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Changing links between mature and emerging financial markets[1]

Emerging and mature financial markets are more integrated today than at any time since the First World War. Net capital flows to emerging markets have yet to return to the levels of the mid-1990s and remain significantly below those reached a century ago. However, cross-border flows provide an incomplete picture of the breadth and depth of links between mature and emerging financial markets. The range of foreigners investing in emerging markets has broadened in recent years. Local operations of foreign financial institutions are playing an increasingly important, in some cases even dominant, role in the financial systems of many emerging markets. At the same time, emerging market residents are increasingly involved in foreign financial systems, both as issuers and as investors. This special feature discusses these developments and identifies several issues for public policy arising from greater integration.

Capital flows and market integration

Capital flows to emerging markets are still below their 1990s peak ...

Net private capital flows to emerging markets as a group remain far below the peak reached in the mid-1990s. They amounted to $44 billion in 2002, compared to an average of $94 billion a year in 1995–96. Flows to Latin America are at their lowest level in a decade. Flows to Asia are gradually recovering from the sharp decline after the Asian crisis; in 2002, new lending by foreign banks exceeded repayments for the first time in five years. Flows to central and eastern Europe have held up better than those to other regions, supported by the process of accession to the European Union (Graph 1). Flows to emerging markets are expected to increase in 2003, but not substantially so.

... but financial links have continued to strengthen

While the recent weakness in the *volume* of capital flows has had an adverse impact on the macroeconomic performance of a number of emerging markets, changes in the *character* of capital flows – or in financial intermediation more generally – are likely to be more significant over the longer term. Even as capital flows slowed in the late 1990s, links between mature and emerging financial markets continued to evolve and actually

[1] The views expressed in this article are those of the authors and do not necessarily reflect those of the BIS.

strengthen. Indeed, by some measures, mature and emerging financial markets are more integrated today than during the mid-1990s.

Closer co-movement of asset prices ...

One indicator of the growing degree of integration is the close co-movement of securities prices in mature and emerging markets in recent years. The correlation between changes in emerging market bond spreads and changes in US high-yield bond spreads is significantly higher today than a decade ago despite important differences in the fundamentals underlying the two asset classes (Graph 2). The correlation between emerging market equities and the S&P 500 Index of US stocks has also risen. These higher correlations suggest that price movements are increasingly explained by global factors common to mature and emerging markets; the importance of idiosyncratic local factors is diminishing.

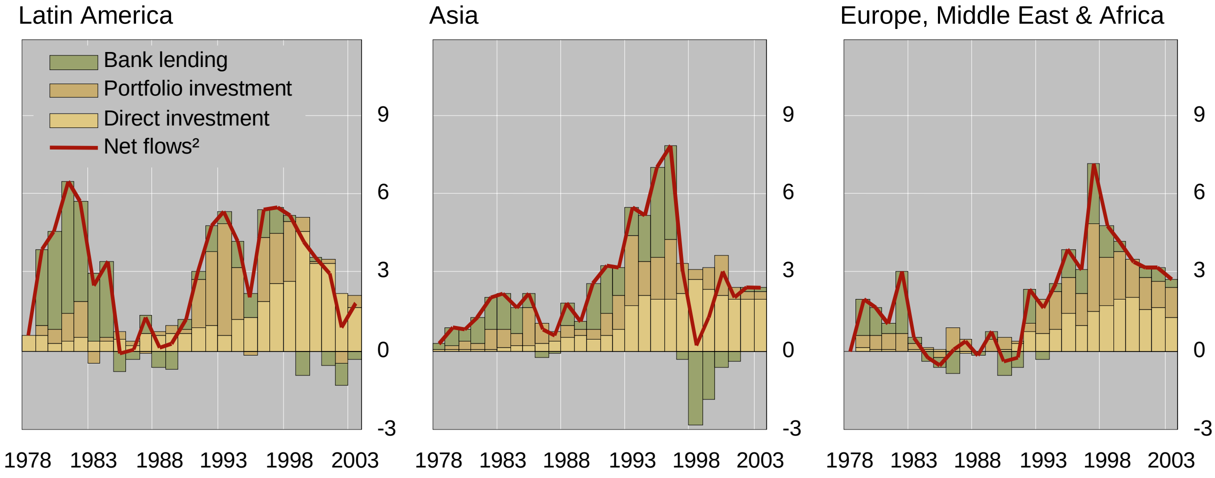
... reflects increasing importance of common factors

