s in previous years, the current

International Capital Markets report considers a number of issues related to the functioning of key international financial markets and efforts to improve the management of systemic risks. In particular, this year's report reviews and assesses recent developments and trends in the mature and emerging financial markets and addresses key aspects of the OTC derivatives markets, assesses and provides market views on proposals for private sector involvement in the prevention and resolution of crises, and examines the implications of the expansion of foreign-owned banks in many emerging markets.

Mature Markets

A key risk for international financial markets is a sharper-than-expected rise in U.S. inflation. In the United States, strong and sustained noninflationary growth has lent increasing credibility to the view that such growth can be sustained in the medium term. This view, in turn, has bolstered asset returns in the United States and other major countries. In early 2000, mounting evidence of rising inflation heightened investor uncertainty about both the future magnitude and timing of interest rate increases and about the sustainability of strong noninflationary growth, as reflected in the recent decline in the U.S. equity market. At this juncture, because technical factors blur the measurement of expectations embedded in the yield curve, it is unusually difficult to gauge whether markets fully appreciate, and properly price, the risk of a sharper-than-expected rise in U.S. inflation and an abrupt policy tightening. If not, and if that risk materializes, it could be associated with further corrections in U.S. equity and corporate bond markets, a more general repricing of financial risks, and widespread portfolio rebalancing. If portfolios are rebalanced internationally, this risk could also be associated with shifts in the patterns of international capital flows and exchange rate adjustments.

Even if this inflation risk does not materialize or is well managed, there are other risks to the G-3 exchange rates of a more medium-term nature, related to growing tensions between cyclical and structural forces. U.S. external imbalances now exceed levels that in years past have been associated with pressure on the dollar to relieve those imbalances. At the same time, shifting cyclical positions in the major countries and changing expectations about asset returns seem to have guided exchange rates away from levels consistent with medium-term fundamentals. In this environment, markets may reassess whether record U.S. external imbalances can be sustained at prevailing exchange rates and perhaps trigger a realignment among the euro, U.S. dollar, and Japanese yen. However, as discussed in Chapter II, much anecdotal evidence suggests that the distribution of risks in exchange rates has become more diffuse or "fatter-tailed": the risk of large adjustments has risen, but the likely direction of adjustment is less clear. Accordingly, tensions among the major exchange rates might be maintained or even strengthen in the near term; for example, signs that the unusually favorable performance of the U.S. economy may extend further than expected could cause the dollar to appreciate.

There are also risks specific to countries and markets. Most notable, however, are the risks in Japan, all of which relate to the ongoing "tug of war" between cyclical and structural forces. Highly stimulative, cyclically oriented policies have struggled to overcome strong structural headwinds (a strengthened but still-weak private financial sector that is struggling to raise core profitability, and a debt-burdened and inefficient private corporate sector) and revive Japan's slug-

gish economy. Thus far, against the background of considerable official reforms, private sector measures to restructure the financial and corporate sectors have met with limited success, and considerably more private efforts seem to be needed to put Japan's economy firmly on the road to a sustainable recovery. In the meantime, the mix of stimulative monetary and fiscal policies may be strongly affecting the domestic fixed-income and money markets, and perhaps encouraging position taking in the JGB market that cannot be profitably sustained in an environment of rising interest rates, especially if interest rates rise more rapidly and sharply than presently anticipated by market participants. Accordingly, it will be critical to carefully and transparently manage the transition from a zerorate monetary policy and stimulative fiscal policy to policies more appropriate for a recovering economy, once signs of a sustainable recovery are at hand. Otherwise, unwinding of positions in Japanese fixed-income markets could prompt a sharp rise in long-term interest rates and a steepening of the IGB yield curve, which would generate large capital losses for Japanese financial institutions. A disorderly transition could also give rise to international portfolio rebalancing, capital flows, and large swings in the yen, although technical factors (including hedging of foreign exchange risk by Japanese investors) make it unclear whether the yen would appreciate or depreciate.

