

REGULATORY CHALLENGES FOR SOURCE COUNTRIES OF SURGES IN CAPITAL FLOWS

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I THE EMERGENCE OF FOREIGN PORTFOLIO INVESTMENT AS A PRIMARY CHANNEL FOR CAPITAL FLOWS TO DEVELOPING COUNTRIES

One of the more surprising developments in international financial markets over the last decade has been the growing role of foreign portfolio investment as a channel for international capital flows to developing countries. This is not, however, the first time there has been an abrupt shift in channels or in the volume of flows to these countries (see Table 1). In the period 1977 to 1982, for example, commercial bank lending was the dominant channel and the largest lenders were U.S. multinational banks lending primarily to middle-income countries, particularly but not only in the Western Hemisphere. Although loans were also the primary channel for flows to Asia in this period, the World Bank and the regional development banks provided a larger share of total lending to low-income Asian countries and to Africa than did commercial banks. Foreign direct investment was an important channel for flows to all regions in these years but portfolio investment was relatively unimportant and largely involved bond issues in the Euromarkets by a few of the more credit-worthy developing countries.

The second oil price increase in 1979, the ensuing recession in the industrialised countries and the shift in U.S. macroeconomic policy in the period from 1979 to 1982 ushered in a new and difficult decade for developing countries. The Mexican debt crisis in 1982 quickly escalated into a Third World debt crisis that involved a large number of countries, particularly in the Western Hemisphere, Africa and Eastern Europe. It is interesting that most Asian countries did not suffer a debt crisis on the 1980s. While all foreign debt became more difficult to service, servicing the dollar-denominated, variable rate debt owed to commercial banks

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became sharply more expensive as U.S. interest rates rose, and the dollar appreciated against the currencies of most other countries. The cyclical downturn in industrialised countries reduced prices and volumes of exports, making it more difficult to service all external debt.

In the period 1983 to 1989 there was a marked decline in net international capital flows to developing countries, largely due to the very high negative net transfer of financial resources from Latin American countries to banks. Foreign direct investment was the only channel for net capital flows into countries in the Western Hemisphere in these years. Foreign direct investment increased in other developing countries as well, particularly in Asia. Asian countries continued to be attractive to the international banks that continued to lend - especially to Japanese banks with opportunities to invest growing current account surpluses and incentives to follow Japanese direct investors into developing countries in Asia.

The slowdown in international capital flows to developing countries in the 1980s contributed to larger flows to industrialised countries, particularly the United States, while the decline in international bank lending encouraged the growth of the Eurobond market as a source of financing for corporations and governments of OECD countries. As the Eurobond market became the dominant channel for international capital flows and an increasingly attractive substitute for more expensive domestic markets in some industrialised countries, it became more difficult for countries with low credit ratings to attract external capital. Although Middle Eastern countries issued large amounts of international bonds in this period, external bond markets were closed to most developing countries. International investors' growing interest in foreign equities also diverted flows away from developing countries in this period as more funds were invested in the U.S., UK and Japanese stock markets.

As the industrialised countries shifted into recession in 1989-1990, and particularly as U.S. interest rates fell, there was once again an abrupt shift in the direction of international capital flows with substantially larger flows to developing countries. By 1993, the aggregate net inflow to developing countries was 2% of world saving, up from 0.8% in 1990 (International Monetary Fund [IMF], 1995). As Table 1 shows, the growth in net foreign portfolio investment in all developing countries in the period 1990-1994 was extraordinary and flows to Latin America were predominantly through this channel. In the late 1980s, portfolio flows to

Latin America averaged \$3 billion annually; by 1993 they had increased to \$56 billion (**that is an increase of 1,700% in that period**), although they fell in 1994. In the same period, portfolio flows to Asia grew from \$1 billion in the late 1980s to \$25 billion in 1993 (**an increase of over 1,900% in that period**), although they fell in 1994 (Griffith-Jones and Cailloux, 1997). In parallel, the capitalisation of emerging markets doubled between 1987 and 1990 and grew at an even more rapid pace in the years 1991-1994 (see Table 2). Moreover, emerging markets' share of world market capitalisation jumped almost three-fold from 4% in 1987 to 11.6% in 1993. By 1994, stock market capitalisation in Chile, Hong Kong, Malaysia and Singapore was comparable to that of the United States and the United Kingdom in relation to GDP, market capitalisation in relation to GDP in Mexico and Korea was larger than in Germany and France (Bank for International Settlements [BIS], 1995).

A Developments Contributing to the Growth of Foreign Portfolio Investment

The increased flows of securities investment from industrialised countries to emerging markets was made possible by a number of developments in all the countries involved. One critical development was a marked change in investment patterns in the national markets of the major industrialised countries in the 1980s. The so-called institutionalisation of savings - that is, the choice of pooled funds held by pension funds, life insurance companies, mutual funds and investment trusts as repositories for the majority of savings - increased the share of funds invested in securities and enhanced the role of institutional investors compared to that of depository institutions. In the United States, for example, the share of total financial sector assets held by institutional investors rose from 32% in 1978 to 52% in 1993, while the share of depository institutions fell from 57% to 34% over the same period (Federal Reserve System [FRS], *Flow of Funds*). There were equally dramatic increases in assets of institutional investors in other G-7 countries as well. Measured as a percentage of GDP, their assets doubled over the period from 1980 to 1992 in the United Kingdom, Germany and Japan, and almost doubled in Canada (see Table 3). By 1993, the assets of UK and U.S. institutional investors had risen to 165% and 125% respectively of GDP. They continued to increase in the mid-1990s and are projected to continue doing so.

