

**REGULATORY IMPLICATIONS OF GLOBAL
FINANCIAL MARKETS**

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I GLOBAL FINANCIAL FLOWS; FLOWS TO LDC's

In 1993 borrowing on international capital markets continued its' rapid increase for the third year in a row; in 1991, there had been a rapid increase (of 20.7%) in the aggregate volume of international capital flows; in 1992, there was a further increase of 16.2%. In 1993, global borrowing rose even more by 33% (see Table 1). Thus, 1993 global borrowing more than doubled 1987 levels.

Table 1
Borrowing on International Capital Markets (US\$b), 1989 -1993

Borrower	1987	1988	1989	1990	1991	1992	1993
OECD countries	349.6	413.8	426.5	384.4	457.9	535.7	690.6
Developing countries	26.3	22.5	21.8	28.6	46.2	47.3	84.4
Eastern Europe	3.7	4.6	4.7	4.6	1.8	1.5	6.2
Others	13.3	12.6	13.5	17.3	19.0	25.2	29.3
Total	392.9	453.5	466.5	434.9	524.9	609.7	810.5
Year-on-year % increase		15.7%	2.8%	-6.8%	20.7%	16.2%	33.0%

Source: OECD, Financial Market Trends Vol 54, February 1993, p.7.

Borrowing by LDC's in 1993 grew very fast (see Table 3), as it increased over 70%. Borrowing on international capital markets by developing countries also grew in 1992 though the growth (at 2.3%) was negligible in real terms according to OECD estimates; it was also far lower than growth in 1991, when developing countries were reported to have had an increase of 62% in the volume of borrowing on international capital markets, from \$28.6 billion to \$46.2 billion (see again Table 1). By 1993, LDC borrowing was significantly more than double its' 1987 level. Thus, growth of lending to LDC's has been faster over the 1987-1993 period than that for global flows.

If we examine the share of developing countries' borrowing in the global total, this share first fell from 6.6% in 1987 to 4.7% in 1989, increased to 6.6% in 1990, increased further to about 9% in 1991, declined somewhat in 1992, but grew to above 10% in 1993.

As in previous years, the main dynamism globally in 1993 did not come from syndicated loans but came from growth of securities and non-underwritten facilities (see Table 2).

Table 2
Composition of Borrowing from International Capital Markets, 1988-1993
 (US\$b; %)

	1988	1989	1990	1991	1992	1993
Securities	234.8	263.8	237.2	321.0	357.2	521.7
Loans	125.5	121.1	124.5	116.0	117.9	130.1
Committed back-up facilities	16.6	8.4	7.0	7.7	6.7	8.2
Non-underwritten facilities ⁽¹⁾	76.6	73.2	66.2	80.2	127.9	150.5
Total	453.5	466.5	434.9	524.9	609.7	810.5
Memorandum item:						
Year-on-year percentage change	+15.4	+2.8	-6.8	+20.7	+16.2	+32.9

(1) Including Euro-commercial paper.

Source: Financial Market Trends, Vol 54, February 1993, p.87.

Table 3
Borrowing by Developing Countries (OECD definition)
 (\$b)

Instruments	1987	1988	1989	1990	1991	1992	1993
Bonds	3.1	4.2	2.6	4.5	8.3	14.0	45.6
Equities	0.0	0.3	0.1	1.0	5.0	7.2	10.7
Syndicated loans	20.1	17.4	16.2	19.8	26.7	16.5	18.4
Committed borrowing facilities	1.3	1.3	0.9	2.1	4.5	1.3	1.2
Non-underwritten facilities ⁽¹⁾	1.8	1.2	2.0	1.2	1.7	7.9	8.5
Total	26.3	22.5	21.8	28.6	46.2	47.3	84.4

(1) Same as in Table 2.

Source: OECD, Financial Market Trends Vol 54, February 1993, Statistical Annex.

As can be seen from comparing Tables 3 and 2, developing countries seem to follow similar trends to global ones, with declining importance of syndicated loans, (especially marked in 1992) and with sharp increases in securities.

It is worth noting that, according to other sources, such as the World Bank,¹ which have made major efforts to have complete coverage of these new flows to developing countries, the figures for private portfolio flows to LDC's are somewhat higher. Thus, according to World Bank recent estimates (World Bank, *op. cit.*), gross private portfolio flows to developing countries grew explosively since 1989; indeed, these flows which averaged under \$6 billion a year in the 1982-88 period, were estimated by the World Bank to have grown to an estimated \$34 billion in 1992.

The increase has reportedly gone largely to a few countries in Latin America, where gross equity flows have grown more than tenfold in four years, (mainly via ADR's and GDR's) from \$434 million in 1989 to an estimated \$5.6 billion, and where bond financing increased almost fifteen-fold, from \$833 million in 1989 to \$11.7 billion in 1992 (see Table 4).

Table 4
Portfolio Investment in Latin America, 1989-92
(millions of US\$)

Type of Investment	1989	1990	1991	1992 ¹
Equity investment from abroad	434	1,099	6,228	5,570
of which				
Closed-end funds	416	575	771	293
ADRs/GDRs	-	98	4,697	4,377
Direct equity investment	18	426	760	900
Bonds	833	2,673	6,848	11,732
Commercial paper	127	0	1,212	840
Certificates of deposit	0	0	670	1,100
Total	1,394	3,772	14,958	19,243

- Not available
(1) Estimated.

Source: World Bank staff estimates.

Though the increase in securities flows to developing countries (and especially to Latin America) has been impressive, some analysts argue that these levels could be sustained or even increased, at least till the end of the century.² These kind of 'optimistic' estimates are based on very aggregate projections and draw on facts such as: total of assets of pension funds, life insurance funds, mutual funds and others reach as much as \$14 trillion; the share of their assets invested in developing country stock markets is on average less than 5% of foreign equity holdings, and less than a quarter per cent of their total assets; an increase in the share of

industrial countries' institutional funds assets going to emerging markets from, for example, a quarter per cent to half a per cent could imply large increases of investments in those markets; similarly, it is also stressed that as emerging stock market capitalization represented 6% of world share of equity markets in 1991, (double its' 1987 share), share which is likely to increase, however, in coming years, there is considerable scope for international equity flows to LDC's if industrial country investors hold developing country stocks in proportion to the LDC markets' share in the global total.

