Financial Development: Maturing and Emerging Policy Issues

Augusto de la Torre, Juan Carlos Gozzi, and Sergio L. Schmukler

In recent decades, financial development policies in emerging market economies have been shaped by a fundamental shift toward market-based financial systems and the lessons from financial crises. Today, there is consensus that financial development depends on financial stability and convergence toward international standards. While the debate on some issues has matured, policy thinking in other areas is changing, fueled by recent experiences. This article analyzes the evolution of policy thinking on financial development and discusses three areas that are important to achieving deeper financial systems: stock market development, small- and medium-size enterprise financing, and defined-contribution pension systems. The main emerging issues in these areas are illustrated using recent experiences in Latin America. The article concludes that there is a need to take a fresh look at the evidence, improve diagnoses, and revisit expectations. JEL codes: F36, G15, G18, G20.

Policymakers concerned with financial development in emerging market economies face an increasingly complex and perplexing situation. Despite the many efforts already undertaken to improve the macroeconomic environment and reform the institutions believed to foster financial development, financial markets in most emerging economies remain relatively underdeveloped. The more stable, internationalized, and better regulated financial systems of today do not seem to be contributing to social and economic development as much as expected at the beginning of the reform process. This has left policymakers with no clear guidance on how to move forward on the financial market development process and has brought to the forefront of policymakers' agenda some big emerging issues in critical areas of financial development that have not been adequately addressed in the policy debate. These issues have emerged after other important policy issues have been settled and as experience has started to show

doi:10.1093/wbro/lkm004 Advance Access publication May 4, 2007 22:67–102

weaknesses in the prevalent policy thinking and holes in the extent of financial development.

The article starts by describing the salient features of current policy thinking on financial development in emerging economies, which has been sharpened by significant theoretical and empirical work and rich lessons from experience. This thinking has generally focused on ensuring financial stability (reducing systemic risk) and improving the enabling environment for financial contracting. This has led to some specific operational prescriptions that tend to be dominated by financial stability concerns, focus on the links between the monetary and financial sectors, and aim at promoting convergence toward best practices codified in international standards and codes.

Next, it describes some important emerging issues on financial development about which there has been less debate and analysis and which warrant more attention to better inform policy. These issues are acquiring high-priority status among policymakers in many emerging market economies and are increasingly exposing some of the limitations of current policy thinking on financial development, pointing to new directions to expand and enrich this thinking. These issues have much less to do with financial stability and the degree of convergence toward international standards and codes, and much more to do with difficulties in completing financial markets under conditions of financial globalization. This basic argument is illustrated by emerging issues in the critical areas of equity markets, small- and medium-size enterprise financing, and defined-contribution pension funds, with examples taken mostly from recent experiences in Latin America.

Two points should be made about the scope of this article. First, although it focuses on the experience of Latin America, the analysis also applies to emerging market economies in other regions. Some topics may even be relevant for developed economies. But applying the analyses and conclusions to countries in different regions requires attention to the intrinsic features of the local institutional environment, as well as to the specific problems and challenges faced by the financial system in each country. Latin American countries were at the forefront of the financial reforms of the last decades. Therefore, their experience can provide valuable insights into how these policies have fared. Second, the focus of this article is on issues related to domestic policies. It thus leaves out discussions of cooperative multilateral policies aimed at improving the international financial architecture for all countries (see Eichengreen 1999).

The next two sections describe the main features of current policy thinking on financial development in emerging economies and the main drivers behind the recent evolution of this thinking. The following section then examines selected emerging issues in financial development that are provoking significant debate. The final section considers the need to improve diagnoses and revisit expectations.

Policy Thinking on Financial Development: Where We Stand

Current policy thinking on financial development in emerging market economies rests on two key tenets: that financial markets, when allowed to work freely within a sound regulatory environment, provide the best mechanism for efficiently mobilizing resources and allocating risks, and that there remains an essential, well-defined role for the government to foster stability and provide an adequate enabling environment. The first tenet highlights the critical function of relative prices under competition—to capture and signal relative scarcities and relative risks—to adequately guide, as if through an invisible hand, myriads of decentralized self-interested decisions toward the collective good. This tenet does not, of course, ignore the potential maladies of finance—such as asset bubbles, herd behavior, self-fulfilling prophecies, contagion, and crises—but it contends that, these maladies notwithstanding, competitive financial markets are superior to all known alternatives.

