CHAPTER VI STAFF APPRAISAL

As in previous years, the current *International Capital Markets* report considers a number of issues related to the functioning of key international financial markets. In particular, this year's report reviews and assesses developments and trends in the mature and emerging financial markets in the period through May 2001, addresses key financial market implications of the changing structure of the major government securities markets, and discusses policy issues surrounding financial consolidation in emerging markets.

Mature Markets

The main risks facing international financial markets are a possible further repricing in U.S. and global equity and fixed-income markets, a potentially disruptive drop in the value of the dollar, and the financial market fallout of an unwinding of U.S. domestic and external financial imbalances. In Japan, the banking system remains vulnerable to risks including a correction of compressed yields in the Japanese government bond (JGB) market, while Europe may be vulnerable to contagion and spillover effects if financial conditions deteriorate sharply in the United States. An appraisal of international financial risks and vulnerabilities is complicated by the difficulty of disentangling the effects of cyclical factors from those of structural factors, such as financial system consolidation, the shrinking supply of the global "safe haven" (U.S. treasury securities), increasing reliance on over-the-counter (OTC) derivatives markets, and the ongoing globalization of finance.

A key risk in the current macroeconomic and financial environment is a renewed sharp repricing in the U.S. equity and fixed-income markets.[1] During the period under review, the balance of concerns by market participants shifted from the risk of an overheating U.S. economy to the risk of a deep and prolonged global slowdown. This shift in sentiment had an important impact on global capital markets, as deteriorating U.S. economic prospects coincided with increased volatility and a repricing of risk in the United States and other mature capital markets. Corrections in the major market indices and the shift in relative equity valuations across sectors have probably brought market valuations more broadly in line with fundamentals, and the present conjuncture is not without upside risks. Nevertheless, price-earnings ratios and other indicators are still somewhat on the high side of historical averages in some countries and segments. At the present juncture, markets may price in an expectation that, if further signs of economic weakness materialize, U.S. monetary policy will be eased sufficiently to offset their effects on financial markets. Moreover, the second-quarter rebound in the Nasdaq may signal that investors expect a continuation of the U.S. "productivity miracle" that apparently supported the very strong asset returns in the second half of the 1990s. Market sentiment may therefore be vulnerable to economic developments that would call into question whether monetary policy will be able to offset economic weakness or whether high U.S. productivity growth will be sustained. If such developments occur, a downward revision in expected earnings growth and a reappraisal of credit risk could prompt further declines in equity prices and renewed increases in credit spreads, including for investment-grade borrowers.

There is also the risk that the sustainability of U.S. household, corporate, and external imbal-

[1]IMF (2001) also discusses the risk of adjustments in U.S. financial markets in the context of the alternative scenario of a U.S. "hard landing."

ances may be called into question, and lead to a significant and potentially disorderly rebalancing of domestic and international portfolios. In recent years, household debt burdens and corporate leverage ratios have grown to about the levels that prevailed at the end of the 1980s credit cycle, and the current account deficit has continued to reach new records. The major part of these imbalances may be sustainable for some time, particularly if productivity growth is strong. If not, a sustained economic slowdown could put downward pressure on income and corporate earnings, making it more difficult for some households and firms to continue to service their high debt loads and potentially causing defaults among marginal borrowers. If such defaults—or concerns about them—became widespread, investors would likely rebalance their portfolios away from risky assets, causing credit spreads to widen and equity prices to fall. If overseas investors joined in this rebalancing and sold U.S. assets, the adjustment process could be accompanied by a drop in the value of the dollar. Rising defaults could also add to nonperforming assets on U.S. bank balance sheets and test the credit derivatives and securitization vehicles that financial institutions have relied upon to shed risk.

The effects of such a correction in U.S. markets on the dollar would depend in part on whether other markets also corrected. If similar adjustments occurred simultaneously in other major markets, capital inflows to the United States and the value of the dollar could be broadly sustained. If instead the adjustments were larger in the United States than abroad, or if there were a general loss of confidence in the ability of U.S. financial markets to continue to deliver high risk-adjusted rates of return, global investors might reevaluate U.S. investment opportunities and rebalance their portfolios away from U.S. dollar assets. This might end or reverse the strengthening of the dollar and give rise to considerable volatility in the major foreign exchange markets during the portfolio adjustment. The international portfolio adjustment could include a contraction in the international syndicated loan market, which has increasingly been relied upon for bridge loans.

