TRENDS IN GLOBAL FINANCE, MARKETS AND INSTITUTIONS: SOME IMPLICATIONS FOR DEVELOPMENTS IN THE ASIAN REGION

The paper briefly describes three interrelated developments in global capital markets: the sustained rise in gross capital flows relative to net flows; the increasing importance of securitised forms of capital flows; and the growing concentration of financial institutions and financial markets. It examines why these developments have contributed to a sharp rise in the volatility of capital flows and asset prices. Finally, it considers the implications for the ongoing development of capital markets and financial institutions. The implications include the increasing foreign penetration of financial systems in emerging markets; the new emphasis on developing adequate liquidity in financial markets; the rise in competition among financial institutions and markets, including cross-border competition; pressures for modernisation and convergence of national regulatory and legal frameworks; the development of new financial instruments to price and to redistribute various financial risks; and the development of local financial markets as a defence against volatile international capital flows.

Introduction

This paper examines the implications of three broad, interrelated trends or structural changes in global capital markets: the sustained rise over the past decade in gross capital flows relative to net flows; the growing reliance on securitised forms of capital rather than more traditional forms such as syndicated bank credit and foreign direct investment; and growing concentration of financial institutions and financial markets. Taken together these trends may signal what some others have referred to as a ‘quiet opening’ of the capital account of the balance of payments, which is resulting in the development, strengthening and growing integration of domestic financial systems within the international financial system. Finance is being rationalised across national borders, resulting in a breakdown in many countries in the distinction between onshore and offshore finance. It is particularly evident and most advanced in the wholesale side of the financial industry, and is becoming increasingly apparent in the retail side as well.
Taken together these three effects have contributed to a sharp rise in volatility – in both capital flows and asset prices – which may be characterised as periods of turbulence interspersed with periods of relative tranquillity. Investor behaviour (the supply of international capital) is a critical reason behind the rise in volatility.

These broad trends have some important implications for the ongoing development of capital markets and institutions, including those in Asia. This paper considers the implications of increased foreign penetration of financial systems in emerging market countries; the premium that securitisation is placing on developing adequate liquidity in financial markets, which in turn depends on dedicating enough institutional capital to market-making; the extent to which the search for liquidity and cost efficiencies through the consolidation of financial institutions is generating competition both among financial institutions and financial markets, including cross-border competition; the pressures for modernisation and convergence – if not full harmonisation – of national regulatory and legal frameworks, including the development of common forms for particular financial instruments, disclosure standards and accounting standards; and the rapid growth in the use of instruments to price and redistribute risk as a defence against heightened volatility. Finally, it considers how the ‘on again/off again’ nature of market access for borrowers in emerging markets, which is a consequence of the rise in volatility and highly variable investor behaviour, has raised the ‘insurance value’ of a strategy to accelerate the development of local capital (particularly bond) markets.

Three key trends in international capital markets

The sharp rise in gross capital flows

The evidence points to an acceleration of capital account opening in most regions of the world since the late 1980s. The effects of opening in the formal sense of liberalising transaction taxes and regulatory and legal restrictions on capital movements have been augmented by the liberalisation of domestic financial sectors and by technologically induced reductions in transaction costs. This opening has resulted in a sharp rise in gross capital movements relative to net capital movements. As shown in Figures 1–4, net capital movements were quite stable during the 1980s and 1990s, remaining for the most part in the range of 2–3 per cent of global GDP and essentially trendless. The average has been slightly lower for industrialised countries (in the order of 1–2 per cent of GDP) than for developing countries (in the order of 3–4 per cent). What this has meant in practice is that net flows have grown more or less in line with global GDP.
Figure 1 Global current account balances, 1980–00 (per cent)

Notes: 1 The ratio of the sum of absolute values of current account balances to global GDP (all in US dollars).
2 The ratio of the median of absolute values of current account balances to median GDP (all in US dollars).
Source: International Monetary Fund, World Economic Outlook database.