In part because of these potential maladies, current policy thinking rests on the equally important second tenet that there is an essential and well-defined role for government: to foster systemic stability through sound prudential regulations, appropriate accounting and disclosure practices, and supervision, so as to avert financial crises and mitigate their cost, without increasing moral hazard. The government is also called on to facilitate financial market development by establishing an adequate institutional and informational environment for writing and enforcing financial contracts. Jointly, these two tenets highlight the irreplaceable value added of well-managed and well-regulated financial entities (banks, insurance companies, investment banks, asset managers, broker dealers) that act as intermediaries through financial products (typically loans, bonds, deposits, stocks, derivatives, investment funds, and insurance policies) that channel and embody contractually the allocation of resources and risks.

Innumerable policies have followed from these two basic tenets over the last decades in emerging market economies. These policies share some features that tend to command general acceptance among academics, policymakers, and practitioners. Four of these general policy prescriptions are described here in stark—and, hence, oversimplified—terms.

A first policy prescription is to strive to converge to international standards and codes. A battery of standards has emerged recently as part of initiatives to strengthen the international financial architecture following the financial crises of the second half of the 1990s. These standards codify international best practices regarding the institutional, regulatory, and supervisory environment for financial markets. Assessing country observance has become a major initiative, strongly endorsed by donors and actively embraced by emerging market economies.[1] The underlying conviction is that these standards help identify gaps, set reform

objectives and priorities, and give direction to the reform effort. International standards and codes that are relevant to the functioning of the financial system include Basel Core Principles for Effective Banking Supervision; International Organization of Securities Commissions (IOSCO) Objectives and Principles of Securities Regulation; Committee on Payment and Settlement Systems (CPSS) Core Principles for Systemically Important Payment Systems; CPSS-IOSCO Recommendations for Securities Clearance and Settlement; International Association of Insurance Supervisors (IAIS); Core Principles for Insurance Supervision; International Monetary Fund (IMF) Code of Good Practices and Transparency in Monetary and Financial Policy; Organisation for Economic Co-operation and Development (OECD) Principles of Corporate Governance, Accounting, and Auditing Standards; and World Bank Principles and Guidelines for Effective Insolvency and Creditor Rights Systems.[2] Over the last decade or so the reform agenda for financial development has become largely equated with convergence toward such international standards.

A second policy prescription is to cautiously allow the international integration of domestic financial markets. While there is still vigorous debate on the sequencing and speed of international financial integration (Kose and others 2006), there is much less disagreement on the general direction, which favors increased integration, at least for a large set of countries. To be sure, it is recognized that financial integration has not always worked as predicted (de la Torre, Levy Yeyati, and Schmukler 2002). For many emerging market economies, the benefits of financial globalization—greater opportunities for consumption smoothing, deepening and diversification of domestic financial markets, noticeable reductions in the cost of capital—have failed to fully materialize. Moreover, financial liberalization and globalization have often exposed economies to capital flow volatility and financial crises. Faced with this evidence, the prevailing policy thinking emphasizes the institutional and regulatory preconditions for financial liberalization and the need to sequence reforms in order to minimize the risks and maximize the benefits of financial globalization, rather than advocating closing domestic financial markets permanently. Most analysts see financial isolationism as undesirable or unfeasible, especially for economies that are already partially open and in the current climate of rapid information technology change and financial product innovation.

A third policy prescription is to move toward inflation targeting with exchange rate flexibility. This prescription reflects a sea change (see Goldstein 2002; Larraín and Velasco 2001; and Mishkin and Savastano 2001). In the late 1990s, hard pegs or dollarization, on the one hand, and full exchange rate flexibility, on the other hand, were seen as equally respectable alternatives open to emerging market economies seeking safe integration into international capital markets (see, for example, Eichengreen and Hausmann 1999; Frankel 1999; Fischer 2001; Calvo and Reinhart 2002). But more recently, exchange rate flexibility coupled

with inflation targeting has come to dominate policy thinking for emerging economies, except for the few countries that can reasonably be considered to meet optimal currency area conditions (Mundell 1961). Following the example of Australia, Canada, Finland, New Zealand, Spain, Sweden, and the United Kingdom in the early 1990s, many emerging market economies have adopted inflation targeting in recent years, including Brazil, Chile, the Czech Republic, Indonesia, Israel, the Republic of Korea, Philippines, Poland, and South Africa. Inflation targeting with exchange rate flexibility is normally underpinned by other policy prescriptions regarding macroeconomic (especially fiscal) and institutional fundamentals, ranging from central bank independence to the rule of law. Without such fundamentals in place, the benefits of actions focused solely on monetary and exchange rate policies would not endure.