As the assets of institutional investors expanded, their diversification strategies increasingly resulted in an expansion of cross-border investments. Cross-border transactions in bonds and equities among the G-7 countries (excluding the United Kingdom) rose from 35% of GDP in 1985 to 140% in 1995 (BIS, 1996). This was possible because all industrialised countries had removed exchange controls in the 1980s and were adopting full capital account convertibility by the early 1990s. Similarly, the shift toward foreign portfolio investment in emerging markets became possible when many developing countries began to relax exchange controls and open their capital account at the end of the 1980s and the beginning of the 1990s. These actions increased opportunities for cross-border investment by residents of all countries. Institutional investors increasingly saw international diversification as beneficial, which made them willing to take up these opportunities. Drawing on modern portfolio theory, a number of studies using long term data showed that investors free to choose foreign assets can obtain a significantly better risk/return trade-off than if they are restricted to assets from one country (Fischer and Reisen, 1994). Also it has often been argued that diversification into developing country markets is particularly beneficial, especially because there is low correlation of returns yielded between the emerging stock markets themselves and in relation to developed stock markets (while OECD stock markets are quite highly correlated). Also, on average developing countries are expected to grow faster than developed ones, leading to higher dividend growth and share price increases (Reisen and Williamson, 1994).

Another critical development that contributed to the rise in foreign portfolio investment over the last decade was the worldwide wave of privatisations initiated by the Thatcher government in the United Kingdom in the early 1980s that culminated in the restructuring of Third World economies and formerly centrally planned economies in the 1980s and 1990s. Privatisations of state enterprises in a growing number of countries greatly expanded the menu and volume of financial instruments available in national equity and bond markets for purchase by foreign portfolio investors.

B The U.S. Role in Foreign Portfolio Investment

Over the last two decades, the United States has continued to be both a major recipient of, and source for, international capital flows. There were large net capital inflows into U.S. markets throughout the period 1982-1994, and substantial inflows of foreign private portfolio investment in every year from 1985 to 1994 though with quite sharp fluctuations, except for 1990 when there was a small outflow, (see Table 4). The U.S. experience with surges of foreign investment in the 1980s created problems similar to, but less severe and with less severe impact on the domestic economy, than those experienced by some emerging market countries in the 1990s: an overvalued currency, rising current account deficits and a boom in consumption that led to a massive increase in domestic debt. The aggregate debt of U.S. borrowing sectors - government, households and businesses - more than doubled in the seven-year period from 1983 through 1990, from \$5.4 trillion to \$10.9 trillion (FRS, *Flow of Funds*). This was, obviously, an unprecedented development in U.S. financial history.

Just as the explosion of debt in the United States would not have been possible without sizeable increases in net capital inflows, sizeable increases in capital flows in the early 1990s (particularly of portfolio flows) to developing countries - especially dramatic in the case of Latin American and later to Asian countries - would not have occurred if U.S. institutional investors had not played a dominant role in channelling funds. While net capital outflows from the United States in the period 1990-1992 were not large compared with earlier years, the share of the total attributable to foreign portfolio investment was unprecedented. **Foreign portfolio investment accounted for over 65% of total U.S. net private capital outflows from 1990 through 1993, falling to only 38% in 1994 (see Table 4).**

Major sources for foreign portfolio investment in developing countries were the predominantly U.S.-based emerging markets mutual funds, which led the surge in investment in emerging market equities. Information on mutual funds' assets suggests that they were the dominant channels for portfolio flows to Asia and an important channel for Latin America (see Table 5). The combined assets of **all** closed and open ended emerging market funds grew from \$1.9 billion in 1986 to \$131 billion at mid 1996; a high proportion of these funds were U.S. based (World Bank, 1997). These trends have meant that **emerging markets are accounting for a**

rising proportion of international investment by mutual funds. More than 30% of new international investment by U.S. mutual funds went to emerging markets during 1990-1994 (World Bank, 1997).

U.S. pension funds have followed, investing through mutual funds or directly on their own account. Even though they began investing more recently in emerging markets, according to World Bank, 1997, op. cit, allocations of U.S. pension funds to emerging markets are now comparable with those of mutual funds. Reportedly, U.S. pension fund investments in emerging markets, including investments made on their behalf by mutual funds, have been a significant factor in propping up investment in emerging markets during 1994 and 1995. This may indicate that flows originating in pension funds are less volatile than those originating in mutual funds. More information and data are required than are currently available on flows from mutual fund and pension funds to emerging markets and their interactions, particularly as these evolve so rapidly, and as systematic information is so scarce.

Additional evidence of the dramatic increase in foreign portfolio investment to developing countries in the period 1990-1993 is shown in the regional breakdown of all industrialised country securities investment flows to emerging markets in Table 6. There was a four-fold increase in total annual flows to all emerging markets in these years with a nine-fold increase in flows to Mexico. The rapidity of the shift in both the volume and channel of flows is indicated by the rise (from 0.5% in 1987 to 16.2% in 1993) in the share of total industrialised country foreign securities investment flows invested in emerging markets. A very rapid increase had occurred in 1990 when there was an \$18 billion foreign securities investment inflow into emerging markets in the Western Hemisphere after net outflows from this region in previous years and despite an overall drop of \$100 billion, or 62%, in total industrialised country foreign securities flows as the OECD countries moved into recession. Both the scale and abruptness of the inflow into Latin America in 1990 announced the nature of the problems associated with this channel for capital flows to developing countries.