At present, it is difficult to assess whether large-scale portfolio adjustments and related capital flows can be easily absorbed by the major currency, equity, fixed-income, and derivatives markets without sharp price adjustments and/or potential spillovers. On the one hand, market liquidity has declined amid cutbacks in proprietary trading and market-making, which suggests that portfolio adjustments could have a larger impact than in the past. On the other hand, these cutbacks reflect more prudent risk management practices and diminished leverage, which suggests that markets may be less vulnerable to a rapid unwinding of positions. In addition, the evolving broader structure of the major

international capital markets adds to the complications introduced by these conjunctural factors. National financial markets are increasingly integrated with an internationally mobile pool of financial capital. A growing share of this capital is mobilized using off-balance-sheet instruments, which both efficiently use liquidity and can also put strains on liquidity in related markets. In this increasingly integrated, off-balance-sheet world, shocks can propagate across institutions and markets in new and surprising ways. This adds considerably to the challenge of assessing the broader consequences that might be associated with the aforementioned risks.

Emerging Markets

Overall, the past year has seen some favorable developments in emerging market financing. The gradual recovery in financing flows to emerging markets in 1999 and the first half of 2000 is encouraging. The mix of flows has continued to change, with continuing strong foreign direct investment, a recovery in portfolio flows, and net repayments to international banks. Emerging market asset prices in mid-2000 were mostly modestly higher than a year earlier, reflecting some unwinding of the (probably excessive) pessimism toward emerging market economies that had grown out of the recent crises. Further, although there is a substantial unfinished structural reform agenda in many countries, macroeconomic policies are generally stronger than a few years ago, with notable fiscal reforms in several key emerging markets.

However, the weakness in emerging market asset prices over March–May 2000 in the midst of weakness in the mature markets was a sharp reminder that emerging market assets remain among the riskier asset classes. This dependence on the mature markets reflects both the impact of mature market economic developments on the debt-servicing ability and cash flows of emerging market sovereigns and corporates, and also the impact of changes in the risk tolerance of investors from the mature markets on emerging market yield spreads and discount rates. If

they continue, increased interest rates and falls in equity markets in mature markets are likely to result in a slowing in global growth and reduced risk appetite, with adverse consequences for emerging markets. Mature market investors may seek to cut exposures to emerging markets at the same time as emerging market economies are experiencing greater financing needs. This could entail new weakness in emerging stock markets, higher yields and yield spreads on external debt, and reduced capital flows that result in weaker exchange rates or higher domestic interest rates (or both).

There are, however, encouraging developments over the past year that seem to herald an improving longer-term structural position for emerging market asset markets. While emerging market bonds are still a "frontier" asset class because most emerging market borrowers do not yet carry the investment-grade "stamp of approval," the volatility of returns has fallen substantially from crisis levels. By contrast, equities from emerging markets are becoming more closely integrated into the mainstream, and the share of emerging market assets in the international equity portfolios of many funds is now close to the levels implied by shares in global market capitalization. As volatility of emerging market assets has declined, there has been some widening of the investor base, with greater participation by domestic and European investors. While the risk tolerance of some of these new investors is yet to be tested through a full cycle, a wider investor base—provided it has realistic expectations about the return and risk on its holdings—will help support the stability of financing to emerging markets. In addition, by most accounts, leverage remains low by the standards of 1997 and the first half of 1998. Finally, at the same time as the investor base is widening, emerging market borrowers are diversifying their financing sources, with greater recourse to domestic currency financing and longer-term funds. These trends are both a reflection of the macroeconomic situation (especially higher liquidity in emerging markets) but also an indication that borrowers and lenders

have learned lessons from the financial crises of the late 1990s.