There are also risks associated with the situations in Japan and Europe. Japan's financial and corporate sectors have not dealt fully and decisively with real economic and financial consequences of the bubble period. Weak economic growth during the past decade has led to a situation in which the banking sector may be undercapitalized once bad loans are fully accounted for, and the sector lacks both the financial resources and the incentives to resolve bad loans and restructure the weak corporations that owe these loans to the banks. The banking sector is also significantly exposed to fluctuations in domestic equity, bond, and real-estate prices (through collateral holdings). Meanwhile, the corporate sector still bears the burden of substantial debt. In this environment, the banking sector is vulnerable to continued poor domestic macroeconomic performance, which would both add to increasing corporate bankruptcies and the stock of problem loans and also contribute to the underlying deflationary momentum in equity and real-estate markets. In addition, Japanese banks are vulnerable to a more serious downturn in the Japanese economy and large, unanticipated external economic and financial shocks, such as a deep and prolonged U.S. recession.

Japanese financial institutions may also be vulnerable to a sharp rise in JGB yields. JGB yields have been falling while the debt stock mounts, as banks channel asset holdings into the JGB market. The key risk in this environment is that the cash flows that have supported JGB prices will slow or reverse. For example, if concerns about the stability of the Japanese banking system intensify, inflows of deposits may slow or reverse. In this event, Japanese banks could be forced to sell JGBs, equities, or both to fund withdrawals. This selling would prompt a sharp upward movement in JGB yields and/or a correction in the domestic equity market, with strong knock-on effects to domestic financial institutions that remain heavily exposed to both JGBs and equities. The impact on the yen would

be less clear. If domestic depositors shift into foreign assets, the yen may depreciate; alternatively, if banks repatriate assets, the yen may appreciate.

European markets may be subject to contagion and spillover effects from a deterioration in U.S. capital markets. U.S. and European equity prices and (to a lesser extent) credit spreads have been highly correlated—particularly within sectors—notwithstanding that Europe has had stronger economic fundamentals. A sharp and sustained correction in other markets could therefore trigger a significant deterioration in European markets. Moreover, external financial market shocks may have larger and more rapid spillover effects on Europe than external economic shocks, particularly as Europe's external trade exposure is relatively small. A substantial financial shock emanating from the United States could therefore have consequences for Europe's real economy, particularly if the European Central Bank (ECB) is seen as slow to react to signs of a deterioration in financial conditions.

Several structural issues complicate an assessment of the risks and vulnerabilities in the international financial system going forward. First, the rapid pace of financial sector consolidation under way in many major countries could either amplify or mitigate systemic risks. On the one hand, financial activity is now concentrated in a smaller number of larger and more complex institutions. These organizations face increased operational complexity, can be more difficult for their creditors to understand, and would probably be difficult to liquidate in an orderly fashion if they became seriously distressed. On the other hand, compared with smaller institutions, large merged institutions may be better diversified and more closely scrutinized by regulators and creditors. Overall, it remains to be seen how the more concentrated financial system would affect systemic risks and market dynamics during market turmoil.

There are also two important questions about how dynamics in international financial markets during a period of market stress would be affected by several ongoing structural changes. The first is the reduced depth and liquidity in the U.S. treasury market. As noted in Chapter IV, during the past few decades the treasury market has served as the global safe haven during both emerging market and mature market crises. It therefore seems likely that the dynamics of recent crises have been affected by the presence of a large, liquid, credit-risk free international safe haven—U.S. treasury securities—into which international investors could flee. The decreasing supply of new securities comprising that safe haven raises the question of how these dynamics may change. This question is difficult to answer: for example, it is unclear how the use of deposits at large banks as safe havens might influence market dynamics.