Surges of capital flows to developing countries pose two major sets of challenges to those countries' economic authorities. Firstly, they pose important policy dilemmas for the macro-economic management of large inflows, particularly to avoid surges leading to over-valued exchange rates and excessive expansion of the money supply (Ffrench-Davis and Griffith-

Jones, 1995). Secondly, they pose the risk of sharp reversal, should conditions (economic or political) in the country and/or in the international economy change, as was illustrated dramatically by the Mexican peso crisis (Griffith-Jones, 1997). There is some preliminary empirical evidence that there is a “hierarchy of volatility”, and that securitised flows may be more volatile than medium-term bank loans, as - provided the markets are liquid - the stock of securitised flows can leave a country in a few hours, whereas in the case of medium-term bank loans, even in a very serious crisis like the 1982 debt crisis, the stock of the debt cannot leave the country. Speed of inflows (and especially outflows) is further facilitated by technological developments, like computers. Furthermore, the speed with which capital flows in (and out of) countries also seems to relate to the growing importance of global institutional investors described above, which would imply that flows to emerging markets are now mainly driven by liquidity and short-term performance considerations rather than the more long-term banking relationship of the past. As a consequence of the increased speed with which capital flows in and out of countries, there is a growing asymmetry with other markets, e.g. goods markets or labour markets, which makes the adjustment process more difficult. Also, there is a growing asymmetry between speed of movements in capital flows, and the slower speed with which the political process can respond to such movements. The speed with which the assets of these institutional investors have grown, combined with the fact that this growth coincided with a period of liberalisation of financial markets, has implied that flows originating from those global institutional investors are almost completely unregulated in their source country, particularly as regards market risks. We will return to this latter issue below.

II EFFECTS OF CAPITAL INFLOWS ON DEVELOPING COUNTRIES’ MACROECONOMIC POLICIES

After the Mexican peso crisis in 1994, discussions focused on how developing countries should handle capital inflows. The Bank for International Settlements 1995 *Annual Report* stated that it is “...now widely agreed that prudence in liberalising capital inflows implies that short-term operations should not be free until the soundness of the domestic financial system is assured.” As the IMF noted, most developing countries that had experienced inflows had taken measures to limit their impact because of concern about the effect of exchange rate

appreciation on the competitiveness of their tradable goods sectors and because the volatility of capital flows adds to the vulnerability of their financial systems (IMF, 1995).

The measures adopted by various countries to cope with surges of capital flows included sterilised intervention through open market operations or increases in reserve requirements, increased exchange rate flexibility and/or discouraging certain types of capital inflows. Evaluations of their experiences by the BIS and the IMF concluded that sterilisation policies had proved to be short-lived and their effectiveness in mopping up liquidity tended to cause a rise in interest rates that preserved the incentive for capital inflows. A flexible exchange rate policy presented other problems. While it gave more control over monetary aggregates and exerted downward pressure on inflation, it resulted in real appreciation and a deteriorating current account position. It also led to surges in lending over which the central bank had no control if inflows were not intermediated by the banking system but entered directly through portfolio investment. Thus, given the limitations of monetary policies in cushioning the impact of capital inflows, several emerging market countries (e.g. Chile, Colombia, Brazil, Indonesia, Malaysia, the Philippines and Thailand), imposed or retained measures to discourage certain types of capital flows during the first half of the 1990s (BIS, 1995; IMF, 1995; French-Davis and Griffith-Jones, 1995). It is interesting that the IMF (1995), the World Bank (1997), and the BIS (1995) now very explicitly recognise that - though having some limitations - measures taken by recipient governments to discourage short-term capital flows may play a positive role if they are part of a package of policy measures that lead to sound macro-economic fundamentals. Therefore, it has become fairly widely accepted that regulation by recipient countries of excessive surges of capital can be a desirable policy.

However, no complementary action by source countries has been taken to regulate in any way potentially volatile flows from them; such regulation would both protect their domestic investors (especially, but not only the less informed retail investors) and discourage excessive surges of potentially volatile capital flows to developing countries, which can be so disruptive of those countries' development. The proposal developed below (based on risk-weighted capital charges for institutional investors such as mutual funds) is in the mainstream of current regulatory thinking which sees risk-weighting as the key element in regulation

It is also in the mainstream of current theoretical thinking on capital markets. Stiglitz has highlighted how the existence of asymmetries of information give rise to market imperfections, which put into doubt the first fundamental theorem of welfare economics - that markets are efficient. Stiglitz had shown that when markets are incomplete and information is imperfect, the actions of individuals have externality - like effects on others, which these individuals fail to take into account. Mishkin (1996) shows, securities' markets are particularly imperfect, largely because asymmetries of information are particularly acute. This leads to adverse selection problems being specially profound, as low quality firms will be more eager to issue securities; furthermore the possible market solution to this problem - the private production and sale of information - leads to the free rider problem, as people who do not pay for the information can still use it, this results in too little private production and sale of information, implying that adverse selection remains a problem. More importantly, the free rider problem makes it less likely that securities' markets will act to reduce incentives to commit moral hazard. Monitoring and other measures are needed to reduce moral hazard, to help lenders prevent borrowers from taking risks at their expense; because monitoring and other measures are costly, the free-rider problem discourages this kind of activity in securities' markets.

A valuable insight deriving from the asymmetric information analysis is that - because moral hazard and adverse selection problems are endemic to all market situations - the market failures are pervasive in the economy. Intervention by governments (e.g. by taxes or regulation) is potentially desirable in most sectors. However, the practical information needed by governments to implement corrective measures may not be available, or the cost of administering such measures may exceed the benefits where the markets' distortion is small. Thus, Stiglitz (1995) conclusion seems very reasonable that governments should focus attention and efforts in those instances where there are large and important market failures; he rightly highlights imperfections of capital markets as a prime example. International capital markets are particularly prone to very large market imperfections, as the problems of asymmetric information are so serious.

