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**Rethinking Capital Flows for
Emerging East Asia**

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Abstract

Since the 1980s, emerging countries have been urged to welcome foreign capital inflows. The result has often been a pattern of surges, where excessive inflows were followed by damaging “sudden stops” and reversals. This was dramatically evident in the Asian crisis of 1997–1998. Since that crisis, the emerging countries of East Asia have typically run current account surpluses and have accumulated substantial foreign exchange reserves. This has kept them largely protected from the impact of volatile capital flows, but this strategy is neither sustainable nor optimal.

What is needed is a strategy that makes use of the potential benefits of capital “flowing downhill” (that would require these countries to run current account deficits) while at the same time protecting them from both the excessive inflows and the reversals. This strategy needs to take account not only of the fickle nature of the capital flows, but the structurally-higher profitability which is characteristic of emerging countries, which motivates the excessive inflows. This strategy would require more active management of both exchange rates and capital flows than has been the accepted “best practice”. This requires a substantial shift in the current policy mindset. The International Monetary Fund has shifted some distance on this issue, but has further to go.

JEL Classification: F21, F31, F32

Note: In this report, “\$” refers to US dollars.

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1. INTRODUCTION

Policy perspectives on capital flows have shifted markedly over time. Since the 1980s developing countries have been urged to deregulate financial markets and encourage capital flows. The flows were seen as unambiguously beneficial and any attempts to control them were seen as largely futile. The 1997–1998 Asian crisis should have modified this mindset. There were many issues involved, but the huge inflow of capital beforehand set up unsustainable macro and financial imbalances that unwound during the crisis, and the adjustment to these imbalances left a legacy of lost output, permanent scars, and ongoing distortions to optimal policy. To the extent that the policy message changed, however, it focused on the desirability of floating exchange rates as the buffer that would ensure the benefits of capital flows.

This paper looks at the response of the East Asian emerging countries to the crisis experience and the impact this had on capital flows, including in countries that were not directly affected by the crisis. Section two looks at the changing mindset on capital flows, with section three recording where current thinking has reached—particularly in the International Monetary Fund (IMF). The fourth section looks at the motivations of capital flows (particularly the intrinsic differences of profitability between emerging and mature countries) and the data on flows. The fifth section looks at the widely accepted set of benefits associated with capital inflows, and notes that these are largely irrelevant in the specific context of East Asia. The sixth section sets out the IMF's current position on managing capital flows (noting the hierarchical nature of the response, with capital flow management used only as a last resort). Section seven offers the tentative outline of a different approach, in which capital flow management might figure more prominently. Section eight concludes.

2. THE CHANGING MINDSET TOWARD FOREIGN CAPITAL FLOWS

The attitude to capital flows has undergone dramatic swings since Bretton Woods established the framework and norms for international transactions after World War II. At the time of Bretton Woods (and for more than two decades afterwards) it was widely accepted that capital flows might be disruptive and should be treated differently from trade flows. Trade flows were seen as being unambiguously beneficial and must not be restricted: in contrast, capital controls were not only acceptable, but were the norm.

With generalized floating in 1971, capital flows came to be seen as part of the equilibrating process, the more so because market-based outcomes had become the intellectual norm. Advocacy of unregulated capital flows reached its peak in 1997, with efforts to incorporate free capital flows into the IMF Articles, on a par with the commitment to free trade in goods and services (IMF 2005).¹

The 1997–1998 Asian crisis might have provided the basis for a counter argument, with the potential to steer the debate in the direction of a more cautious and nuanced attitude to capital flows. The crisis countries had, by and large, followed the free-market prescription (with appreciating real exchange rates and current account deficits widening to achieve the real resource transfer corresponding to the financial inflows) and this had turned out badly. But the

¹ That said, it is noted that even in this period there were voices disagreeing with these efforts (for example, Bhagwati 1998).

crisis was widely misdiagnosed as being a product of domestic policy mistakes and cronyism rather than excessive capital inflows.

The response to the Asian crisis occurred on two different tracks. On the first track, the strong lessons taken from the crisis were that fixed but changeable exchange rates could not be sustained and that these countries would have to move to a free float (Fischer 2001).

On the second track, policymakers in the countries that had been affected by the crisis accepted this market-oriented view without overt disagreement. In practice, however, while they no longer tied their exchange rates closely to the United States (US) dollar, nor did they let exchange rates float freely. The objectives were two-fold: exchange rate stability; and maintaining strong international competitiveness.

The capital outflows of the crisis period and the immediate aftermath gave the crisis countries no choice but to run substantial current account surpluses. When net capital inflows resumed around 2002, these countries saw no reason to reset policy or let exchange rates rise too much. The typical macro configuration after the crisis was slower growth, less investment, current account surpluses replacing deficits (Figure 1), and a successful management of the exchange rates to keep exports competitive (Figure 2), involving a large build-up in foreign exchange reserves.

Figure 1: Emerging Asia, Savings and Investment

(% of GDP)

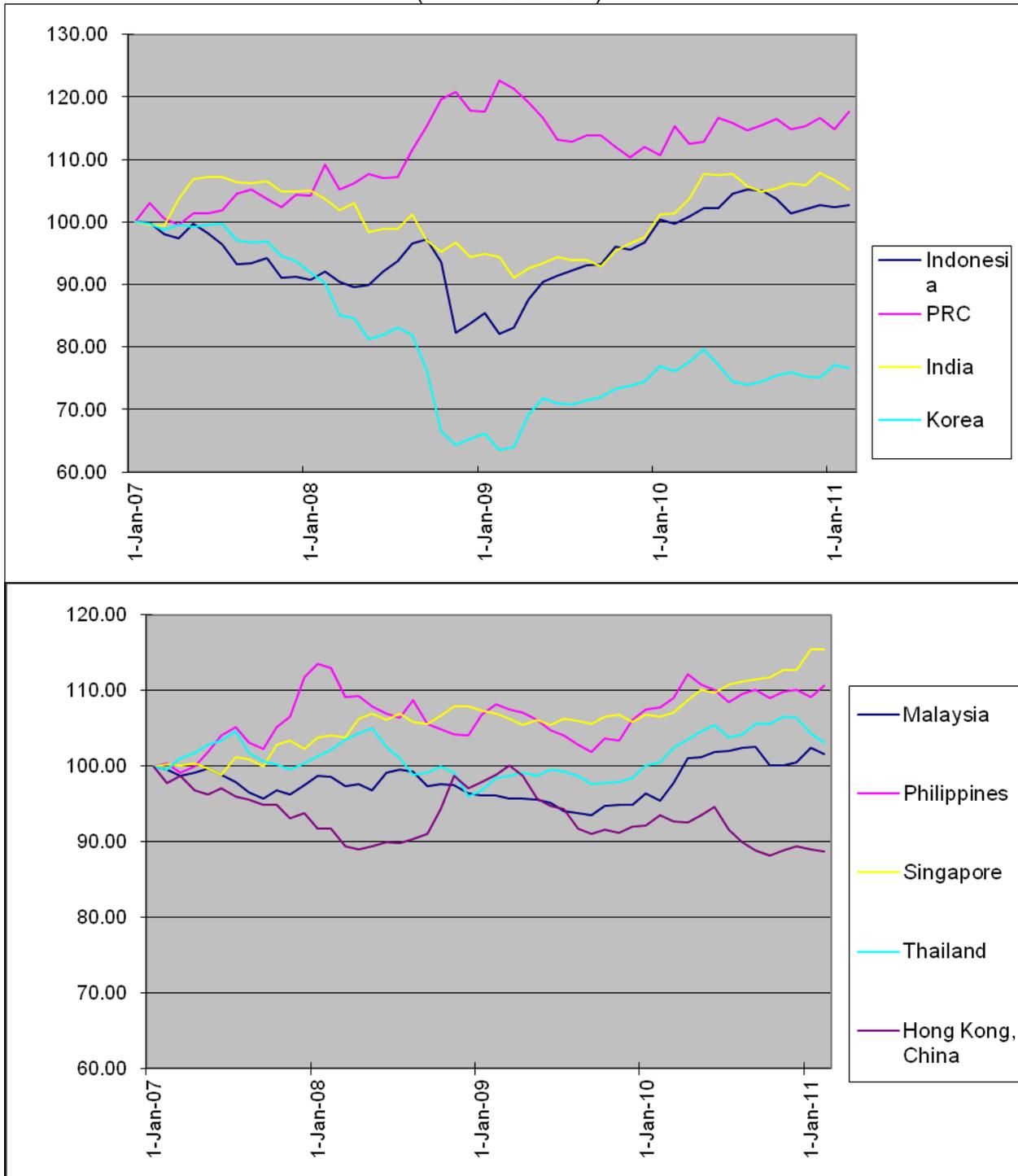


Note: Excludes the People's Republic of China and India. GDP = gross domestic product.

Source: IMF (2010d).

Figure 2: Real Effective Exchange Rates

(2000–2007=100)



Note: PRC = People's Republic of China.

Source: Filardo, Ma, and Mihaljek (2011).

This policy approach remained viable for the decade or so following the Asian crisis (Kawai and Lamberte 2010). But this strategy is now running out of room for maneuver for many of the East Asia countries.² The replacement strategy now being explored is managing the capital flows, rather than the consequential exchange rate pressures. Until recently, the received wisdom has been that management would be futile.³

3. CURRENT THINKING ON CAPITAL FLOWS

The current thinking on management of capital flows seems to be at an inflection point. Views have moved significantly but not only is unanimity lacking, the current positions seem to be transitional rather than conceptually well founded. This is best illustrated by the IMF's position. For decades a strong advocate of free capital flows (demonstrated most clearly by the 1997 attempt to give such flows the same status as trade flows in the IMF Articles⁴), the active debate by the IMF staff over the past two years recognizes the potentially dangers of excessive capital flows and is prepared to countenance measures to manage the flows (Ostry et al. 2010; Ostry et al. 2011). Meanwhile the IMF Executive Board still has a majority of the old mindset, reluctantly prepared to see temporary management of capital flows, but only after all other possible measures have been exhausted (IMF 2010a; IMF 2011c).