II HOW PRIVATE FINANCIAL MARKETS HAVE CHANGED

1 THE ROLE OF FINANCIAL DEREGULATION

During the last ten years, the size and the structure of financial markets has undergone profound changes.

The process of structural change is very complex (largely because it is not homogeneous across countries), and is therefore difficult to understand at a global level. There are however many common features in the direction and key features of the changes, practically in all countries.

The dominant initial force explaining these changes is deregulation, which considerably enhanced the role of free market forces in determining choices open to economic agents. By the beginning of the 1980's, many of the restrictions which previously limited competition (e.g. by restrictions on lines of business, geographical operation, quantitative restrictions on credit, interest rate and price restrictions, controls on foreign exchange transactions and international capital flows) had either been removed or else been undermined by market developments. As we shall discuss further below, in this context of much greater freedom, strengthening of capital adequacy standards became the main regulatory constraint on bank portfolio choices.

As a result four trends seem to have clearly emerged. Firstly, financial markets have become increasingly globalized and integrated. Domestic markets became progressively more integrated with each other and with off-shore ones. Capital flows across borders intensified and the number of institutions operating in foreign centres increased. Furthermore, the global interlocking of national financial markets has far exceeded the global interlocking of national productive structures, as the very rapid growth of international financial flows was far quicker than the growth of trade and direct investment.

Secondly, the size and the influence of markets in finance has increased markedly throughout all countries. Again here there is a contrast with the past, as till the end of the seventies the

importance of financial markets was more an Anglo-Saxon peculiarity. Indeed, the fundamental changes in the regulatory and technological environment increased competitive pressures and - in a broadly favourable macro-economic environment, - led to rapid growth in financial activity and trading. The major expansion of the financial industry world-wide is reflected for example in a massive increase in turnover on all the major securities markets and in the explosion of the value of payments over the last decade; indeed, according to BIS op. cit. estimates, the ratio of annual value of financial transactions (measured as payments through the main interbank fund transfers system) to GNP in the three countries with the largest financial markets in the world grew dramatically and systematically, from less than 10% in 1970 to over 75% in 1990, for the U.S., from just over 10% in 1970 to over 110% in Japan and from around 10% in 1970 to over 40% in the United Kingdom!

Thirdly, there has been an important trend for dissolution (where it existed, e.g. in the United Kingdom) of functional boundaries, particularly between banking and securities activities. This has led to the creation of increasingly complex institutions, which integrate both types of activities.³ In those countries (like the United States and Japan) where barriers remain, banks are however free to combine banking and securities abroad, and are increasingly finding ways round the law in their home markets. Banks had been weakened during the last decade by a decline of underlying profitability. Partly to compensate for this decline in banks' profitability, banks, bank regulators and governments have started to break down remaining barriers between banking and securities markets, greatly enlarging banks' involvement in securities business.

Though this integration of banking and securities generates economics of scope (and therefore benefits to the consumer) it seems likely that it will increase the risks to the financial system as a whole because securities provide additional risk-taking opportunities by aggressively managed banking institutions. This is particularly because there is empirical evidence (quoted in Dale, op. cit.) that the securities business is riskier than any other financial activity, and because securities activities are less heavily regulated than banking activities. The integration of banking and securities' firms (even in countries with separate firms) could lead to conditions in which a shock coming from the securities market could spread through the banks and return (amplified) to the securities markets. The internationalization of both markets could make such a potential crisis international. Furthermore, because the pace of product innovation in securities markets is so rapid, risks in this area are increasingly difficult to assess, both by market actors and by regulators.

Though deregulation was broadly more limited in insurance, by the early 1990's a few countries (especially in Europe) had eased restrictions on the combination of insurance with banking business.

These changes have favoured the creation of complex conglomerate structures, (often across national borders), which combine traditional banking services with various types of securities and - more recently, with the provision of insurance. In the case of 'simple' banks, also a greater proportion of their credit and liquidity exposures was incurred off-balance-sheet.

Fourthly, as hinted at above, there has been a vast expansion of available financial instruments, which was facilitated by the explosion of information technology. Many of these instruments (e.g. futures, options, swaps) are very sophisticated, and the exact level of risk they generate is as yet unclear. As the range of financial instruments grew, a higher proportion became marketable. In the U.S., even bank loans and company receivables have become marketable.

Fifthly, there was a greater institutionalization of savings, which provided a base for the expansion and greater sophistication of the securities markets. Their push towards international diversification was important factor behind the internationalization and integration of markets.

2 AN EVALUATION

Deregulation was driven by the perception that constraints on financial activity were ineffective or caused important inefficiencies in the allocation of capital and operation of monetary policy. Then deregulation acquired its' own momentum, as elimination of restrictions in some areas led to pressures for their relaxation elsewhere. A third reason for deregulation grew from differences in regulatory treatment.

a Benefits

Deregulation has delivered important benefits.⁴ Thus, both original suppliers and final users of funds are able to obtain better terms, via a richer and higher-yield range of financial assets and easier as well as cheaper access to external finance. Securitisation is seen not only to allow for lower costs, but also for longer maturities, which is crucial for the market viability of certain types of activities, that only become profitable in the long-term. The abolition of foreign exchange controls, and the broader process of globalization widened the international choice, both in terms of diversification of portfolios and sources of finance. At one level, the wider range of available financial instruments allows for better distribution and management of risk. Furthermore, the fall in transaction costs has increased the liquidity of securities markets. Finally, capital can flow more freely towards higher returns.

