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Project Overview

Capital Flows to Developing Countries

Does the Emperor Have Clothes?

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1 Introduction

This paper draws on papers written on the supply of capital flows for the WIDER project, extracting overall conclusions from them.

This conclusions paper aims to understand how capital flows to developing countries have changed since the Asian and other crises. Furthermore, it attempts to deepen our understanding of how investors, lenders and other financial actors make their decisions to supply capital to developing countries, and how this decision-making influences or determines their main features, in particular their tendency to pro-cyclicality and short-termism. Finally, it makes policy proposals to deal with the two most problematic aspects of capital flows to developing countries: their current very low levels and their strong reversibility.

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Especially since the Asian crisis, there has been a very drastic change both in the level and the structure of private capital flows to developing countries. Insufficient emphasis has been placed as yet by analysts and policy-makers on the nature, causes, as well as policy implications of these large changes.

A key question is whether these changes – particularly their sharp decline in level, but also in their composition – are mainly structural or cyclical. And if they are cyclical, how long is the relevant cycle, during which private flows to developing countries would remain too low? Though this is a difficult question to answer, it is very important to attempt to do so, given the different policy implications for all involved, but particularly for developing countries.

Indeed, one scenario is that recent trends continue for a long period; net private capital flows to all emerging economies declined since 1997, were extremely low in 2000 and 2001, according to IMF (2002) data (see Table 1). As the IMF (2001) *Emerging Market Financing Quarterly* puts it, had this resurgence of such flows in the first half of the nineties, after the debt crisis, been a ‘one-off portfolio stock adjustment’ that has now run its course? This would imply that the presence of foreign companies, banks and other investors in emerging economies would contribute very little foreign exchange or external savings to the emerging economies, and that their only contribution would be via transfer of technology, management know-how and other expertise. That is, the value of foreign presence for developing countries – and especially but not only the more advanced ones – is in the *blend* of both capital flows and transfer of expertise; if only transfer of expertise were to remain, the balance of benefits and costs would change quite significantly, as would the amount of policy and other effort that may be justified in trying to attract such flows. The emperor would have no clothes, or – more accurately – would be half naked.

On the other hand, if the other scenario is more likely, and the sharp decline is mainly driven by general cyclical factors and the memory of recent crises (and crises would stop happening), then the pay-off is far greater for policy-makers (in developed and developing countries, as well as in international organisations), to make efforts, to attract private flows to return to developing countries, as well as encouraging more those that are more stable.

In what follows (Section 2), we will examine first the new pattern of private flows that has emerged, particularly for emerging countries. Then, we will examine the issue of the extent to which the recent changes are likely to be permanent or temporary. In Section 3, we will look briefly at some of the new features that make different capital flows to developing countries so pro-cyclical and easily reversible. Section 4 concludes with policy implications.

2 New pattern of private flows

2.1 Sharp decline of flows

As briefly sketched out above, and as reflected in Table 1 capital flows to developing countries have suffered a major change since the East Asian crisis. According to IMF (2002) data, net private capital flows to emerging market economies, which had peaked

in 1995 to almost US\$240 billion in 1996 (having grown consistently throughout the first half of the 1990's), more or less halved to less than US\$120 billion in 1997, fell by around 40 per cent to less than US\$70 billion in 1998, and 1999, collapsed to less than US\$10 billion in 2000, and recovered only very faintly to US\$31 billion in 2001. Emerging market current accounts have as a result also shifted dramatically, from significant deficits to very large surpluses, since 1999.

2.2 FDI maintains level, but is increasingly hedged

At the same time, there has been a dramatic change in the structure of flows. FDI which had tripled since the early 1990's to peak at US\$175 billion in 2001 remaining very high throughout the second half of the nineties. It is since 1998 also the only significantly high source of foreign capital inflow for emerging markets: furthermore, in terms of net transfer of resources, FDI is the only source for emerging markets. This change in the structure of flows, with far greater importance for FDI, is overall a very positive development.

Table 1
Emerging market economies: Net capital flows
(billions of US dollars)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total										
Private capital flows, net	150.9	212.0	234.2	111.9	65.4	69.4	7.7	31.3	58.0	76.8
Private direct investment, net	80.8	100.1	117.0	142.7	154.7	163.8	153.4	175.5	157.1	165.7
Private portfolio investment, net	113.0	41.2	86.9	46.3	-4.6	33.9	-4.3	-30.2	14.6	15.8
Other private capital flows, net ⁽¹⁾	-42.9	70.7	30.3	-77.2	-84.7	-128.2	-141.4	-114.0	-113.7	-104.7
Official flows, net	3.5	26.9	-1.5	64.9	60.5	13.7	5.7	37.2	32.7	15.2
Change in reserves	-69.1	-116.7	-108.8	-59.8	-45.0	-85.8	-114.3	-134.3	-87.6	-60.6
Memorandum	-72.2	-92.4	-96.8	-69.0	-52.6	32.9	128.3	89.4	16.9	-16.7
Current account										

⁽¹⁾ Mainly bank lending
Source: IMF (2002).