The three-decade period where free flows dominated the analytical and intellectual debate has left a void. In that mindset, no policy choices were required (beyond floating the exchange rate), so none evolved. With this mindset revised, then difficult policy options now have to be sorted out. Are some of the components of inflows more beneficial than others and are some components more amenable to management? What instruments are effective in managing flows? How will international tensions be resolved where there is conflict between different country managements (for example, when countries are running low interest rates to stimulate domestic activity, how should trading partners view the unwelcome appreciation of their own currencies?)

Even at the basic level, we are far from understanding the forces driving capital flows. A firm starting point is the identity that the savings/investment balance equals the current account balance and the net capital flows. But we don't know which of the elements in the identity predominates and how they interact to maintain the identity. If the savings/investment balance is most important, explanations for net capital flows will be found in the savings and/or investment

² Hong Kong, China and Singapore now have foreign reserves as large as their GDP, and the People's Republic of China, Malaysia, and Thailand have reserves equal to around half of their GDP. At these levels the problem is not so much a technical inability to sterilize, but the quasi-fiscal costs of doing so and the huge risks that central banks face in their foreign exchange exposure. Even a modest appreciation, recorded using internationally accepted accounting methods, would wipe out central bank capital and put them deeply into negative equity, subject to the sort of public criticism that weakens central bank independence (Filardo and Grenville 2011).

In any case this strategy provides very little positive benefit for the recipient countries. There is no real-resource transfer. Official reserves are just acting as a liquidity buffer ready to fund the outflow when foreigners (who have benefitted from the higher domestic returns) decide to get out.

³ A large amount of literature (IMF 2005; Kawai and Takagi 2010), explored the ineffectiveness of such attempts particularly drawing on the experience of Latin America, with the Chilean *encaje* being the prime example. Attempts to answer the question of effectiveness through econometrics were limited by the endogenous policy response: controls were put on when the capital inflow was strongest and taken off when flows weakened.

More recently in East Asia, there were some attempts to use controls (for example, Thailand in December 2006) and some macroprudential measures in Indonesia and the Republic of Korea (hereafter Korea) but most countries accepted the prevailing view that such controls had limited effectiveness.

⁴ But also the OECD pressure on Korea leading up to its membership in 1996.

determinants, and the conventional national accounts framework will be relevant. Exports and imports will also be part of this national-accounts-based approach.

If the flows themselves are the driving force, these would require analysis in terms of gross rather than net flows (the decision makers are usually focused on gross rather than a net figure, which confounds multiple decision makers).⁵ These are financial flows, caught in the flow-of-funds accounts, not directly reflected in the national accounts (Borio and Disyatat 2011).

The decisions are portfolio choices, so we should be looking at stock positions rather than flows. And even here the outcome usually reflects the two sides to a transaction (for example, both borrower and lender), so questions of “push” and “pull” factors may both be relevant. These financial flows may well have their initial impact on asset prices rather than national accounts flows, and the interconnection between the new portfolio equilibrium and economic activity (via wealth effects and relative interest rate changes) is so complex that it will be hard to get a firm handle on it. As well, the data are incomplete. We do not have a proper handle on the volume of carry-trade (McCauley 2010) and important parts of the interaction (for example, derivatives offered by the branches of foreign banks and transactions taking place in the non-deliverable forward markets) may not be caught in the balance-of-payments data, even though their impact is similar to the flows which are recorded in the balance of payments. In short, we are at a very early stage in understanding capital flows.

4. EXPLAINING CAPITAL FLOWS

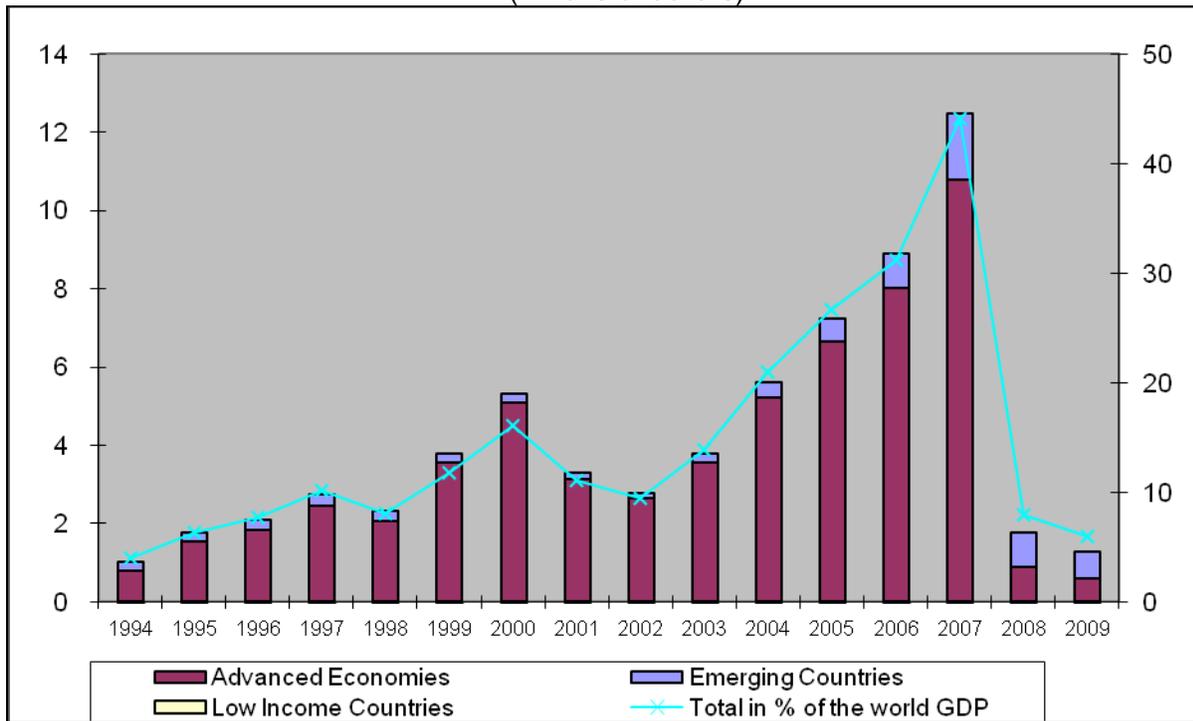
4.1 Developed Countries

With these different influences in mind, a useful starting point is to note the broad characteristics of flows in developed countries and to contrast these with emerging countries. In gross terms, developed country flows have increased very substantially in recent years, whether measured in dollar terms or as a percent of gross domestic product (GDP) (Figures 3 and 4). They fell dramatically in 2008. Before 2008, gross flows were huge compared with net flows (financial flows were much bigger than real flows), reflecting the very high degree of financial integration. This expanded two-way financial interaction seems much more important than interest differentials in explaining flows: after all, if interest differentials were the main driver, gross flows would be predominantly in one direction for each country and net flows would be relatively bigger.⁶

⁵ Just to complicate the story, however, some inflows have closely related outflows (for example, with derivatives and forward cover, and when the country is acting as a financial intermediary for another country, as in Hong Kong, China for the People’s Republic of China).

⁶ Becker and Noone (2008) note the predominance of the two-way flows and also draw the conclusion that the usual volatility relativities (with foreign direct investment (FDI) the most stable and bank flows the most volatile) do not hold for mature country flows.

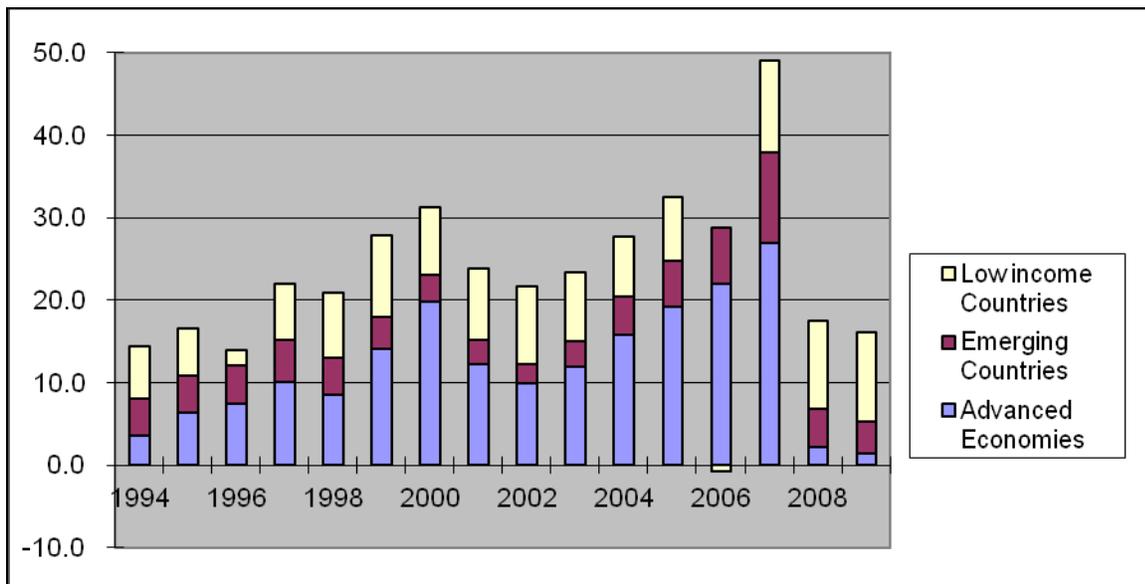
Figure 3: World Gross Capital Flows
(trillions of dollars)



Note: GDP = gross domestic product.

Source: IMF (2011a; 2011e).