Various econometric studies confirm the growing importance of common factors in explaining the volatility of emerging equity and bond prices. Bekaert and Harvey (1997) demonstrate that global factors explain a larger proportion of equity volatility in emerging markets which have liberalised. Bekaert et al (2003) conclude that emerging market equity returns were more highly correlated with world equity returns during the 1990s than during the 1980s. McGuire and Schrijvers (forthcoming) find that one third of all variation in emerging market bond spreads over the 1997–2003 period can be ascribed to a single common factor.

This process of integration was set in train in the mid-1980s, when many emerging (and mature) markets began to liberalise their financial systems, open their capital accounts and implement other market-oriented reforms. In general, the period from the mid-1980s to the mid-1990s was characterised by the removal of many government restrictions on financial market activities. Progress in removing capital controls subsequently slowed, and in fact a number of countries expanded controls on institutional investors in the late

Net private capital flows to emerging markets[1]

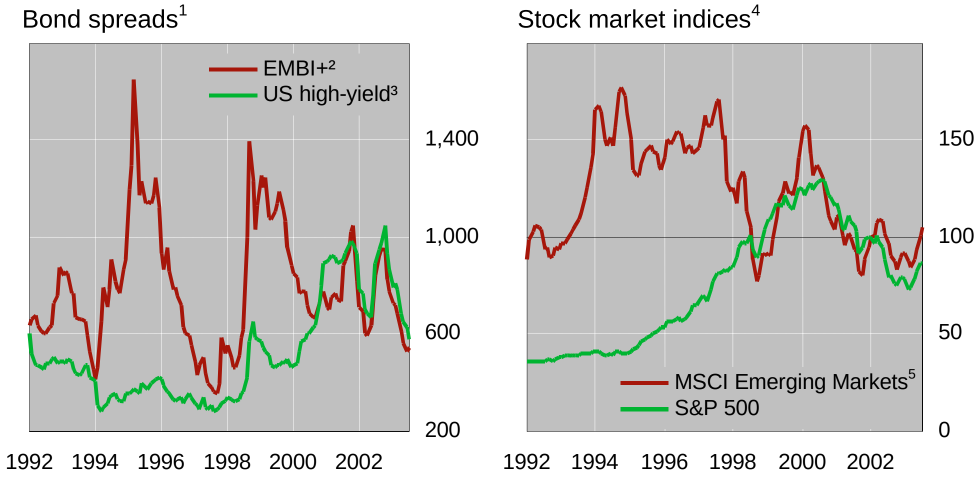
As a percentage of regional GDP



[1] For 2003, IIF forecast. [2] Excluding cross-border lending and investment by residents of emerging markets.

Source: Institute of International Finance (IIF). Graph 1

Co-movement of mature and emerging market securities



[1] Over US Treasury yields; in basis points. [2] Stripped spread of emerging market bonds, as calculated by JPMorgan Chase; prior to 1999, EMBI. [3] Spread of US high-yield bonds over US Treasury bonds with similar maturity. [4] January 2002 = 100. [5] In US dollar terms.

Sources: Bloomberg; Datastream; JPMorgan Chase; Merrill Lynch. Graph 2

1990s (IMF (2003a)). Nevertheless, links between mature and emerging markets deepened as investors and issuers took full advantage of the opportunities that had been made available earlier.