Figure 2 Industrialised countries: current account balances, 1980–00

Notes: 1 The ratio of the sum of absolute values of current account balances to global GDP (all in US dollars).
2 The ratio of the median of absolute values of current account balances to median GDP (all in US dollars).
Source: International Monetary Fund, World Economic Outlook database.
**Figure 3** Developing countries: current account balances, 1980-00 (per cent)

![Graph showing current account balances for developing countries, 1980-2000.](image)

**Notes:**
1. The ratio of the sum of absolute values of current account balances to global GDP (all in US dollars).
2. The ratio of the median of absolute values of current account balances to median GDP (all in US dollars).

**Source:** International Monetary Fund, *World Economic Outlook* database.

**Figure 4** Asia excluding Japan: current account balances, 1980-00 (per cent)

![Graph showing current account balances for Asia excluding Japan, 1980-2000.](image)

**Notes:**
1. The ratio of the sum of absolute values of current account balances to global GDP (all in US dollars).

**Source:** International Monetary Fund, *World Economic Outlook* database.
In contrast to net flows, gross flows have risen dramatically (Figure 5). From a ratio of US$2 of gross capital flow for every US$1 of net capital flow in the mid-1980s, the ratio grew relatively steadily to about 3:1 in the early 1990s, and then accelerated sharply to 7:1 in 1997. The ratio has subsequently been in a range of 5–7:1, with a significant degree of volatility. An implication of this rapid growth in gross flows is that domestic financial systems in mature and emerging market countries have been required to intermediate a sharply growing volume of international capital.

It is also interesting to note that, coincident with the sharp rise in gross flows, there has been a departure from the positive correlation between gross and net; as a result, net flows are no longer even a good predictor of gross flows (Figure 5).

**The rise in securitised forms of capital**

International capital flows have increasingly been in a securitised form. At a global level, direct intermediation through bonds and equities has begun to dominate more traditional forms of capital, such as syndicated bank lending and foreign direct investment.

![Figure 5 Gross global capital flows relative to net global capital flows, 1985-00](image)

**Figure 5 Gross global capital flows relative to net global capital flows, 1985-00**

Note: The figure shows the sum of absolute values of gross inflows and gross outflows to the sum of absolute values of current accounts.

Sources: International Monetary Fund, *World Economic Outlook* database; and *International Financial Statistics.*
The current trend to securitisation of capital flows to emerging markets possibly had its origins in the global debt crisis of the 1980s. At that time private capital movements primarily involved syndicated bank credit. Following the extensive losses that many of the large international banks sustained during this period, there was a marked reluctance on their part to extend sovereign credit in the form of syndicated loans. Their espoused strategy has been to focus on so-called bankable business, in the form of trade credit or loans for specific commercial purposes with clearly identifiable cash flows and/or suitable collateral. The debt and debt-service reduction agreements at the end of the decade that resulted in the issuance of tradeable, collateral-backed Brady bonds in exchange for outstanding loans, provided the basis on which emerging market bonds have been erected.

Impetus also came from the accelerating trend in mature markets toward nonbank forms of financial intermediation. In the United States and Europe, the larger internationally active banks have sought to diversify into higher margin, fee-generating activities in an attempt to raise their return on equity. It is worth noting that this trend has been further stimulated recently by the rapid expansion of Euro-area securities markets, which has accelerated the shift by European banks into wholesale finance. As noted below, the expansion of Euro-securities markets has provided new opportunities for emerging market finance. While bank lending is still the dominant form of corporate finance in Europe, the direction of the trend seems clear enough. Similarly, in Japan, it is a reasonable conjecture that restructuring of the banking system will lead in time to a marked increase in directly intermediated finance.