Figure 4: World Gross Capital Flows as % of GDP

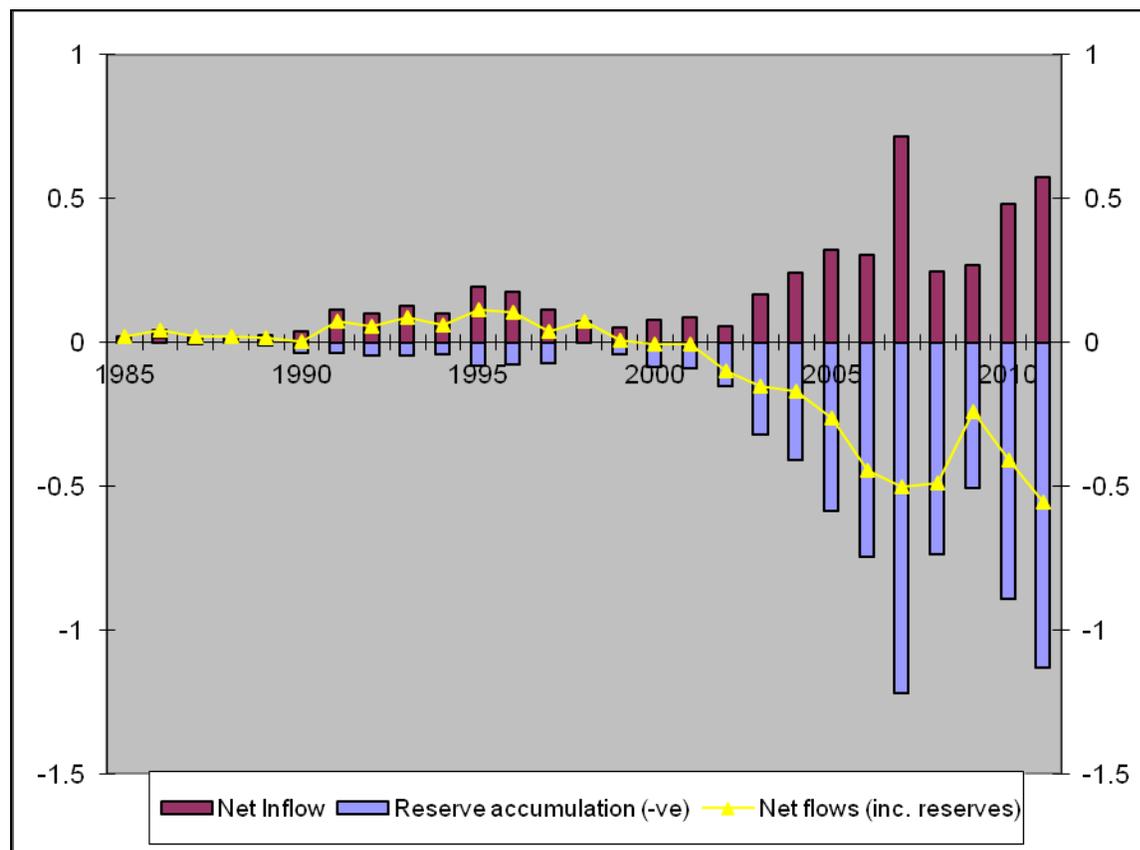


Note: GDP=gross domestic product.

Source: IMF (2011a; 2011e).

In contrast, for the emerging countries, gross flows as a percent of GDP have increased only modestly since the spectacular rise in the early 1990s. For the past decade or more, emerging-country net private inflows have been more than offset by outflows in the form of reserve holdings: the emerging countries have not used the flows to achieve real-resource transfers (Figure 5). Capital is “flowing uphill”.

Figure 5: Emerging Country Net Flows as % of GDP



Note: GDP =gross domestic product.

Source: IMF (2011a; 2011e).

4.2 Emerging Countries

What are the important motivations and characteristics of emerging countries explaining this outcome?

As emerging countries converge toward the technological frontier their capital stock is being built up from modest per capita starting levels, to eventually match the levels of the developed economies at some time in the future. During this transition productivity will greatly increase and returns to capital will be high: the Wicksellian “natural” interest rate in the emerging countries will be substantially higher than in the developed economies. This might be expected to be the principal underlying driver of the flows.⁷

⁷ The importance of the Wicksellian interest differentials is best seen in the growing importance of the “carry-trade” flows. These are often seen in terms of a narrow definition of the carry trade—those flows directly involving two

The extent of the Wiksellian differential can be illustrated by comparing equity returns. \$100 invested in stock markets in Asia at the end of 1999 would have quadrupled in value in Indonesia and India, with most of the other emerging countries shown here doubling or tripling.⁸ Left in United States (US) equities, the increase was around \$15.⁹ \$100 invested in US government short-term bonds would have accumulated to \$119 between end-2001 and end-2010, but placed in local currency one-year official-sector bonds in Asia would have accumulated to a dollar equivalent of \$180 in India and Thailand, and would have nearly trebled in value in Indonesia (Figure 6).

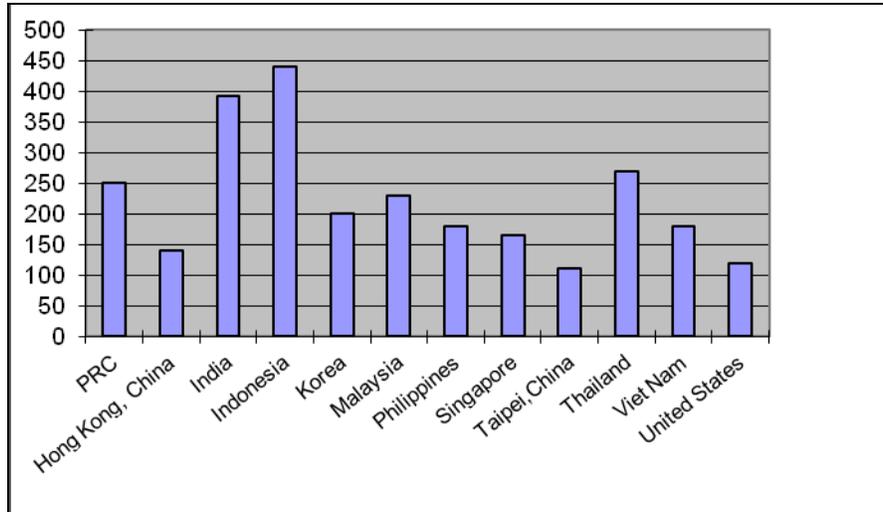
legs (borrowing and lending) in order to exploit the interest differential. But it is more useful to think of these flows that are responding to the higher-interest leg of the interest differential, which would include flows from fund-management portfolios (that is, which don't have the borrowing leg) and those flows that are derivative-based, characteristically not including a "borrow" leg. With this broader notion in mind, it is not possible to establish the volume of these interest-driven flows.

⁸ It is worth noting that the lowest equity returns are typically from those countries whose convergence is largely complete: Hong Kong, China and Singapore.

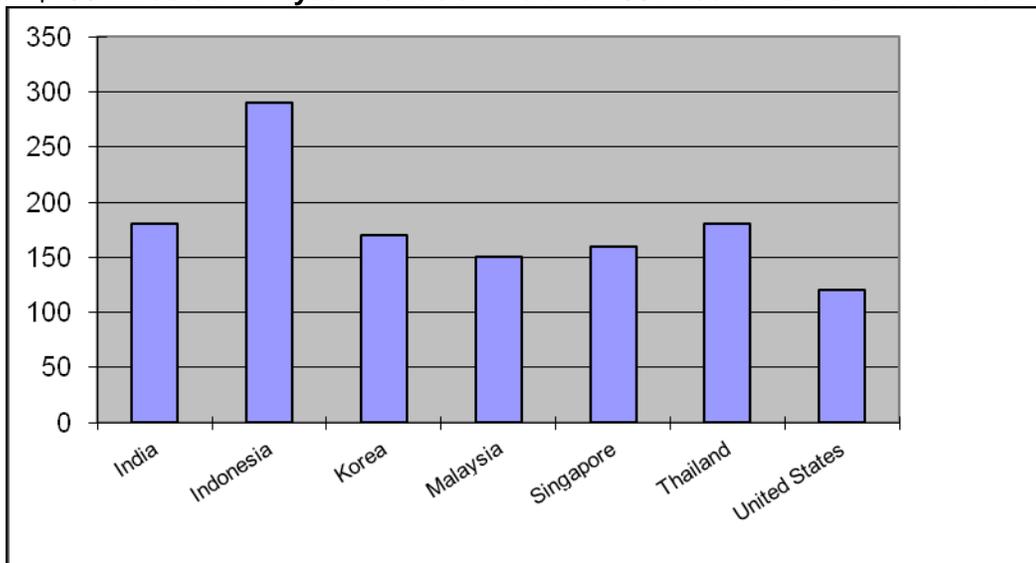
⁹ The starting point is chosen to be the longest period post Asian crisis for equities, and for the longest period of data availability for bonds. Moving the starting point into the early 2000s for equities alters the detail, but not the message. Based in 2001, for example, the United States (US) shows a return on \$100 invested in equities of just under \$30, while Indonesia shows an increase of \$1000 and India \$500. Ideally an accumulation index would be used for this comparison but dividend payments are not very different between these countries and the US.

Figure 6: Returns on Equity and Short-term Bonds

What \$100 invested in equities at the end 1999 would be worth at the end 2010



What \$100 invested in 1-year bonds at the end 2001 would be worth at the end 2010



Note: PRC = People's Republic of China.

Source: Author's calculations.