Diversification of the investor base

One way in which links between mature and emerging markets have strengthened is through changes in the investor base. A broad range of participants from mature economies are now active in emerging financial markets. Whereas in the 1970s foreign banks were the dominant source of private capital inflows to emerging markets, starting in the early 1990s equity and bond investors became an important source. In fact, for emerging markets as a group, cross-border portfolio investment has exceeded bank lending in eight of the last 10 years.

Growing presence of institutional investors

Furthermore, the range of investors purchasing emerging market securities has broadened. Specialised investors such as hedge funds and mutual funds focusing on emerging markets accounted for the bulk of portfolio inflows in the early to mid-1990s. In more recent years, investors who traditionally invested in highly rated debt issued in mature markets have increased their presence. In particular, pension funds, insurance companies and other institutional investors have added emerging market assets to their portfolios. According to JPMorgan, trading activity by such investors increased from 9% of total turnover in emerging market debt instruments in 1998 to 32% in 2002 (World Bank (2003)). By contrast, the market share of hedge funds fell from 30% to 10%.

Innovations in fixed income indices, against which institutional investors often benchmark their performance, underline the diversification into emerging market assets. Investment banks introduced a number of global bond indices in the late 1990s covering not only debt issued in mature markets but also emerging market bonds. For example, emerging market debt accounts for approximately 2% of Lehman Brothers' Global Aggregate Index, introduced in 1999 to capture the universe of investment grade debt. Furthermore, dedicated emerging market indices were refined in various ways to meet the demands of institutional investors. For instance, JPMorgan's Emerging Market Bond Index Global Diversified – introduced in 1999 – limits the weighting given to larger debtors. There now even exist indices comprised of bonds denominated in emerging market currencies, designed to help institutional investors diversify into local markets, as well as separate credit ratings for such bonds.[2]

The changing character of banks

Changing forms of banks' activities ...

The growing diversification of the investor base for emerging market assets was accompanied by a radical change in the nature of commercial banks' involvement in emerging markets. Internationally active banks turned their focus from cross-border lending to local business and capital market activities.

... lead to strong growth of locally funded claims

Beginning in the mid-1990s, US and European banks greatly expanded their locally funded operations in emerging markets. Through mergers and acquisitions of local banks, locally funded claims increased fourfold in US dollar terms between 1995 and 2002, to $544 billion (Graph 3).[3] Foreign banks invested most heavily in Latin America, followed by central and eastern Europe. They also expanded their local business in emerging Asia, although not as dramatically as in other regions. The growth of local claims greatly outpaced that of cross-border claims, and as a result local claims rose from 14% of foreign banks' total claims on emerging markets in 1995 to 40% by the end of 2002.

Increasing role of fee-based business

The shift from cross-border to local banking in part reflects a broader strategic shift from interest-earning to fee-based business lines. US and European banks now generate more than 40% of their global revenues from non-interest activities, such as market-making, bond and equity underwriting and asset management. The development of these business lines tends to contribute to the balanced growth of local assets and liabilities, for example as banks fund their inventory of securities with repurchase agreements (McCauley et al (2002)). Even banks' lending activities are beginning to resemble capital market activities. Commercial loans are often syndicated and sold, generating arrangement and trading fees for the syndicate participants, while mortgage and consumer loans might be securitised and sold.