This would be a very positive development, as FDI both incorporates transfer of expertise, and brings apparently more long-term capital inflows. However, important caveats are necessary even for FDI. The first one is that FDI to developing countries, may not be sustained at its current high levels, both because of changes in the developed economies and because of the 'easy phase' of FDI purchasing companies that are being privatised or large attractive companies already in the private sector may gradually come to a close; in successful dynamic economies or sectors, this phase may be followed by additional FDI to take account of profitable opportunities of expansion (e.g. as occurred in telecoms in several Latin American countries) or of green field investment. However, in less dynamic economies or sectors, FDI may just decline in a second phase, as it is beginning to do in Latin America. The second caveat has been explored less in the literature, but it has in fact become a major new issue. Though FDI is relatively more stable when compared with other forms it also has a volatile component; historically this has taken the form of variability in remittance of dividends; it now relates to increased and variable external debt financing of FDI. However, the newest concern relates to the fact that multinational companies, especially those producing for the domestic market, hedge their short term foreign exchange risk (see Moguillansky 2002). This may reduce the positive net foreign exchange impact of the FDI; this may be done for example, by purchasing US\$ or US\$ denominated government paper in the country (e.g. Brazil, Mexico), or by hedging off-shore. Particularly problematic, is if companies dramatically increase their hedging of exchange rate risk, at a time when a devaluation becomes likely; as there may be no one willing to 'take the other side', this may lead to an outflow of foreign capital and/or put pressure on the exchange rate. As Dodd (2002) explains, if there is an imbalanced market in which most participants want to be short the local currency, the forward exchange rate may have to fall so risk takers are willing to hold greater amounts of the long positions or dealers can create a synthetic forward by borrowing locally and buying, as well as investing in foreign exchange. This will potentially leave a temporary outflow equal to the size of the hedge. Though the intention is to hedge and not to speculate, the impact on reserves and/or the exchange rate may be the same. Reportedly, increased use of hedging by foreign direct investors whose sales are in local currency, has been an important factor in recent years, especially in Latin America and has contributed to significantly deepen pressures for devaluation. A source of concern is that such hedging takes place, both with fixed and floating exchange rate regimes.

2.3 Bank lending; water flows upwards

In sharp contrast with FDI whose levels have remained high since the East Asian crises, net international bank lending has not only collapsed, but become highly negative during 1997–01 period (see Tables 1 and 2: see also Hawkins 2002 and Lubin 2002).

The decline was across the board, but far deeper in crisis-hit East Asian economics. The main reason is banks' greater perception of the risks of lending to developing countries, especially to Asia; a secondary reason is that (once recession or lower growth hit countries), their demand for international loans fell. The main reason for this increased perception of – and aversion to – risk in international lending for developing countries comes thus from the frequency and large scale of recent crises. In interviews, bankers argue that currency mismatch is too dangerous for both lenders and borrowers.

Table 2
International banks' involvement with developing countries

	June 1998 (US\$ bn)	Dec 2001 (US\$ bn)	% change (at annual rate)
All developing countries			
Loans outstanding	924	742	-7.0
Other assets*	110	157	9.1
Loans by subsidiaries in local currency	248	434	23.7

*Includes holding of debt securities, some derivative positions and equities.

Source: Hawkins (2001) and BIS data.

As Kumar and Persaud (2001) argue persuasively for investors, it seems also to be true for bank lenders that at any point in time their appetite for risk is in one of two states: risk loving or risk averse. Actually, in the boom phase, rather than risk loving, there is little perception of risk. Recent experience, and particularly the losses made in Russia and on developing country corporates¹ (especially in the East Asian crises countries), has contributed to bankers' aversion to developing country risk. This is occurring in a context where banks have become more generally risk sensitive and therefore more reluctant to assume risk. This is related to greater emphasis on shareholder value, which forces banks to reassess the balance of their activities against the criterion of rate of return, and not the volume of business. This pressure on shareholder value is being further encouraged by the growing importance and competition from capital markets. Increasingly banks behave more like portfolio investors, and use similar instruments such as credit risk derivatives. Furthermore, as increasing trend amongst banks to use VAR models not only increase risk sensitivity but also according to some analysts, contribute to herding and pro-cyclicality, (see Persaud 2002).

A second, positive major change, is that the average maturity of bank loans has increased. Thus, for all developing countries, the ratio of short-term to total debt fell from 54 per cent in 1996 to 46.5 per cent in 2000, according to World Bank data; the decline was particularly sharp for East Asia and the Pacific, where it fell from 1996 to 2000. One reason for this change is that borrowers have, as a result of the painful experiences of sudden loss of bank credit during recent crises, become reluctant to depend excessively on short term loans. Indeed, reportedly² several countries have adopted specific guidelines restricting short-term borrowing by banks and lengthening debt maturities. Some banks interviewed, argued that they would like to increase their short term exposure, especially to large banks (which they consider safe), but there is insufficient country demand.

In the case of low-income countries, especially in Sub-Saharan Africa, banks have traditionally concentrated on short term lending, typically related to trade finance, and have – on the whole – avoided medium term international bank lending. Their

¹ Interview material.

² See Neumann and Turner (2001) and interview material.

reluctance to make such medium term loans to poor countries has increased, even if the country itself has improved its fundamental and structural features.

A third major recent change (see again Table 2), is that international banks have been significantly increasing lending via domestic subsidiaries in local currency. This is made possible by the dramatic increase in foreign ownership by international banks of bank subsidiaries in developing countries, that is, banks ‘crossing the border.’ (Lubin op cit). Greater foreign ownership of banks is partly also a result of recent crises; these crises have significantly reduced the entry costs for foreign banks, not only through currency devaluations, but because crises led to an erosion of net worth of banks (Hawkins op cit). From the perspective of international banks, lending through subsidiaries has the advantage of allowing better quality control from lending officers located in specific emerging economies. However, the main advantages for the bank is avoiding a currency mismatch, and thus exchange rate risk.

