

## Does the type of Private Capital Flow matter for Financial Stability in Emerging Economies?<sup>1</sup>

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### Introduction

The painful structural changes that much of emerging Asia went through since the 1997-98 crisis, as well as the relatively more cautious approach towards capital account liberalisation and foreign bank entry in a number of the Asian economies appear to have helped to reduce the extent of damage that these economies faced in the recent global financial crisis. The region has clearly suffered relatively less than many other emerging economies, particularly those in Europe. Indeed, with the exception of Pakistan, the vast majority of the emerging economies that have recently obtained crisis-related loans from the International Monetary Fund (IMF) have been from emerging Europe and the Commonwealth of Independent States (CIS), broadly termed Eastern Europe hereafter.<sup>3</sup> Among the Eastern European borrowers that have already negotiated Stand-by Arrangement loans are Romania, Ukraine, Hungary, Belarus and Latvia (see Figure 1).

Unlike emerging Asia, many Eastern European economies were running fairly large current account deficits and the predominant source of financing was “other net private capital flows”, primarily short-term bank lending (see Table 1). The sharp reversal in these capital flows led to large declines in exchange rates and depression in domestic asset prices, not unlike the experience of emerging Asia in 1997-98. As in Asia then, much of the external debt was unhedged in foreign currency (US\$ in Asia and Euros in Eastern Europe). Thus, the currency depreciations led to a massive rise in the domestic currency value of foreign currency liabilities, causing large-scale insolvencies of many companies and individuals.

The deterioration in domestic economic activity further worsened the balance sheets of foreign institutions that had exposure to these economies, leading to a further retrenchment in loans and forced adjustment of the current account via import-compressions. While this vicious cycle of capital outflows of capital losses in banks and further lending retrenchments

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<sup>3</sup> The IMF categorises Central and Eastern Europe as Albania, Bulgaria, Croatia, Estonia, Hungary, Latvia, Lithuania, Macedonia, Former Yugoslav Republic of, Poland, Romania and Turkey. It has a separate category of the Commonwealth of Independent States (CIS) composed of Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

occurred between Japanese banks and emerging East Asia in 1997-98, the same dynamic has been taking place in the case of Western European banks and Eastern Europe. To be sure, while countries with the weakest fundamentals such as Hungary, Ukraine and the Baltic states like Latvia in Eastern Europe in 2007-08, and Thailand and Indonesia in Asia in 1997-98 were initially most impacted and in need of support from the IMF, there were inevitable spillovers to other countries with otherwise fairly strong fundamentals (Poland, Czech Republic in Eastern Europe and Singapore and Hong Kong in Asia in 1997-98).

### **Financial Contagion**

There are many channels of cross-border transmissions of crises. While trade linkages are no doubt important, as in Asia in 1997-98, of particular significant relevance in the case of Eastern Europe were the financial linkages, especially the so-called “common creditor channel”. Growing non-performing loans by commercial banks in the crisis-hit economies led to a withdrawal of funds from other markets like Poland, thus transmitting a credit crunch regionally. This so-called “forced portfolio adjustment” behaviour or “liquidity constrained” effect, which is a perfectly rational behaviour, may occur for a number of reasons. These include an anticipation of higher-frequency redemptions, the need to cover capital losses in other crisis-hit markets (“cash-in” effects), in order to reduce portfolio risks and to improve liquidity positions (“flight to safety” effects).

In addition to the direct linkages and liquidity constraints, there is the possibility of “panic herding” or “bandwagon” effects, as international creditors and investors choose to reduce exposures to all emerging economies (particularly those in the region) if they are spooked by the crisis in one or more of the regional economies, leading to an international bank panic. One can never be sure as to what causes these investor panics/sudden shifts in market expectations and an indiscriminate withdrawal from many markets. A weakness or attack on one currency could lead to a reassessment of the region’s “fundamentals” and the probability of a similar fate befalling regional economies with broadly similar macroeconomic stances (whether *actual* or *perceived*). This is popularly termed the “wake-up call” effect. This phenomenon could also refer to the sudden realisation of how little market participants truly understood the regional economies, leading to a region-wide downgrading/sell-off.