OTC Derivatives

Derivatives markets are central to the functioning of global financial markets, and both exchange-traded and OTC derivatives have improved the pricing and allocation of financial risks significantly. OTC derivatives—compared with exchange-traded derivatives—are flexible and innovative. The ability to use them to unbundle financial risk into separate components is an important step in the direction of creating more complete and efficient financial markets. OTC derivatives enable economic agents to define more precisely their risk preferences and tolerances, and to manage them more effectively. These instruments and the markets in which they are traded support the pricing, trading, risk management, and market conditions in all the major bond, equity, and foreign exchange markets. Probably for this reason alone, they are systemically important, but these markets also comprise the internationally active financial institutions that intermediate a large share of international capital flows, and also the lion's share of global lending, underwriting, merger and acquisition, and trading businesses. In effect, the OTC derivatives markets comprise a complex network of bilateral, asset-price dependent counterparty exposures that intimately bind the world's largest and most internationally active financial institutions in a very active and fast-paced trading environment at the core of the international financial system.

Modern internationally active financial institutions make significant use of these instruments in part to manage the risks associated with the intermediation and market-making services they provide to clients, but also to manage their own balance sheet risks and to engage in proprietary trading. As Chapter IV explained, in doing so, modern financial institutions are exposed to financial risks that are different, and in some ways more difficult to assess and manage, than in traditional financial intermediation involving onbalance-sheet lending and deposit taking. In effect, the stochastic processes that govern the cashflows associated with OTC derivatives are inherently more difficult to understand, and more unstable during periods of extreme volatility in underlying asset prices. As usual, there are tradeoffs, however. Traditional lending and deposit taking is insulated from some kinds of market risks (but not interest rate risk)—because it records loans at book value—but it runs the risk that the present value of its loan portfolio will decline substantially without properly allocating capital to it. Modern institutions, on the other hand, mark positions to market daily for OTC derivatives and thereby have knowledge about their changing risk profiles. But their earning streams are subject to higher recorded volatility and they are subject to more risks associated with market dynamics and liquidity runs in the context of global financial markets.

Unlike the derivatives exchanges, OTC derivatives instruments and markets are essentially unregulated, although they are affected indirectly by national legal systems, regulations, banking supervision, and market surveillance. Nor is the institutional coverage comprehensive, as hedge funds and unregulated securities affiliates are not regulated. Overall, the supervision of financial institutions and market surveillance plays a critical but limited role in ensuring the smooth functioning of OTC derivatives markets, primarily by seeking to ensure the overall soundness of the institutions that comprise them.

Instead, an informal framework, relying mostly on market discipline and private voluntary arrangements, ensures its smooth functioning. There are no formal or centralized mechanisms to limit individual or aggregate risk taking, leverage, and credit extension; the pricing and management of the associated risks are decentralized; and each counterpart has its own internal infrastructure for recording, clearing, settling, and managing the contracts over their—at times—long life span. There is no physical or electronic trading platform; instead, the OTC derivatives markets exist on the collective trading floors of the major internationally active financial institu-

tions. Like the strength of a chain composed of separate links, the strength and stability of OTC derivatives markets depends on the strength of counterparties' risk management and financial soundness. This is why only sophisticated high-credit-rated institutions are members of the "club" that makes up this informal interbank/interdealer market for trading financial risk.

The OTC derivatives framework has worked reasonably well in not impinging dramatically on the soundness of the major institutions that comprise these markets, in part because they have been well capitalized. But it has not worked well in ensuring market stability, and certain features of contracts, institutions, and the underlying infrastructure are a potential source of risk, not just of instability in segments of OTC derivatives markets, but also to the international financial system as a whole. There were episodes of stress, crisis, and turbulence throughout the 1990s, and the risks of instability were most clearly exemplified in the virulent turbulence and dynamics in the most mature financial markets that accompanied the near-collapse of LTCM in the autumn of 1998. The LTCM crisis created such severe price pressures on the major institutions that risk taking and market liquidity diminished to the point where major central banks perceived the risk of a systemic crisis that could have affected real economic activity.