As regards developing countries, the potential benefits of deregulation and globalization are particularly high, as capital is relatively scarce, and thus the prospect of larger inflows via for example securities (particularly at a time when bank credit flows are far less likely to come in than in the past) and lower costs are especially attractive. It seems that certain instruments

have been particularly beneficial in lowering the equity cost of capital in developing countries. Thus, international stock trading (through for example American Depositary Receipts - ADR's) has proved to be a valuable mechanism for lowering LDC companies' cost of capital decline. Furthermore, the issuing of ADR's is reported⁵ to not only lower costs for individual firms but also for other domestic firms via important spill over effects.

b Costs

The issue that needs to be addressed is of the costs which deregulation has brought about, and of the measures that need to be taken (both nationally and internationally) to minimize those costs. Indeed, the changes brought about by deregulation and the freeing of market forces in the financial sector, are creating new regulatory needs (such as capital adequacy requirements on financial institutions), which probably would not have existed had markets not been deregulated. It is argued in this paper that these new regulatory challenges have only partly been met, and that urgent tasks (nationally, regionally and internationally) still need to be accomplished. This is largely because on the whole the development of regulation of markets tends to lag behind the changes that deregulation brought in the structure of the financial system. Particularly if the benefits of deregulation are valued, it is important to take measures that minimize costs, especially those that could disrupt in a major way the proper functioning of those markets, and have significant negative macro-economic effects.

The costs of financial innovation relate to greater financial instability and fragility, reflected in the form of very large fluctuations in asset prices and/or distress among financial institutions. Both asset prices and exchange rates have gone through periods of sharp fluctuations in the last decade. As the BIS op. cit., correctly points out, the main source of concern is not short-term volatility, (which if not extreme is relatively harmless), but longer-term volatility, especially when prices seem misaligned from their apparent sustainable levels, which both lead to misallocation of resources and the risk of large and disorderly changes.

One particular aspect of recent changes which may be important in contributing to explain capital market volatility is institutionalization of savings.⁶ Indeed, some U.S. commentators blamed fund managers' portfolio strategies for causing volatility at the time of the 1987 Crash. More generally, the rise of global asset allocation as a tool of fund management, and the development of markets such as stock index futures stimulated and facilitated massive growth in short-term cross border equity flows. Though the investors wish to reduce risk by such strategies, the focus of funds on a small number of leveraged instruments often destabilizes markets and leads to sharp swings in asset prices; there is also evidence that switches of resources by large fund managers affect exchange rate developments.

More generally, the greater internationalization and integration of the financial industry meant that shocks are more easily transmitted across borders, as well as from one market to another. This is particularly well illustrated by the global nature of the stock market crashes of 1987 and 1989.

The problems of rapid switches between markets are likely to be of importance in an international context as well as in national markets. There is evidence that this is likely to have greater incidence on volatility the smaller the market (as is the case for developing countries) and the greater the role played by foreign investors in it.

This is a special source of concern for developing countries as traditionally the capital markets of LDC's show far greater volatility than those of industrialized economies.

A second main reflection of increased financial instability and fragility is the fact that in the 1970's and especially the 1980's there have been several episodes of financial distress among financial enterprises.

Episodes of financial distress include:

- the dollar overvaluation of the mid-1980-s;
- the global stock market crash of October 1987, and the mini-crash two years later;
- property market crises (Japan, U.K.);
- extended banking crises (the secondary banking crisis in U.K., the savings and loans disaster in the U.S., the collapse of the Nordic banking system);
- bankruptcies of large individual banks (Continental Illinois), or financial conglomerates (BCCI, Maxwell);
- crises in the inter bank market by spillovers of individual failure (Drexell Burnham Lambert, Herstatt), and
- accidents in the payment systems (Bank of New York).

It is important to emphasize that, increasingly, instability in asset prices and institutional financial distress are related, as financial intermediaries hold - or lend against - the value of assets. As discussed above, banks have, in many countries, increased their securities business; they have also increased their exposure to real estate. As a consequence, their earnings - and their financial strength- became more sensitive to price fluctuations, of both shares and real estate. Both losses in securities markets and, especially, the weakness of real estate prices have been significant in the recent problems faced by many banks.

III HOW RISKS HAVE BEEN MODIFIED

As a result of the changes in the structure and workings of the financial system, the nature and transmission of systemic risk changed significantly, and possibly increased.

Systemic risk is defined by the BIS as 'the risk that the collapse or insolvency of one market will be transmitted to another participant'. It is a macro-economic phenomenon linking together different sources of financial instability, and is the unintentional outcome of externalities between decisions and conducts of individual agents under uncertainty.

A first major source of these externalities, that pose a potential for systemic risk, is the payment and settlements system; this has always been the main channel for the propagation of systemic crises, triggered usually by the inability of one or more institutions to settle their obligations. However, the explosion of the volume of financial transactions flows over the last decade has dramatically changed the scale of risks involved. These are concentrated in the inter-bank wholesale transfer systems. Banks participating in these systems incur now extremely large intraday liquidity and credit exposures, possibly larger than the exposures traditionally captured in their balance sheets and frequently less closely monitored by regulators. This increases the vulnerability of the system to a participant's default or to technical failure, heightening the risk of a domino effect. These risks have been illustrated by the international ramifications of Herstatt's bankruptcy, by the technical failure of the Bank of New York and the unwinding of Drexel.

Besides being the channel through which counterparty risk (the risk that the counterparty to a financial contract will not meet the terms of the contract) is channelled, settlement arrangements can be an independent source of systemic risk, due to computer breakdown, concentration of risk in a clearing house inadequate to sustain it in a crisis, or because incompatibility between timetables and legal obligations in different markets, increases the strain as turnover rises at a time of market disturbance; indeed, strains that could begin as a liquidity problem could become a solvency one.