These loans are funded locally via deposits in domestic currency. Though some bankers argue that local currency lending by foreign subsidiaries could potentially be complementary to international bank lending, recent trends suggest the opposite, that is a substitution effect. Indeed, bankers argue that there is a large redistribution of banks’ overall emerging markets portfolios, in which banks have substituted onshore for cross-border lending. From the perspective of developing countries, this may have some advantages, e.g. of possibly stronger and more efficient banks, as well as some smaller vulnerability to crises (however, the latter point seems far more doubtful after the Argentinean crisis). Foreign bank ownership also has large costs and other disadvantages. The cost, which can be very significant, is a smaller capital inflow to the developing country (with a one-off purchase via FDI of bank replacing a far larger stream of international bank lending). The potential disadvantages are that domestic lending by international bank subsidiaries may have certain biases not suited for developing countries. For example, in comparison with the domestic banks which they have replaced by purchasing them, they may be more focussed on lending mainly to large companies, and less oriented to lending to SMEs, which generate a high proportion of employment in developing countries. Furthermore, they may attach more priority to consumer lending (e.g. credit cards), especially to middle and high income persons, and less priority to lending to companies, especially for long term investment. Given the need in development countries for higher and more efficient investment, this may be very problematic.³ The effects on development in different categories of developing countries, of these new trends – increased bank foreign ownership, and of bank lending ‘crossing the border,’ – needs further careful empirical research.

To conclude, clearly the decline in international bank lending has a temporary element, largely linked to the memory of recent crises, and reinforced more recently by the slowdown in the world economy and its negative effects on developing countries’ prospects. If crises stop occurring and memory of them fades, and the world economy continues to recover, this temporary element could be reversed. However, more structural – and therefore more permanent – elements seem to play a fairly big role in the decline of international bank lending to developing countries. The main one seems to be increased ownership by international banks of subsidiaries in developing countries,

³ I thank Ricardo Ffrench-Davis for this point.

which allows them to ‘cross the border’ in their lending, with loans in local currency. Though such local currency lending could be complemented by international lending, there may be a strong incentive for banks not to do so on a significant scale, especially given increasing emphasis on risk sensitivity and the relatively high level of exchange rate risk in international lending to developing countries.

2.4 Portfolio flows

2.4.1 Equity flows

Portfolio equity flows to developing countries, which had grown significantly between 1990–97, fell after the East Asian crisis, though the decline was far less dramatic than that of bank lending. Furthermore, equity flows have become increasingly concentrated in very few developing countries. Thus, according to the World Bank (2001), *Global Development Finance in 2000*, just four countries – Brazil, China, Mexico and Turkey – accounted for around 85 per cent of all equity flows to developing countries. Equally important, the volatility of equity flows remains an issue. As the World Bank, *op cit*, points out, in three of the recent crises – Mexico, East Asia and Russia, mutual funds (which represent some of the most significant equity investors in emerging markets) withdrew large sums of money.⁴ Recent trends in portfolio equity flows to developing countries are in sharp contrast with global cross-border equity portfolio flows which have increased dramatically; indeed, according to Persaud (2001), those have risen fivefold from US\$268 billion in 1995 to an estimated US\$1.100 billion in 2000. Thus developing countries have a far lower percentage of global equity flows than in the mid 1990’s.

The process of allocation of investors' funds to invest in equity-globally and in developing countries – is quite complex, particularly as it involves different actors. We will very briefly outline it here, before we examine recent changes. Institutional investors – such as pension funds and insurance companies – as well as retail investors (wealthy individuals) and charities, are major actors in investment globally. In the case of pension funds, the ultimate responsibility for allocating funds falls on their trustees. However, particularly in the US and the UK, trustees rely on the advice of consultants, who advise on how – given the structure of their liabilities – they should broadly allocate their assets (typically including the per cent to be allocated to emerging markets), this is done via specialised asset liabilities models (ALMs). Once the broad allocative decisions are taken, one or several fund managers are chosen. These fund managers may have a global, a regional or country mandates; they may specialise in bonds and/or equities. In the case of developing countries, they may be a small part of a global fund, there may be specialised funds for all emerging markets, there may be regional ones (e.g. for Latin America, for the Far East, Sub-Saharan Africa or Eastern Europe), or there may even be country funds.

One of the more important new trends,⁵ is that since the mid 1990s there has been a sharp reduction of so called dedicated investors: emerging market country funds, which

⁴ For the East Asian crisis, see also Griffith-Jones et al. (2002).

⁵ Interview material.

have practically disappeared, and a decline in regional emerging market funds. This latter trend seems particularly clear for Sub-Saharan Africa funds. A far higher proportion of equity flows going to emerging markets is via so called ‘cross-over investors’, that is those originating from global funds, where a very small proportion of their portfolios goes to emerging markets. This is problematic, because dedicated investors reportedly tend to have a more long-term commitment than cross-over investors, and therefore have lower rotation and volatility.⁶ On the other hand, reportedly, cross-over investors have far more short-term commitment to emerging markets. The problem of reversibility and volatility is therefore made more acute.

