporate savings (or undistributed profits) through lower interest subsidies to, and/or collection of larger dividends from, state-owned enterprises and through generally higher taxes on private corporations. The revenues could be spent on social sector protection (such as health, education, pension reform), environmental improvement, energy efficiency, and rural sector development.

Although these measures are not intended to contain or mitigate the adverse impacts of large capital inflows, they are desirable not only in and of themselves, but also in order to reduce the current account surpluses and hence to minimize upward pressure on the exchange rate.

Scope for Collective Action

The broad consensus in the academic literature, as well as our review of recent country experience in Asia, seems to suggest that none of the available tools to deal with large capital inflows at the individual country level is a panacea, as each involves significant costs or brings about other policy challenges. If policies taken by individual countries are of limited effectiveness, is there any room for collective policy action by a group of countries to deal with large capital inflows? Not surprisingly, relatively little has been said about the potential for collective action, given the presence of general skepticism among economists and policymakers on such approaches and the resulting reluctance of countries to pursue them. However, in the absence of effective national measures to manage excessive capital flows, and given the frequent and compelling need to do something about them, it is time to start thinking outside the box.

Global solutions. On the global level, we have observed over the past several decades that there is cyclicality in global capital flows and that the pattern of capital inflows to specific emerging market economies closely matches that of global capital flows into all emerging and developing countries. One global solution, therefore, is to reduce the cyclicality of global capital flows.

The global initiatives of recent years have focused mainly on transparency as a way to minimize the volatility of capital flows. Behind the transparency initiatives is the idea that better quality information leads to a global allocation of resources that is based more on economic fundamentals, hence leading to a more efficient and stable global flow of capital. While there is no doubt that transparency can minimize surprises in the revelation of unfavorable information and hence sudden reversals, it is difficult to believe that transparency alone can eliminate the broader boom-and-bust cycles of capital flows (Metcalfe and Persaud, 2003).

The volatility of global capital flows may well be intrinsic to the way financial markets operate. Proponents of such a view point to evidence suggesting that the incidence of crises has not declined despite the increase in transparency, as evidenced by the US subprime crisis. From this perspective, the role of imperfect and asymmetric information is key in creating herd behavior or "information cascades" that lead to market myopia. "Supply-side" reforms in advanced economy financial markets can be a solution to the problem. Ocampo and Chiappe (2003), for example, proposed that a countercyclical element be included in the regulation of financial intermediation and capital flows (see also Griffith-Jones and Ocampo, 2003). However, such drastic reforms of the regulation of capital flows in source countries are not forthcoming and are unlikely to receive wide support in the near future.

Regional solutions. If no effective global responses are forthcoming, a search for a cooperative solution could begin in our neighborhood. At the regional level, collective action can expand the menu of options available to individual countries. There are three relevant dimensions to regional cooperation in Asia: exchange rate cooperation, financial market supervision and integration, and capacity building on financial supervision and regulation.

Regional exchange rate coordination. If loss of competitiveness is the reason for not allowing its currency to appreciate, a country can cooperate with its competitor neighbors in similar circumstances to take the action simultaneously. Collective currency appreciation is a solution to this dilemma because it allows the economies experiencing large capital inflows to maintain macroeconomic and financial stability without much affecting the international price competitiveness and, hence, the growth prospect of individual countries within Asia (see Kawai, 2008). Such collective appreciation would spread the adjustment costs across Asia, thus minimizing and balancing the costs from the perspective of individual economies.

In order for collective currency appreciation to become a viable policy option, there must be an effective mechanism of intensive policy dialogue and cooperation. The existing policy dialogue processes among the region's finance ministers (such as ASEAN+3)[5] and central bank governors (such as the Executives' Meeting of East Asia-Pacific Central Banks [EMEAP]) can play a critical role in fostering the establishment of such a mechanism.

Regional financial market surveillance and integration. One of the main factors behind the severity and simultaneity of the Asian financial crisis was the large impact of swings in international investor sentiments and the spread of the contagious effects throughout the region. To mitigate the impact of investor herd

[5] ASEAN+3 consists of the 10 members of the Association of Southeast Asian Nations (ASEAN) plus the PRC, Japan, and Korea.

behavior and financial contagion, it is critical for the region's policymakers to intensify their monitoring of financial markets and exchange information on a continuous basis. From this perspective, the surveillance and monitoring of regional financial markets is an important area for regional cooperation.

It is high time for the region to introduce institutions that conduct meaningful financial market surveillance and address common issues for financial market deepening and integration. This could be best accomplished by establishing a new, high-level "Asian Financial Stability Dialogue" on regional financial-sector issues (ADB, 2008). This forum would bring together all responsible authorities—including finance ministries, central banks, and financial supervisors and regulators—to address financial market vulnerabilities, regional capital flows, common issues for financial-sector supervision and regulation, and efforts at regional financial integration through greater harmonization of standards and market practices.

Capacity building. The lessons of the Asian crisis reiterated the need for a sound regulatory and supervisory framework. The role of regulation and supervision in such a situation is to promote financial market stability and minimize systemic risk. Regulators and supervisors must therefore be well trained so that they will be prepared to deal with handling increasing financial risks in the markets, including financial contagion. In line with this, regional cooperation on capacity building for financial regulators and supervisors can be enhanced. This would be another important function for the "Asian Financial Stability Dialogue."

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About this Research Policy Brief

While capital inflows can provide emerging market economies with invaluable benefits in pursuing economic development and growth, they can also pose serious policy challenges for macroeconomic management and financial sector supervision, as has been experienced by emerging Asian economies in recent years. This policy brief describes the patterns of capital flows in and their impact on emerging Asian economies and discusses possible policy measures to manage surges in capital inflows while remaining consistent with the goals of macroeconomic and financial sector stability. It suggests options for workable national policies and regional policy cooperation, particularly in exchange rate management.

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The Asian Development Bank Institute (ADBI), located in Tokyo, Japan, is a subsidiary of the Asian Development Bank (ADB). ABDI was established in December 1997 to respond to two needs of developing member countries: identification of effective development strategies and improvement of the capacity for sound development management of agencies and organizations in developing member countries. As a provider of knowledge for development and a training center, ADBI serves a region stretching from the Caucuses to the Pacific islands.

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