As an OECD study⁷ points out, organized settlement systems offer the opportunity to reduce or redistribute risks in a way providing better protection for market participants and for the system as a whole.

Several recent reports have made various recommendations to improve and accelerate settlement arrangements for example within and between national securities markets. These goals may take a long time to reach, due to legal problems, as well as technological and cost factors. It seems that the greatest contribution to the management of risk can potentially come

from achievement of delivery versus payment, shortening of settlement periods and the construction of legally valid systems of netting.

A second major source of systemic risk is increased exposure of institutions to market risks (the risk of losses in on-and-off balance sheet positions - stemming from movements in market prices, including interest rates, exchange rates and equity values); this has happened because of the rapid development of securities and derivative markets, as well as foreign exchange contracts. Large variations in the market price of assets (e.g. shares) are a very important source and channel of transmission of potential shocks. As positions are increasingly taken across a large number of markets, problems in one part of the market can quickly be transmitted to the others. As the BIS op. cit., points out, the stock market crash of 1987 clearly illustrated how very different operating arrangements in different markets for highly substitutable instruments can have destabilizing effects because they result in differing price reaction speeds and uncoordinated stoppages.

The underlying force is that the deflation of assets prices destroys financial wealth. Because banks hold a large and increasing part of tradeable assets in their portfolios (due to the liberalization of banks' permitted range of activities and the rapid development of financial markets), or because they lent heavily to asset holders, the quality of bank assets can decline rapidly in such a situation.

The integration of market segments (and particularly that of banks and securities) thus increases the transmission of disturbances in financial markets. So do developments in information technology. The main potential channel for such transmission of disturbances is now the seizing up of funds in the wholesale markets or unwillingness for counterparties to enter into transaction with institutions whose soundness is in doubt, and not - as in the past - a generalized withdrawal of deposits.

This shows that, somewhat paradoxically given increased marketability of assets, the provision of liquidity has become more important in the new financial environment. Indeed, in a situation of slump of asset prices, a key risk is that the liquidity of some market makers can be threatened, which provides a channel to spread instability between underlying and derivative markets. Because of the key importance of liquidity, banks continue to be at the heart of financial activity, even though their share of financial intermediation has fallen in several countries.

Special concerns with banks' exposure to market risks, have very recently (April 1993) led the Basle Committee on Banking Supervision to produce a consultative proposal on the Supervisory Treatment of Market Risks. This proposal suggests that specific capital charges are applied to open positions in debt and equity securities in banks' trading portfolios and in

foreign exchange; these capital charges should constitute a minimum prudential standard relative to the potential for losses that might occur for a given portfolio; these would complement the capital adequacy rules approved already by the BIS referring to banks' credit risks, which began to be implemented on January 1, 1993. Secondly, the proposed capital charges for each type of instruments would be roughly equivalent in economic terms, to avoid creating artificial incentives favouring some instruments.

As we will develop more in the next section, it would seem that large variations between different national regulations of financial firms (and especially securities) as well as fundamentally different approaches to regulation amongst banking and securities' regulators may themselves be, at least for a time, a third source of potential increase in systemic risk. Indeed, the OECD document quote above implicitly recognizes this, when it argues that: 'this diversity in regulatory coverage causes international systemic concern because it encourages regulatory arbitrage, leaves some significant risk-taking activities by intermediaries outside the supervisory net, fails to deliver a comprehensive supervisory oversight of conglomerates, and complicates the task of international cooperation among supervisory authorities'. All this is a particularly important source for concern, because as the Federal Reserve Bank of New York put it in its' 1985 Annual Report:⁸ 'A shock that starts in one market may spread quickly along this network of linkages until it finds a weakness in some seemingly unrelated place. In fact there is a growing tendency to build financial links along regulatory fault lines where the responsibility for supervisory oversight is weak, divided or clouded'.

The issue of possible systemic risks arising from differences amongst supervisors, as well as supervisory gaps in certain markets and countries, is made more serious because financial markets have become more opaque, both for supervisors and market actors, in spite of efforts carried out. As the U.K. Bingham Report shows, the trend towards opaque corporate structures - and the problems it poses to regulators - are well illustrated by the BCCI case.

An important question to ask, which seems to have been insufficiently addressed in the existing literature and by policy-makers, is the extent to which the systemic risks associated with globalization and securitization are the same or different for flows going to developing countries. This important issue can be tackled at three different levels. One is at the level of investor protection; the second is at the level of global effects of possibly additional risks from flows to developing countries; a third level refers to the additional sources of potential macro economic instability generated for developing countries by these new types of flows. We will focus here on the third level, (which is of particular interest to LDC's) as the first two seem far less of a source of concern, given that the share of institutions' total investments going to developing countries is at present very low, and therefore problems in LDC's would affect their total assets only marginally.

As regards the potential additional sources of macro-economic instability generated for LDC's by the new type of flows, the main one would seem to relate to balance of payments funding risk. To the extent that securities' flows (and in particular international investment in equities) are potentially far more liquid than bank lending, then if a Balance of Payments crisis or the prospect of a major devaluation threatened in an LDC, foreign equity investors could move out very quickly. This would occur, to the extent that - as is the case in many LDC's, and particularly in those LDC's experiencing large portfolio flows at present - there are no or very scarce relevant foreign exchange controls (see Table 7), and to the extent that the foreign equity investors would sell their shares to nationals of the LDC, and not to other foreigners. Naturally new foreign investment in such equities would also cease at that time. The result would be additional pressure on the balance of payments and on the exchange rate, possibly contributing either to a major balance of payments crisis and/or to a large devaluation. Both would have undesirable effects on the LDC economy's levels of output and of inflation. Therefore in a pre-balance of payments or exchange rate crisis situation, large international equity outflows (in relation to the domestic economy) could seriously magnify problems arising from other sources.