The question could be asked why source countries need to regulate international capital market flows, or whether it would be enough for recipient countries to do so, particularly as these flows are a larger proportion of the latter's economies. Source countries need to take measures to discourage potentially unsustainable short-term capital flows coming from them,

even though some recipient countries are also doing so for two specific reasons. Firstly, even recipient countries - like Chile and Colombia - which have deployed a battery of measures to discourage or limit short-term capital inflows have on occasions found these measures insufficient to stem very massive inflows, with problematic effects on variables such as exchange rates. Secondly, some important recipient countries do not discourage short-term capital inflows or do not do so sufficiently. Particularly if combined with inconsistent macro-economic policies, this may lead to a crisis, which is not only very costly for the recipient country and its people (especially the poorer sectors of the population), but may result in the source country government acting as a lender of last resort, not only to protect its own investors, but also to avoid a damaging crisis in the recipient country and prevent its spread to other emerging markets. This was illustrated by the scale of the massive financial package put together by the international financial community and by the U.S. Treasury during the Mexican peso crisis. To make it less likely that such a lender of last resort facility will be used again and reduce “moral hazard” on the part of institutional investors - that is, discourage excessively risky investment in the expectation that there will be a bail-out if “things go wrong” - source countries will need to impose some additional regulatory and/or disclosure restrictions on institutional investors, to help avoid excessive surges of easily reversible capital inflows to emerging markets. Furthermore, given the important shift in the channel for savings toward institutional investors and the growing diversification of these investors into emerging markets, there is also a case for new regulatory strategies in source countries to protect retail investors who put their savings in mutual funds and who are beneficiaries of pension funds.

III PROPOSALS TO INCREASE MARKET STABILITY OF PORTFOLIO FLOWS TO DEVELOPING COUNTRIES

A Introduction

In the past it was thought that regulatory strategies appropriate for banks were very different from those appropriate for securities markets. In the United States, for example, requirements for disclosure of material information and the prevention of fraud were considered essential and sufficient to protect the public, promote public confidence in securities' markets and thereby enhance market stability. Similar criteria exist in the other developed economies. While requirements for diversification do apply to mutual funds, liquidity requirements such as levels of cash reserves or the requirement for insurance coverage to promote confidence do not apply. Nor is enough account taken of the impact of national macro-economic developments (known by securities' regulators as "market risk", to include variables such as exchange rates and interest rates) on securities' markets. The effect of "market risks", that is of national macro-economic developments (and even international factors, such as U.S. interest rates), are particularly crucial for determining the evolution of securities' markets in developing countries.

Now, however, views on the appropriateness of certain soundness strategies for mutual funds are changing, at the same time that the importance of "market risks" for institutional investors is beginning to be stressed more by securities' regulators. Even so, market risks in emerging markets still seem particularly poorly evaluated, both by the institutional investors and their regulators, largely because large investments in emerging markets are very recent which makes the problems of asymmetries of information particularly large. Nevertheless, as institutional investors have assumed a dominant role in financial markets, and as some of the differences between banks and mutual funds blur, some of the strategies used to promote public confidence in banks are beginning to be adapted to the needs of mutual funds.

B Strategies to Provide Liquidity

The most important of these adaptations is contained in legislation enacted in the US in 1991 (12 CFR, 201.3 (d)), that permits any individual, partnership or corporation to borrow from Federal Reserve Banks using U.S. government securities as collateral if the failure to lend would adversely affect the economy, and permits loans against collateral other than U.S. government securities with the affirmative vote of five of the seven members of the Federal Reserve Board of Governors. In short, **the 1991 Act not only gives securities markets explicit access to the lender-of-last-resort, it also expands the types of collateral against which the Federal Reserve can lend in an emergency** to include corporate stocks and bonds - securities in which banks cannot invest depositors' funds under current U.S. law.

The enactment of this measure resulted largely from the 1987 and 1989 market declines, and reflects concerns about the potential for damage of such declines to the U.S. economy. Certainly, as former Federal Reserve Board Chairman Marriner Eccles had already noted in the 1930s, **in an emergency there is no source of liquidity “...except that liquidity which can be created by the Federal Reserve or the central bank through its power of issue...”** (U.S. Congress, 1935, p. 194). Nevertheless, central banks historically have rightly used their emergency powers sparingly and the requirement that five members of the Board approve loans collateralised by assets other than non-U.S. government securities suggests that interventions to halt a market disruption would rightly be weighed carefully and occur infrequently.

The market itself is concerned about assuring that sources of liquidity for mutual funds are available under volatile conditions that may not be viewed as damaging to the U.S. economy; that is, circumstances which would not activate Federal Reserve Bank resources. As part of its highly successful strategy to compete with banks for U.S. (and, increasingly, foreign) savings, U.S. mutual funds have marketed their shares as virtually payable on demand. Next day settlement of redemptions is now standard practice even though mutual funds are only required to redeem shares within a 7 day period or, if a broker or dealer is involved in the transaction, within a 3 day period. The problem for the industry is that, if a fund must sell

securities, the current requirement for settlement in 3 business days results in a 2-day gap between outflows for redemptions and the receipt of funds from sales. Similar concerns about redemption and settlement risks are being expressed in the U.K. and in international organisations. Particularly in the U.S., the industry has become increasingly concerned about putting in place back-up sources of liquidity such as interfund lending using repurchase agreements within a family of funds, the creation of money market “funds of funds” within a family of funds and committed lines of credit from banks. As explained by one large family of funds: “With the increased specialization and internationalization of mutual fund portfolios, the industry is appropriately giving greater attention to alternative methods for funding redemptions during periods of market volatility” (SEC, March 1995). The U.S. Securities and Exchange Commission (SEC) has also indicated greater concern about liquidity in this context. It now “...urges money funds to monitor carefully their liquidity needs in light of the shorter settlement period...”, and consider the percentage of the portfolio that will settle in three days or less, the level of cash reserves and the availability of lines of credit or interfund lending facilities (SEC, March 1996).