In some senses, the crisis in Eastern Europe has been worse than in East Asia in 1997-98, due to the relatively greater concentration of trade, finance and investment of the former with Western Europe, which has been badly impacted by the crisis. Asia’s linkages were somewhat more evenly divided between Japan, the United States and Western Europe, and the latter two (especially the United States) were in far better shape than Japan, helping the region to export its way out of the recession. The need for diversification of trade, financial and investment linkages is an important policy lesson going forward for all countries.

### **Mobile Capital versus Foreign Direct Investment and Crisis<sup>4</sup>**

While the boom and bust cycles in emerging markets in the recent past have been due to the reversals in so-called “mobile capital” or “hot money” which refer to bank flows plus portfolio flows, foreign direct investment (FDI) has been remarkably stable during the Asian crisis and the current global financial crisis. An examination of simple coefficient of variances (CVs) over a longer period (1990 to 2008) further confirms this relative stability of

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<sup>4</sup> This section draws on and builds upon Bird and Rajan (2002).

FDI whether we look at all emerging economies or only those in developing Asia which include South Asia (see Table 2).<sup>5</sup>

Received wisdom linking the composition of international capital flows to economic instability and financial crises is quite straightforward. It argues that short-term inflows (or “hot money”) can be easily reversed, while longer-term flows (in the form of long-maturity bonds and loans and especially FDI) cannot. Movements of “hot money” are seen as being dominated by interest rate differentials and by expected exchange rate changes which can alter rapidly leading to capital volatility, while FDI is determined by long-term fundamental economic characteristics which are more stable. Indeed, FDI is often presented as being relatively irreversible in the short-run. Since it enhances the productive capacity of the host country, it produces the revenue stream necessary to cover future capital outflows. As the World Bank (1999a) has noted, “recent rapid increases in FDI flows might be construed as being the ‘jet-airplane’ variety, bringing benefits with fewer risk” (p.128).

However, does the evidence confirm the greater stability of FDI over other capital flows? Chuhan et al. (1996), Sarno and Taylor (1999) and the World Bank (1999a) argue in the affirmative. Other empirical analyses also suggest that emerging economies most prone to currency crises tend to have a relatively smaller share of FDI in total capital inflows and a relatively higher share of short-term external debt (Frankel and Rose, 1996).<sup>6</sup> It would be interesting to extend this empirical exercise to include the more recent periods.

There are models that conveniently explain the volatility of short-term capital flows, covering both bank lending and portfolio flows. The essence of these models is that a relatively small initial loss of confidence can translate quickly into panic and a mass exodus of funds, especially when international reserves fall below a threshold where they become insufficient to cover short-term liabilities. It is easy to see how the above theory combined with the empirical evidence for developing countries has resulted in the conventional wisdom that switching from short-term to long-term capital flows may reduce the probability of currency crises. But is the conventional wisdom unassailable? Is there any empirical evidence that runs contrary to it, and if there is, can this be explained?

This question may be answered in two ways. First, recent empirical investigations into the causes of currency crises in emerging economies have raised doubts about the existence of a direct link between FDI and the probability of a crisis. For instance, in a study involving 26 emerging economies during the crises periods (1994 and 1997), Nitithanprapas and Willett (2000) found that low FDI is a robust indicator of a country’s vulnerability to contagion *only if* combined with the current account deficit and real exchange rate. Thus, they concluded that “the composite indicator of current account, FDI, and real exchange rate is a useful indicator of external vulnerability to financial contagion” but FDI by itself may not be (p.35).

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<sup>5</sup> While choice of years may change the relative rankings of portfolio versus debt flows, FDI has a consistently lower CV than the other two components.

<sup>6</sup> Hausmann and Fernández-Arias (2000) confirm the Frankel-Rose result but show that it is not robust when extended to industrial countries. The authors note that these results may be because industrial countries have a much larger stock of non-FDI liabilities than do developing countries and have a lower frequency of crisis. While the Frankel and Rose study does not find overall indebtedness or the share of short-term debt to have any statistical effects on the probability of crisis, other studies have suggested that short-term indebtedness is a robust predictor of financial crises (Dadush, et al., 1999, Rodrik and Velasco, 1999, World Bank, 1999a, 2000). The World Bank (1999b) surveys some of the literature on short-term debt.