As regards an explanation of the evolution of equity flows to developing countries; the 1990s can be described as ‘a history of two halves.’ In the first half of the 1990s there was great optimism about the prospect for emerging markets, with the expectation that higher returns would compensate for higher risks, and with the perception that emerging markets offered an interesting opportunity for portfolio diversification due to their low correlation with developed economies. As a result equity flows to EM grew systematically. The optimism even extended to Sub-Saharan Africa, which was called then ‘the last frontier of emerging markets’.⁷

However, since the East Asian and other crises, this optimism has declined, and so have the equity flows. The main reasons given are that in the second half of the 1990s, volatility in emerging markets was very high, returns were not only very low, (and on occasions negative), but also lower than in the developed markets – especially in the US – and finally – as these stock markets become more integrated into global financial markets – correlation between emerging and developed markets increased, though remaining lower than between developed economies; thus the gains from diversification declined. As a result, the promise that emerging markets would offer a higher economic growth, and as a result high returns, and lower correlation to compensate for higher risk was not fulfilled; and the risks were certainly seen as high, as one crisis in emerging markets followed another with alarming speed. There seems to be particularly little interest in investing in low-income countries in Sub-Saharan Africa, as overall disappointment with emerging markets was particularly focussed on these countries, even though they themselves did not have a currency crises.

There emerged also an additional, more structural factor, that inhibited equity flows. This relates to the fact that – from the point of view of portfolio investors – there are not ‘sufficient’ large companies left to invest in. Many of the most attractive, large and profitable companies (e.g. telecoms, energy and others), have been sold to foreign direct investors; this is particularly the case in Latin America or of green field investment. As a result, there is no room for portfolio investors. The remaining companies are seen as relatively too small or not attractive enough. Smaller and poorer economies are perceived to have a very few or no ‘sufficiently’ large companies for equity investors to put their money in.

An important new trend that has emerged in recent years is that a growing proportion of the issuing and trading developing country stocks take place in New York and London,

⁶ Interview material and IMF *International Capital Markets*, op cit.

⁷ For a more detailed discussion, see Bhinda et al. (1999).

via issuance of American and Global Depositary Receipts (ADRs and GDRs) as a consequence, a smaller proportion of this activity takes place in the stock markets of developing countries themselves. It could be said that, to some extent, developing countries are exporting their stock markets! There is here a contrast, between international banking – where the analysis and the decision-making of loans by international banks to developing countries is increasingly taking place in the countries (in local currency), and international equity investment in EMs, which is increasingly taking place in the major international financial centres.

The trend towards more issuance and trading of developing country stocks in the big financial centres is not unique; indeed similar trends are found in the smaller European countries. This trend is being driven by factors such as deregulation of capital flows, falling information costs and a rising preference for liquidity. The main factor seems to be investors' increased preference for liquidity.

The increased preference for liquidity has had some temporary elements, in the aftermath of the collapse of LTCM and of the terrorist attacks of 11 September. However, besides temporary after-effects of recent crises and problems, there are also important structural factors which suggest that investors will continue to be biased towards more liquid – and therefore larger – markets. A key factor is that the ‘crowd’ of international investors has grown; there is great concentration in huge institutional investors, who argue they are ‘too large’ for ‘small’ market's liquidity; as a result, if they switch a significant part of their funds, they can have large effects on prices. A second factor is that particularly cross-border investors herd more; according to Persaud (2001), the tendency to herd has increased both due to greater uncertainty on valuation (as the new economy is based on ideas and knowledge, which are more difficult to value than bricks and mortar), and due to the encouragement by regulators of short-term, market-sensitive risk management systems, which encourage investors with different mandates to act in a similar way. Given that these latter factors are part of more long-term trends this implies that liquid markets will become more liquid while illiquid markets will become less liquid. This has been a growing complaint in developing countries, such as Chile and South Africa, where large local companies either issue ADRs or switch primary listings altogether to New York or London. This further undermines liquidity in these developing country markets, as overseas investors no longer need to invest there. A particularly problematic aspect, from a development perspective, is that while very large companies will have access to international liquidity, relatively smaller companies will not; they will be restricted to the small stock markets with declining liquidity. Because medium sized companies not only often are more dynamic, but also are an important source of employment, this could have negative development implications. One policy implication that we will discuss more below is that stock markets in developing countries may need to concentrate on increasing their efficiency in raising capital for small companies.

2.4.2 Bond flows

Bond markets continued to fund emerging economies in the post Asian crises period, though at a significantly lower level.

For those countries that continued to have access to bond finance, four problems have emerged since the East Asian crises. One has been the very high cost of borrowing; as well as the volatility of the cost at levels well above pre-Asian crisis levels. A second

has been repeated market closures, which seem to be becoming more frequent, when issuance dries up. The IMF (2001) *International Capital Markets* report defines market closures as weeks during which bond issuance falls short of 20 per cent of the prior year's weekly average issuance; with this definition, US dollar emerging bond markets were closed for 16 weeks during 2000–01. One of the main reasons given for the increasing recent 'on-off' nature of recent market access is the above discussed current increased dominance of 'cross-over investors' of the investor base of EMs who can easily reduce or eliminate them. EM holdings if their outlook deteriorates, if there are better opportunities elsewhere, or if their risk aversion grows. A third problem has been reduction of average maturities. A fourth feature that has emerged since the East Asian crisis is the high concentration of bond lending to sovereigns, which is also a reflection of increased risk aversion, and which is problematic for developing country corporates. Reportedly, for corporates to be able to issue bonds internationally, they have not only to be very creditworthy, but also have international partnership or ownership, and have foreign exchange earnings.⁸