The flows responses to this Wicksellian differential do not reflect an equilibrium process: convergence is constrained by idiosyncratic impediments and absorptive limitations. These limits are set by the still evolving financial infrastructure necessary to channel and absorb the flows (such as physical institutions and systems, bond markets, and financial skills). Deeper institutional links make it easier for foreigners to invest and for domestic investors to borrow

overseas. As the flows get larger, it is profitable for the financial sector to improve its infrastructure through development of derivative and forward markets. Better knowledge expands the flows by making portfolio managers more aware of the possibilities and more confident to take decisions. Investment portfolios become more diversified: Asian assets are still grossly under represented. Remaining capital controls are diminishing over time, especially outflow controls.¹⁰

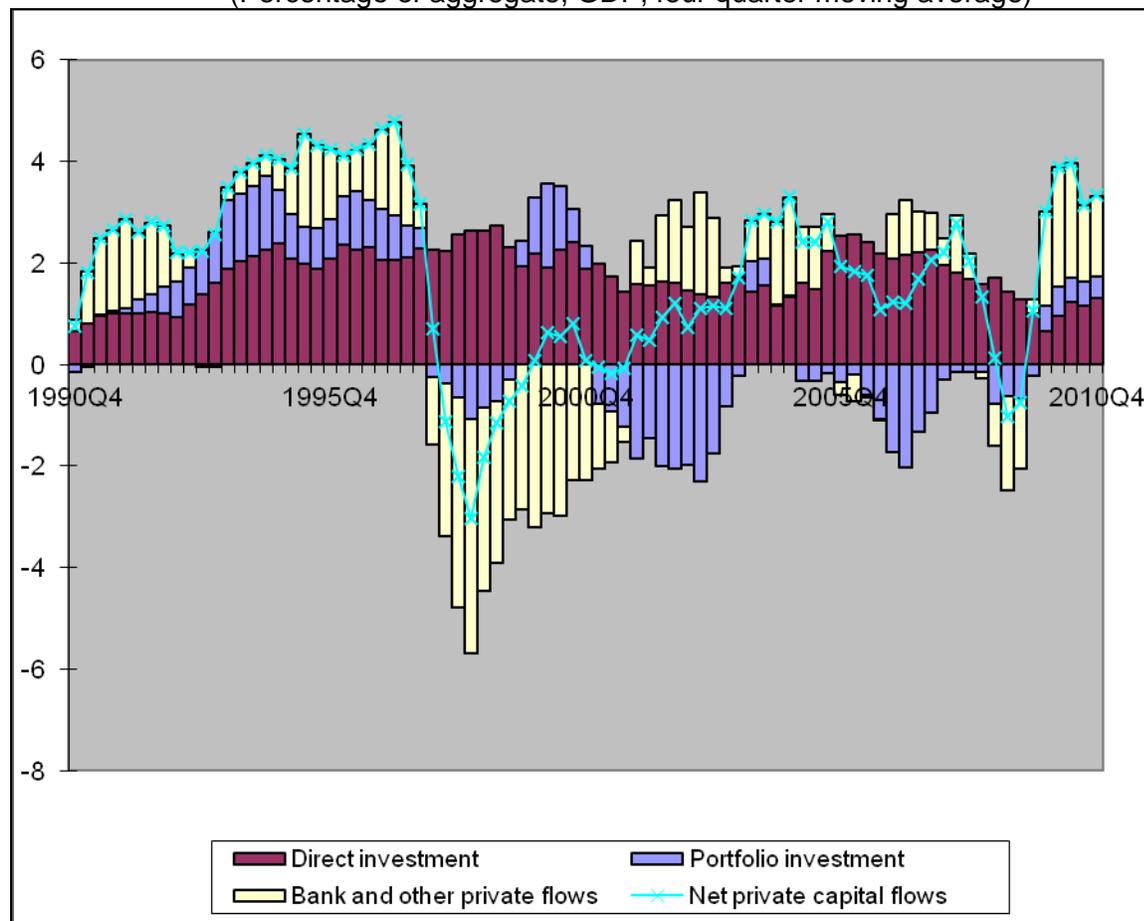
This underlying trend is periodically interrupted by reversals that are idiosyncratic and often not related to events in the recipient countries. In flow terms, these reversals can be very large (and are often negative), because they are driven by decisions relating to the stock of assets: the accumulation of the flows over years.

We can see these characteristics—the underlying trend flows, punctuated by sudden reversals—in the aggregate regional flows (Figure 7).

¹⁰ The exchange rate is of course an important element in flow decisions. The role of the exchange rate has changed somewhat since the Asian crisis. Before 1997, crossborder decisions were predicated on stability vis-à-vis the US dollar. Foreigners seeking higher returns and domestic borrowers seeking cheaper funds came to rely on a stable exchange rate. When in 1997 this assumption proved unfounded, transactions were dramatically reversed. Since the crisis, exchange rates have been more flexible (albeit managed), which was supposed to make the flows less volatile. But Uncovered Interest Parity does not hold: in fact the underlying trend in the emerging countries is towards appreciation (another reflection of the higher Wicksellian interest rates and the Balassa-Samuelson effect). Thus foreign investors (and domestic firms borrowing overseas) could generally anticipate not just higher interest rates, but as well an exchange rate appreciation over the medium term (McCauley 2010). Countries with larger nominal interest differentials (because of higher inflation) might be expected to have smaller appreciations. Thus investors in Indonesia received most of the Wicksellian dividend in the form of higher interest rates and less in the form of appreciation.

Figure 7: Flows to Emerging Asia

(Percentage of aggregate, GDP, four quarter moving average)



Note: GDP = gross domestic product.

Source: IMF (2011d).

Starting in the early 1990s, the institutional linkages required for substantial flows to East Asia began to develop,¹¹ and with them the flow volumes. This was a two-way process: as flows got bigger, institutional channels deepened, and this encouraged more flows.

The 1990s surge was enormous—with net inflows reaching more than 4% of aggregate GDP (and much larger for Indonesia, Malaysia, the Philippines, Singapore, and Thailand—the five original members of the Association of Southeast Asian Nations, or ASEAN 5—see below). Gross flows continued to rise as a percent of GDP, but net flows have not so far matched the 1990s level.

Further disaggregation reveals the diversity of experience and circumstances.

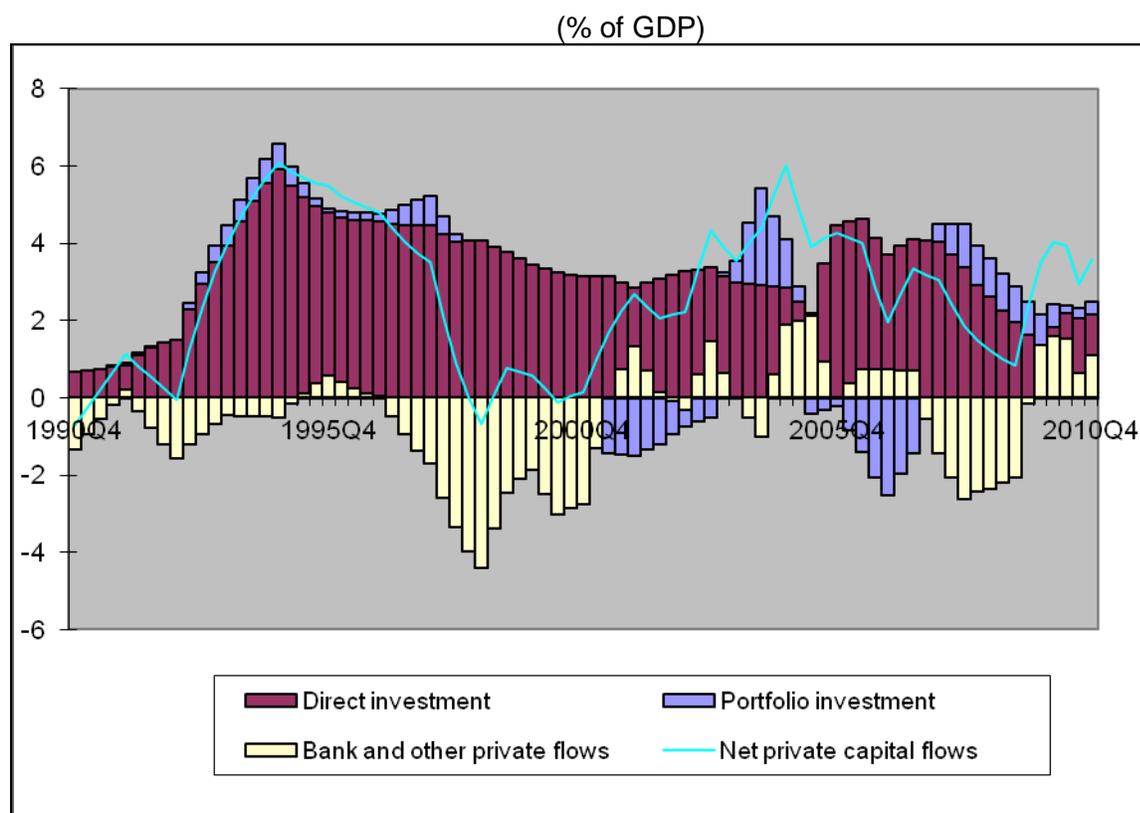
India exhibits a strong upward trend in net and gross flows as financial integration progresses, with the growing importance of portfolio and banking flows introducing more variability in the net

¹¹ This is often seen in terms of the removal of capital flow restrictions (and there is a large amount of literature attempting to measure this), but this is only a part of the story. Indonesia, for example, had removed capital flow restrictions in the 1970s, but the inflows were still restricted by other factors until the 1990s.

flows but with both these components clearly trending positively. These flows have provided ample funding for India’s substantial current account deficit. In this aspect, India alone among the countries considered here follows the expected model of an emerging country, with capital flowing “downhill” with trend increase (although still with important capital controls), at around the right rate to fund the deficit (the real transfer) together with a prudent rise in reserves.

The People’s Republic of China (PRC) shows the dramatic once-off opening-up of inflows in the early 1990s,¹² with an early peak in foreign direct investment (FDI) and a downward trend (as a percent of GDP) since this early peak, with the rising importance of portfolio and banking flows (still constrained by capital controls) giving rise to considerable variation in net capital flows (Figures 8 and 9).