Similarly, Bussiere and Mulder (1999) tested for the significance of FDI (to gross domestic product ratio) in emerging economies during the financial crisis in 1997 and 1998. They found that the variable was not statistically significant, although it had the correct sign, suggesting to them that there was “only a limited reduction in vulnerability as a result of FDI financing of the deficit” (p.17).

Second, a potential criticism of the conventional view regarding differing degrees of stability of various capital flows is that it fails to take into account the complex interactions between FDI and other flows. Examining each flow individually, particularly during short periods of time (such as year-to-year variations), may at best be an unreliable indicator of the degree of risk of various classes of flow, and at worst could be highly misleading.<sup>7</sup> Capital that flows in under the guise of FDI, may flow out under another guise.<sup>8</sup> Hausmann and Fernández-Arias (2000) have found that the standard deviation of FDI is not very different from that of total net flows, especially in the case of Latin America, and that the volatility of FDI itself has been on the rise.

Furthermore, while the overall share of FDI in capital flows has been rising in many developing countries during the 1990s, this has failed to make the overall capital account more stable. Even though FDI has become the single largest component of capital flows for developing countries, this has not been discernibly matched by declining international capital market volatility and a reduced incidence of financial crises. This is consistent with Dooley et al. (1994), who have found that a high level of FDI may be associated with greater and not lower variability in capital flows.

What can explain this contrarian view? Contrary to popular belief, FDI is not “bolted down”, although the physical assets it finances are. Foreign investors can use the physical assets as collateral to obtain a loan from banks and can then place the funds abroad. In other words, the foreign direct investor may hedge the firm’s FDI exposure by borrowing domestically and taking short-term capital out of the country. Hence, a firm may be doing one thing with its assets and a completely different thing with the manner in which it finances them. The World Bank (1999b) has also cautioned against the presumption that FDI necessarily implies greater financial stability by pointing out that:

During a crisis, ‘direct investors’ may contribute...to capital withdrawals by accelerating profit remittances or reducing the liabilities of affiliates toward their mother companies. While these are non-FDI flows, they result from decisions by foreign investors. It is difficult to determine the extent to which foreigners involved in direct investment took out capital through non-FDI flows during the financial crisis because the data are available only with considerable delay. In addition to long-term determinants, FDI is affected by many short-run factors..., such as movements in host countries’ exchange rates and asset prices and growth prospects, as well as the economic environment in FDI source countries” (p.54).

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<sup>7</sup> Claessens et al. (1995) computed statistical measures of volatility for a group of 10 developed and developing countries (France, Germany, Japan, Great Britain, the United States, Argentina, Brazil, Indonesia, Korea, and Mexico) and failed to unearth any systematic pattern in the volatilities of the various types of capital flows.

<sup>8</sup> As may have happened in Malaysia in 1997-99 (see Bird and Rajan, 2009).

The IMF (1998) has similarly drawn attention to the fact that the distinction between portfolio and FDI flows in the balance of payments can be somewhat arbitrary and that the proportion of FDI flows in aggregate capital flows may be overstated. Small differences in equity ownership, which may serve to reclassify financial flows, are unlikely to represent substantially different investment horizons. This is especially relevant in view of the fact that, in recent years, an increasing share of FDI globally has been in the form of mergers and acquisitions (M&As) (that is, ownership stake of over 10 percent) (see Figure 2). Surges in M&A activity is the main reason for the increase in FDI immediately after a crisis as foreign investors purchase assets on fire sales in emerging Asia and elsewhere. Despite the importance of this mode of external financing, research on it has been fairly sparse.<sup>9</sup>