In addition, market participants have increasingly relied on OTC derivatives markets to support the global intermediation of capital.[2] Flexible risk management using OTC derivatives has brought significant benefits—such as the ability to price, trade, and hedge risks more precisely—to participants in international capital markets. At the same time, recent episodes of turbulence highlight how highly leveraged, off-balance-sheet structures and exposures may amplify financial shocks and transmit them across countries and regions in an unpredictable fashion. Moreover, the widespread use of OTC derivatives is affecting the distribution and mix of credit, market, liquidity, operational, and legal risks. Finally, the modern OTC derivatives markets, and the increasing variety of innovative (yet largely untested) structures such as credit derivatives, largely came into existence during a period when the world's largest economy was enjoying a robust and uninterrupted expansion of unprecedented length. How these markets will perform and how they will contribute to market dynamics if sharp and widespread corrections in financial

[2]Schinasi and others (2000) and Chapter IV in the 2000 *International Capital Markets* report discussed this trend and analyzed the related issues for global capital markets.

markets are coupled with a lengthy economic slowdown is difficult to predict.

Emerging Markets

In the year under review, global asset price volatility and the prospects for growth in mature markets have played an especially important role in determining the terms and conditions under which emerging market entities accessed international capital markets. The heightened sensitivity of the terms and conditions of market access to mature market developments reflects a number of factors including the lack of a significant dedicated investor base and the dominant role of cross-over investors, the extent of the increase in asset price volatility in mature markets (particularly in the Nasdaq), the prospect of a sharp slowdown in global growth, and the growing presence of foreign institutions in emerging market financial markets. Among these factors, market participants argue that the activities of cross-over investors have been a key channel for both transmitting the effects of asset price volatility from mature to emerging markets and inducing an "on-off" pattern to market access. Some cross-over institutional investors (which include global and high-yield funds, pension funds, and insurance companies and the proprietary trading desks of investment banks) typically undertake most of their investments in mature markets but at times hold a relatively small fraction of their large total portfolios as claims on emerging markets. However, these investors have shown a willingness to scale back or eliminate their holdings of emerging market instruments during a period of uncertainty about emerging market developments, or during a period of increased risk aversion, when investment opportunities in mature markets become relatively more attractive. While the on-off pattern of market access experienced during the 1997–98 Asian and Russian crises has been attributed by some observers to the activities of highly leveraged institutions (such as hedge funds and the proprietary trading desks of investment banks), the current set of cross-over investors is regarded as operating with a more limited degree of leverage. Indeed, the activities related to emerging markets of many highly leveraged institutions are seen by market participants as having been sharply scaled back. Evidence of this scaling back includes the closing of several large macro hedge funds, a refocusing of hedge fund activities toward mature markets, and, in some cases, reductions in the amount of capital devoted to proprietary trading by major investment banks.

As the on-off pattern of market access for emerging market issuers has become recognized as a key characteristic of international financial markets, emerging market issuers have adapted to cope with this type of market access. For example, both private corporations and public sector debt management agencies have employed staff with extensive investment banking and trading experience, and have exploited "windows of opportunity" to prefund annual financing requirements, engaged in debt exchanges to extend maturities of their external debt and avoided a bunching of maturities, and made greater use of local debt markets. In addition, emerging market sovereign borrowers have tapped the syndicated loan market when the U.S. dollar bond markets have closed or have issued bonds in markets with a strong retail investor base such as those involving issues denominated in euros or yen.

The larger gross issues of international bonds, equities, and syndicated loans represent the third year of increased issuance, and the decline in net private capital flows primarily reflects the improved current account position of oil exporters rather than sharp declines in net flows to other emerging markets. Nonetheless, the contrast between the continuing increase in emerging market gross issuance of international bonds, equities, and syndicated loans, and the sharp contraction in net capital flows, represents a sharp break in the positive correlation that had existed between these two measures of capital flows during much of the 1990s. Since net capital flow data are available only with a much longer reporting lag than data for gross flows,

gross flows are at times used as a short-term proxy for the scale of net flows. In 2000, the lower correlation arose primarily because of the experience of fuel exporters. The fuel exporters sharply reduced their net exposures to international banks (primarily through a buildup of claims on international banks rather than a reduction in borrowing) due to the large increase in their current account surpluses as a result of higher oil prices. Nonetheless, foreign direct investment declined for the first year since 1990 because of a slowdown in privatizations and mergers and acquisitions.