Figure 8: Net Flows to the People’s Republic of China

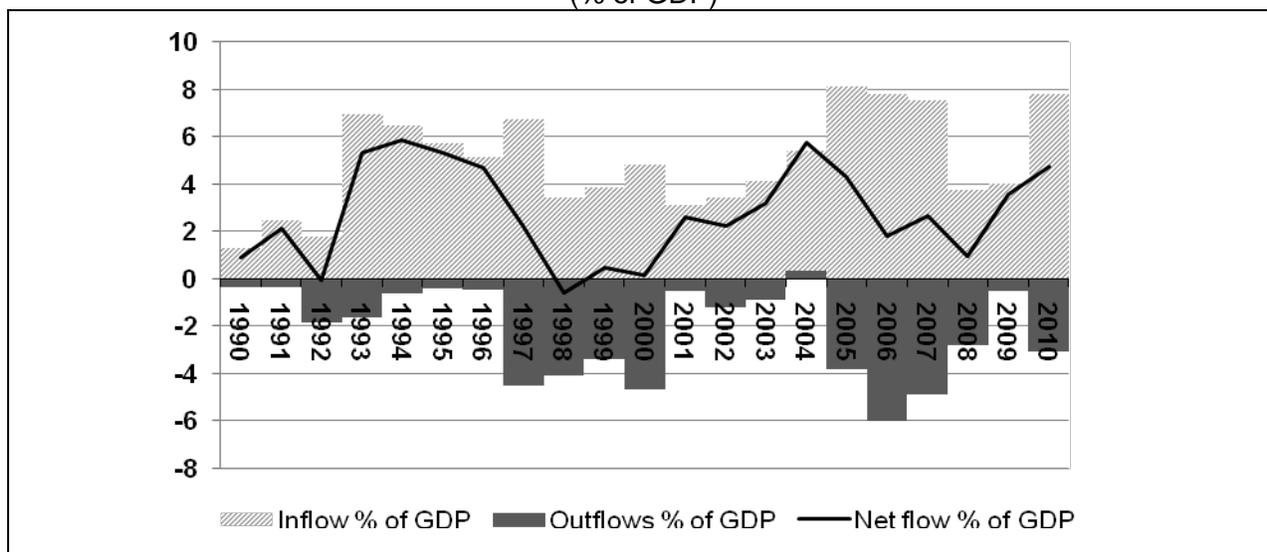


Note: GDP = gross domestic product.

Source: IMF (2011d).

¹² Some of these FDI inflows may, in fact, represent domestic capital “round-tripping” to gain benefits accorded to FDI.

Figure 9: Gross Flows to the People’s Republic of China
(% of GDP)



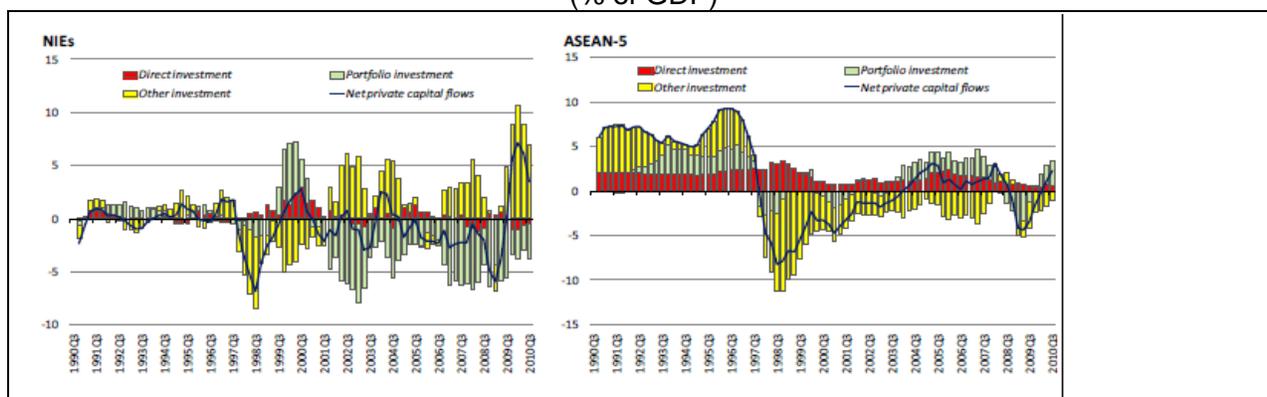
Note: GDP = gross domestic product.

Source: CEIC Data Company Ltd. Database. <http://www.ceicdata.com/> (accessed 8 June 2012).

The newly industrialized economies’ (NIEs) flows are dominated by the two-way flows of the two financial centers of Hong Kong, China and Singapore.¹³ These look much like the flows to mature countries (as would be expected, given the importance of the financial sectors in these two city-states), with the net flows much smaller than the gross. The net flows, however, show much more variability than occurs in mature country flows (Figures 10 and 11).

The ASEAN 5 show the overwhelming impact of the Asian crisis, described above, with a marked and sustained fall in investment. This story begins with the enormity of the net inflows in the 1990s, reaching 10% of GDP before the 1997 crisis. During the crisis, outflows reached 8% of GDP, not returning to positive territory until 2003.

Figure 10: Net Flows to NIEs and ASEAN 5
(% of GDP)

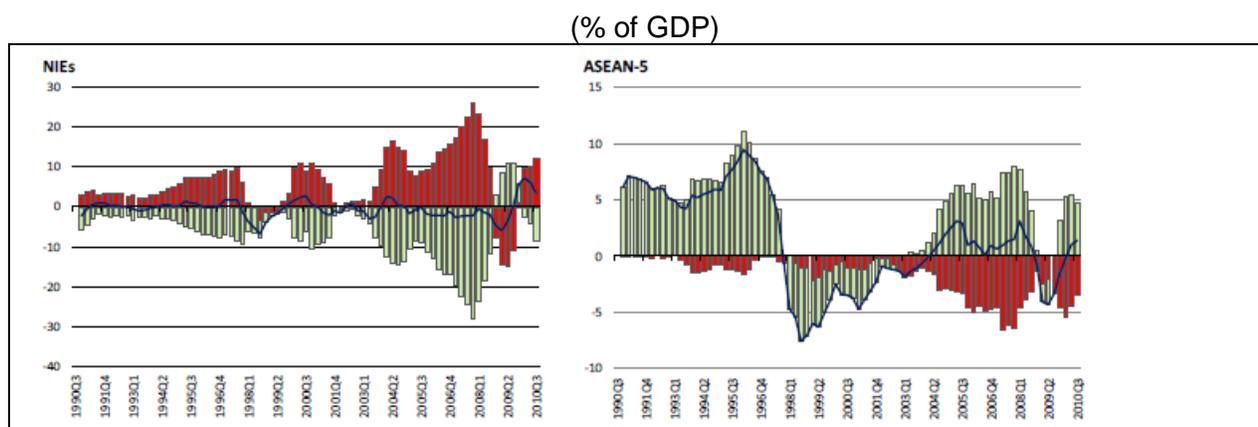


Notes: ASEAN=Association of Southeast Asian Nations; NIEs=newly industrialized economies.

¹³ Korea and Taipei,China are also included in this group.

Source: IMF (2011d).

Figure 11: Gross Flows from the NIEs and ASEAN 5



Note: The color code is reversed for ASEAN 5. ASEAN = Association of Southeast Asian Nations; NIEs = newly industrialized economies.

Source: IMF (2011d).

The experience of the ASEAN 5 countries is the starkest example of the most obvious intrinsic characteristic of net inflows to emerging countries: the variability. The IMF describes these flows in terms of a succession of “surges”, “episodes,” and “waves” rather than on-going trend flows.¹⁴ Recognizing this variability is central to policy, because the purported benefits of capital inflow are substantially diminished by this characteristic. For a real-sector investor needing finance for a long-lived illiquid project, a funding source that dries up in the cyclical downturn is of very limited use, and may well do more harm than good.

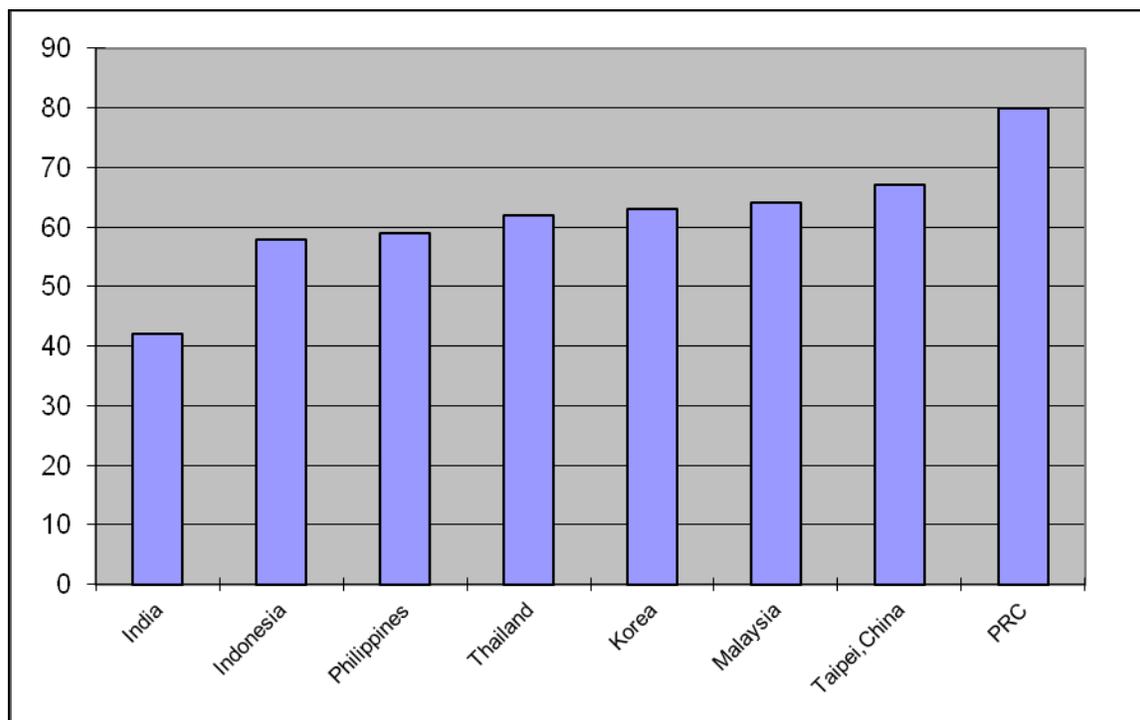
It should not come as a surprise that a random external event could set off reversals: a large component of the flows is, by nature, fragile and flighty. Much of the corporate debt is short term (Figure 12). Where the flows are of a carry-trade nature, investors are continuously balancing a very small underlying “carry” advantage against the prospect of a much larger once-off immediate exchange rate loss and thus are always alert for events which will trigger a shift in the exchange rate, prepared to move ahead of the crowd.¹⁵

¹⁴ IMF (2011d) has analyzed gross flows to emerging countries in terms of surges (short periods where the inflow is large and large compared with trend) episodes (prolonged surges) and waves (where there is correlated movements across countries). The waves might be associated with changes in the foreign (investing) country. The IMF identifies these surges as 1995Q4–1998Q2, 2006Q4–2008Q2, and the ongoing wave which began in the third quarter (Q3) of 2009. The episodes do not coincide closely in their starting point (suggesting country-specific “pull” factors although there is also evidence of correlated inflows (Richards 2005) but often end in coincidence (suggesting common foreign explanation such as global risk aversion).