## **Conclusion**

Short-term capital volatility has been seen as lying at the heart of recent financial instability and crises. The policy debate has focused on reducing the instability of short-term capital flows by controls or by taxation and regulation, and on switching the composition of capital flows to the longer-term end, particularly in the form of FDI. The conventional wisdom seems to be that a country can reduce its vulnerability to crisis by increasing the share of FDI in capital inflows. Although at a highly aggregated level there appears to be some empirical justification for this view, a more detailed examination of the evidence and of the underlying analytics counsels caution. Indeed, increasing FDI may itself be associated with and causally connected to increased instability in portfolio flows, implying that the apparent stability of FDI may be of spurious importance. A potential danger then, is that policy measures designed to encourage FDI may involve a distortionary cost but offer little gain in terms of enhanced financial stability. At the very least, the analysis in this paper challenges the casual presumption that the switch towards FDI alone will automatically imply that extreme capital instability will become a thing of the past, particularly in view of the fact that a growing share of FDI globally as well as in regional countries like India has been in the form of M&As.

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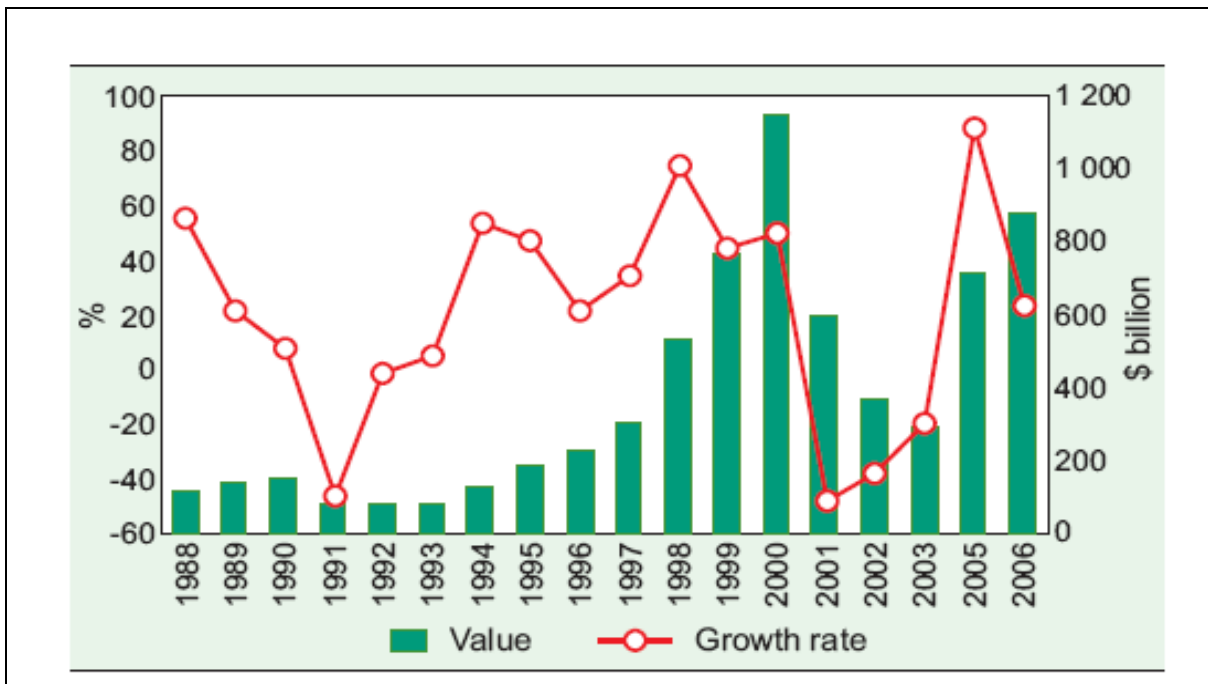
<sup>9</sup> See for instance, “The Global Financial Crisis and Cross-border Mergers and Acquisitions in Developing Asia”, ISAS Brief No.110, 11 June 2009, on this issue.

**Figure 1: IMF Loans During the 2008-9 Crisis (as of March 2009)  
(percent of GDP)**



Source : The Economist (2009). "The IMF - Mission: Possible," 8 April 2009.

**Figure 2: Global Cross-border M&A Deals, Value and Growth, 1988-2006**



Source: UNCTAD (2007).