On balance, there is more preference, particularly by institutional investors, for fixed-income instruments, seen as less risky, however, in the case of EM bonds, there is also an important fall in appetite for that type of paper due to the increased perception of risk. As a result of recent crises, but especially as an effect of the Russian default, the market in bonds has become far more prone to panic in individual countries. If panic sets in among investors, this can undermine even countries with relatively good fundamentals. After the Russian default, investors learned that 'having the wrong bond, at the wrong time, with the wrong counter-party could lead to complete destruction'. Reportedly, the lesson drawn by many fund managers was that if problems emerge in a country, they abandon it entirely, and explain this to their clients that the country abandoned could be a repeat of Russia. This clearly has very negative implications for developing countries.

An important further point to stress is that, at least for some US investors, they mark their performance against benchmarks on a daily basis. Large falls in bond values can therefore impact very quickly the careers of fund managers, so they will be unwilling to stay in bonds that may fall sharply. After the Russian default, reportedly there is also a bias amongst analysts towards negative bias, in their country analysis, as there is strong criticism of analysts who wrote positive reviews on Russia. Besides the problems of Russian and Argentinean default, bond holders – and their associations – tend to deeply resent discussions on orderly debt work-out procedures in the framework of a new legal international bankruptcy procedure, which reportedly would further discourage new bond lending to emerging markets. On the other hand, the inclusion of collective action clauses (c.a.c.) is not seen as a major problem, especially after the UK and Canadian treasuries issued paper with c.a.c.s; this is true, even in the New York market, where previously there was little tradition of using such clauses, but where investors have become more relaxed about their inclusion.

⁸ Interview material.

3 The increased volatility of international financial markets

Financial markets have traditionally been inherently short-termist and volatile (see, for example, Keynes, Kindleberger and Minsky). However, the evidence gathered in this book seems to indicate that these markets both seem to have become more volatile and that this volatility has the potential to be transmitted in greater and more harmful ways on macroeconomic trends in developing countries.

Indeed, though the conventional view is that developing country fundamentals determine behaviour of international financial markets, there is increasing evidence that in many cases it is the endogenous behaviour of international financial markets that conditions or strongly influences fundamentals in developing countries (see Fitzgerald 2002). Thus demand and supply curves for emerging market assets are not independent; a supply-led large capital inflow affects the domestic economic situation (generating for example an asset price bubble) in a way that can increase the demand for assets. This makes regulation and other public interventions in international financial markets essential. The ever-increasing complexity of international financial markets complicates effective regulation. We hope that this book contributes to the understanding of different markets and provides useful policy suggestions for the design of appropriate international regulation and other changes.

An important element of increasing the volatility in international bank lending is the use of modern risk management models (such as Value at Risk or the related Daily Earnings at Risk). As Persaud (2002) points out, the intrinsic problem with market sensitive risk management systems is that they incorrectly assume banks act independently. In fact, banks' decisions are interconnected. As many banks try to sell the same asset at the same time, and there are few or no buyers, prices fall and volatility increases. As prices collapse, for liquidity reasons, banks try to sell another asset, which may have been previously uncorrelated, with the first. This not only increases volatility on the second asset, but also correlation. This will create repeated rounds of selling among agents adopting similar models, as generalised herding takes place. The adoption of banks' own risk management models for determining banks' levels of capital in the Internal Ratings approach, as proposed in the new Basle Capital Accord, can seriously increase the banks' own tendency towards pro-cyclicality of lending, exacerbating both booms and crashes (see Griffith-Jones and Spratt 2002).

An additional source of concern as regards pro-cyclicality of flows is that, though Value at Risk models were first developed by banks, there is evidence that similar models have been adopted to an important extent by fund managers and pension funds, leading to similar herding patterns, and to pro-cyclicality of their investment (see Persaud 2002). Furthermore, this means that herding does not affect only one class of actors (banks), but spreads across actors.

The problem is not just one of pro-cyclicality of flows, but also one of increased frequency of boom-bust cycles. As Williamson (2002), this is linked to the fact that financial markets are currently dominated by investment managers with a short-termist philosophy, who are willing – and able – to move in and out of different markets in a relentless quest for short term returns. This search for short-term returns is strongly influenced by the fact that fund managers are evaluated at very short-term intervals (Griffith-Jones 1998). Not only is it doubtful that this behaviour maximises long-term

returns; what is clear is that it does not maximise the usefulness of financial markets to developing countries that raise funds from them.

The problem of pro-cyclicality is further accentuated, especially in relation to bond flows to developing countries, due to the increased influence and impact of rating agencies on the terms (and magnitude) at which developing countries can tap world bond markets. As Reisen (2002) shows, sovereign ratings still lag rather than lead markets, and have an important pro-cyclical effect – especially on the bond market – improved ratings reinforce euphoric expectations and excessive capital inflows during booms, whilst during crises downgrading of ratings adds to panic among investors, causing capital outflows and increased spreads. Unfortunately, in spite of criticisms after the East Asian crisis, pro-cyclical indicators still play a very large role in determining ratings, rather than using indicators that ‘see through the cycle’ (see Reisen 2002). The impact on flows is increased by the requirement of certain institutions, e.g. pension funds, to sell once ratings fall below a certain level; this is particularly marked in the fall from investment to non-investment grade ratings. The use of the proposed Basle Capital Accord could similarly increase pro-cyclicality of bank lending, both domestically and to a lesser degree, internationally (see again Griffith-Jones and Spratt 2002).