The consolidation of financial institutions

The past few years have witnessed an acceleration of consolidation among financial institutions in mature markets and a similar trend is now gathering momentum in emerging market countries. Consolidation has been the subject of a detailed G-10 study of developments in mature markets (including the G-10 countries, Australia and Spain). The main forces driving consolidation include: attempts to reap economies of scale and scope (a search for cost reductions driven by competitive pressures on margins and shareholder pressure for performance); improvements in information technology, as well as the onset of e-commerce and the spread of e-banking; and deregulation, particularly that which is encouraging the spread of universal banking. Most merger and acquisition activity during the past decade has involved the banking sector, and has resulted in the creation of large and complex financial institutions (LCFIs).
Consolidation is also affecting securities exchanges. In addition to the effect of technology on trading, the main causal factors are the liberalisation of commissions, reduction in barriers to foreign entry, removal of antiquated trading rules and changes to governance structures.

In many countries, the rapid growth and consolidation of private pension funds has been a major factor driving financial sector consolidation.

**Two important consequences**

**Volatility**

One of the main consequences of the intersection of these three trends has been periods of extreme turbulence in international capital flows, followed by periods of relative tranquillity. This volatility is evident both in the flows themselves and in the prices (or spreads) at which they are transacted. Interestingly, volatility is concentrated in portfolio flows, both bond and equity, and is much less evident in more traditional forms of capital flows such as foreign direct investment and syndicated credit; although in the case of foreign direct investment, there is an important cyclical element connected to the growth cycle in mature economies (Figure 6).

The market for emerging market dollar bonds has been a particularly unstable component of international portfolio capital flows, and has been characterised by repeated periods when access by emerging market borrowers has been effectively closed, followed by periods of robust issuance. Indeed, the on-off nature of access by emerging markets appears to have become a key characteristic of international financial markets. IMF analysts have identified 11 periods since 1993 when ‘closure’ has occurred, including several episodes during 2000–01 (IMF 2001a: 19–20). From mid-August and the most recent turbulence in Argentina (not to mention the events of September 11 until the end of November), borrowing spreads have widened for many countries and the market was effectively closed again.

The IMF analysis shows that these closures typically have been for relatively short periods, the longest to date having occurred when the Russian debt crisis and the problems at Long-Term Capital Management (LTCM) coincided in August/September 1998. That closure lasted for approximately three months. Market closures appear to coincide with periods when spreads widen sharply and volatility increases. Re-opening of markets seems to take place only after volatility dissipates.
**Figure 6 Net capital flows to emerging markets, 1992-00** (per cent of GDP)

Total net capital flows

Sources: International Monetary Fund, *World Economic Outlook* database; and *International Financial Statistics* database.

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**Sources:** International Monetary Fund, *World Economic Outlook* database; and *International Financial Statistics* database.
Another volatility-related feature of the market for emerging market bonds has been the extent of contagion from one country to another, with events in one country often triggering a flight from other emerging markets without any clear economic rationale. Contagious movements were most notable during the Asian debt crisis in 1997. While still a concern in emerging markets, contagion during the past 12 months has been less of a factor than previously.

As a final point, it is worth noting that volatility has not been confined to emerging market bonds but has also, and this is of relevance to the Asian region, affected securities markets. Coincident with volatility in the NASDAQ market, there has been a sharp decline in issuance of shares in the technology, media and telecommunications (TMT) sectors, with corporations having fallen back on syndicated credit as a source of finance. It is somewhat ironic that syndicated credit now appears to be acting as a stabilising force in international capital markets, given its previous role in triggering the debt crisis of the 1980s when it was the dominant form of private capital flow.