**Table 1: Net Capital Flows to Selected Emerging Economies, 1990-2009 (US\$ billion)**

|   | Average   |        |        |        |        |        |        |         |        |        |
|---|-----------|--------|--------|--------|--------|--------|--------|---------|--------|--------|
|   | 1998-2000 | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007    | 2008   | 2009   |
| <b>Emerging and developing economies</b>  |           |        |        |        |        |        |        |         |        |        |
| Private capital flows, net <sup>2</sup>   | 64.3      | 73.5   | 54.0   | 154.2  | 222.0  | 226.8  | 202.8  | 617.5   | 109.3  | -190.3 |
| Private direct investment, net            | 164.2     | 180.5  | 144.4  | 161.3  | 183.9  | 243.7  | 241.4  | 359.0   | 459.3  | 312.8  |
| Private portfolio flows, net              | 41.4      | -76.9  | -86.4  | -3.8   | 10.0   | -5.6   | -100.7 | 39.5    | -155.2 | -234.5 |
| Other private capital flows, net          | -141.2    | -30.1  | -4.1   | -3.3   | 28.0   | -11.3  | 62.2   | 219.2   | -194.6 | -268.5 |
| Official flows, net <sup>3</sup>          | 7.1       | 2.3    | 14.8   | -43.3  | -64.9  | -98.5  | -154.1 | -100.5  | -60.0  | 57.6   |
| Change in reserves <sup>4</sup>           | -89.5     | -132.7 | -191.3 | -360.6 | -501.9 | -585.7 | -751.7 | -1257.8 | -865.7 | -266.5 |
| <b>Memorandum</b>                         |           |        |        |        |        |        |        |         |        |        |
| Current account <sup>5</sup>              | 41.7      | 93.3   | 138.0  | 233.6  | 312.3  | 532.0  | 728.7  | 741.5   | 793.0  | 355.7  |
| <b>Africa</b>                             |           |        |        |        |        |        |        |         |        |        |
| Private capital flows, net <sup>2</sup>   | 3.8       | 1.3    | 2.0    | 4.9    | 13.0   | 26.0   | 35.2   | 33.4    | 24.2   | 30.2   |
| Private direct investment, net            | 7.4       | 23.1   | 14.3   | 17.1   | 15.8   | 23.3   | 23.4   | 32.1    | 32.4   | 27.6   |
| Private portfolio flows, net              | 3.8       | -7.9   | -1.6   | -0.4   | 5.6    | 4.2    | 17.6   | 9.9     | -15.8  | 0.9    |
| Other private capital flows, net          | -7.3      | -14.0  | -10.7  | -11.8  | -8.4   | -1.5   | -5.7   | -8.3    | 7.9    | 1.8    |
| Official flows, net <sup>3</sup>          | 5.3       | 6.5    | 8.8    | 6.2    | 4.2    | 0.5    | -10.0  | 5.0     | 11.1   | 15.1   |
| Change in reserves <sup>4</sup>           | -3.9      | -10.2  | -5.7   | -11.5  | -31.7  | -43.3  | -54.3  | -61.6   | -53.8  | 21.7   |
| <b>Central and eastern Europe</b>         |           |        |        |        |        |        |        |         |        |        |
| Private capital flows, net <sup>2</sup>   | 30.8      | 5.6    | 25.9   | 42.3   | 61.3   | 99.9   | 120.0  | 173.6   | 147.1  | -38.3  |
| Private direct investment, net            | 15.4      | 17.4   | 12.2   | 13.3   | 30.0   | 37.4   | 58.9   | 72.0    | 64.1   | 30.1   |
| Private portfolio flows, net              | 4.1       | 0.2    | 3.1    | 9.7    | 25.3   | 25.9   | 9.4    | -7.4    | -13.2  | -6.1   |
| Other private capital flows, net          | 11.3      | -12.0  | 10.6   | 19.2   | 6.1    | 36.6   | 51.7   | 108.9   | 96.2   | -62.4  |
| Official flows, net <sup>3</sup>          | -0.7      | 5.2    | 4.5    | -2.4   | -4.1   | —      | -7.9   | -6.0    | 7.3    | 26.8   |
| Change in reserves <sup>4</sup>           | -8.4      | -11.0  | -14.2  | -9.3   | -8.1   | -36.1  | -20.3  | -31.2   | -9.7   | 36.6   |
| <b>Commonwealth of Independent States</b> |           |        |        |        |        |        |        |         |        |        |
| Private capital flows, net <sup>2</sup>   | -16.3     | 6.9    | 15.7   | 19.0   | 2.6    | 30.4   | 55.1   | 127.2   | -127.4 | -119.0 |
| Private direct investment, net            | 4.2       | 4.9    | 5.2    | 5.4    | 13.1   | 11.6   | 20.7   | 26.6    | 44.4   | 17.3   |
| Private portfolio flows, net              | -3.5      | -1.2   | 0.4    | -0.4   | 4.3    | -4.9   | 12.9   | 14.5    | -36.8  | 1.6    |
| Other private capital flows, net          | -17.0     | 3.1    | 10.1   | 14.1   | -14.8  | 23.7   | 21.5   | 86.1    | -135.1 | -137.9 |
| Official flows, net <sup>3</sup>          | -2.2      | -5.1   | -10.8  | -9.4   | -7.6   | -19.6  | -29.8  | -5.9    | -0.7   | 25.1   |
| Change in reserves <sup>4</sup>           | -4.8      | -14.4  | -15.1  | -32.7  | -54.9  | -77.1  | -127.8 | -168.1  | 33.1   | 94.3   |
| <b>Emerging Asia<sup>6</sup></b>          |           |        |        |        |        |        |        |         |        |        |
| Private capital flows, net <sup>2</sup>   | -13.4     | 24.3   | 23.9   | 66.9   | 145.6  | 85.3   | 31.8   | 164.8   | 127.9  | -46.9  |
| Private direct investment, net            | 64.0      | 53.5   | 52.4   | 70.6   | 64.7   | 100.5  | 94.3   | 138.5   | 222.6  | 161.6  |
| Private portfolio flows, net              | 27.6      | -50.7  | -60.2  | 10.3   | 10.2   | -5.3   | -107.2 | 11.2    | -65.9  | -192.1 |
| Other private capital flows, net          | -105.0    | 21.4   | 31.7   | -13.9  | 70.7   | -10.0  | 44.6   | 15.2    | -28.7  | -16.3  |
| Official flows, net <sup>3</sup>          | 2.4       | -13.1  | 2.6    | -18.4  | -13.4  | -21.7  | -21.7  | -36.6   | -13.1  | -11.3  |
| Change in reserves <sup>4</sup>           | -67.2     | -87.7  | -154.9 | -236.7 | -338.7 | -288.3 | -372.2 | -673.1  | -634.3 | -514.5 |