Certainly the time gap between redemptions and settlement of securities sold has pointed up the importance of liquidity and focused investor interest on the level of cash reserves of individual funds or types of funds (McGough, WSJ, 1997). But the concern is heightened by the potential for increased redemptions during a market decline. One securities firm found that 40% of mutual fund shareholders surveyed said they would sell some or all shares in equity funds if the market fell 15% or more (Kinsella, WSJ, 1996). Others believe shareholders would simply move to other types of funds and then back into stocks as the market stabilized. Even so, the disparity between the timing of redemptions and settlement **would create a scramble for funds that might exacerbate price declines.**

As these developments and discussions involving U.S. mutual funds indicate, finding alternative sources of liquidity for securities investment funds is a priority issue even when a fund’s portfolio is invested in domestic assets. The problem becomes larger when cross-border holdings are involved, particularly holdings in emerging market countries. Market volatility and/or disruptions will certainly continue to prompt abrupt shifts in foreign portfolio

investment in emerging markets (as occurred in the Mexican peso crisis and, more recently, in the Asian currency crises), resulting in very adverse effects on their economies. Thus, arrangements for managing the liquidity needs of U.S. mutual funds could have significant benefits for developing economies, as it could discourage excessive and too rapid outflows. Such arrangements could also serve as a model for similar strategies in other developed countries.

The U.S. experience to date suggests two potential solutions to the problem. One would be purely market based; this would use the “fund of funds” created by the enormous - \$416 billion in assets at mid-year 1996 (Gasparino and Jereski, WSJ, 1996) -Fidelity family of funds as a model for the industry as a whole (SEC, August 1996). This would allow all mutual funds to buy shares in an “umbrella” or “top” fund whose shares would not be sold to the public. The “fund of funds” would invest in highly liquid money market instruments which would be sold to redeem the shares of mutual funds seeking liquidity to fund redemptions by public shareholders. In addition, the “fund of funds” would be authorized to invest for short periods in the shares of funds that had exhausted their redemptions, up to a given amount (proportional to the size of their portfolios) if other means for funding redemptions were not available.

One problem with using the Fidelity model is that market declines and disruptions may affect all participating institutions at the same time. Moreover, its contribution to maintaining public confidence in markets may be limited; unlike deposit insurance for banks, this type of liquidity facility will not guarantee that shares can be redeemed without losses. Nevertheless, if it were seen as contributing to public confidence in a market recovery, it could reduce shareholder redemptions and thus cushion the downward spiral of price declines that make a market recovery and the restoration of confidence more difficult.

Given the growing share of national savings held by mutual funds in the United States - 10% of total credit market assets held by financial sectors at year-end 1994, up from 8.4% in 1991 (FRS, *Flow of Funds*) - and the increasingly large shares held by comparable institutions in other OECD countries, the issue of confidence is becoming more important. The potential

loss of value of so large a share of the U.S. public's savings in a market disruption would certainly have serious consequences for the economy that could precipitate some form of intervention by the Federal Reserve Board. If that were to happen, a facility like the "fund of funds" would give the central bank more time to assess the situation, making it less likely to miss the point at which prompt action might halt the downward spiral of share redemptions and securities sales and moderate the price decline. However useful, it would seem that this measure is insufficient to cope with the scale of the problem, particularly as it affects emerging markets.

C Proposal of a Prudential Capital Charge

The Federal Reserve's authorization under the 1991 Act, to act effectively as a lender of last resort, and thus probably intervene in a serious market disruption either directly or by providing funds to banks for lending to mutual funds is one important reason why it would seem reasonable to require that some portion of mutual funds' cash reserves be placed in the form of interest-bearing deposits in commercial banks as a prudential capital charge.

Such deposits would also constitute a first line of defence for access liquidity in the event of a significant market decline. It would also reduce market volatility associated with the timing of settlement, particularly in situations of large redemptions.

The use of the term "capital charge" in discussions of liquidity facilities for mutual funds refers to their particular structure as intermediaries for direct investment. Because shareholder capital backs 100% of the invested assets, neither the capital or provisioning requirements applicable to banks are directly applicable to mutual funds. Nevertheless, the need for defined sources of liquidity for mutual funds has become more apparent as their role in financial markets has expanded and concern about the ability of shareholder withdrawals to precipitate serious market disruptions or declines has increased.

Imposing capital charges on mutual funds in the form of required, segregated cash reserves deposited in commercial banks to ensure defined sources of liquidity may also contribute to removing distortions in the financial industry by reducing the cost advantage mutual funds now enjoy in competing with banks to attract savings. Making the capital charge comparable to the capital adequacy requirements that apply to banks in OECD member countries would somewhat lower earnings for some mutual funds that do not maintain adequate levels of cash reserves since interest bearing deposits may earn less than other financial assets in which funds invest. However, by introducing an industry-wide standards, such a requirement would tend to increase investor confidence and attract a larger volume of funding over time. Also, it would provide a structure that would make the current key element in regulation - risk weighting - applicable to mutual funds. Furthermore, and most important, it would reduce volatility - and above all risks of reversibility - of institutional investors' flows to developing countries. This would imply both that those more stable flows would be more beneficial to developing countries and therefore make more likely that those countries would continue to be open to such flows. The fact that flows would be more smoother would make foreign exchange crisis less likely, and would therefore give greater protection to investors, for whom somewhat lower returns would be more than compensated by smaller volatility of returns.