The crisis revealed a number of surprises. First, the reliance on a combination of market discipline and voluntary mechanisms on the one hand, and official oversight on the other hand, failed to prevent, through ex ante discipline, a buildup and concentration of counterparty risks and vulnerabilities. Second, some important features of the underlying financial infrastructure risk management, and reliance on collateral, closeout procedures, and netting arrangements—did not provide the risk reduction and mitigation results that were expected. Third, before, during, and after the turbulence, there was surprisingly little useful information on which to base assessments about the distribution of risks and exposures among the major financial institutions involved in the market. There was also

limited information for assessing the systemic potential of the market turbulence. In short, important features of OTC derivatives markets did not perform as expected when they were most necessary: during a very stressful period in which major firms were at risk of suffering losses and many other smaller institutions were at risk of illiquidity if not insolvency.

Chapter IV identified and analyzed key features of OTC derivatives markets that can give rise to the risk of instability. These include the dynamic nature of gross credit exposures; the existence of important information asymmetries; the fact that OTC derivatives activities affect available aggregate credit and market liquidity; the fact that OTC derivatives markets are large and highly concentrated in the global financial institutions; and the fact that OTC derivatives markets are central to the global financial system. There are also several imperfections in the decentralized infrastructure that were revealed during the LTCM crisis, and which have not yet been adequately addressed: inadequate counterparty risk management; the limited understanding of market dynamics and liquidity risk; and legal and regulatory uncertainty. An additional complicating factor is that the major intermediary and market-making institutions have direct access to financial safety nets, and all of them are too big to liquidate rapidly without risking an international financial market disruption. This potentially imparts an element of subsidy in their pricing of counterparty and other risks that can lead to an overextension of credit and market activity.

The combinations of these risks that were evident in the 1990s can all be seen as originating in imperfections in three broad areas—market discipline, risk mitigating infrastructures, and official rule making and oversight. Improvements are essential if the risk of instability is to be reduced in global financial markets.

Unfortunately, it is easier to identify the sources of instability in OTC derivatives markets than it is to find specific remedies, which can only be pragmatically formulated and implemented by private and official practitioners in these markets. Nevertheless, some broad areas

are identified in Chapter IV as deserving particular attention if market disruptions and instabilities of the kind experienced in the autumn of 1998 are to be avoided. In particular, the private sector can reduce the potential for instability through more effective market discipline, risk management, and disclosure. Public efforts are also necessary, particularly to strengthen incentives for market discipline, remove legal and regulatory uncertainties, and improve the effectiveness of OTC derivatives markets surveillance.

In general, while there are good reasons for public sector involvement (existence of safety nets, legal and regulatory uncertainty, and the potential for systemic financial problems with real economic consequences), this does not mean a heavy hand is required, and a case can be made for relying more heavily on effective market discipline. The markets are dominated by the internationally active financial institutions, and it is in their individual and collective interest to ensure that financial stability is maintained. To achieve this, the balance of private and official responsibility for preventing problems in OTC derivatives markets, and for resolving them, can and should be shifted more in the direction of market discipline.

To rebalance private and official roles, it is essential first to clarify the limits to market discipline in OTC derivatives markets (for example, due to private coordination failures and asymmetric information) before leaning more heavily on aspects of market discipline that seem to work well in these markets. This would require a constructive dialogue between private market participants and those with the responsibility for safeguarding financial stability.

Changes in prudential regulations, and in particular capital adequacy requirements, may be a vital part of this engagement, in part because such changes can further bolster the ability of institutions to withstand the at times strong adverse impact of (shareholder, creditor, and counterparty) market discipline. As noted in the report, even with the 1995 amendment to the 1988 Basel Capital Accord, there is scope for improving capital adequacy requirements related to

credit risks associated with OTC derivatives transactions. The Basel Committee should give serious consideration to ways in which capital charges could more closely reflect the significant changes that occur in a bank's current and potential future credit exposures when market prices change. In that context, banks' internal credit risk systems that quantify off-balance-sheet credit exposures (both current and potential) could serve as a basis for appropriate capital charges—subject to verification through an effective supervisory process.

Second, improvements in counterparty risk management, and risk management more generally, are essential. The 1998 turbulence could not have occurred without the buildup and concentration of risk exposures. This resulted from several sources: financial institutions made mistakes; the risk management systems they relied on were not effective in limiting their exposures; and counterparty, liquidity, operational, and legal risks were not properly assessed, monitored, and managed. Implementation of private initiatives in several areas should be accelerated, especially the recommendations of the Corrigan and Thieke report on counterparty risk management.