**Emphasis on the supply of capital**

In seeking to explain the rise in volatility, it is necessary to return to the previous discussion of the increase in gross capital flows relative to net flows. Discussions of capital flows have traditionally focused on the ‘demand side’ of emerging market financing by examining current account balances, which are equal to the net external financing needs of countries, and then seeking to identify ways in which these financing needs could be met and on what terms. However, this approach ignores trends in capital flows into and out of the major advanced economies, which are the source of most cross-border capital and the main reason why gross flows have risen so dramatically relative to net flows. These flows are typically in a securitised form and, as such, are susceptible to trading in active secondary markets. By one estimate, investors in the mature markets of Europe, the United States and Japan have been accumulating securities issued outside their own countries at the rate of about US$1 trillion a year (Smith 2000). This means that international capital flows are increasingly determined by global asset-allocation decisions made by globally active financial institutions in major industrialised countries. These institutions are becoming increasingly concentrated as a result of the global trend toward consolidation. Understanding capital movements increasingly requires an analysis and understanding of the underlying investor base.
A case in point relates to the on-off nature of the market for emerging market dollar-denominated bonds. The dedicated investor base for emerging market securities has contracted in recent years, reflecting the closure of several large hedge funds, the orientation of other hedge funds toward mature market investments and reductions in the capital allocated to support the activities of the proprietary trading desks of some international investment banks. Moreover, the current investor base is dominated by ‘crossover’ investors; that is, investors who invest short-term and opportunistically in the asset class and whose benchmark portfolio typically has a zero weight on emerging market securities. The holdings of emerging market securities by a particular crossover investor are a small share of the investor’s total portfolio and thus can be liquidated quickly without major impact on its overall value; however, the aggregate impact in the emerging debt market of crossover investors as a group reacting to a specific event, making an exogenous shift in risk appetite or rebalancing portfolios in response to losses or gains elsewhere, can be overwhelming. These developments suggest that, unless the dedicated investor base expands significantly, on-off market access is likely to be a regular feature of emerging market finance.

Other examples of the importance of the investor base, and the extent to which developments in mature financial markets impact on the issuance of emerging market securities, have arisen because of the creation of a pan-European debt market since the inception of the euro, and the growth of European pension funds. These events have resulted in the establishment of a market for euro-denominated emerging market debt, at both the retail and institutional level. The effect has been to mitigate to a degree the access problems associated with the on-off nature of the dollar-denominated market. These markets (along with a market for yen-denominated issuance) are demonstrably less volatile than the dollar market, and have tended to remain open when the dollar market has closed. Thus, they have become an alternative source of funds, with a more stable investor base that appears to be well worth the time and effort of emerging market countries to cultivate.

**Implications for the Asian region**

The consolidation and increased foreign penetration of domestic financial systems

The consolidation occurring in the banking and financial sectors is a worldwide trend that has gathered momentum in recent years. Initially largely a banking sector phenomenon, consolida-
Consolidation has increasingly also affected the nonbank financial sector and has resulted in the establishment of large and complex financial institutions. In recent years, the trend has begun to gather pace in emerging market financial systems, including those in Asian countries. In addition to the main factors that are driving consolidation in mature markets – improvements in information technology, the progressive deregulation of the financial sector and competitive pressures that have come about as a result of reduced margins in traditional banking business – the need to restructure banking systems in the wake of a financial crisis has been an additional factor in emerging markets. Some Asian financial crisis countries appear to be entering a second round of banking and financial sector restructuring where further consolidation and the formation of financial holding companies will play a major role.

A distinguishing feature of consolidation in emerging markets is that it has been a cross-border phenomenon that has resulted in substantial foreign penetration of domestic financial systems. Indeed, colleagues in the IMF refer to a ‘staggering increase’ in foreign ownership and control of domestic banks in emerging markets, especially in Latin America and emerging Europe, but also to a lesser degree in Asia. Note, too, that foreign penetration can be indirect and more subtle than the ownership/control connection. The recent triennial survey of foreign exchange and derivative markets coordinated by the Bank for International Settlements (BIS), for example, revealed that growing volumes traded in the Australian foreign exchange market have a foreign-induced component, with 65 per cent of transactions now occurring between resident dealers and overseas banks, up from 50 per cent in the preceding survey (RBA 2001).