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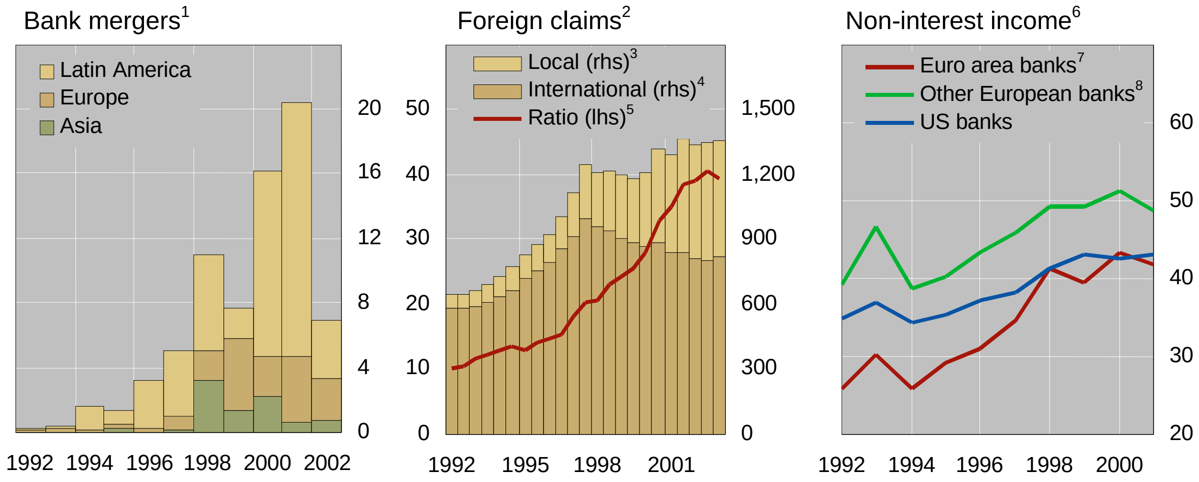
2 Packer (also in this *Quarterly Review*) contrasts credit ratings on foreign and domestic currency sovereign debt.

3 Local claims increased tenfold between 1995 and 2002 when measured in constant (end-2002) US dollars, ie after adjusting for the depreciation of local currencies against the US dollar.

Changing character of international banks



[1] By residency of purchased bank; in billions of US dollars. [2] In billions of US dollars; semiannual data. [3] Claims booked by the foreign offices of banks in the BIS reporting area vis-à-vis residents of the country in which the foreign office is located and denominated in the local currency of the borrower. [4] BIS reporting banks' cross-border claims in all currencies plus their foreign offices' local claims in foreign currencies. [5] Local claims as a percentage of local plus international claims. [6] As a percentage of total gross income. [7] Excluding Belgium and Greece. [8] Norway, Sweden, Switzerland and the United Kingdom.

Sources: OECD; Bloomberg; Thomson Financial Securities Data; BIS. Graph 3

Banks' activities support the development of local financial markets

Such changes in banks' strategies have supported the development of local financial markets. Emerging financial markets, especially bond and derivatives markets, have expanded significantly in recent years. Indeed, local currency bond issuance by East Asian and Latin American corporations now exceeds international issuance and accounts for a rising proportion of total corporate funding (Fernandez and Klassen (2003), IMF (2003b)). Attracted by the apparent opportunities for growth, foreign banks have invested considerable capital and expertise in local securities and derivatives markets. They participate as primary dealers in some local government bond markets, as pension fund managers in other markets, and as swap dealers in still others.

The events in Argentina in 2001–02 raised questions about whether foreign banks would revisit their strategy towards emerging markets. The signals to date are mixed. Cross-border mergers with and acquisitions of Latin American banks fell sharply in 2002, and several foreign banks sold or scaled back their local operations. In some cases this reflected banks' heightened concerns about political risk and their exposure to countries experiencing difficulties. In others it reflected the parent bank's need to rebuild its balance sheet. Part of the decline in cross-border takeovers also stemmed from the fact that in several countries, most notably Mexico, the banking system was by that time largely foreign-owned.

Global presence of emerging market residents

Links between mature and emerging markets have been further strengthened by the growing presence of emerging market residents in mature markets. Investors from emerging markets have channelled significant amounts into mature financial markets in recent years. These flows have arisen in large part from current account surpluses but also from changes in portfolio management. At the same time, a growing number of issuers from emerging markets have gained access to the greater depth and liquidity offered by international markets.