Third, the quality of disclosure and information needs to be significantly improved. The scarcity of information and its asymmetry was revealed to be an important aspect of the buildup and the unwinding of positions surrounding the LTCM crisis. It is therefore essential to develop mechanisms to make available the minimum information necessary for effective market discipline and for effective official oversight (supervision and surveillance) in a way that assures confidentiality. Thus, while there are challenges in improving disclosure and transparency without creating disincentives for efficient intermediation, more and useful information is necessary, whether through cooperative and coordinated disclosure by the active institutions, or by mandatory disclosure. Likewise, more, and more effective, private counterparty and market monitoring of OTC derivatives markets is essential. This monitoring can be achieved either by creating incentives for the private sector to provide

more information on its own or by making sure in some reasonable way that private market participants are not taking imprudent risks.

Fourth, progress in resolving legal and regulatory uncertainty is achievable. Uncertainties about closeout procedures, netting arrangements, bankruptcy, and recapture of collateral have given, and can still give, rise to severe market dynamics during periods of heightened uncertainty about counterparty risk. The interconnected nature and concentrations of counterparty exposures together with legal and regulatory uncertainty make the OTC derivatives markets especially vulnerable to attempts to rapidly unwind large gross exposures, when in most cases resolving net exposures would suffice. It would be useful to reduce some of this uncertainty, but only if it does not inadvertently lead to even greater risk taking. In return for legal and regulatory certainty, the private institutions that created these markets might have to implement changes to the structure of these decentralized markets and infrastructures in ways that reduce the risks of market instability.

Fifth, as noted in Chapter IV of last year's International Capital Markets report, there also were flaws in the official lines of defense against financial problems (banking supervision and market surveillance). While some progress is being made in specific areas (relating mostly to transparency), banking supervision and market surveillance also need to be adapted to monitor more effectively OTC derivatives activities and markets by, for example, paying closer attention to the impact of OTC derivatives activities on private risks within financial institutions and on private and systemic risks within and across markets.

Collectively, these initiatives can both improve the potential benefits of market discipline and bolster the private sector's ability to avoid and deal with financial problems, and thereby should help reduce systemic risk.

Private Sector Involvement

Both the public and private sectors have a keen interest in the success of efforts to reform the international financial architecture, with a view to preventing crises where possible, and mitigating their severity in instances where they do occur. As it is not feasible to establish clear rules of the game, the market's interpretation of the precedents set with extending PSI will have fundamental and far-reaching implications in shaping the terms and nature of international financing to emerging markets. While considering new PSI initiatives, the official community needs to be aware and take account of how the private sector will interpret and react to them.

On the crisis prevention front, the staff's discussions with officials and a broad range of market participants reveal that there remains considerable lack of awareness regarding the recent work undertaken on standards, codes, and transparency to promote PSI in the prevention of crises. Those market participants that are cognizant of the recent initiatives, however, argue that transparency and the provision of data have been much improved since the onset of the Asian crisis. Among this group, there is strong support for the IMF's efforts to develop further the Special Data Dissemination Standard (SDDS) and codes of transparency, by, for example, ranking countries according to the IMF's perception of their SDDS compliance. Moreover, some argue that the IMF should require greater disclosure, including making participation in the SDDS an obligation of membership.

Market participants' responses to the array of other crisis prevention proposals have been mixed. Efforts to promote improved liabilities management have received unequivocal support, as have proposals to enhance debtor-creditor dialogue as a means of strengthening trust in the lending relationship in normal times and facilitating negotiations in the event of debt-servicing difficulties. While there has been more understanding from the private sector on proposals to introduce collective action clauses in bond documentation, other proposals have been more contentious. There remains little agreement on the appropriate forum for organizing debtorcreditor relations in times of crisis, and involuntary payments standstills and stays on litigation

are viewed as an infringement on creditors' contractual rights. Further, market participants do not view market-based capital controls as a longer-term solution to crisis prevention.