**Notes:**

- 1) Net capital flows comprise net direct investment, net portfolio investment, and other long- and short-term net investment flows, including official and private borrowing. In this table, Hong Kong SAR, Israel, Korea, Singapore and Taiwan Province of China are included.
- 2) Because of data limitations, flows listed under private capital flows, net, may include some official flows.
- 3) Excludes grants and includes overseas investments of official investment agencies.
- 4) A minus sign indicates an increase.
- 5) The sum of the current account balance, net private capital flows, net official flows, and the change in reserves equals, with the opposite sign, the sum of the capital account and errors and omissions.
- 6) Consists of developing Asia and the newly industrialised Asian economies.

Source: IMF, World Economic Outlook Database.

<http://www.imf.org/external/pubs/ft/weo/2009/01/weodata/weoselagr.aspx>.

The source also provides the country coverage.

**Table 2: Relative Stability of Various Components of Private Capital Flows, 1990-2009**

|                                 | Absolute Value of Coefficient of Variances |                 |
|---------------------------------|--|-----------------|
|                                 | All Emerging and Developing Economies      | Developing Asia |
| Total net private capital flows | 0.84                                       | 0.95            |
| Net Direct Investment flows     | 0.69                                       | 0.73            |
| Net Portfolio flows             | 5.57                                       | 16.38           |
| Net Other Private capital flows | 4.71                                       | 7.95            |

Source: Computed by author from IMF, World Economic Outlook Database.  
<http://www.imf.org/external/pubs/ft/weo/2009/01/weodata/weoselagr.aspx>. The source also provides the country coverage.



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