Similarly for emerging market economies the requirement of cash reserves on mutual funds assets invested in them could increase somewhat the cost of raising foreign capital for them, but this would be compensated by the benefit of a more stable supply of funds, that could be obtained at a more stable cost. Indeed, it should be remembered that often during and after currency crises, the cost of external funds for emerging markets can become either very high or even infinite (implying that the country may for a time, be totally unable to raise any funds on the markets).

Introducing a risk-weighted capital charge for mutual funds would require that these (and perhaps other) institutional investors perform risk analysis under standards provided by regulatory authorities which, in the United States, would result from consultations among officials of the Federal Reserve Board, the Securities and Exchange Commission and the Treasury. In the case of cross-border investments, weights should be given to the views of

market analysts such as credit rating agencies as well as the views of international agencies such as the IMF and BIS in assessing countries' macroeconomic performance. This would provide guidelines for defining macroeconomic risk and for its measurement in determining the appropriate level of cash reserves. Thus, cash reserves would vary according to the macro-economic risks of different countries.

The guidelines for risk analysis by institutional investors themselves should take into account such variables as the ratio of a country's current account deficit (or surplus) to GDP, the level of its external debt to GDP, the maturity structure of that debt, the fragility of the banking system, as well as other relevant country risk factors. Factors such as custody-related risks (which already greatly concern securities regulators) could be included where relevant. It is important that quite sophisticated analysis is used, to avoid simplistic criteria stigmatizing countries unnecessarily and arbitrarily. The views of the Federal Reserve, the Treasury and of the IMF and the BIS should be helpful in this respect, especially given the long experience of foreign exchange crisis and their causes that the international community has acquired.

The fact that the level of required cash reserves capital charge would vary with the level of countries' perceived "macro-economic risk" would make it relatively more profitable to invest more in countries with good fundamentals and relatively less profitable to invest in countries with more problematic macro-fundamentals. If macro-economic fundamentals in a particular country would deteriorate, investment in them would decline gradually, which hopefully would force an **early correction** of macro-economic policy, and, once this happened, a resumption of flows; this smoothing of flows would hopefully discourage massive and sudden reversals of flows as occurred in the Mexican peso crisis, and, more recently, in the Asian currency crises.

Given the dominant role and rapid growth of institutional investors in the U.S. and U.K. market, both of these proposals- a liquidity facility structured as a "fund of funds" and imposing risk-weighted cash requirements capital charges on mutual funds - could be adopted first in these two countries without creating significant competitive disadvantages. However, as these sectors are also growing in other industrial countries, efforts to harmonize such

measures internationally need to be given priority for discussion at the global level by the International Organization of Securities' Regulators (IOSCO).

Finally, it is important to stress that additional regulation of mutual funds should be symmetrical with regulation of other institutions (e.g. banks) and other potentially volatile flows, e.g. excessive short-term bank credit; the latter subject is clearly discussed in the paper by Witteveen in this volume. The emphasis in this paper on regulation of mutual funds is mainly due to one reason. This is because mutual funds are clearly under-regulated, in comparison with other financial institutions; this seems mainly due to the fact that their growth is so recent, particularly in relation to their increased investment in emerging markets.

D The Need for Better Disclosure

A third area of measures destined to diminish market volatility and systemic risk of mutual funds, as well as improve protection of investors, is that of improved disclosure. The case for transparency is particularly strong for institutions like mutual funds, as investors in those institutions are not protected by mechanisms like deposit insurance, which makes clear disclosure even more essential.

Though there is a great deal of support for improved disclosure, progress in most countries has been slow and insufficient.

The U.S. Securities Exchange Commission is just finishing a major exercise to improve the descriptions of risk provided to investors by mutual funds and other management investment companies. It presented a very comprehensive proposal in April 1995 (SEC, 1995) and requested comments and suggestions both from the industry and investors. The concern of the SEC arose from the need to assist investors in mutual funds in making an informed investment decision.

Mutual funds were already, before 1995 required to discuss in their prospectuses the main risk factors associated with investing in the fund. One of the SEC's concerns was that lengthy and highly technical descriptions of policies and investments may make it difficult for investors to **understand the total risk level of a fund** (our underlining). This because according to the SEC "funds provide only the most general information on the risk level of the fund as a whole". Therefore the SEC proposed to improve disclosure requirements to better the communication of fund risks to investors. The SEC stresses that risk factors include those peculiar to the fund and to those that apply generally to funds with similar investment policies.

The SEC justifies need for better disclosure on three grounds: 1) Average Americans place growing reliance on funds to meet key financial needs, such as retirement and college expenses. Understanding the risks of their investment in mutual funds is therefore key for them. This is increasingly true as 31% of U.S. households owned shares in a mutual fund in 1994, up from 6% of households in 1980 (Investment Company Institute survey), these ratios have increased even further in the mid-1990s; 2) New ways of describing risks may improve investor understanding of risks associated with increasingly complex instruments and 3) Information needs have grown due to the proliferation of numbers and type of funds. We believe that the rapid international diversification of assets also poses new disclosure needs, though the SEC did not make this explicit.

In its initial document, the SEC requested comments on goals of risk disclosure, (e.g. risk of loss of capital versus risk of variability of returns as dominant concerns), on narrative and non-narrative (such as quantitative measures, graphs), risk disclosure options, on quantitative measures of risk (including measures of total risk, market risk and risk-adjusted measures of performance), as well as the relative merits and limitations of three different quantitative risk measures: historical, portfolio-based and risk objectives or targets.