Despite initial negative reaction, there appears to be a general acceptance that PSI in the resolution of financial crises is a "fact of life." Moreover, recent experience in resolving emerging market crises has led to the realization that no circumscribed set of rules can be adopted that would be applicable to all potential future crises. Nevertheless, there is confusion among market participants regarding the official sector's policies on PSI. While it is recognized that there will not be a detailed rules-based approach to PSI, there is a desire for a "framework" that will provide market participants with some understanding of when PSI will be invoked, what will determine its scale, and whether it will be on a voluntary (i.e., negotiated between the sovereign and its creditors) or involuntary basis. Discussion within the private sector has now shifted to such issues as comparability of treatment among and within creditor groups and to the Paris Club's interpretation of the comparability of treatment principle in an effort to determine the applicability of recent experience for future cases.

The recent experience with PSI in the resolution of crises has focused on the use of two key instruments: rollovers of interbank lines and restructurings of external sovereign bonds. Market participants have stressed that a number of lessons can be drawn from the interbank rollovers in Korea, Indonesia, and Brazil. There are typically a variety of channels through which capital outflows can occur, and plugging only one of these channels could intensify outflows through others. The use of interbank rollovers must therefore be a part of an overall crisis resolution package designed to reduce the incentive for further capital outflows, especially for a country that has a relatively open capital account.

The Korean interbank rollover is widely seen as successful in stemming bank withdrawals and helping to maintain credit lines. However, market participants regard Korea's experience as somewhat unique because of its relatively closed capital account, which mitigated other capital outflows and limited the ability of banks and other creditors to take offsetting positions in other instruments and markets.

Indonesia is viewed as different from Korea in the sense that most external bank credit was lent directly to the corporate sector rather than to banks. As a result, the interbank rollover is regarded as having played a much smaller role in limiting capital outflows and formed part of the crisis resolution package in part to ensure that the package was comprehensive and that some creditors' concerns for equality of treatment were addressed. International banks that had directly lent to Indonesian corporates had no choice but to remain "involved" as these corporates stopped servicing their debts.

As the crisis in late 1998 intensified in Brazil, the country faced large-scale capital outflows, and international banks, having learned from their experience in Korea, reportedly began cutting exposures and taking offsetting positions in anticipation of a rumored mandated rollover. The authorities were viewed as having decided not to use an interbank rollover during the crisis because of concerns that this would only intensify efforts by banks to find other ways to offset their country exposures. Subsequently, in conjunction with the strengthened IMF program, the authorities requested a voluntary rollover of interbank lines as the immediate crisis had passed and international banks were already rebuilding their credit exposure to the country.

Market participants argue that the evidence is mixed with regard to the extent that the recent experiences of interbank rollovers have increased the involvement of the private sector in crisis resolution. While in Korea the banks did maintain exposures, they in turn received sweeteners in the form of higher interest rates and a sovereign guarantee of domestic banks' external bank debts. In Indonesia, PSI in crisis resolution was not seen as the main reason for rolling over interbank lines and the primary PSI reflected the defaults on the international banks' loans to the corporate sector. For Brazil, the agreement

for the rollover of the interbank lines was reached after the worst of the crisis had passed. Looking ahead, a number of market participants argue that the use of interbank rollovers as an instrument for crisis resolution may adversely affect the maturity of interbank loans, as international banks may become increasingly eager to "cut and run" as quickly as possible at the first hint of a crisis and a mandated rollover.

The recent bond exchanges by Pakistan, Russia, and Ukraine are generally regarded as successful in terms of obtaining high participation rates by investors, largely reflecting the sweetener that had been added to the prevailing secondary market price. In the case of Russia, the upgrade of obligor of the new bonds to the Russian Federation was crucial in achieving the significant write-down in principal of both Prins and Ians. However, market participants have noted that there can be a trade-off between the size of the sweetener needed to obtain broadbased investor participation in the exchange and the extent of the improvement in medium-term balance of payments viability that can be achieved. For example, market analysts noted that, while the restructuring of Pakistan's Paris and London Club debt together with the bond exchange have had a favorable impact on the debt-service profile in 1999 and 2000, the debtservice requirement will exceed pre-restructuring levels by 2001 and remain so for the remaining life of the bond.