Frankel (2011) also sees the profile of flows in terms of cycles, not structurally excessive flows.

¹⁵ Carry-traders usually have to mark-to-market and are often leveraged, subject to margin calls. They cannot afford to go on holding the investment, waiting for the exchange rate to revert.

Figure 12: Short-term Corporate Funding
(average over 2000–2009, as % of total debt)



Note: PRC = People's Republic of China.

Source: IMF (2011c).

The flows are not only volatile, they are also procyclical. Richards (2005) and Hendrasah (2010) present specific evidence relevant to the region and provide additional references.

While the short-term moderate variations of flow are inconvenient, they can be ignored or smoothed by means of foreign exchange intervention if there seems any danger of them becoming self-reinforcing (see policy discussion below). The serious policy issues arise from the substantial reversals: during the Asian crisis and during the 2008–2009 global financial crisis. The experience is of particular interest because the catalyst was external and the Asian countries were generally in good shape (with strong macroeconomic policies, more flexible exchange rates, adequate foreign exchange reserve, and well-capitalized financial sectors). The episode demonstrates the challenges presented by capital flows even when the domestic circumstances are favorable. These reversals did not, in the end, cause major disruption (although they certainly created some anxious moments for policymakers in these countries), but such reversals may recur at times when domestic conditions are not so strong.

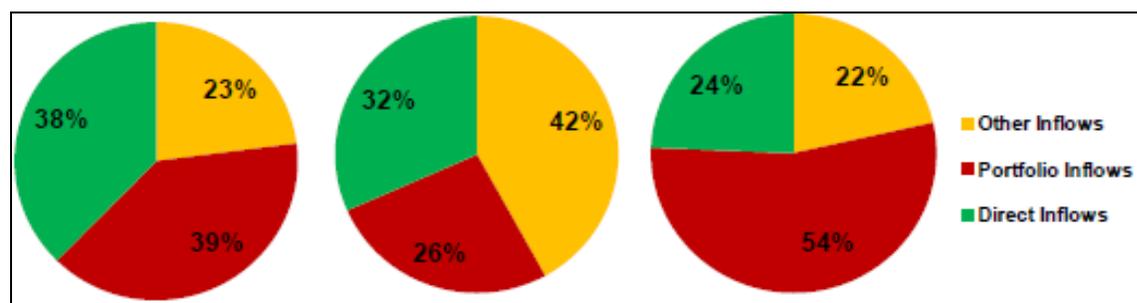
The detail of these outflows has been extensively discussed elsewhere.¹⁶ It is enough to note that in the September quarter of 2008 two East Asian countries—Korea and Indonesia—

¹⁶ See, for example, IMF (2011c) box on Korea. On Indonesia, see Hendrasah (2005) and Goeltom (2008). McCauley (2010) notes that 2008 was different from 1997, as liquidity was sucked out of emerging markets by problems in advanced countries. For analysis of the role of the foreign flows and the foreign currency flows in Thailand and Indonesia during the Asian crisis, and the potential for such flows to become significantly disruptive again, see Borio, McCauley, and McGuire (2011). For discussion of the two-way links between capital flows and exchange

experienced outflows larger than a typical annual inflow, accompanied by very sharp falls in exchange rates. The fall in the Korean won in 2008 was larger than in 1997, despite substantial intervention.¹⁷

The other characteristic worth noting is the difference between the types of flows. The conventional view (for example, Williamson 2005) is that FDI is more stable than portfolio investment that in turn is more stable than bank flows. The data here are consistent with this hierarchy, but suggest that FDI is much more stable than either of the other two flows, which are not much different in terms of volatility.¹⁸ Over time, FDI has become less important and portfolio flows more important, with the obvious implications this has for variability of total flows.

Figure 13: Flows to Emerging Asia (excluding the People’s Republic of China)
(Comparison of 1995Q4–1998Q2, 2006Q4–2008Q2; and 2009Q3–2010Q2)



Source: IMF (2011c).

5. THE CASE FOR FREE CAPITAL FLOWS

The case for free capital flows is usually given along the following lines (IMF 2010a: Box 1).

- Funding for investment can be obtained in larger volume and more cheaply
- FDI brings technology and managerial skills
- Consumption smoothing occurs in the face of adverse shocks
- Risk is spread and portfolio diversification can occur
- It provides discipline for macro policy

In practice these advantages look much less compelling.

Intuitively, the main attraction of capital flows is the opportunity to **fund extra investment** (Williamson 2005).

But emerging East Asia saves more than it invests.¹⁹ Current account surpluses are the norm. On the surface, there is no obvious need to supplement domestic funding by drawing on foreign

rates, see Chai-Anant and Ho (2008). On Thailand’s experience, see Sangsubhan (2010), Thaicharoen and Ananchotikul (2008), and Bank of Thailand (2011).

¹⁷ The Korean experience can be closely associated with the role of foreign banks in funding their balance sheets from foreign borrowing (in turn associated with the provision of forward export cover). (Ahn 2008; Cho 2009). There are also important lessons in the apparent limitations in the ability of intervention to stem the exchange rate fall (and, in contrast, the effectiveness of foreign central bank swaps in the case of Korea).

¹⁸ This variability is often measured in terms of statistical variance (IMF 2007: Table 2.2; IMF 2011c: graph, page 15). But variance implies a statistical regularity that is not readily apparent in the data.

¹⁹ With the exception of India and Viet Nam.

capital. There is little doubt that FDI has been very useful, but it is the technology and skills transfer that is useful, rather than the funding.

A closely related argument is that foreign funding is *cheaper*. But the cost of funding is the principal channel through which monetary policy operates to influence the level of domestic economic activity. To the extent that foreign funding is cheaper, this undermines the intent of monetary policy.

What about the advantage of **consumption smoothing**? There is no evidence of this in the emerging countries (Kose et al. 2007). In fact, the opposite occurs: capital flows are procyclical (see above), adding to consumption in the upswing and restraining it in the downswing. In the upswing, foreign funding gives borrowers more opportunity to over-extend themselves. We shouldn't find this too surprising. One of the central causes of cycles (and crises) is the role of shifts in confidence. Foreigners share the optimism of the upswing. When economic activity falls because of domestic lack of confidence, foreign funding is not going to step in to fill the gap (IMF 2011d; Williamson 2005).

In practice the more likely cyclical sequence is that foreign capital enables the cyclical upswing to run longer. With a floating exchange rate, stronger activity appreciates the exchange rate, encouraging imports, thus holding inflation in check. "Spilling" stronger demand into imports may soften the cycle (avoiding "sudden stops"). If this extended sequence is being funded by foreign capital inflow (rather than being suddenly cut off through lack of foreign exchange that sometimes occurred in fixed exchange rate regimes), in this sense the inflows might be seen as smoothing the cycle. But this is not the sort of consumption smoothing envisaged in the textbooks.

This sort of cyclical stabilization might more usefully be done using the country's own foreign exchange reserves: running down reserves during the strong phase of the cycle tightens liquidity rather than adding to it. Spilling excess demand is in any case a poor substitute for higher interest rates, which may be undermined by capital inflows.

What of the argument that international flows allow **spread of risk** and provide portfolio diversification benefits? Are domestic portfolios and balance sheets safer if they contain foreign liabilities, probably denominated in foreign exchange? Are domestic banks stronger if they obtain a significant part of their funding from overseas?²⁰ Are foreigners who have invested part of their portfolios in foreign assets, probably in foreign currency, more likely to be stable holders?²¹ Put in these terms, the diversification benefits seem more likely to be perverse than helpful. Risk is spread to the least-knowledgeable, most-flightly holders of debt. The extra risk element in the form of the exchange rate in the foreigners' return on investment exacerbates this volatility.²² McCauley (2010) argues that East Asia diversified by accepting foreign investment in equities and investing in safe-asset foreign exchange reserves, preparing for upcoming problems. If they need to do this, are the short-term inflows such a good idea in the first place? The developed country investors don't "accept their share of the poor harvest" (McCauley 2010: 134) in their procyclical action. We will return to this issue in section 7.

²⁰ Recall the 2008 Korean experience, when branches of foreign banks suddenly reversed their earlier capital inflows.

²¹ Japan, with its high ratio of government debt to GDP, is seen as stable because most of this is held domestically.

²² There are, however, cases where the opportunity of foreign diversification is clearly in the interests of the capital-receiving emerging country. It has been a long-standing part of Singapore's investment strategy to encourage both inflows of FDI and outflows of investment capital, to diversify what would otherwise be a narrow range of assets, excessively correlated with the performance of the domestic economy. It is worth noting that this diversification is initiated and managed by the recipient country.