Emerging market residents are becoming more active foreign investors

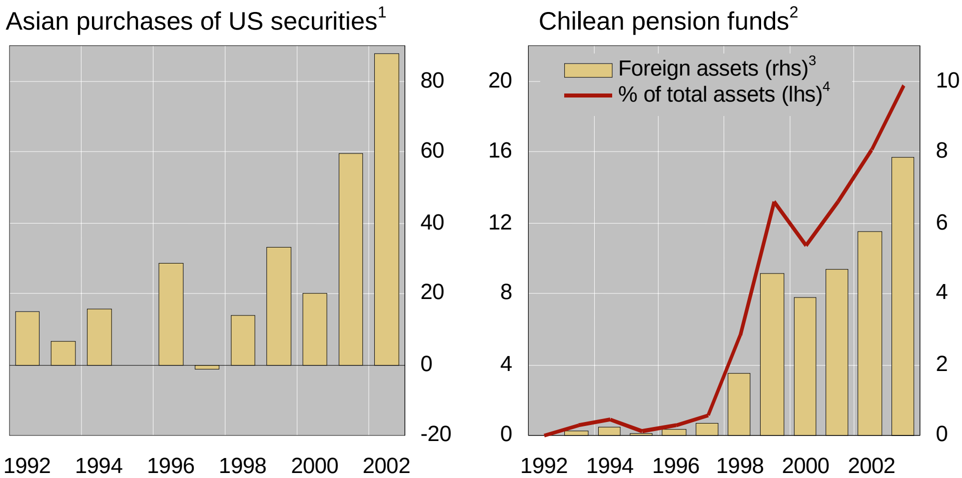
The oil-exporting countries of the Middle East have long been active foreign investors, and residents of other emerging markets are increasingly becoming so. The central banks of Asia are the most notable example. The foreign exchange holdings of Asian central banks, excluding the Bank of Japan, increased by more than $360 billion, or approximately 80%, between 1998 and 2002. The majority of these funds were invested in US securities (McCauley (2003)). Indeed, net purchases of US securities by residents of non-Japan Asia accounted for 13% of total foreign purchases of US securities over this period, funding a large part of the US current account deficit (Graph 4).

Other residents of emerging markets are starting to increase their holdings of mature market assets as well. Even countries that are net importers of capital are beginning to export capital so as to benefit from greater diversification. Chile has gradually increased the maximum limit on foreign assets held by local pension funds from 3% in 1992 to 25% today, and Chilean pension funds' foreign holdings rose from zero to $8 billion over this period. Similarly, in the near future Mexico is expected to amend its regulations to allow local pension funds to invest up to 20% of their assets abroad.

Firms are tapping regulated international markets

As well as becoming more important foreign investors, emerging market residents are becoming important issuers in mature markets. In the past, emerging market residents seeking to raise funds abroad mainly tapped unregulated markets, such as the eurobond market, or lightly regulated

Cross-border portfolio investment by emerging market residents

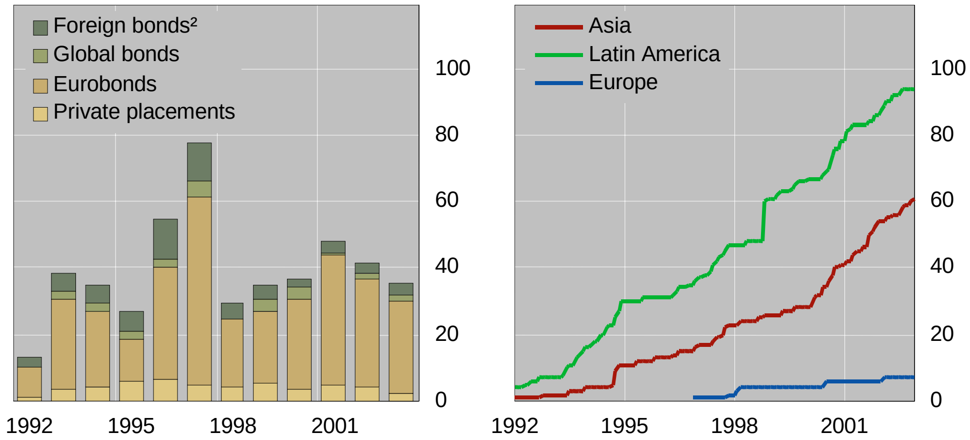


[1] Net purchases of long-term Treasury, agency and corporate debt securities; in billions of US dollars. Excluding purchases by Japan, Hong Kong SAR and Singapore. [2] End-year; for 2003, end-June. [3] Funds held, in billions of US dollars. [4] Foreign assets as a percentage of total pension fund assets.