In light of experience with recent sovereign bond restructurings, bond market participants now closely monitor the decisions taken by the Paris Club and generally seek greater clarification of its policies. Most market participants anticipate that the Paris Club will continue to follow a pragmatic interpretation of its "comparability of treatment" principle, as has been the case with its past treatment of London Club debt. This in part reflects practical considerations such as the private sector's need to reschedule a much greater share of its debt than that considered eligible for public sector rescheduling due to private bonds' cross-default and cross-acceleration clauses.

Looking forward, it is increasingly likely that as the official community proceeds with its efforts of PSI, the private sector will seek out new instruments that increase the probability of repayment and are insulated from restructurings. Some market participants argue that it was the debt restructuring experience of the 1980s that led to the decline in the syndicated loan market, and a new round of debt restructuring may reduce the attractiveness of the uncollateralized eurobond going forward.

Role of Foreign Banks in Emerging Markets

The period since the mid-1990s has witnessed a sharp increase in foreign bank participation in many emerging markets, especially in Central Europe and Latin America. While this foreign entry has been just one aspect of the consolidation of banking systems in both mature and emerging markets, it has also reflected the desire of the authorities in many emerging markets both to improve the efficiency and stability of their financial systems and to help reduce the cost of restructuring and recapitalizing troubled banks. Foreign banks have brought in new technologies, improved risk management systems, and new products (especially OTC derivatives) to these markets and have increased competitive pressures on local banks. Empirical studies indicate that these competitive pressures have led to improvements in banking system efficiency in terms of lower operating costs and smaller margins between lending and deposit interest rates.

There is as yet only limited evidence as to whether a greater foreign bank presence contributes to a more stable banking system and less volatility in the availability of credit. Foreign banks could potentially add to the stability of the banking system. The advanced risk management systems employed by foreign banks and their lower susceptibility to moral suasion from the government in lending should allow them to maintain asset quality at a higher level.

Moreover, the local operations of large multinational and regional banks could potentially have

better access to external funding and capital through the parents with globally diversified balance sheets. In addition, foreign banks are likely to be supervised on a consolidated basis with the parent by supervisory authorities that are more familiar with the types of activities undertaken by large, complex banking organizations.

However, the potential contribution to banking system stability is largely an untested proposition. With regard to credit lines, market participants argue that banks manage their credit exposures on a consolidated basis and a decision to cut exposures to a country is likely to involve both external credit lines and having local operations reduce domestic credit. Moreover, there are many examples of foreign banks that have withdrawn from markets after having failed to establish a profitable presence. Foreign banks will likely examine whether or not to inject capital on a case-by-case basis, trading off future value (including international reputational effects) against cost. Nonetheless, foreign banks will be more likely to "cut and run" during a crisis if their parents are in a weak financial condition. Indeed, the growing presence of foreign banks opens up a new channel for the transmission of disturbances from the mature to emerging markets. As illustrated by the pullback of Japanese banks' international operations, home country problems that affect the banking system can be expected to impact local operations elsewhere and the capital devoted to them. This channel has substantially increased the importance to emerging markets of the quality of prudential supervision in mature markets and cooperation amongst supervisors to achieve effective crossborder supervision.

The recent episodes of "ring-fencing" of foreign branches in Asia indicate that there are clear limits on the extent of parental support for their local operations. The ring-fencing involved placing clauses in the confirmation statements on derivatives product transactions that limited the ability of counterparties to turn to the parent bank if the local branch is prevented from making payment by *force majeure* events (including the imposition of capital controls). As noted

in Chapter VI, this ring-fencing of derivatives products provides a complement to the ring-fencing of the deposit obligations of branches that exists by statute in some countries (such as the United States) if the host authorities impose capital controls or take other actions that prevent the branch from making payment.