As to the consequences for the Asian region, the trend to further consolidation seems likely to continue for the foreseeable future. In addition to those countries where banking systems are in need of further strengthening and restructuring, there is also a case for consolidation in the Hong Kong SAR and Singapore banking systems, which are increasingly specialising in asset management and unit trusts/mutual funds with the aim of reaping economies of scale and scope. As to the mature markets in the region, both Australia and Japan were participants in the G-10 study of consolidation and its conclusions presumably apply broadly to them. With the main causal forces still operative in these countries, it seems likely that further consolidation will be in order. For the region as a whole, just how much further foreign penetration will proceed will depend on whether countries are prepared to regard financial services as ‘just another industry’ that can be allowed to find the least costly, most robust way to provide its product. New Zealand may well be the prototype or limiting case, with foreign control rising to 100 per cent of the banking system. At the same, it is interesting to note that there are forces at play in New Zealand that may result in some rollback of foreign ownership and control.
Foreign penetration and increased consolidation may have surprising consequences for competition and financial stability. The entry of foreign banks can intensify competition while at the same time accelerating the consolidation process. Consolidation has ambiguous implications for systemic risk. Greater diversification of a firm’s business (including geographically) through consolidation has to be balanced against heightened operational risks and managerial complexities at the firm level. At the system-wide level, large and complex financial institutions raise moral hazard issues, increase the potential channels for the transmission of instabilities – both nationally and across borders – and reduce the transparency of the system. Increased foreign penetration may increase systemic vulnerability because, as noted in the G-10 study, even a relatively small bank from a large nation could be large enough to be a potential source of instability in a relatively small host country. This point serves to illustrate that emerging markets have become increasingly dependent on the quality of supervision in mature markets. On the other hand, well-capitalised foreign banks with offshore access to liquid resources can be a source of stability in times of domestic financial system distress. In any case, it is clear that the consolidation phenomenon has increased the payoff to countries in the region of strengthening financial supervision, including strengthened regional cooperation.

The premium on liquidity

From the perspective of an investor, the appeal of securitised forms of investment rests in part on the liquidity of the investment, which depends on the possibility of continuous valuation of the security and the ability to adjust positions quickly in secondary markets without undue impact on market price. Order-driven markets, such as stock exchanges, need to concentrate trading in order to optimise liquidity; dealer markets, which are the typical form of bond markets, require well-capitalised market-makers capable of position-taking in size to provide the necessary liquidity and depth. From the perspective of the issuer, deep and liquid markets are needed to optimise placing power and thereby minimise issuance costs and risks. As an increasing share of international capital movement takes a securitised form, the need increases for sizeable financial institutions that are prepared to dedicate a substantial capital base to the market-making function. Market-makers in turn need access to well-capitalised, highly liquid banks as a form of support to the financial infrastructure. To provide some idea of the importance and potential scale of needed market-making capacity, it is instructive to look as a benchmark at the market for internationally traded foreign exchange, which is probably the
most liquid and deep market in the world. There, according to the just released BIS-coordinated triennial survey, fully 60 per cent of transactions are between dealers.

The problem for emerging markets that rely on securitised flows of capital, including those in the Asian region, is that the institutional capital required to support liquid secondary markets is not always available and, indeed, may be shrinking. In some instances, hedge funds have closed which, in the past, had been active players in emerging market instruments, while others have diverted their activities to mature markets. Proprietary trading desks in some major international investment banks have reduced the scale of their operations. Inadequate market-making capacity inevitably contributes to a further rise in volatility, which further reinforces the on-off nature of these markets. Not only does this increase the risk to countries of a reliance on securitised forms of capital, but it also establishes the dynamics of a vicious circle by providing a motivation for existing market-makers to further reduce their exposure to market-making.