It is interesting in the context of our analysis that the SEC (1995) document recognizes that requiring disclosure of a quantitative risk measure may affect portfolio management, e.g. by causing fund managers to adopt more conservative investment strategies. In the context of flows to developing countries, this could have mainly positive effects, as better informed

investors would be less likely to rush in and especially out of developing countries. The aim of more stable flows would thus be more likely to be met, even though there may be a cost in somewhat lower flows.

As a result of these consultations (which led to 3,700 comment letters) and its analysis, the SEC has recommended shorter, more readable “profile prospectuses”. Indeed, investors will be given the option of getting those documents instead of the longer, detailed forms received till now. Also, the SEC is likely to recommend that new profile prospectuses compare the fund’s returns with general market indexes and that the full prospectus sent to investors is more readable.

However, the SEC has left out bits of disclosure sought by many investors and commentators, but opposed by the fund industry, that is for example the requirement that funds list their ten largest holdings, or a discussion by the management of what affected fund performance the previous year. More broadly, it would seem that, though an important advance, the disclosure requirements are too non-specific, as the fund can decide what information is relevant to its risk profile. In a second stage, if the SEC does not think enough of certain kinds of material information was disclosed, they can press for more. However, this process of additional information is on a one-to-one basis (not systemic) applying only to funds that the SEC believes not to have fully disclosed. Reportedly, the fact that the SEC has lost three important cases in court, on the grounds that they have exceeded their authority under the securities’ act may, make it difficult for the SEC to push for more specific system-wide disclosures.

It seems also that the SEC has not been sufficiently specific in its proposals about the proposal presented by the Financial Economists Roundtable (Laderman, 1996) to focus disclosure mainly on future investment risk and downplay statistical measurements based on past performance. However, this area of future investment risk poses special problems.

More generally, we can conclude on disclosure of mutual funds: 1) that better disclosure can play an important role not just in investor protection, but also in smoothing investment flows

and that efforts like the recent one by the SEC are very valuable 2) that, even in an “ideal” world, with no pressures from the industry on regulators, it is very difficult to design an “optimum” disclosure package, given the conceptual complexities involved and especially given the problem of asymmetric information (Mishkin, 1996) 3) that, in some cases, appropriate disclosure requirements may be difficult to impose by regulators due to pressures from the industry and 4) that insufficient attention seems to be placed on specific disclosure requirements referred to specific risks originating from investments in emerging markets. In particular, the question that has not even started to be asked is to what extent are market risks (that is risks attributable to general economic conditions) different for emerging markets than for developed markets? To what extent do they differ by category or circumstance of emerging market?

IV BRIEF CONCLUSIONS

We can conclude that though better disclosure of risk is both difficult and very valuable, practical difficulties which have been analytically illuminated by the theory of asymmetries of information, imply that better disclosure needs to be complemented by other measures to achieve both better investor protection and diminish potential volatility of flows, which is particularly damaging for developing countries. Above two possible complementary measures to improved disclosure - market-based improvements of liquidity and risk weighted capital charge cash requirements - have been discussed. Naturally other proposals - or variations of the present proposals - could be considered. What is clearly important is that meaningful measures should be taken to help stabilise capital flows to emerging markets. It is also important to stress that, given the evolution of the markets, past strategies, such as prohibiting investment in certain markets, are clearly no longer appropriate. Such prescriptive rules could have some potentially negative effects on both investors (who could lose some profitable opportunities) and some emerging market economies, as their access to portfolio flows could be curtailed either in general, or - even worse - abruptly in times of macro-economic difficulties. The central proposals made here, of a risk-weighted approach - via capital charge cash requirements - would seem better as changes in cash requirements would be more

gradual, thus contributing to a greater smoothness of the level of flows, which is the desired objective for the developing economy, and which would also give greater protection to developed country investors. Furthermore, risk-weighted capital charge cash requirements for institutional investors is consistent with modern mainstream regulatory thinking which sees risk weighting as the key element in regulation.

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Table 1

Capital Flows to Developing Countries²
(in billions of U.S. dollars)

	All Developing Countries	Asia	Western Hemisphere	Other Developing Countries³
1977-1982 Total net capital flows	183.0	94.8	157.8	-69.6
Net foreign direct investment	67.2	16.2	31.8	19.2
Net portfolio investment	-63.0	3.6	9.6	-76.2
Bank lending & other	178.8	75.0	116.4	-12.6
1983-1989 Total net capital flows	61.6	116.9	-116.2	60.9
Net foreign direct investment	93.1	36.4	30.8	25.9
Net portfolio investment	45.5	9.8	-8.4	44.1
Bank lending & other	-77.0	70.7	-138.6	-9.0
1990-1994 Total net capital flows	524.5	260.5	200.5	63.5
Net foreign direct investment	195.5	117.0	59.5	19.0
Net portfolio investment	218.0	62.0	133.0	23.0
Bank lending & other	111.0	81.5	8.0	21.5

Source: International Monetary Fund, *International Capital Markets*, August 1995.

²Flows exclude exceptional financing

³Includes countries in Africa, Eastern Europe and the Middle East. Excludes capital exporting countries such as Kuwait and Saudi Arabia.

Table 2**Emerging Markets Capitalization**

	1987	1988	1989	1990	1991	1992	1993	1994
in trillions of U.S. dollars	0.3	0.5	0.7	0.6	0.75	0.8	1.57	1.93
As a share of world capitalization (in percent)	4.1	5.0	6.3	6.5	7.5	8.8	11.6	—

issues;

Sources: *International Finance Corporation, Emerging Stock Market Factbook*, various issues; and International Monetary Fund, *International Capital Markets*, August 1995.