For the rest of 2001, market participants link the prospects for capital flows to emerging markets to a variety of factors: financial market developments, the prospects for growth in the mature markets, and likely developments in countries that have undergone recent crises. A key factor influencing private sector forecasts of likely capital flows to emerging markets is the prospect for growth in the major mature markets, especially the United States. Indeed, differences in the projected capital flows by market analysts often reflect assumptions about whether the United States will experience a "hard" or "soft" landing during the coming year. A "hard" landing, ending in a recession, is viewed as leading to a sharp slowdown in the scale of capital flows due to a deterioration in the prospects for the exports of many emerging markets, smaller inflows of investable funds to cross-over investors, weaker earning prospects for emerging markets corporates (which would thereby dampen international equity issuance), and a tightening of lending standards by international banks that would reduce cross-border syndicated lending. In this scenario, the prospect of lower mature market interest rates is viewed as insufficient to stave off the onset of a recession in the United States, slower growth in Europe, and continued stagnation in Japan. As a result, both gross and net capital flows to emerging markets are viewed as likely to decline, reflecting another period of limited market access for many emerging markets. These developments are also seen as putting more intense pressures on countries that have experienced recent market turbulence, particularly Argentina and Turkey. In contrast, a soft landing combined with lower mature market interest rates is generally seen as giving rise to cautious optimism about market access. Under this scenario, there could be another year of increased gross issuance of international bonds, equities, and syndicated loans, and net flows would be expected to recover.

Market participants are also closely following events in Argentina and Turkey. It is widely believed that developments in these countries will play a key role in determining the terms and conditions of market access for many emerging markets. Due to the relatively large scale of its external debt (and thereby its large weight in emerging markets benchmarks, such as the EMBI Global), Argentina has been the focus of much recent analysis. It is generally argued that the combination of multilateral assistance and the recent debt exchange will provide sufficient resources to meet the current year's external payments obligations. However, many analysts argue that, without a resumption of growth, "the arithmetic does not work" for the debt dynamics for the subsequent years. As a result, analysts are closely monitoring both growth and the evolution of the stock of deposits in the banking system (to gauge the confidence of the private sector in the success of the adjustment program).

Market participants widely believe that a crisis in Argentina would lead to much reduced capital flows to emerging markets and thereby would reduce their growth prospects. Some other Latin American countries are viewed as potentially the most vulnerable. Indeed, Brazilian bond markets, along with the country's stock market and currency, came under considerable pressure during the Argentine crisis in March and April 2001. Other Latin American countries (with the exception of Mexico) also came under pressure. Banks and corporates with large exposures in terms of equity and loans might also be affected, as it is in the case of Spanish institutions. The Spanish au-

thorities are closely monitoring and supervising the bank exposures; these exposures are not regarded as currently posing a major risk given the solvency, provision, and profitability levels of these institutions, and the size of the exposures relative to their total equity and loans. Mexico generally is seen as somewhat sheltered from potential contagion, primarily because of its strong economic policies, the prospects for obtaining a second investment-grade rating, and the fact that it has already satisfied its external bond funding requirement for 2001. Some analysts argue that Mexico could lose its "safe haven" status, however, if Argentina's problems become sufficiently severe.

Market participants also view the multilateral assistance provided to Turkey as creating a "window of opportunity" to undertake the fiscal and structural reforms needed to achieve sustainable balance of payments and fiscal positions. However, four key risks create potential difficulties: the challenge of developing broad-based political support for the adjustment program, the difficulties facing the central bank in establishing credibility for its anti-inflation policy, the problem of dealing with undercapitalized private banks (as opposed to state banks), and the task of successfully financing a large fiscal imbalance without crowding out private borrowers.