Sources: National data; BIS calculations. Graph 4

Emerging market firms in international markets

International bond issuance[1] Cross-listings[3]



[1] Gross issuance from emerging markets by non-government borrowers; in billions of US dollars. Data for 2003 refer to January–June. [2] For example yankee, samurai and bulldog bonds. [3] Number of ADRs and GDRs listed on the New York Stock Exchange by nationality of listed firms.

Sources: Dealogic; Euroclear; ISMA; JPMorgan Chase, Thomson Financial Securities Data; national authorities; BIS. Graph 5

markets, such as the global bond market (Graph 5).[4] Since the mid-1990s, they have become more active in regulated public securities markets. In particular, a growing number of Latin American, East Asian and central European companies have elected to cross-list their shares on an international stock exchange. For example, the number of Latin American companies with shares listed on both their local exchange and the New York Stock Exchange tripled between 1995 and 2002, from 31 to 94. Foreign companies accessing US public markets must meet the same reporting, accounting and corporate governance standards as listed US companies – standards which are stricter than those in many emerging markets.

New links, new challenges

The growing integration of mature and emerging financial markets brings both benefits and challenges.[5] The diversification of the investor base for emerging market assets, the changing character of banks and the growing penetration of mature markets by emerging market issuers increase the pool of capital available for investment, widen the range of financial services provided and in general improve the saving and investment process. At the same time, they

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[4] Most global bonds issued by emerging market residents are placed under Rule 144A of the US Securities and Exchange Commission (SEC). Rule 144A allows large US financial institutions to sell previously acquired private placements without having to register the securities with the SEC or hold the securities for two years.

[5] The number of academic studies and official reports examining these benefits and challenges has increased considerably since the Asian crisis. See Rajan and Zingales (2003), FSF (2000) and White (2000).

present a new challenge for public policy: how can one ensure the proper functioning of increasingly integrated financial markets?

Integration could lead to more tiering in international markets ...

One issue is market tiering. Greater price discrimination is to be expected as market integration facilitates the measurement and especially management of risks. The benefits of greater integration thus seem likely to go predominantly to well managed economies perceived to have good growth prospects. Riskier countries may find themselves increasingly marginalised in the international financial system and suffer from disproportionately high risk premia.

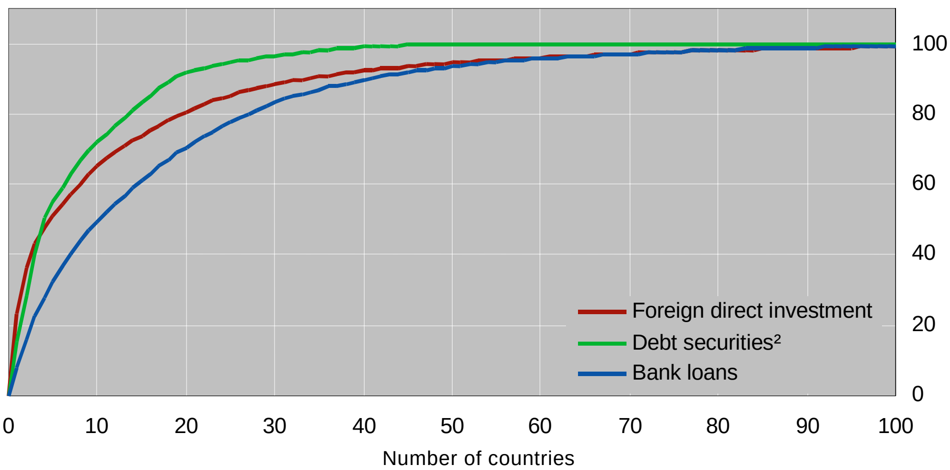
Tiering is already evident in foreign direct investment, which is concentrated in a relatively small number of countries (Graph 6). To the extent that the Argentine crisis increased awareness of political risk, it raises questions about the ability of less stable countries to attract foreign direct investment in highly regulated sectors such as banking and energy. Portfolio investment is even more concentrated. Many institutional investors are restricted by mandate from holding debt securities rated below investment grade. Lower-rated borrowers also face considerable difficulties in accessing derivatives markets, where concerns about counterparty credit risks loom large. This tends to limit the risk management tools available to such borrowers.