It is still important to recognize that banks and other investors have a variety of methods of hedging or taking positions in the run-up to crises, and ring-fencing just expands the tool kit. Nonetheless, this practice raises two general concerns related to transparency in the current system. First, there is the issue of whether those market participants engaging in contracts or making deposits with ring-fenced banks are fully and forcefully informed about the nature of these contracts. Second, ring-fencing may contribute to a related phenomenon that, during crisis periods, market participants find that markets operate in a very different way than expected.

Besides the issues of supervision and the degree of parental support, the entry of foreign banks has raised a number of policy issues that are of particular relevance to emerging markets. Experience has shown that the entry of foreign banks can increase the banking system concentration both directly and indirectly. In some countries, such as Chile, this issue arose when the parents of two local banks merged. However, the entry of foreign banks can also create pressures for local banks to merge to remain competitive. While the evidence on whether bank concentration raises the cost and reduces the availability of credit is mixed, it is evident that a highly concentrated system could face a too-bigto-fail dilemma. In those situations, large institutions will require enhanced prudential supervision; and, if it becomes evident that such concentration is affecting the price and availability of credit, appropriate antitrust actions may be needed.

Foreign banks entering local markets often market a variety of new products (especially OTC derivatives) to gain market share. These new derivative products can be a source of considerable benefit since they increase the ability

of market participants to hedge a variety of risks that were previously undiversifiable. In some instances, however, these derivative products have also been used to take on what have proven to be excessive risks, especially in weak financial systems with obsolete accounting systems, slow reporting systems, and unprepared supervisors. In both the Mexican crisis of 1995 and the Asian crises of 1997, various types of structured notes were used by emerging market banks and other financial institutions to help evade prudential regulations that limited short positions in foreign currency and/or to obtain high returns needed to help rebuild weak capital positions. When the domestic currency was depreciated, these institutions were forced to seek foreign currency to meet margin requirements on these instruments, thereby placing additional pressures on the domestic currency. It is evident that, as foreign banks enter, supervisory authorities will need to upgrade their capacity to acquire information on and to analyze the implications of the growing use of derivative products.

Systemic risk associated with cross-border banking can arise if either liquidity or solvency problems of banks in one country create similar problems for financial institutions elsewhere in the international financial system. Systemic risk can potentially either increase or decrease as a result of a growing foreign presence in the banking system. If foreign bank entry leads to consolidation in the banking system, this may help reduce systemic risks if it creates a smaller set of larger institutions that are more efficient and can be monitored more readily by prudential supervisors and market participants. In addition, foreign banks would typically be part of large institutions that have business activities diversified across national borders and can potentially be a source of support for their local bank. On the other hand, systemic risks could rise because the failure of larger institutions can be more severe. In addition, a weakened parent bank could quickly drain funds from a local bank to support its own position.

Cross-border banking activities can affect the cost of maintaining an official safety net under

the financial system in a number of ways. If governments are more likely to protect large banks because they are regarded as "too big to fail," then mergers stimulated by foreign bank entry could increase the implicit costs associated with maintaining the official safety net. To contain these costs, there will be a need to strengthen prudential supervision of such institutions or to limit mergers that increase systemic risks sharply.

A second potential issue is whether the entry of foreign banks and associated local mergers will bring into the official safety net institutions that normally receive only limited access to the safety net. In many emerging markets, banks are not stand-alone institutions but are rather a part of holding company groups. Even when banks are of a relatively modest size, the existence of these groups raises issues about what level of

consolidation should occur when evaluating bank capital adequacy. The key issues are that the holding company can potentially transfer capital and asset and liability positions among its various entities if they are not treated on a consolidated basis and that there will not be arm'slength transactions between the various members of the group. As the banks owned by the groups become too large to fail, there is the concern that support provided to the bank during a crisis period will either directly or indirectly assist the rest of the group. In many respects, these potential problems can only be minimized by consolidation at the group level. As with other aspects of financial liberalization, the entry of foreign banks is likely to have the most beneficial effects on banking systems if entry is properly paced and subject to appropriate prudential supervision.