Financial globalization is unfolding in an environment in which the major currencies in the "center" float freely against each other, rendering it inadvisable for countries in the "periphery" to peg their currencies unilaterally, and making a flexible exchange rate regime the best alternative for capturing the benefits and coping with the perils of financial globalization. In contrast, the previous wave of financial globalization—from the mid-1800s to 1914—unfolded under a fixed international exchange rate arrangement, the gold standard, protected through a strong mutual commitment by the center, which made it safer for the periphery to adopt pegs (see Bordo, Eichengreen, and Irwin 2000).

A fourth policy prescription is to foster the development of local currency–debt markets. This is increasingly seen as a necessary condition to mitigate the vulnerability associated with unhedged currency mismatches in debtor balance sheets, a vulnerability that played a significant role in the Southeast Asian crisis of 1997–1998 and in recent financial crises in Latin America (Ecuador in 1999, Argentina in 2001, and Uruguay in 2002). This prescription arises partly in response to what is now seen as excessive pessimism in the "original sin" literature and is linked to the third policy prescription on exchange rate flexibility.

The original sin literature focuses on the inability of emerging market economy sovereigns and corporations to issue long-term domestic currency–denominated debt. Initially, it recommended the adoption of formal dollarization for overcoming the original sin and developing domestic financial markets more safely within a financially globalized context (Eichengreen and Hausmann 1999; Calvo and Reinhart 2002). Following the collapse of the Argentine "convertibility" system, however, the original sin literature has come to support exchange rate flexibility while advocating development of markets for domestic currency–denominated debt, with some arguing that this should be achieved before capital accounts are completely opened (Eichengreen and Hausmann 2002; Eichengreen, Hausmann, and Panizza 2005). As strands of thought have converged, there is now a fairly broad consensus on the policy prescription to give priority to the development of

markets for long-term government and private debt securities denominated in local currency (see, for example, ADB 2001; IFC 2001; IMF and World Bank 2001; BIS 2002; IDB 2006).

The four policy prescriptions described earlier aim to link key macroeconomic and microeconomic dimensions of financial development. They seek to achieve three mutually reinforcing goals for safe financial globalization: a flexible exchange rate, to enable efficient shock absorption; a local currency that is intensively used as a store of value for savings, around which financial contracts can be reliably organized; and a sound informational, contractual, and regulatory environment in which the writing and enforcement of financial contracts can flourish.

But what factors are behind the evolution of these policy prescriptions on financial development in emerging economies? Understanding how we got where we are can help us to assess the validity of the dominant policy thinking and its potential limitations and can also guide any reformulation.

Policy Thinking on Financial Development: Where We Came From

The current policy thinking on financial development took form over the past 25 years or so, shaped by two key drivers: one is a paradigm shift toward market-based financial development and the other is the complex process of interpreting and reinterpreting financial crises.