The large growth of derivatives in recent times can have positive effects on hedging or managing risks associated with capital flows, for individual investors and lenders. During normal times, the unbundling of risk, and increased liquidity offered by derivatives is positive. However, derivatives – even if used by foreign and domestic companies to hedge their investment – can contribute to downward pressure on emerging market currencies, and can even precipitate or seriously deepen the devaluation, as investors rush to hedge their currency exposure in anticipation of a possible currency crisis or to meet collateral requirements once the currency and asset prices fall. We have already discussed above the use of foreign exchange forwards and swaps (for example by foreign direct investors), and their possible negative impact on capital flows and/or the exchange rate in the lead up to a crisis. Perhaps even more damaging – as Dodd (2002) explains – is the use of total return swaps (TRS). The TRS is a contract where one leg is based on the total rate of return of some underlying asset, security or security index, and the other leg is based on an interest rate, usually LIBOR. As the swap replicates positions, and thus does not involve ownership or debt, the only capital it involves is the posting of collateral. It is not subject to regulatory restrictions on foreign exchange exposure. The TRS can be more problematic than short-term loans, if the sudden value of the swap drops (e.g. because the exchange rate falls), the local swap holder needs to immediately post additional collateral with her counterpart. Typically, this requires selling other assets immediately (even intra-day), which can result in large and immediate currency outflows. As Dodd, *op cit*, points out, if short-term bank loans are considered hot money, then payments to meet margin and collateral are microwave money, getting hot far quicker.

4 Policy implications

We have seen from our analysis, that capital flows to developing countries pose two clearly separate, though related problems. One, analysed in Section 2, is that there may be a new problem, a structural decline in capital flows to both emerging and low-

income countries, (especially to the former), for a considerable period. The second, analysed in Section 3, is the strong tendency – reinforced in recent periods – for capital flows to developing countries to be pro-cyclical and short termist. We will therefore divide our policy suggestions in two sections, focussing on encouraging a recovery of private flows to developing countries, especially long-term ones and the second on measures to diminish the pro-cyclicality and short termism of such flows.

A clear conclusion from our analysis is that private capital flows to different categories of developing countries have fallen significantly since the East Asian crisis. The decline in private flows seems to be caused to an important extent, by the structural factors outlined above, and therefore may be more permanent.

An important and high priority task therefore is to design measures that will encourage a return of sufficient private flows to developing countries, especially of more stable flows, and particularly including low-income countries.

Even before doing so, it seems important to avoid or reduce existing or future international measures that further discourage private flows to developing countries. A good example is the discussion of the new Basle Capital Accord, where it is important that the resulting final accord does not excessively further discourage bank lending to developing countries, increase its cost and its pro-cyclicality.⁹

As regards policy measures to encourage lending and investing in developing countries, we can distinguish those to be taken by: a) recipient countries and b) by developed countries. In this section, we concentrate on the latter.

4.1 Encouraging lending and investing in developing countries

As regards bank lending and bond issuance, an important issue to explore is how to better develop and expand public guarantees or collateralisation of loans, especially in periods of increased perception of country risk. Mechanisms such as guarantees only on interest payments could be explored, as these could provide additional leverage. A particularly important area where improved public guarantees could play a big role is in encouraging private investment in infrastructure, especially but not only in low-income countries.

The possibility of using tax incentives also needs to be evaluated carefully, both in source and recipient countries. Could, for example, tax relief in developed countries to savers for pensions be somewhat higher, if that pension fund invested a somewhat higher proportion in long-term investments in developing countries, e.g. with a minimum holding period. This would be particularly justified if evidence emerges that on average returns on those investments were higher than on other investments. Could tax incentives also be used to encourage other investment/lending to developing countries? Or could other mechanisms, such as socially responsible investments, which are an increasingly important share of pension fund assets be modified so that one of their criteria is that they invest a certain part of their assets in long-term investment in developing countries? In the case of taxation, how in practice would such a mechanism work?

⁹ See Griffith-Jones and Spratt (2001), Reisen (2001) and Goodhart (2001).

As regards bonds, some specific policy suggestions were made by market participants, whose net benefits for developing countries as well as their feasibility, may need to be explored further. A very specific proposal was that more developing countries' governments should emulate developed country governments and have pre-announced a schedule of borrowing; this, reportedly would lead to a more efficient and liquid market for their paper, but could have – specially in the short term – negative effects on their cost. Another more ambitious suggestion relates to the possibility of establishing a regional mechanism, e.g. a Latin American Borrower Authority, that would pool the risks of various countries in the region and would be capitalised up front; possibly with the capitalisation funded by developed economies; this mechanism could lower the cost of bond borrowing for developing countries. The positive experience of the Andean Development Corporation (Corporacion Andina de Fomento), which is able to issue paper at a cost significantly lower than its member countries, provides an important precedent.