There are clearly situations in which foreign capital flows can exert **discipline** over macroeconomic policies, with governments having a strong incentive to maintain good policies in order to avoid departure of flighty capital. This argument would be more powerful if markets had developed a reliable reputation for discerning and timely monitoring. But foreign investors tend to follow imitative lemming-like correlated behavior, and rating agencies have a well-established reputation for observing economies through the rear-vision mirror, rather than in a forward-looking helpful way. To the extent that foreign flows encourage recipient countries to keep interest rates too low, this can hardly be helpful to discipline. To the extent that foreign inflows cause the exchange rate to be above its long-term equilibrium, it is hard to see this as exercising helpful macroeconomic discipline.²³

So much for the usual arguments in favor of foreign capital. One rarely mentioned advantage is that foreign financial centers may provide a range of useful financial services not available in the home country. Singapore may provide this for Indonesia's corporate and banking sector; Hong Kong, China for the PRC; and New York for a range of countries (including countries with mature financial markets such as Australia).²⁴

To balance the evaluation of this rather modest list of advantages, we need to recall the financial fragility and prudential problems, discussed above in relation to specific countries in East Asia.²⁵ We also need to note that the policy responses to capital reversals are usually ineffective. In particular, higher interest rates are impotent in halting outflows when there are doubts about the health of the financial system and the exchange rate is under pressure.

²³ The issue of **discipline** may also be relevant at the micro level. When there is a direct relationship between borrower and lender, the foreign lender may provide effective and appropriate discipline on the domestic borrower (just as a domestic direct lender would). But much of foreign inflow occurs in an indirect way (with the foreigner holding a market instrument such as a bond) without direct connection between foreign lender and domestic borrower.

²⁴ Does this ability to get foreign funding easily inhibit the growth in the domestic financial market? It is often argued that this is the reason for the thin corporate bond market in Australia, and may explain the small size of the Indonesian financial sector. This view can be seen in the argument that the PRC is not yet able to provide the full range of intermediation, so sends its surplus funds to be invested in safe US assets (foreign exchange reserves), with the US sending part of this back in the form of risk-capital investments into the PRC.

²⁵ OECD (2011: 300) shows that emerging countries that have experienced large capital inflows are more likely to experience a banking crisis

6. WHAT MIGHT BE DONE?

The IMF's starting point is that flows are intrinsically beneficial and it is only the surges that might cause problems.²⁶ These might give rise to macroeconomic problems or issues in the financial sector (Ostry et al. 2011)²⁷. In dealing with surges, the IMF recommends a hierarchical sequence of cascading responses, with capital controls at the bottom of the tool box: "before imposing capital controls, countries need first to exhaust their macroeconomic-cum-exchange-rate policy options" (Ostry et al. 2011: 4).

6.1 IMF Recommendations

Exchange rate appreciation if the rate is undervalued. This seems self-evident but irrelevant to the problem: these emerging countries find themselves with continuing upward pressure on their exchange rates. There is room for appreciation only at those rare cyclical moments when capital is flowing out.

Exchange rate intervention. Earlier IMF views that intervention would have no effect on the exchange rate may have been softened, suggesting that intervention is acceptable provided it doesn't throw monetary policy off course.²⁸ Even this may exaggerate how far the IMF has moved: this intervention is sometimes put forward as a method of augmenting an inadequate level of foreign exchange reserves, leaving open whether intervention policy might also legitimately be used to constrain the appreciation.

Fiscal tightening to make room for expenditure associated with the inflow. There seems universal support for this strategy, but it is rarely relevant to the core problem of capital inflow. If the domestic cycle is running too strongly, self-evidently there is always opportunity for fiscal restraint, regardless of capital flows. If the domestic economy is not running too strongly (but the capital flows are causing uncomfortable upward pressure on the exchange rate), tighter fiscal policy seems more likely to exacerbate the appreciation rather than help. Tighter fiscal policy (that increases national saving relative to investment) will tend to push the current account more in the direction of surplus. Accommodating the capital flows within a current account that is in greater surplus will require appreciation of the exchange rate.²⁹ In any case, what is the rationale for reducing budget expenditure or raising revenue in order to make room for the foreign capital? There is a presumption here that the foreign capital gives rise to more useful activity than the budget. Why should foreign capital be encouraged at the expense of budget priorities?

²⁶ "...international financial integration is fundamentally beneficial to emerging market countries, since it eases financing constraints for productive investment projects, fosters the diversification of investment risk, promotes inter-temporal trade, and contributes to the development of financial markets. Inflow surges, however, require an appropriate policy response because they can lead to economic overheating, excessive appreciation, or pressures in particular sectors of the economy (such as sectoral credit booms and asset price bubbles)." (Ostry et al. 2011: 7).

²⁷ "...before imposing capital controls, countries need first to exhaust their macroeconomic-cum-exchange-rate policy options. The macro policy response needs to have primacy both because of its importance in helping to abate the inflow surge, and because it ensures that countries act in a multilaterally-consistent manner and do not impose controls merely to avoid necessary external and macro-policy adjustment." (Ostry et al. 2011).

²⁸ The IMF is still confused in making the distinction between sterilized and unsterilized intervention. In practice intervention is always sterilized.

²⁹ The standard textbook IS/LM diagram, showing the relationship between the savings/investment balance and monetary liquidity, is misleading here. It implies that the tighter fiscal policy will reduce interest rates and thus discourage capital inflow. However modern monetary policy sets interest rates directly (for many, the Taylor Rule replaces the LM). Thus there is no reason to expect tighter fiscal policy to affect interest rates and hence discourage inflows.

Macroprudential measures. These have been put forward as the new panacea for excessive capital flows.³⁰ To the extent that capital flows present a threat to financial stability, these are certainly an appropriate response. But issues related to the stability of the financial system should not depend on whether or not capital flows are excessive at the macro level, nor should such measures be seen as temporary. If substantial fundraising on foreign money markets presents a vulnerability to the banking system, then that is itself the rationale for restriction. Restraining the banks from providing foreign currency denominated loans makes sense to protect the domestic banks, regardless of what is happening to capital flows.

Overall vulnerability will usually be reduced by effective macroprudential policies. This leaves the question: is it enough? Two issues require further attention. First, whether upward pressure on the exchange rate will still present difficulties. Second, whether the macroprudential measures might, themselves, push the problems elsewhere rather than resolving them. For example, restricting banks in providing foreign currency loans or receiving foreign currency funding might encourage commercial borrowers to seek foreign funds directly from overseas intermediaries.

7. A BETTER APPROACH

There are two problems to be addressed by policy. First, the Wicksellian interest differential is likely to attract more capital inflow than the emerging countries can easily and effectively absorb. Second, these inflows are very variable, subject to sudden reversals.

The weakness in the IMF's approach is the presumption that routine flows (that is, excluding the surges) are always beneficial. Thus the problem is seen as a temporary cyclical phenomenon. Seen, instead, in terms of a structural issue (the Wicksellian interest differential) combined with damaging variability, the better starting point is a country-specific analysis (recognizing the substantial intra-country differences observed above), based on an evaluation of whether the inflows are a sensible component of the macro-strategy. The starting point should be with the domestic savings and/or investment balance. We noted above, that for most of the East Asian emerging countries, the savings and/or investment balance is positive.

There are circumstances (perhaps relevant to the ASEAN 5) where the optimal response to excessive capital flows would be to encourage greater "absorption": an increase in domestic investment, with the physical resources for this coming mainly from the real resource transfer via a current account deficit, funded by capital inflow. This might involve consideration of the type of capital inflow. FDI is not just more stable: in addition to its technology and skill transfers, it usually involves direct transfer of real resources (for example, import of specialized machinery, services, or intellectual capital), automatically bringing about the real resource transfer. FDI shifts the current account in the direction of deficit without the inconvenient upward pressure on the exchange rate.

Larger budget deficits to increase infrastructure investment might also be an appropriate response to excessive portfolio inflows into government securities (again, this may be relevant to ASEAN 5). If foreigners want to hold domestic government securities, providing them with the financial instrument that they want seems a sensible element of the response.³¹

³⁰ There is a comprehensive discussion of these possibilities in Ostry et al. (2011). See also Chapter 3, IMF (2011b).

³¹ Of course this is only one element of the response: bringing about the real transfer of resources and steering them into productive investment may be the hard part. A well-developed domestic bond market might help to provide the funding for expanded infrastructure investment, but such expansion requires progress on the physical expenditure, governance and utility pricing issues as well.

Given the savings and/or investment starting point suggested here, the policy issues can be linked to the Williamson band, basket, and crawl (BBC) approach (Williamson 2008) that also begins with the external balance. Starting with the appropriate current account (corresponding to the savings and/or investment balance as discussed above), the fundamental equilibrium exchange rate (FEER) appropriate to this is estimated, accepting a fair amount of uncertainty about the calculation and hence variation around this (that is, within a wide band). This band would permit an appreciation when the domestic economy is running strongly (and vice versa at the low point of the business cycle).³² Substantial departures (beyond the band), however, should be met by intervention.

Assuming an appropriate level of foreign exchange reserves has been reached, intervention should be seen as an instrument which keeps the exchange rate somewhere near its equilibrium value. Intervention should be two-sided over the medium term and not, as has been the norm in East Asia during the 2000s, almost always restraining an appreciation. If this intervention is not symmetrical and two-sided over the medium term, either the level of the FEER (the centre of the band) needs to be re-thought, or capital management policies are needed.