Declining cross-border bank lending may add to tiering. Banks have historically had more diversified portfolios than other investors, mitigating their exposures to high-risk countries through the use of collateral and restrictive loan covenants. Therefore, as banks refocus their activities and institutional investors come to play a larger role, lower-rated countries may face more difficult financing conditions even as higher-rated countries enjoy more favourable ones.

A second related issue is coping with financial cycles. While integration facilitates the pricing and management of risks, it does not necessarily

Concentration of investment in emerging markets

Cumulative distribution of outstanding investment at end-2002; in percentages[1]



[1] For foreign direct investment, end-2001. [2] Excluding Brady bonds and other repackaged issues.

Sources: UNCTAD; Dealogic; Euroclear; ISMA; Thomson Financial Securities Data; national authorities; BIS. Graph 6

... increase the scope for financial cycles ...

eliminate booms and busts in financing flows and asset prices. On the contrary, financial liberalisation tends to increase the scope for such cycles. Experience suggests that investors tend to underestimate risks during booms and overestimate them during busts (Borio et al (2001)). For example, during booms investors frequently underestimate the likelihood of high-loss, low-probability events such as defaults.

Better pricing and management of currency and liquidity risks are key to strengthening the resilience of emerging markets to financial cycles. Currency and maturity mismatches on balance sheets leave borrowers vulnerable to changes in investors' appetite for risk. One way in which policymakers can promote better pricing and management of currency exposures is by allowing greater exchange rate flexibility. Liquidity risks can be reduced by managing foreign currency reserves in line with potential short-term foreign currency liabilities. In emerging markets with weak financial systems, there may also be a case for maintaining some constraints on capital inflows. The development of local securities markets, with issues denominated in domestic currencies, can also be of great help in eliminating mismatches.

This leads to the third issue raised by greater integration: the potential trade-offs associated with managing and trading exposures in domestic versus international markets. Access to the greater liquidity typically available in international markets allows emerging market residents to reduce their funding costs and to manage savings in line with individual preferences. However, to take full advantage of these financing opportunities, access to well functioning derivatives markets is required to manage the resulting foreign currency exposures. This in turn requires systems to manage counterparty credit risks, especially in over-the-counter markets where a handful of dealers dominate. In addition, a sound infrastructure for cross-border trading and settlement becomes more important as a means to limit operational risks. Proper collateral and netting agreements can also assist in this regard.

... and reduce liquidity in domestic markets

One negative consequence of the migration of financing activity abroad may be a reduction in the capacity of domestic financial systems to price and trade financial risks, or in the incentives to develop markets to do so. Liquidity tends to concentrate in specific financial instruments and markets. Each foreign investor who stops trading on emerging equity markets and invests instead in ADRs subtracts liquidity from the local exchange and adds it to New York, raising the incentive for other market participants to do the same. As a consequence, liquidity in domestic financial markets tends to decline and funding costs increase for those firms that do not have direct access to international funding (Claessens et al (2002)).

Promotion of competitive and open markets is a challenge for public policy

Against this background, the challenge for public policy is to support the development of financial structures that combine access to a broad range of financial services with the efficient pricing and management of risks. The promotion of greater competition in domestic financial markets – among issuers, investors and intermediaries – can make an important contribution in this respect. So too can the international integration of these markets, for instance through the adoption of internationally agreed legal and regulatory standards and further relaxation of capital controls.

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