Intense competition between markets

The past decade has seen a major change in the securities trading industry, driven partly by rapid technological innovation and the globalisation of finance. One effect has been a significant decline in trading costs – which has reduced the costs of raising equity capital and has provided an incentive to shift issuance and trading activity to lower-cost centres. This process has put immense pressure on exchanges in emerging markets and smaller mature markets to consolidate, liberalise access and deregulate brokerage commissions to maintain competitiveness. The need to concentrate trading activity in order to achieve the necessary depth and liquidity has only added to the intensity of competition. In addition to providing pressure to integrate exchanges within national markets, these forces also create an incentive for cross-border alliances among exchanges and the formation of regional markets.

The effects of these forces have been particularly evident in Asian countries, where stock and derivative exchanges have merged and demutualised in Hong Kong SAR and in Singapore. The change in governance structure through demutualisation has been seen as critical to the ability to respond to the challenges that rapid change in the industry entails. Plans to merge and/or demutualise have occurred or are in train in Malaysia, Korea and the Philippines. Related to the competition among exchanges, the brokerage industry in Asia faces strong pressure to liberalise commissions. For example, Singapore liberalised commissions in October 2000, and
fixed commission rules have broken down in Korea. Malaysia is following a two-stage approach, to allow the industry time to adapt to the change, while in Hong Kong, commissions are due to be liberalised this year.

Another effect of the intense competition has been the tendency for certain markets to specialise as a way of attracting sufficient business to achieve the scale of operations needed to build liquidity and reap cost advantages. Singapore, for example, has sought to implement a strategy of fostering the development of asset management activities. Australia has seen substantial growth in foreign exchange business in the past three years, in marked contrast to the general trend recorded in the BIS-coordinated triennial survey of a marked worldwide decline in daily turnover. The reason has been that a number of global players have focused their Asian time zone business in Australia. As a result, daily turnover in US$/third currency business has grown to the point where it is almost equal in volume to US$/A$ turnover. This growth has added substantial depth and vibrancy to the local financial community.3

Modernisation and convergence of regulatory frameworks

Consolidation and the competition for financial business is leading to the adoption of new legislation in national markets to establish a ‘competitively neutral’ regulatory environment (e.g., the Financial Services Reform Bill, which came into effect in Australia in March 2002). But the process is driven also by the contestability of financial transactions among financial centres, which risk losing business when antiquated regulatory frameworks raise operation costs. Convergence is also evident in the development of common legal forms for particular financial instruments that are traded in national markets (e.g., swaps), disclosure standards and accounting standards. At the same time, the potential for systemic instability and contagion across national boundaries creates an incentive to adopt best practices in regulatory frameworks. The recognition of the importance of implementing best practices underlies the Financial Sector Assessment Program (FSAP) by the IMF and the World Bank, which seeks inter alia to assess countries’ observance of key regulatory standards such as the Basel Core Principles for Effective Banking Supervision, the IOSCO (International Organisation of Securities Commissions) and the IAIS (International Association of Insurance Supervisors) principles for the securities and insurance industries, and the core principles for systemically important payments systems. Foreign penetration of domestic financial systems places a substantial premium on cooperation among national supervisors.
The growing use of synthetic financial instruments

It has long been recognised that securitisation has brought with it the possibility to unbundle credit and market risks, price them efficiently, and distribute them to institutions and investors most equipped to deal with them. Such instruments can be used also as a means for hedging the volatility risk inherent in the modern international capital market. It is therefore important that countries seek to encourage the development and appropriate use of such instruments.

The recent BIS-coordinated triennial survey of foreign exchange turnover provides evidence on the extent to which the use of such instruments is growing worldwide. In contrast to the world-wide decline in foreign exchange market turnover, there has been a 50 per cent rise in derivatives trade in the three years since the survey was last conducted, all of this due to the growth in interest-rate-related products. The trend seems to be well established in Asia. In Australia, for example, the survey pointed to a tripling in derivatives contracts since the last survey, suggesting rapid strides in the maturation of local capital markets.