Naturally, this is not just related to international equity flows, nor is it a purely LDC problem, as is clearly illustrated by the effect of private financial flows in September 1992 on several currencies in the ERM. Indeed, there have been reports that some of the investors who were involved in the 'speculative' flows that so seriously affected some of the then ERM currencies, are now 'going into Latin America'.⁹ However, the scale of the impact could be larger for LDC's, given the smaller size of their economies and their greater fragility, and the special features of their securities' markets.

Furthermore, as discussed above, price volatility of LDC stock markets is in general higher than that for developed countries. Therefore, the impact of potentially large sales by foreign investors (or nationals with 'transnational' mentality) would be to depress particularly significantly the prices of shares. This could, via a wealth effect, contribute to a decline in aggregate demand and/or lead to other forms of financial instability. This latter would especially be the case to the extent that in the particular LDC there was strong integration of banking and securities, development of financial conglomerates, etc.

Other special features of LDC stock exchanges also increase their potential for generating negative effects in other parts of the economy. These relate for example, in some countries to inaccurate and slow settlements procedures. As discussed above, this increases instability in the stock exchanges, that can spill over to other sectors.

Though on the whole foreign direct investment flows are far more stable and long-term, it has been reported¹⁰ that international companies often do play the 'leads and lag game', with some

of their funds, for example in anticipation of a devaluation, and that this 'speculative' behaviour can be an additional, though probably a more limited, source of exchange rate instability.

As regards bonds, held by foreign investors, two problems could arise. Firstly, if investors saw the risk of a crunch coming, there could be fears that the seniority of bonds (which has been an important factor in attracting bond finance to LDC's) could be reversed; this fear will be increased, to the extent that bonds become a high proportion of the LDC's debt. Secondly, as the bonds and their interest, are denominated in foreign exchange, if there are fears of a large devaluation, then the foreign investor would fear an increase in his credit risk. For both reasons, investors in bonds might want to sell if a balance of payments or exchange rate crisis was foreseen. To the extent that these bonds could be sold to nationals of the LDC (which seems more difficult than in the case of shares), then this would have a balance of payment funding and/or an exchange rate effect.

Last, but certainly not least, as regards inflows to LDC's, and especially to Latin America, there is a fairly high proportion of those inflows that specifically come in for a very short period, e.g. 3 months, mainly attracted by interest rate differential. Naturally, these flows are highly volatile, and in the case of a threat of a balance of payments or exchange rate crisis, would leave very rapidly, and with destabilizing effects.

Finally, it should be stressed that such major and rapid outflows of capital from an LDC as have been discussed above is far more likely to occur if there is a large macro-economic imbalance in that economy. Therefore, in the current world of globalization and free capital flows, the importance of prudent macro-economic policies is paramount. With prudent macro-management, large, sudden outflows that are particularly destabilizing are far less likely, though they cannot be completely ruled out. Indeed, the recent G-10 Dini Report acknowledges, that even for the case of developed countries, 'a country can experience downward pressure on its currency despite the fact that its' macro-economic policy and performance have been sound'.

IV LIMITATIONS OF EXISTING REGULATIONS

The changing nature and possible increase of systemic risk implies a number of major challenges and issues for governments. The first one (on which we will concentrate here) is to improve prudential regulation and supervision of individual institutions, so as to curb excessive risk-taking at source.

One issue that needs clarifying is that of coverage of regulation and supervision; this should cover all those financial companies whose collapse would trigger systemic turmoil. Though

there is considerable consensus (see, for example BIS op. cit.) that supervisory coverage limited to banks may well not be enough, a number of major supervisory gaps still exist; probably the most obvious is one that allows some securities houses to carry out certain activities via unsupervised affiliates.

Above all, there are important differences in the extent to which and the form in which similar institutions are regulated in different jurisdictions, as well as different institutions are regulated both in the same and in different jurisdictions, subject to which we will return below.

An important issue in this context is whether institutions should be supervised on a consolidated basis. The question is whether if legal and economic separation of for example banking and securities can be achieved (which is in itself very complex), and 'firewalls' established to limit transfer of capital between them, this will be sufficient to separate the market perception of the credit standing of both institutions, and therefore isolate one unit from the other in a period of distress. As the Drexel case illustrated, funding seems to be withdrawn from institutions that are sound, due to associations in the public mind with problems arising in affiliates. Therefore, failure to consolidate can result in serious supervisory gaps. Though consolidation is a standard practice in banking supervision (following in particular the problems caused by Banco Ambrosiano), it is not yet generally accepted in the supervision of securities and insurance.

Consolidation of supervision between different types of activities is made difficult by conceptual difference among their regulators, based on key differences in the nature of their business.

The most fundamental difference between securities and banks is that the former have a far shorter commercial time horizon than banks. Banks typically hold loans on their balance sheets until maturity, while securities firms experience rapid asset turnover.

Because the bulk of securities firms' assets are marketable, they are therefore subject to severe pressures in periods of market downturn (which leads therefore to market risk), and to a similar decline in the firm's net worth. Because firms need to meet losses quickly, securities regulators emphasize liquidity, treating illiquid assets consecutively and often allowing certain forms of short-term subordinated financing to be counted as capital. As the key concern is that securities firms should be able to run themselves down in a very short period and meet their liabilities, so that their clients/counterparties will not incur losses, the key supervisory test is that of net liquid assets. Thus, a firm should have liquid assets (valued at current price) which - after allowance for possible reductions in the value of the assets before they could be sold, exceed total liabilities. In contrast, a major proportion of bank assets are traditionally non-marketable; as a result the main risk for banks is credit risk. Differently from securities'

houses, banks are not expected to respond to financial problems by going out of business, as their assets could only be sold at a heavy discount, implying losses for creditors and depositors. Therefore, the main objective of bank regulators is to sustain banks as going concerns, especially because bank failures involve risks to the financial system as a whole. Therefore bank supervisors tend to focus far less on liquidity and short-run changes in asset values, and more on the long-run viability of the bank. Therefore, the regulatory definition of capital only included financing instruments of a more permanent nature (excluding for example subordinated debt from primary capital).