This sort of intervention is not a second-line-of-defense option, but should be a routine reaction to the exchange rate being substantially away from the estimated FEER. This is a proper first-resort response to the intrinsic variability of capital flows: when flows reverse, buffering this with intervention is more appropriate than tightening macroeconomic policies. If intervention is two-way in the medium term, it will be profitable: it involves buying cheap and selling dear over the course of the exchange rate cycle and the width of the band gives some measure of the profit margin.³³

This addresses one aspect of the capital flows problem: variability. This leaves the problem of excessive inflows and over-appreciation. What if capital is attracted because there are interest differentials that are both structural (that is, long lasting) and substantial? A country with a high Wicksellian interest rate will routinely have a higher policy rate than the international norm, with the whole of the yield curve higher on average over time. This is the rate needed to keep the economy in equilibrium with price stability, and thus capital flows attracted by these rates will be undermining the intent of monetary policy.

An obvious preliminary response is to ensure that such inflows are taxed at the same rate as domestic investment.³⁴ The simplest way would be to impose a withholding tax that approximates domestic tax rates.

³² While the methodology for estimating FEERs is still very approximate, the concept is now well-developed, with alternative methodologies set out in IMF (2006) *Methodology for CGER Exchange Rate Assessments* providing the detail. Filadro et al. (2011) have a detailed appendix table setting out the various approaches to FEER calculation taken in different countries.

³³ This policy approach can be distinguished from the Guidotti approach (endorsed by Greenspan 1999). In the Guidotti approach, foreign exchange reserves are big enough to cope with an outflow equal to debt falling due over the next year. In effect the reserves act as a liquidity pool that allows carry-trade investors to get out of the currency when they want to (McCauley 2010). The quasi-fiscal cost of reserve holding is a cost to the domestic economy, while the benefit of the interest differential goes to the foreign investor. In the alternative strategy suggested here, the foreign investors can reverse their transaction, but only at a lower exchange rate, which shifts much of the carry-trade benefit back to the receiving country in the form of profit on exchange-rate intervention.

³⁴ There are at least two reasons why this may not be the case at present. As a legacy of the times when emerging countries had trouble funding their current account deficits, foreign capital was often encouraged through preferential tax treatment: lower tax rates or even tax exemptions. For example, in 2005 Thailand rescinded its withholding tax on foreign flows to encourage inflows (and restored it in 2010 when the inflows were putting excessive upward pressure on the exchange rate). Secondly, double tax agreements routinely shift the benefit of

This still leaves the Wicksellian interest differential as an inappropriate incentive for foreign investors. If this causes excessive inflows, there would seem to be a case for routinely imposing a Brazilian style tax on portfolio and banking flows, with a maximum rate equal to the difference between the domestic and foreign policy interest rates.³⁵

This addresses, for example, the current situation where very low interest rates in the advanced countries are creating large interest differentials, with capital inflows that are putting unwelcome upward pressure on exchange rates (compared with Brazil, where the real effective exchange rate rose 60% higher than its 2000–2007 average).³⁶ There would also be the opportunity to vary the interest-equalization tax over the course of the capital-flow cycle.

Does this take account of multilateral equilibria? Broadly, it does. Foreign countries are of course entitled to set their monetary policy appropriately for their domestic circumstances, benefiting from the improvement to international competitiveness that routinely comes with this (compared with the US at present). So too, the emerging countries should be able to set their interest rates appropriately for their circumstances, and resist inflows that undermine their domestic policy settings.

Over time the variability of capital flows may diminish. As we have noted, when exchange rates fall in emerging countries, this provokes substantial capital outflow. This contrasts with the experience of countries such as Australia that relies on large foreign inflows to fund the substantial structural current account deficit. During depreciation episodes (notably in September 1998 during the Asian crisis and September 2008 during the global financial crisis) the exchange rate fell sharply but there was no net capital outflow apparent in the figures. Caballaro, Cowan, and Kearns (2004) hypothesize that some countries have established enough credibility that when the exchange rate moves, investors are confident that the rate will revert. An alternative (related) explanation might be that the national accounts imbalance leaves Australian spenders in urgent need of funding (there is very little adjustment of the external balance itself). These borrowers can draw on the extensive range of inflow channels that are typical in mature countries (reflected in the huge two-way gross flows) to meet their funding requirements. If one channel closes off, others are available.³⁷ In contrast, in 1997 in East Asia there were no alternative sources of funding, at any price, to balance the outflows and the adjustment had to take place through shifting the current account deficit into a surplus (at huge cost to GDP).

This presents a policy quandary for emerging economies. They might look forward to the time when capital flows are large and diversified (with deep institutional financial infrastructure). These countries could then rely on being able to retain and attract inflows even when the

tax receipts to the investor country, leaving the investor untaxed in the recipient country. If tax is paid in the investor's country of residence, there may be no resource redistribution. But it is clear that many investors use tax havens that probably avoid tax altogether (IMF 2011b).

³⁵ The aim here is to confine the tax to that part of flows which is responding most directly to the interest differential. Thus FDI would be excluded. For a related approach, see Korinek (2010). The differences between this sort of tax and an Unremunerated Reserve Requirement (URR) are subtle (IMF (2011c, Box page 28), although the argument made here suggests that the tax should be applied to the entire foreign asset holding for the full period of the investment, rather than apply for a restricted period only. For a recent IMF assessment of the effectiveness of these controls, see Habermeier, Kokenyne, and Baba (2011).

³⁶ This approach may not always fit with overall macro objectives. Countries like New Zealand have used the carry-trade-type flows to fund the persistent structural current account deficit.

³⁷ Even at the height of the global financial crisis, Australian banks (backed by the Australian government's AAA rating) were still able to access funds in the New York money market. This difference between the high-gross-flow advanced countries and the less deeply integrated emerging countries is analyzed in Becker and Noone (2008).

financial system (at home or abroad) was under severe stress.³⁸ But during the transition to this deep capital market, the shallower markets that currently exist may dry up under stress. Restrictions which address the problem of volatility or excess capital flows may, at the same time, inhibit or slow the development of this deep and less volatile market.

Over the past couple of years, many of the countries of East Asia have taken measures that impinge on capital flows.³⁹ Some measures can be classified as macroprudential, while others are clearly directed either at foreigners or at instruments or channels favored by foreigners.⁴⁰ This is not the place to review the huge amount of literature on whether such measures are effective.⁴¹ One of the principal constraints inhibiting the effective use of capital flow management has been the vocal criticism of such controls from financial markets (who have a vested interest in resisting them), academics (who are often wedded to the efficient-markets-hypothesis which sees all controls as shifting prices away from equilibrium), and the IMF (which has its own free-capital-flows biases). The argument of this paper is that capital flow management is a legitimate part of the toolkit, and should be in the policy debate, without rejection or relegation on doctrinal grounds. It will be easier to implement effective capital flow management policies when this view is more widely shared.

³⁸ It is possible to identify examples where this kind of stability may be beginning to occur. In Indonesia, for example, where foreigners own around 70% of the equity capitalization, a fall in the exchange rate does not seem to trigger outflows (Bank Indonesia 2010).

³⁹ For measures taken in Asia, see IMF (2011c), page 33. See also IMF (2011d) Table 1.2, p. 18 and Mihaljek and Subelyte (2011).

⁴⁰ An example would be the one-month holding period for Bank Indonesia Certificates (SBIs) in Indonesia as these are the favored investment instrument of carry-trade foreign investors.

⁴¹ IMF (2011c) page 36 provides assessment on Brazil, Thailand, Indonesia, and Korea in Appendix. Regressions aimed at identifying the effects of various controls are found in IMF (2011c). For a discussion of the rival merits of URRs and taxes, see Box in IMF (2011c) p. 28. Frankel's (2011) views would find wide agreement: the controls should be on inflows rather than outflows: they should be modest price penalties rather than prohibitions; and they should steer the flows towards more stable categories. See also Magud et al. (2011).

8. CONCLUSION

There are strong reasons to think that capital flows will increase.⁴² On top of the structural interest differentials, the cyclical differences are likely to become stronger. Europe, Japan, and the US are likely to experience continuing low policy interest rates for some years (and this will keep the whole yield curve low), while if the emerging countries maintain their growth, higher policy rates will be needed. The institutional infrastructure will develop more depth to facilitate extra flows. Information will improve. Credit rating agencies will reduce their bias (IIF 2011). The home bias in Japan (and elsewhere) will decrease.⁴³

The primary advice routinely given to emerging countries is to maintain strong macroeconomic policies, which will help cope with any reversals. Indeed, the events of 2008 demonstrated the benefits of macro strength. At the same time there can be both favorable and unfavorable consequences. The stronger their policies, the more attractive these countries will be for foreign investors and the greater likelihood that excessive inflows will be experienced.

The strategy explored in this paper presents a longer-term dilemma. While it involves a greater readiness to intervene and apply capital management policies, it also acknowledges that ultimately, deep capital linkages are likely to be beneficial for growth.⁴⁴ With this depth will come a greater degree of stability in net flows, reducing concerns about flow reversals. During the transition, however, emerging countries need some mechanism to mitigate excessive and volatile capital inflows. Such a framework would make emerging countries more confident to open their external accounts, allowing real and financial inflows (getting capital flowing downhill) and fostering the deeper financial infrastructure that accompanies these flows. The sorts of strategies explored here seem a stronger basis for encouraging flows (and the benefits that go with them) than either the policies of reserve accumulation so common over the past decade, or the partial, tentative, and half-hearted capital-management responses advocated in recent IMF studies.

⁴² “All things considered, the stage seems set for the ongoing wave of inflows to be both large and persistent, bringing important investment and growth benefits to emerging markets” (IMF 2011c: 4).

⁴³ “Structural portfolio reallocation toward emerging market assets is also likely to support flows to Asia, as despite a threefold increase during 2004–2009, the weight of emerging Asia equities in the Morgan Stanley Capital International (MSCI) all country world index is still only half the share of emerging Asia in global production.” IMF (2011d: 16). See also IMF (2007) Box 1.4.

⁴⁴ There is no strong cross-section evidence that capital flows promote growth (IMF (2011c), although many would accept that, properly handled, it does. Kose et al (2006) give a cautious endorsement that capital flows may help growth. See also Levine (2011) and the references cited therein and in Aizenman, Jinjarak, and Park (2011).

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