Finally, as regards bonds, there is the difficult policy issue on how radical and how formalised should be *ex ante* rules for orderly debt work-outs and standstills in times of distress. This issue has been amply debated. It just seems worthwhile to stress here that there may be important trade-offs between valuable greater flexibility and speed for debt resolution in times of crises (including the existence of an international legal mechanism to reduce debt in cases of insolvency via international bankruptcy procedures, which may be very helpful for avoiding declines in output or growth during crises) and possibly important negative effects on the ability of raising future new money, and/or increasing its cost significantly. The inclusion of collective action clauses and the use of exit consent mechanisms, provide intermediate solution, that may be both effective for rescheduling and reducing debt, as well as allowing access to new money. This intermediate solution seems also to have the advantage of greater speed of implementation.

As regards portfolio equity, flows and equity markets, policy actions seem desirable not only to attract more equity flows though care must be taken that foreign equity in flows, beneficial for deepening liquidity of domestic stock markets, does not excessively increase their volatility, but also to ensure that a higher share is traded in developing countries' own stock markets. One important measure to consider is that of creating regional or sub-regional stock markets; important lessons can be here learned from Europe, where the smaller stock markets are uniting to pool liquidity. Another important measure is that, given that large companies may leave, smaller exchanges may need to focus on trying to help raise foreign capital for relatively smaller, but potentially dynamic, companies.

Further study is required in all these areas; above all, there is urgency in moving forward on implementation, given the sharp fall in private flows.

4.2 Diminishing pro-cyclicality and short-termism of flows

A major challenge is to create *counter-vailing forces* that will dampen the natural tendency of financial markets to pro-cyclicality and short-termism, tendency that has been accentuated by the above outlined changes (see Section 3 in this paper and previous supply side papers).

There are two ways of creating such counter-vailing forces, which are complementary. One is action to be taken within the financial industry itself. The other are measures to be taken by public authorities, especially regulatory ones. An innovative suggestion to create counter-vailing forces to the market's tendency to volatility is to attempt to create market stabilisers, via for example, greater use of insurance instruments. Similarly, to deal with liquidity holes in emerging markets, there is a need for creating market makers.

Other measures that market actors could themselves take, could include those taken by the final investors, especially institutional investors with long-term liabilities, such as pension funds. As the UK *Myners Review* argues, to overcome the short-term (quarterly or monthly) evaluations of fund managers, it is crucial that pension fund trustees clarify the period over which they will evaluate fund managers, and link it more to a time horizon relevant to their particular liabilities.

This could be particularly relevant for their emerging market assets, where yields over longer periods are more likely to be higher than in other markets. More broadly, pension fund trustees – and other institutional investors – should clarify their own investment objectives, again linked to what is necessary to meet their future liabilities, and set objectives for their fund managers coherent with these objectives.

Fund managers, in turn, should use different risk management systems and models for their different clients, making them better match the diversity of investment objectives. Furthermore, particularly if the ultimate investor has long-term liabilities, it is crucial to use risk models which have been developed that 'see through the cycle.' Both the greater diversity of models and the use of models that 'see through the cycle', would encourage stability and discourage herding and short-termism, encouraged by current use of the same models and by their problematic nature (see Section 3, and Persaud 2002).

A key question is whether market actors can, by themselves, take such actions, or whether encouragement – or indeed formal regulation – may be required from regulators. At the very least, it seems important that regulators have as an important objective to encourage a diversity of risk-management systems and models that better match the diversity of investment objectives, as well as the characteristics of different investors or lenders. Equally, as Persaud (2002) points out, regulators could research structural, non-market sensitive measures of risk (such as degree of duration or currency mismatch), and encourage fund managers to use them. The use of more appropriate and different models would encourage diversity, thus discouraging herding. Furthermore, regulators could encourage more long-term assessment that investors make of fund managers' performance (well beyond the traditional 1–3 months). Possibly encouragement may not be sufficient, and more mandatory regulatory action needs to be taken. An institutional aspect needs to be highlighted in that there may both be institutional regulatory gaps in these aspects, and/or existing regulators do not normally regulate the above aspects. This may therefore require a special effort by some regulatory authorities, which are not sufficiently focused on issues such as cyclicity, herding and short-termism.

Another area where either investors and/or regulators should focus on changing, is the current practice that investors – like insurance companies – cannot hold bonds that are less than investment grade. The problem is that this requirement is specified in terms of

what paper they may hold, not what they can acquire. As a result, in crises investors mechanically sell, deepening the crisis, even if the long-term prospect of the country is good (see Williamson 2002). Such requirements should be modified to limit what investors can *buy* rather than what they can hold; this would not only make bond lending more stable, but also reduce the premium on short-termist assessment of whether and when ratings may change.

In an area where regulators do have power to act – bank regulation – it is important that: a) they are careful not to exacerbate the risk of damaging greater pro-cyclicality when they introduce market risk sensitive models or the use of ratings by ratings agencies for determining capital asset ratios and b) that they introduce explicit counter-cyclical elements in bank regulation, such as forward looking general provisions in boom times, or even higher capital adequacy ratios in good times, which can both discourage excessive expansion of bank lending in good times and provide a cushion to facilitate sustaining bank lending in bad times. The Spanish provisioning systems provides a concrete practical example of implementing, at least partially, such principles of counter-cyclical regulation. More generally, regulators could require prudential provisions (or required capital) when the growth of loans – and/or key asset prices, such as of stock markets – either accelerates sharply, or exceeds some long run average measured at least over one cycle; symmetrically, such charges can be used, when loan growth falls below this average, decelerates sharply or even more, becomes negative. (see Ocampo 2002).