The spillover effects from the recent Turkish crisis were limited. There were reportedly some hedge fund losses in November 2000, but they were not large due to the lower degree of leverage than during the 1998 Russian crisis. Market analysts also argued that some structured products designed to help Turkish banks satisfy open foreign exchange position reporting requirements were evident in November but were unwound by the time of the February 2001 crisis. By February, foreign exposures in the money and bond markets had been reduced to negligible levels. Nonetheless, some European banks have relatively large syndicated and interbank loans exposures (for example, German banks had $12 billion of exposures at the end of September 2000).

Financial Market Implications of the Changing Structure of Major Government Securities Markets

The possibility that the supply of U.S. treasury securities might disappear over the coming years has raised concern, even alarm, because of the international role of the U.S. dollar and the fact that U.S. treasury securities are widely used for hedging interest rate risk, provide key benchmarks for quoting dollar-denominated fixed-income instruments in both U.S. and international markets, and are the most widely accepted collateral for international financial transactions. As Chapter IV indicates, the shrinking supply of U.S. treasury securities has already resulted in significant changes in U.S. and international financial markets, particularly in terms of the alternative instruments that are now being used by market participants for quotation of private fixed-income instruments, hedging market risks, and to some extent in collateralizing counterparty risks.

With regard to some of the other roles played by U.S. treasury securities, there is skepticism and concern that private financial instruments may neither easily nor fully substitute for treasury securities. There are three main concerns. First, it may take a considerable period of time before market participants fully and completely adapt in using private instruments—embodying credit risk—to substitute reliably for U.S. treasury securities as universally accepted collateral. Second, for some types of investors (including pension funds and insurance companies), treasury securities may substantially improve the ability to achieve desired risk-return combinations of portfolios. Third, it may be difficult to find or produce (short of central bank money) reliable substitutes for U.S. treasuries in their roles as domestic and international safe havens. From an international perspective, perhaps the most important financial market questions associated with the shrinking supply of U.S. treasuries involve the international role of the dollar—as a safe haven asset and as the predominant cur-

rency for denominating international financial transactions.

The United States is not the only country where important structural changes are taking place in government securities markets. As discussed in Chapter IV, in Europe, while national government securities markets have been comparatively well-developed for some time, they were still highly segmented along national lines more than two years after the euro's introduction in 1999. This segmentation has prevented the emergence of a uniform euro-area benchmark yield curve, and euro-area market liquidity would likely increase if segmentation were reduced. Thus, segmentation is probably limiting the ability of government securities in playing various roles that can be supportive in facilitating efficient private finance. Private market instruments in Europe—especially the swap curve—can substitute for government securities in several roles, including pricing and hedging. However, in other roles (such as collateral and safe haven), there are potential benefits, including possibly financial stability benefits, to reducing segmentation of euro-area government securities markets.

Meanwhile, in Japan, lingering economic uncertainty and financial imbalances have impaired corporate financial activity and fueled rising government debt supply. The confluence of a low interest rate environment and technically driven changes in JGB supply and demand—along with shortcomings in the market infrastructure that impair market liquidity—has resulted in JGB market volatility and significant spread compression in the corporate bond market. Both of these features present important risk management challenges for financial institutions (most of which are Japan-based) that manage large portfolios of yen-denominated securities. These features also highlight the challenge to the Japanese authorities of managing the costs and risks of a large and growing supply of government debt and maintaining market confidence in the JGB market. To help manage this challenge, the Japanese authorities could further improve JGB market infrastructure to enhance the efficiency of the JGB market, thereby making the market more attractive to both domestic and international investors. The main specific improvements in this regard include taxation issues, clearance and settlement, the repo market, and market design issues.

Apart from these primarily national issues, there are international issues as well. Perhaps the most immediate issue is how all of these changes and challenges might impinge on international financial markets. In particular, how might they affect the relationships between the major currencies?

The U.S. dollar is the main currency of denomination for international financial transactions, accounting for nearly half of international bonds and notes and cross-border bank loans. The predominant role of the dollar in international financial markets reflects at least three factors. First, market participants consider the U.S. economic and financial system to be stable, resilient, transparent, and well-managed, and possessing a robust legal and operational infrastructure. Second, U.S. dollar fixed-income markets are arguably the deepest and most liquid in the world. Third, the main intervention tool in foreign exchange markets by central banks around the world has historically been U.S. treasury securities.