Domestic financial markets as a defence against high and rising volatility of international capital flows

This paper began with the observation that finance is being rationalised across national borders and that the ‘quiet opening’ of capital accounts is resulting in the growing integration of domestic financial systems within the international system. This opening is particularly evident in the mature markets, where capital flow restrictions have long since disappeared and the opening has been driven by a reduction in transactions and operating costs, making large-scale capital movements profitable even when the prospective return per dollar invested is small. The opening is less advanced in many emerging markets, where higher risks, transactions costs, regulatory restrictions, and so on, still militate against complete integration. The main consequence of this opening has been a massive expansion in gross capital flows and an attendant rise in their volatility. This volatility is most apparent in the flows that are intermediated in the form of emerging market bonds but, as has been seen with the collapse in the TMT sector, equity flows are subject to similar forces. Such volatility, which triggers the on-off nature of market access, has serious consequences for emerging market borrowers – both for sovereigns and for the high-quality corporates that can access these markets – and especially for those in countries with sustained current account deficits and limited foreign exchange resources to buffer abrupt
changes in flows. In effect, such borrowers risk becoming hostage to forces they cannot control, as the sharp changes in investors’ appetite for risk, portfolio-rebalancing decisions, and so on, can be triggered by events that occur beyond the borders of the borrowing countries that are affected by them.

There are a number of strategies that countries can employ to mitigate these risks. The most important may well be a change in attitude to financing the balance of payments. In many cases it seems that countries have been most focused on minimising debt-servicing costs without giving sufficient attention to developing debt structures that are robust to volatility in capital flows. Some analysts have argued that the corporate finance literature is relevant and can be used to help design a country liability structure that is relatively immune to volatility. An important element of such a strategy can be a conscious effort to develop domestic capital markets for their insurance value as a defence against rising volatility.

Countries in the Asian region already have begun to take important steps in this direction, although motivated, perhaps, by reasons other than an attempt to buy insurance against volatility. A catalyst for the recent growth of emerging market bond markets has been the corporate and bank restructuring in the aftermath of the Asian debt crisis, which has required the authorities to issue large quantities of domestic bonds to fund purchases of nonperforming loans and recapitalise local banks. It is probably also the case that the relatively low interest rates that have been available in these markets for high-grade corporates and banks stimulated issuance in the Asian region, notably earlier this year. Whatever the precise explanation, the rise in corporate bond issuance in Asia has been quite dramatic. Between 1997 and 2000, the outstanding stocks of local currency bonds in Malaysia, Korea, Thailand, Indonesia and the Philippines more than doubled to almost US$425 million (IMF 2001b: 45).

A variant on the development of local markets as an alternative, more stable source of finance is to encourage the development of a local investor base with an interest in acquiring foreign-exchange-denominated debt and equity instruments that were initially issued in an attempt to tap foreign investors. The emergence and growth of private pension funds has been an important driver. Such funds, which are often restricted by regulations in a way that makes them a captive buyer for these instruments, can be a more stable investment source than the foreign investor and may also prove to be stable purchasers at times when foreigners choose to trim their holdings. Similarly, domestic banks can be big buyers of foreign-exchange-denominated instruments as a means of balancing the foreign exchange risk inherent in a build-up of foreign exchange deposits.
In summary, the growth of local debt and equity markets in Asia has been an important step that can be further developed as a defence against high volatility in international capital flows. Somewhat paradoxically, perhaps, joining the trend by completing the development and integration of domestic capital markets may be the best defence against the negative consequences of the global integration of capital markets that is proceeding rapidly in other parts of the world.

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**Notes**

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1 Gross capital flows comprise both capital inflows and capital outflows. The difference between the two, which may be either an inflow or an outflow, is the net capital movement.

2 In standard balance of payments accounting, the current account balance is equal in absolute value to the net capital movement, plus the change in official reserves (if any).


4 See, for example, BIS (1986).

5 See, for example, Pettis (2001).

6 Note again the parallel with the issuance of Brady bonds at the end of the 1980s debt crisis, which helped to catalyse the development of the market for emerging market bonds.

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