Regulatory differences extend also to the role of deposit insurance and lender of last resort, which are important for banks, but are on the whole unavailable for securities.

The above differences in the regulation of banks and securities firms have for example led to difficulties for EEC policy-makers in their attempts to establish an appropriate regulatory framework for the single European financial market. The EEC's Directive on the Capital Adequacy of Investment Firms and Credit Institutions (known as CAD) allows alternative definitions of capital for the supervisors of non-bank investment firms and for banks undertaking securities activities. As Dale op. cit., points out, these alternative definitions of capital are mainly intended to meet the policy objective of ensuring a 'level playing field', between banks and non-bank investment firms. However, there is a concern that these capital rules are not justified on prudential grounds.

In particular, though the appropriate regulatory goal defined by the EEC for bank supervisors is solvency, for securities, the EEC regulatory objective is more limited, to protect investors and counterparties without necessarily ensuring solvency, goal that can be achieved by more liberal use of subordinated debt. But, as we discussed above, given the way that securities markets developed and the Drexel episode led to a crisis of confidence in the investment firms, the EEC's objectives seem inappropriate or at least insufficient to deal with systemic risk.

Thus, the main problem with the EEC CAD directive seems to be its' focus on establishing a level playing field between banks and non-bank investment firms, while failing to address the following more fundamental policy dilemma. This is that increasingly in non-banking financial markets similar systemic risks can be created as occurred previously only in narrower banking systems; if the official safety net were extended by national authorities to activities like securities, then the problem of subsidized - and thus excessive - risk taking could be extended from banks to securities.

Indeed, the EEC approach seems to accentuate these problems, as it allows banks to dilute their capital, while allowing the risk of cross-infection from securities activities to increase.

Besides the problems of new regulations in the EEC, there is the issue that the EEC and the U.S. seem to be moving in opposite directions in the key issue of risk segregation. Thus, in the EEC it is increasingly assumed that a bank would always stand behind a related securities firm; in the U.S., the new holding company and firewall structure is designed explicitly so that a securities firm in problem is not supported by its bank affiliate. This may imply that in Europe the lender of last resort function could be extended (directly or indirectly) to bank related securities firms. In contrast, the U.S. scheme (which assumes that firewalls, and other mechanisms, can separate effectively risks between banking and their securities branches) would tend to restrict the official safety net only to banking.

The coexistence of these sharply opposed structures could be particularly problematic in times of global financial stress. Thus, in the EEC, the temptation could arise, for lenders to move their exposure from independent to bank-related securities, as the latter are more likely to get official support. Furthermore, in those circumstances, there would be a strong incentive for lenders to withdraw their exposure from U.S. securities in favour of securities firms that are affiliates of European banks. Such large moves could accentuate financial distress in the U.S., and globally.

Indeed, it is differences in the perception of securities' regulators, (and particularly between those of the U.S. and of the rest of the countries) that have impeded a global agreement on capital requirements of securities' firms (which would have done for securities what the Basle accord has done for banking). An attempt to reach such an agreement was made, after much preparatory work, at the 1992 IOSCO (International Organization of Securities' Commissions) Annual Conference; unfortunately, this attempt failed.¹¹ It should however be mentioned that IOSCO did reach some important agreements, such as the approval of principles for regulation of financial conglomerates.¹²

Perhaps equally serious is the fact that had IOSCO been able to agree on common risk measures and capital adequacy rules for securities, this would have served as a basis for a joint framework (to be elaborated by the BIS and IOSCO) for commercial banks, investment banks and securities houses. As a result of this inability to reach agreement within IOSCO, the Basle Committee has launched its' own suggestions (discussed above) to limit market and other related risks for securities activities carried out by banks, by setting capital requirements on them. If approved, this will cover an important supervisory gap, but will still leave a very large gap in the regulation of non-bank securities.

As a result, supervision and regulation globally is patchy as regards certain aspects, and very uneven. Indeed, as can be clearly seen in Table 8, while securities firms and financial conglomerates outside the EEC will not in the next few years have to adhere to any international guidelines, banks inside the EEC will have to meet three different sets of rules for

measuring market risks and for capital requirements to cover those risks, (the BIS ones, the EC Directives and possibly some national ones). The issue is made more complex by the fact that Basle rules are stricter than the EC's Directive, for example as regards capital requirements on foreign exchange risk.

Indeed, as can be seen in Table 5 banks are regulated by up to three sets of regulators in an EEC country like the U.K.; they are regulated internationally by the 1988 Basle Accord and will probably be regulated by Basle on their securities activities; banks are also regulated in a country like the U.K. by its' own national regulations and by the EEC capital adequacy directive. On the other hand, neither securities nor financial conglomerates outside the EEC have any form of international regulation, though there are national regulations for securities; for the EEC countries, there are special EC regulations approved or in the process of approval for securities and financial conglomerates.

Table 5
Regulatory Frameworks of Financial Institutions

	International	EC⁽³⁾	USA	UK
Banks	x ⁽¹⁾	xx	x	xxx
Securities	-	x	x	xx
Financial Conglomerates	-(2)	x	x ⁽⁴⁾	x

- (1) Includes both the 1988 Accord and the regulation of securities activities of banks, the latter proposed in 1993 and to be implemented by 1997 at the earliest.
- (2) There is a IOSCO proposal for principles on which to regulate financial conglomerates, but no formal regulatory agreement.
- (3) EC directives to be enacted by 1996.
- (4) Till recently, U.S. regulation of non-bank securities' houses, within major financial groups, was practically non-existent.