Foreign central banks and private market participants have responded to the shrinking supply of U.S. treasury securities by substituting into other private financial instruments. In light of the historical international role of the dollar, this raises the question of whether that role will change as financial instruments increasingly substitute for treasuries in their traditional functions. The predominant view among market participants is that it will not. The role of U.S. treasuries in international finance appears to be largely due to the role of the U.S. economy and dollar financial markets in international finance, rather than the converse. The shrinking supply of treasury securities has already resulted in a shift in the menu of securities used to support international financial activities, rather than resulting in a marked shift in the uses of the major

currencies in international financial activities. Moreover, the shrinking supply of treasury securities has not reduced the significance of U.S. dollar markets. The groups of market participants that IMF staff meet with regularly almost uniformly believe that the relative roles of the major currencies in the future will depend importantly on how well the respective economies and financial systems are managed. If this view is correct, the reduced supply of U.S. treasury securities may not affect the willingness of overseas investors to fund the U.S. current account deficit.

The shifting supplies of government securities have caused many central banks to at least consider expanding the range of assets that they hold on their balance sheets. Foreign exchange reserve managers have already reduced the share of U.S. treasuries in their portfolios. The shrinking supply of U.S. treasuries has also created the possibility that the U.S. Federal Reserve may relatively soon have to shift into private assets. These consequences for central banks raise at least two important questions. First, to what extent should central banks systematically incur credit risk, and other financial risks, in order to achieve monetary and financial stability objectives? Second, to what extent is it prudent for central banks to become engaged in monetary and financial stability decisions that also, by their very nature, change the allocation of capital among competing sectors or firms within the economic and financial system? These questions are difficult to answer.

U.S. treasury securities have historically been a safe haven for U.S. and international investors. This raises another question of international dimension: namely, does the shrinking supply of this traditional international safe haven asset adversely affect the ability of markets to adjust to major economic and financial shocks? This question cannot be answered definitively because little is known about the link between market dynamics and the types and supplies of safe haven assets. Regardless of the answer to this question, the markets may identify and come to rely on new safe haven assets. How smooth this transition will be, whether market dynamics will be significantly altered, and how the nature of domestic and international systemic risks will be altered, are questions that cannot yet be answered.

In general terms, government securities may provide public benefits in national (and, in some instances, international) markets—by providing deep and liquid security markets, for example—that might be difficult or impossible to replicate with private instruments.[3] These benefits may be greater in less developed financial systems in advanced countries, and in most financial systems in developing and transition countries that often lack developed, liquid private fixed-income securities markets and reliable infrastructures for pricing, trading, and managing private financial risks. Reliable private substitutes for government securities simply may not exist in many, if not most, financial systems. The public benefits of effective, if not efficient, government securities markets for pricing, quoting, and hedging private financial risks can be significant. Moreover, in providing some of the important characteristics of base money and safe monetary assets—and in serving as a safe haven during periods of turbulence—well-developed markets for government securities, in adequate supplies in a range of maturities, may provide significant public benefits that would be difficult, if not impossible, to replicate even in the comparatively well-developed dollar fixed-income market.

If the public benefits are perceived as significant—both in the United States and elsewhere—then a key policy concern is: should the supply of government securities be allowed to shrink below a critical threshold beyond which they no longer reliably provide or support these valuable public benefits? The resolution of this question requires knowledge about the financial market

[3]U.S. public debt managers may not include the maintenance of the government securities market as a "public good" among their debt management objectives.

benefits of government securities markets, whether reasonably cost-effective (including in terms of efficiency and financial stability) private substitutes are possible, as well as other costs and benefits of public debt. It may also be prudent to factor in the costs of having to resuscitate government securities markets if government financing needs change course as the baby-boom generation moves into retirement. From a broader public policy perspective, these questions would also need to be weighed against the benefits of fiscal consolidation for particular major countries and for the rest of the world. For example, if fiscal surpluses are to be sustained, authorities also will need to consider the costs and benefits of investing surpluses in private instruments or foreign government securities. Ultimately, countries must decide what role government securities markets can play in providing public benefits in the form of a financial market structure that fosters efficient finance and one that encourages, and helps manage, systemic financial stability.