As regards rating agencies, Reisen (2002) shows that their methodology is still pro-cyclical. A strong case seems to arise therefore for regulation of rating agencies, especially of their methodology, for example, to help to ensure that the sovereign ratings they produce focus on objective indicators, and especially on variables that ‘see through the cycle’. Given the influence and power of rating agencies, and the problems with the quality and pro-cyclicality of their assessment of sovereigns, there seems to be a strong case for some regulation of their activities as well as of transparency on the methodology and criteria they use to determine ratings.

As regards derivatives, an area where there has been much recent growth, there is a certain lag in regulation. As Dodd, in this volume points out, it is first necessary to improve reporting and registration requirement; improved transparency, both contributes to greater market efficiency and is a *sine qua non* for appropriate regulation. A second area of regulation is necessary to prevent or discourage market practice that is pro-cyclical and may create a crisis accelerator. This involves requiring appropriate levels of capital requirements for all financial institutions, including derivative dealers; this is particularly important in developing countries, where such requirements often do not exist. Equally, or more important, is to require adequate and appropriate collateral or margin to be posted and maintained on all derivatives transactions at all times. This would help deal with current market practice for managing collateral, in so far as there is one, which is dangerous. This is to require small initial collateral levels, but then requiring firms to become ‘super margined’ if its credit ratings drop substantially, especially below investment grade. This requires a derivatives counter party to post substantial amounts of additional collateral; in the case of developing country counter-party, it may force capital outflows, just as a crisis approaches or explodes.

In synthesis, regulators need firstly to focus on generating counter-vailing or counter-cyclical measures and actors, to help compensate for the natural tendency of financial

markets towards pro-cyclicality, accentuated by modern trends. This they have not yet done, or have done so only to a very limited extent. Furthermore, one of the conclusions of this study is that pro-cyclical and herding behaviour can lead to complex and problematic interactions between different actors and flows. For example, a downgrade by a rating agency of a particular sovereign (especially from investment to non-investment grade), can at present cause investors to immediately sell the bonds of a particular country; simultaneously domestic counter-parties of derivatives may have to meet margin calls, leading to capital flows; banks may stop lending, because of their own risk evaluation, which may be reinforced by Basle 2. This implies that regulators need to increasingly look not just at risks of particular actors but at the interaction between risks of different actors, as they affect the same borrower or capital recipient, as well as the potential of risk increases spreading across borrowers. This is a complex task. Furthermore, it argues for the advantages of far increased co-ordination – or even better – integration, where feasible, between regulators in different countries and also internationally.

Besides regulatory measures, tax incentives can also be used to encourage more stable and long-term investment. In Section 4.2, we have suggested the use of tax incentives to encourage investment to developing countries, in general; such tax incentives could furthermore be tapered, so that the tax incentive only kicks in or increases the longer term investment.¹⁰ There are precedents in the existing legislation, both in the UK and in France, for tax incentives to increase, the more long-term the domestic investment is, what we are proposing is that a similar tapering of tax incentives be applied to investment in developing countries.

¹⁰ I thank Jenny Kimmis for this point.

If capital flows are driven largely by domestic factors, developing countries can attract a steady and predictable flow of foreign capital and minimize cycles by adopting sound macroeconomic and financial policies. However, if capital flows are driven largely by external factors, developing countries are vulnerable to unexpected external shocks even if they maintain prudent policies, and they must take measures to insulate themselves. Research suggests that both external and domestic factors contribute to capital flows, but their relative importance appears to vary over time. World Bank. 1997. *Private Capital Flows to Developing Countries. The Road to Financial Integration*. Washington, DC: The World Bank and Oxford University Press. We show that the allocation of capital flows across developing countries is the opposite of this prediction: capital does not flow more to countries that invest and grow more. We call this puzzle the "allocation puzzle." Using a wedge analysis, we find that the pattern of capital flows is driven by national saving: the allocation puzzle is a saving puzzle. Further disaggregation of capital flows reveals that the allocation puzzle is also related to the pattern of accumulation of international reserves. The solution to the "allocation puzzle", thus, lies at the nexus between growth, saving and international reserve accumulation. We conclude with a discussion of some possible avenues for research. Keywords: Capital Flows, Productivity, Growth. JEL Classification: F36, F43. Measuring PPP-adjusted Capital Flows. Data. *Capital Flows to Developing Countries: The Allocation Puzzle*. —. Pierre-Olivier Gourinchas. First, it is related to other papers on the determinants of capital inows to developing countries, and on their role in economic development. Aizenman, Pinto and Radziwill (2004) construct a self-financing ratio indicating what would have been the counterfactual stock of capital in the absence of capital inows. They find that 90 percent of the stock of capital in developing countries is self-financed, and that countries with higher self-financing ratios grew faster in the 1990s. Prasad et al. Why would capital flow to a place just because there is a relatively lower level of capital per worker? 46 views. 1. But just to provide a slightly different perspective, we could ask "Do developed or developing countries take greater advantage of the opportunities created by trade?" The standard answer from economics is that the country with the lower trade barriers benefit the most from trade, in the sense that their citizens are able to obtain goods and services at world prices rather than at the higher prices they would face if the government protected domestic producers with trade barriers, thus driving up prices for domestic consumers.