Source: Table prepared by the author, on the basis of interview material, BIS and IOSCO documents, Dale *op. cit.*

It would seem, that unless special efforts are made to overcome this asymmetry, it is likely to remain for quite a number of years. This relates not only to the conceptual differences between regulators discussed above (which originate largely in the diversity between different financial institutions and their differences amongst individual countries), but also due to institutional differences, for example between BIS and IOSCO. The BIS is a long established G-10 institution, which carries a lot of weight, as it provides the basis for a 'central bank of central banks'. Its' members, the G-10 central banks also are the lenders of last resort of their own banking systems. Therefore it seems to find it easier to reach agreements than IOSCO,

which is a far newer institutions. Its' work on harmonization of international regulations is far more recent than that of the BIS. It represents bodies from 51 countries, which in itself makes it more difficult to reach agreement than in a G-10 institution. Furthermore, the bodies whose activities it coordinates, (the securities commissions) themselves tend to be fairly young, and do not have special lender of last resort powers domestically.

Problems can take place even in cases where regulations are integrated, for example due to the fact that contract law exists at a national level and therefore cannot be integrated. This is particularly an issue insofar as there is growth of transactions whose settlement is at a future date.

The differences of laws amongst countries can affect for example liquidation proceedings of collapsed financial institutions, to favour one group of national creditors against the rest.¹³ It therefore not only creates inequalities internationally, but also imposes additional pressures on settling situations of financial failure.

Besides the general issues relating to supervision and regulation in the new financial environment, it seems important to emphasize that there may be specific issues posed by the new types of risk generated by the impact of these new trends specifically related to LDC's. Though for example, national securities' regulators do have special treatment for firms investing in LDC's (which for example in the U.K. case discriminates somewhat between different types of LDC's, mainly related to the quality of regulations of the countries' stock exchange),¹⁴ the focus on LDC's seems somewhat limited, as for example it does not seem to take any account of macro-economic developments in those countries even in the context of its possible impact on investor protection.

On the broader issue of the effects of financial flows on macro-economic performance of countries (and specifically LDC's), this is explicitly not a matter of concern to any of the regulatory bodies, unless it affects the potential solvency of the financial institutions which they regulate.¹⁵ This poses the need for other international institutions (e.g. the IMF), possibly for regional bodies, and/or last but certainly not least for the national recipient governments to closely monitor the impact of such flows on current and future macro-economic trends in the LDC's, and possibly to define specific regulations to influence the level and composition of such flows.

V CONCLUSIONS

There is a growing consensus that global financial deregulation and liberalization, though having many positive effects, have also resulted both in greater risks for the global financial system and for individual investors. As R. Breuer,¹⁶ Member of the Board of Managing Directors, Deutsche Bank succinctly put it: 'This leads to a need for re-regulation and harmonization of supervisory legislation'. This does on the whole clearly not mean a return to the types of regulations that existed in the 1970's, but to types of regulations appropriate for the needs of the new financial system of the 90's, resulting largely from deregulation.

Though it may seem somewhat paradoxical, the more free-enterprise-oriented a country is, the greater the role of official supervision of financial institutions will be in such a country. This is due to the fact that in a truly market oriented economy, the danger of business failures will be high, leading to greater risk to the balance sheets of the financial institutions lending to the business sector. Especially if governments and central banks wish not to bail out financial institutions, then deregulation needs to be supported by close and well coordinated supervision of financial institutions.

From our above analysis, we can see that to achieve close and coordinated supervision of financial institutions globally a number of important tasks need to be accomplished.

Firstly, the issue of appropriate and coordinated supervision of securities needs to be dealt with far quicker than in recent years. Though the recent Basle consultative proposal makes a valuable effort in dealing with the complex issues of regulating capital adequacy for banks' securities activities, no equivalent basis exists yet for non-banks' securities. This is an important regulatory gap that needs to be filled fairly urgently. As discussed briefly above, this will need, as a pre-condition, to overcome the differences in regulatory approach to risks in securities, between the U.S. and other countries, and in particular the EEC.

Furthermore, to achieve a more closely integrated system of supervision of internationally active intermediaries in securities markets, this would probably require securities regulators to develop their equivalent of the Basle Concordat for banking supervisors, defining the responsibilities of a lead regulator in the home country in relation to host countries.

Secondly, more generally, a serious effort needs to be made to extend regulatory coverage to financial institutions that are now effectively unregulated, such as financial conglomerates. This requires closer coordination between banking and securities' supervisors. If this is not done, competitive realities will continue to lead to a shift of business away from more regulated to less regulated entities, increasing the risks to the safety and soundness of the financial system.

Thirdly, though agreements on capital requirements for banks - and hopefully in the near future for their securitized activities - in the context of Basle provide a key regulatory input, there also needs to be a large effort to reach agreements on standards, e.g. accounting standards and disclosure standards. These agreements need to be reached first globally within each financial industry's regulators (e.g. banking, securities and insurance) and then agreements to coordinate such standards need to be met. Particular emphasis needs to be placed in integrating LDC representatives into these efforts, as their standards may often be lower or particularly different from those of the developed countries.

Fourthly, additional work needs to be done to improve in specific aspects, such as crucially the organization of settlements systems for securities, so as to avoid them acting as an independent source of systemic risk. Organized settlement systems offer the opportunity to reduce or redistribute risks in a way that provides better protection both for participants in markets and the system as a whole. Among the measures necessary to improve and accelerate settlements arrangements within and between national securities markets are: shorten settlements periods, links between settlement arrangements in home and host countries and, especially, the achievement of simultaneous good delivery of securities against payment for them.

Fifth, as discussed above, there may be an increasing need to achieve greater global integration of contract law, so that contracts can be challenged internationally, and regulators can carry out liquidation proceedings that are internationally equitable. Such legal integration would both facilitate further global financial integration and aid the task of regulators in effectively and equitably enforcing their regulations. Naturally this task poses difficult issues relating to the promotion of international treaties.