Financial Consolidation in Emerging Markets

The financial sector consolidation that has been evident in mature markets for over a decade is now gathering momentum in many emerging markets, although there are important regional differences regarding the extent and pace of the consolidation. From a broader perspective, this financial sector consolidation is one element in the ongoing globalization of international financial activities and the "quiet" capital account opening that is taking place in many emerging markets. The globalization of international financial activities is being accompanied by both the consolidation of the financial sector (to capture the economies of scale and scope created by deregulation and computer technologies and telecommunications advances) and by the migration of financial activities to financial centers that offer the lowest-cost sources of funding and/or trading. For emerging markets, this has involved both the inward migration of foreign banks and, to a lesser extent, securities firms and asset managers and the outward migration of the listing of high-quality corporates to mature markets' equity markets. While this migration of institutions and activities is profoundly altering the financial systems of many emerging markets, it is also creating new and more integrated linkages between international financial markets and emerging markets. This "quiet" opening of the capital account reflects the individual decisions of the authorities to allow entry by foreign financial institutions in order to strengthen domestic financial institutions, of corporate treasurers to seek the lowest-cost sources of funding, and of the managers and owners of large regional and global financial institutions to seek new profitable markets for their products and services—rather than some overall policy toward capital account liberalization.

Although some of the same economic forces driving financial sector consolidation in mature markets are also operating in emerging markets, some aspects of the consolidation process differ. First, while cross-border mergers and acquisitions account for a large share of the consolidation in emerging markets, they are rare in mature markets. Second, while consolidation in the mature markets has been a way of eliminating excess capacity, the process of consolidation in emerging markets has been predominantly a vehicle for restructuring the financial system following financial crises. Third, the authorities have played a major role in the consolidation process in emerging markets, whereas market forces have been more dominant in mature markets. Many analysts consider ownership structure, particularly family ownership, as the main obstacle to faster market-driven consolidation in emerging markets.

The process of financial sector consolidation in emerging markets raises a number of complex policy issues. One key issue is how to create sufficient market discipline and official supervision for institutions that become "too big to fail." Experience from mature markets suggests that this may need to involve removal of entry restric-

tions on foreign institutions and the establishment of clear exit rules and prompt corrective action for distressed institutions, as well as the creation of supervisory teams that monitor the activities of large complex financial institutions.

The emergence of financial conglomerates that provide a wide range of services adds at least two new dimensions to the supervision and regulation of such entities: one is the issue of consolidated supervision and the other is the architecture of the institutions in charge of supervision. Consolidated supervision is critical in assessing the solvency of financial conglomerates and many emerging market supervisors are still not in a position to perform a full consolidation of the balance sheets of the supervised entities. In particular, the structure of financial conglomerates could lead to double or multiple gearing—that is, situations where the same capital is used simultaneously as a buffer against risk in two or more legal entities.

The emergence of financial conglomerates has challenged traditional demarcations between regulatory agencies and has made the business of regulation more complex. In particular, the convergence of most emerging markets to a universal banking paradigm may suggest that consolidation of regulatory agencies in charge of banks, securities, and insurance companies would be appropriate to mirror the evolution of the industry. Although the creation of a single, mega-regulator is becoming increasingly popular among mature and emerging markets, other institutional structures may be equally efficient. The case for a single regulator is based on similar considerations to those that drive the financial services industry: to exploit economies of scale and scope, take advantage of scarce supervisory and regulatory expertise (as well as to avoid duplication and regulatory burden), to have better accountability and/or governance, and to achieve effective consolidated supervision of large complex financial institutions. Opponents of the single agency approach note that a large agency may be difficult to manage, too powerful, and prone to extend the safety net to the rest of the financial system.