Table 3

Assets of Institutional Investors
(in billions of U.S. dollars)

	1980	1988	1990	1991	1992	1993
Canada	93.2	257.0	326.2	373.0	376.4	-----
Germany	164.7	442.6	626.5	677.9	763.5	811.8
Japan	244.3	1,458.7	1,649.5	1,835.4	1,972.1	-----
United Kingdom	345.1	991.7	1,208.2	1,353.6	1,432.0	1,553.4
United States	1,606.9	4,316.1	5,220.8	6,516.0	7,182.9	8,008.4
Total	2,454.2	7,466.1	9,067.2	10,755.9	11,726.9	-----
In percent of GDP:						
Canada	35.2	52.2	56.8	63.3	66.1	-----
Germany	20.3	37.1	41.7	42.7	42.7	47.4
Japan	23.1	50.3	56.3	54.8	53.8	-----
United Kingdom	64.1	118.3	123.5	133.8	137.1	165.3
United States	59.3	88.1	94.5	113.9	119.0	125.6

Source: International Monetary Fund, *International Capital Markets*, August 1995.

Table 4**Net Changes in Portfolio Investment in the U.S. by Foreign Investors and in U.S. Residents' Purchases of Foreign Securities** (in billions of dollars and percent)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
1) Foreign Official											
Treasuries	4.7	-0.8	34.4	43.4	41.7	0.3	29.6	14.8	18.5	49.0	30.7
Other Securities	-2.8	-1.7	-2.1	0.5	-1.2	3.2	-0.9	2.7	3.2	6.7	3.6
TOTAL	1.9	-2.5	32.3	43.9	40.5	3.5	28.7	17.5	21.7	55.7	34.3
2) Foreign Private											
Treasuries	23.0	20.4	3.8	-7.6	20.2	29.9	-2.5	18.8	36.9	24.1	33.8
Other Securities	12.6	51.0	70.9	42.2	26.3	39.6	1.6	35.1	29.9	79.9	58.6
.. TOTAL	35.6	71.4	74.7	34.6	46.5	69.5	-0.9	53.9	66.8	104.0	92.4
3) Total Foreign Portfolio	37.5	68.9	107.0	78.5	87.0	73.0	27.8	71.4	88.5	159.7	126.7
4) U.S. Purchases of Foreign Securities (outflow)	-4.8	-7.5	-3.3	-4.5	-7.8	-21.9	-28.8	-44.7	-46.4	-141.8	-49.8
5) Memo Items:											
6) Total Foreign Net Capital Inflows	102.5	129.9	221.2	211.5	221.3	214.5	105.3	83.3	153.9	248.5	291.4
7) Foreign Portfolio Investment as a % of Total Net Foreign Capital Inflow	36.6%	53.0%	48.9%	37.1%	39.3%	34.0%	26.4%	85.7%	57.5%	64.3%	43.5%
8) Total U.S. Private Net Cap. Outflows	-22.3	-31.4	-98.0	-76.0	-84.1	-127.0	-44.1	-59.9	-68.1	-182.9	-130.9
9) U.S. Foreign Portfolio Investment as a % of Total U.S. Private Net Capital Outflows	21.5%	23.9%	3.4%	5.9%	9.3%	17.2%	65.3%	74.6%	68.1%	77.5%	38.0%

Source: Board of Governors of the Federal Reserve System, "U.S. International Transactions," Federal Reserve Bulletin, Various issues.

Table 5
Industrialized Country Securities Investment Flows in Emerging Markets

Amount (in billions U.S. dollars)	1987	1988	1989	1990	1991	1992	1993
Africa	-0.74	-0.21	-0.28	-0.34	-----	3.52	-0.49
Asia	1.97	0.42	2.21	1.02	4.60	7.37	13.37
Europe	0.25	1.24	1.66	0.68	0.92	3.20	8.42
Middle East	0.37	4.56	1.10	0.68	0.92	0.64	2.48
Western Hemisphere	-1.23	0.42	-1.10	18.21	24.85	32.67	56.46
Mexico	-0.99	1.04	0.28	3.40	12.88	17.94	28.23
All Emerging Markets	0.62	6.33	3.59	20.25	31.29	47.40	80.24
Memorandum Items: Industrialized country foreign securities investment flows (U.S. dollar billions)	123.40	207.50	276.40	170.10	306.80	320.30	495.30
Investment flows in emerging markets as a percentage of industrialized country foreign securities investment flows	0.5%	3.1%	1.3%	11.9%	10.2%	14.8%	16.2%

Sources: International Finance Corporation, *Emerging Stock Markets Factbook*, various issues; and International Monetary Fund, *International Capital Markets*, August 1995.

Table 6

Industrialized Country Securities Investment Flows in Emerging Markets

Amount (in billions of dollars)	1987	1988	1989	1990	1991	1992	1993
Africa	-0.74	-0.21	-0.28	-0.34	-----	3.52	-0.49
Asia	1.97	0.42	2.21	1.02	4.60	7.37	13.37
Europe	0.25	1.24	1.66	0.68	0.92	3.20	8.42
Middle East	0.37	4.56	1.10	0.68	0.92	0.64	2.48
Western Hemisphere	-1.23	0.42	-1.10	18.21	24.85	32.67	56.46
Mexico	-0.99	1.04	0.28	3.40	12.88	17.94	28.23
All Emerging Markets	0.62	6.33	3.59	20.25	31.29	47.40	80.24
Memorandum Items: Industrialized country foreign securities investment flows (U.S.dollar billions)	123.40	207.50	276.40	170.10	306.80	320.30	495.30
Investment flows in emerging markets as a percentage of industrialized country foreign securities investment flows	0.5%	3.1%	1.3%	11.9%	10.2%	14.8%	16.2%

Sources: International Finance Corporation, *Emerging Stock Markets Factbook*, various issues; and International Monetary Fund, *International Capital Markets*, August 1995.