Sixth, the issues raised above - and others raised by globalization and increased complexity of finance - seem to require creation of a strong and ongoing institutional capacity, at the international level. At a minimum, this would require in particular a substantial strengthening of IOSCO and a closer integration of all countries in to the Basle Accord. A more ambitious approach - both far more difficult to implement and far more satisfactory - would be to create a global board of regulators,¹⁷ with central banks and other regulatory representatives, and possibly with members drawn from the private sector. Such a body could set mutually acceptable minimum capital requirements for all major financial institutions, establish uniform trading, reporting and disclosure standards and monitor the performance of markets and financial institutions.

One of the virtues of such an approach is that it would increasingly achieve a truly global perspective on regulation, integrating both different national and functional perspectives; at present such global perspectives are difficult to achieve as regulators respond to their

constituencies and their conceptual frameworks (both at a national level and at a functional level). This is clearly a more long-term task.

Besides the above described initiatives at a regulatory level, two initiatives can be suggested, one that specifically focuses on LDC's and the second, on a proposal for an international tax. There is a specific need to fairly urgently monitor precisely the scale and composition of capital inflows into developing countries. Due to the rapid pace of innovation, and to other factors, this is no easy task. Important efforts are being carried out in this area by the World Bank and the IMF. Beyond monitoring, there seems to be a need to assess at least the present and likely future macro-economic impact of such flows on the LDC's. There may be fears that the scale and/or composition of the flows is having important undesirable effects, for example on overvaluing exchange rates via a 'financial Dutch disease phenomenon' which will discourage export growth; or there may be related fears that a dramatic reverse of large flows could have negative future effects, on output or inflation, as occurred in the debt crises of the 1980's (though the mechanisms would be slightly different). In such situations, there may be a case for measures to be taken to discourage excessive inflows, especially of certain types of flows (e.g. shorter-term ones).

Actions need above all to be guided by the principle that the capital inflows to LDC's should contribute to countries' long-term growth and development on a sustained basis, and that future debt or major foreign exchange crises need to be avoided. The last LDC debt crisis is such a recent phenomenon, that we can all remember the 'sins of omission' by different key actors and extract relevant lessons for the management of the new type of private flows of the nineties, so that their long-term effect is more beneficial and sustained.

Finally, a measure that may deserve attention is Tobin's proposal to levy an international uniform tax on spot transactions in foreign exchange.¹⁸ Tobin's proposal is for a 1/4 per cent tax on currency transactions. The aim would be to slow down speculative, short-term capital flows movements (which would be more affected as by definition they cross borders often, and would be taxed every time), while having only a marginal effect on long-term flows. This would somewhat increase the autonomy of national authorities for monetary and macro-economic policy, with a bit more independence from the effects of international money markets. Such an autonomy would be particularly valuable for LDC's, to the extent that their economies adapt less easily to external shocks and because their thinner financial markets are more vulnerable to the impact of external capital inflows and outflows. The proposal would be particularly attractive to LDC's if the proceeds of it were to go, as Tobin suggested, to the World Bank.

This proposal is different from the other seven listed above, in that it may seem more radical. However, there is a widespread feeling, even in private circles, that financial liberalization may

have proceeded too far or at least too fast, and that financial liberalization carried to the extreme may even risk damaging the far more important trade liberalization, whose benefits are far more universally recognized. Furthermore, a new tax would be attractive to fiscally constrained governments.

Therefore, a small tax on financial flows - which particularly discourages short-term flows - could be a welcome development. It could be introduced on a temporary basis for a fixed period, e.g. 5 years. This would be consistent with the fairly widespread perception that financial fragility and systemic risk are particularly high in the current stage, of 'transition' from regulated to deregulated financial markets.

Doubtless technical problems would need to be overcome. An institution like the IMF would be very competent to deal with them. More seriously, probably, would be the opposition of certain parts of the financial community, which would lobby against such a proposal.

¹ I thank Luis Gonzalez and Vassilis Papageorgiou for very valuable research assistance and am grateful to regulators, who offered valuable insights, when I interviewed them.

¹ See, for example, World Bank Global Economic Prospects and the Developing Countries, 1993, pp.35-36.

² See, World Bank, op. cit.; WIDER, Foreign Portfolio Investment in Emerging Equity Markets, Study Group Series No 5, Helsinki; S. Gooptu Portfolio Investment Flows to Emerging Markets, World Bank Working Paper, March 1993, WP51117, Washington D.C.

³ For a detailed analysis of this trend, see R. Dale, International Banking Deregulation, the Great Banking Experiment, Blackwell 1992, Oxford, U.K.

⁴ See, for example, BIS op. cit.; also, R. O'Brien, Global Financial Integration: The End of Geography, Pinter Publishers, U.K. 1992.

⁵ See, World Bank, op. cit.

⁶ See, for example, E.P. Davis, 'The Structure, Regulation and Performance of Pension Funds in Nine Industrial Countries', Mimeo, Bank of England, 1992; also, Howell M. and Cozzini A. (1991) Games without Frontiers: Global Equity Markets in the 1990's, Salomon Bros, London.

⁷ OECD, 'Systemic Risks in Securities Markets', Financial Market Trends, No 49, June 1991, Paris.

⁸ E. Frydl, 'The challenges of financial change', Federal Reserve Bank of New York, Annual Report (1985).

⁹ Interview material.

¹⁰ Interview material.

¹¹ Interview material; see also, The Economist, October 31st, 1992, 'Capital spat' and Financial Times, May 4, 1993 'Tough time making a level playing field'.

¹² See, IOSCO. Final Communique of the XVII Annual Conference, London, 1992.

¹³ Interview material.

¹⁴ Interview material.

¹⁵ Interview material.

¹⁶ R. Breuer, 'Financial Integration - The End of Geography', IOSCO XVII Annual Conference, London, October 1992.

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- 17 H. Kaufmann, at the 1992 IOSCO Conference, suggested the creation of such a body,
and called it 'Board of Overseers of Major International Institutions and Markets'.
18 J. Tobin, 'Tax the speculators', Financial Times, December 22, 1992.