Since emerging markets have been focused on establishing efficient and stable financial institutions, antitrust considerations have not been at the fore of policy discussions. However, the ongoing consolidation process has led to situations where a proposed merger would create a single bank that would own 30 to 40 percent of all banking system assets, which has forced the authorities to consider the potential market power of such an institution. Given the universal banking structure emerging in many countries, abuses of market power could arise in a variety of areas including: providing inappropriate advice regarding the sale of products offered by affiliates, placing difficult-to-market investments in affiliated asset management companies or mutual funds, and relaying private information on the financial position of a client to an affiliate to gain a price-setting advantage. A key issue is whether a market is still contestable (competitors will enter the market if large excess profits exist). Measuring the contestability of any financial market will necessarily involve consideration of the geographic extent of the market for a wide range of products, barriers to entry, the degree to which various financial products and services can serve as substitutes, and the need to coordinate supervisory and antitrust policies when dealing with foreign-owned institutions or products and services provided on a cross-border basis.

Consolidation can potentially either reduce or increase systemic risks. If consolidation leads to the creation of adequately capitalized financial institutions holding diversified portfolios that are well-managed and supervised, then these large complex organizations can contribute to financial system stability. However, large complex banking organizations could contribute to increased systemic risks if they inadequately manage internal risks associated with multiple product lines or if they create concentrated interdependencies through the interbank market by reducing the number of counterparties. Although there is not evidence of these problems in emerging markets to date, it is a situation that needs to be monitored.

Another feature of the consolidation process in emerging markets has been the consolidation of private pension funds. The rapid growth of the assets of these funds, combined with the slow growth of domestic securities markets and restrictions on the funds' investment policies, has the potential to cause a concentration of risks. Most countries have adopted tight restrictions on the quality (typically investment grade) and percentage of a company's equity or bonds that a pension fund can hold. When local stock and bond markets are small with a limited number of qualified companies, rapidly growing funds can quickly reach these limits; this restricts the ability of the funds to diversify market risks. In addition, concentrated holdings can impede price discovery, since the funds will not be able to adjust their positions without creating large price movements. One potential solution is to allow these funds to hold some high-quality external assets (including the shares of domestic corporates issued in mature markets).

E-finance in emerging markets has neither lived up to the hype of two years ago nor justified the pessimism of last year: market participants see steady growth of applications of the Internet to the production and delivery of financial services. The Internet and related technological advances are serving as a catalyst for change, producing new business strategies, increasing competition, and driving many aspects of the consolidation. While the authorities in some emerging markets are concerned about the potentially destabilizing impact of e-finance on the domestic financial system, they also do not want to adopt regulations that stifle innovation. The main risks associated with e-finance can be separated into those for individual institutions, those for local markets, and those involving cross-border transactions. The key institutional risks are strategic or business risks, operational risks, and legal and regulatory risks (which arise as the regulatory and legal structure changes as the technological advances occur). Regulators are attempting to cope with these risks by encouraging institutions to develop comprehensive strategic plans, maintain adequate security and backup computer systems, and regularly stress test their systems.

Systemic risks could arise as a result of the fact that a large share of financial institutions invest in the same or similar technologies, or from more open access to the payment system. The use of common, relatively untested technologies, implies that, if there are problems with the technology, system-wide difficulties could emerge. There may also be risks to the payments system, as platforms used for the clearing and settlement of transactions become more open to firms and individuals outside the financial system. Finally, the Internet is likely to blur the distinctions between different financial intermediaries, increasing the need to be aware of the linkages across banks, securities, and insurance companies.

At the cross-border level, the Internet raises issues related to the speed of transfers across borders and the operation of banks beyond their jurisdictions. The former set of issues is derived from the fact that funds can be shifted at the click of a button, which may add an unpredictable degree of volatility to global financial markets; these issues should be dealt with by better liquidity management at the level of financial institutions. The latter issues are related to the fact that a bank that develops an online service will be able to reach (or be reached from) every country with Internet access. This means, for instance, an enhanced ability for the bank to conduct activities with customers over interconnected electronic networks into countries where banks are not adequately supervised. More generally, the traditional home-host understandings about cross-border supervision that were developed for the physical world may not work as well in the virtual world, and there will be a clear need for cooperative cross-border supervision in this area. In many cases, the regulators have taken the view that it is the target market that determines the relevant legislation.

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