Paradigm Shift Toward Market-Based Financial Development

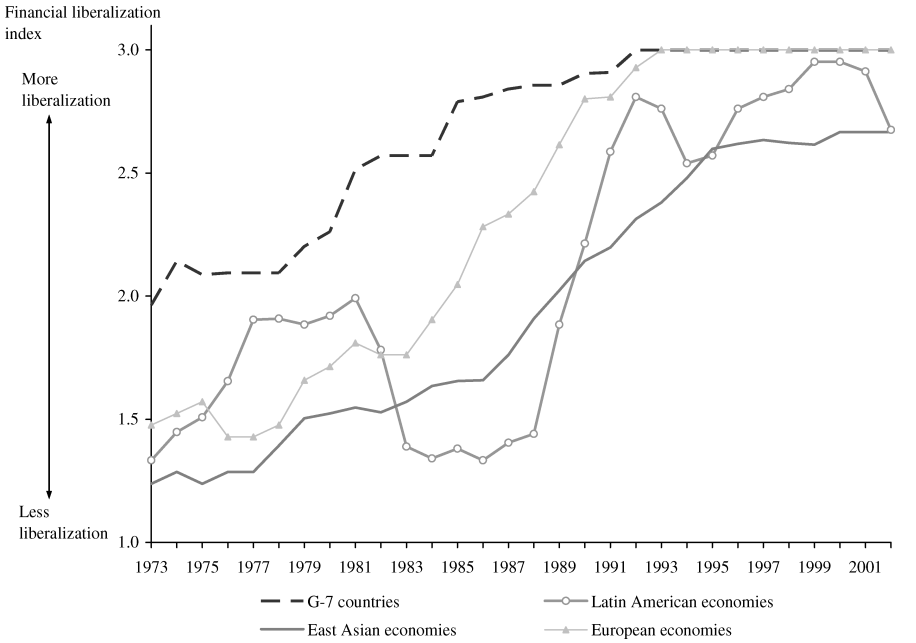
The paradigm shift toward market-based financial development was part of a broader transformation in economic development policy thinking away from the central planning that had prevailed throughout the developing world during the 1960s and 1970s. In the financial sector this shift was in part a reaction to what McKinnon (1973) called "financial repression"—the underdevelopment of financial markets resulting from excessive public sector intervention (see, for example, Barth, Caprio, and Levine 2001; Caprio and Honohan 2001; La Porta, Lopez-de-Silanes, and Shleifer 2002). Accordingly, the main premise of the paradigm shift was that government interference—through directed credit, credit ceilings, public sector banks, administered interest rates, and other tools—is a fountainhead of distortions that repress financial contracting, cause resources to be misallocated, and lead to unsound risk management by exacerbating moral hazard. The new paradigm called for a move from state interventionism toward regulated laissez-faire in financial markets.

The initial policy prescription was rather simplistic: liberalize the domestic financial system and the capital account to achieve efficiency through competition. Despite some delays and temporary reversals, financial liberalization advanced through much of the developing world, and systems of directed lending, credit ceilings, and controlled interest rates were dismantled and public banks were privatized. The pace and timing of financial liberalization has differed across regions. Latin America, Argentina, Chile, and Uruguay liberalized their financial systems in the 1970s, but these reforms were reversed in the aftermath of the 1982 debt crisis, and financial systems throughout the region remained repressed during most of the 1980s. A wider wave of liberalization swept Latin America, starting in the late 1980s and early 1990s, and by the late 1990s most countries had reached levels of financial market liberalization comparable to those in the developed world (figure 1; see Kose and others 2006 for a discussion of different measures of the extent of financial liberalization). In East Asia liberalization was more gradual. Some countries started by slowly rationalizing their directed credit programs and liberalizing their interest rates during the 1980s, a process that stretched over more than a decade in many cases.

Faith in the initial policy prescription to liberalize the domestic financial system and the capital account was subsequently shaken by the modest results of liberalization in increasing financial depth and, especially, by the recurrence of financial crises. Time and again, weak domestic banking systems were found to be ill-prepared to intermediate the surge in capital availability that followed liberalization, leading to credit bubbles and subsequent credit busts.[3] As a result, questions arose regarding the speed and sequencing of financial liberalization. The basic policy prescription emerging from this analysis was that prudential oversight, corporate governance, and transparency should be enhanced before financial liberalization and international opening (see, for example, McKinnon 1973; Johnston and Sundararajan 1999). This led to a greater emphasis on improving the enabling environment for financial markets—macroeconomic stability, regulatory institutions, legal frameworks, accounting and disclosure practices, debtor information systems, market infrastructures, safety nets, creditor rights, and contract enforcement (Caprio and Hanson 2001; Caprio and Honohan 2001; Rajan and Zingales 2001; Klapper and Zaidi 2005).

The view in favor of sequencing financial liberalization, while widely held, is still debated. First, some analysts question the expectation that sequencing, even if technically correct, is consistent with sufficient incentives for reform (Rajan and Zingales 2003). They see openness to international competition as a key element for fostering financial sector reform (Kaminsky and Schmukler 2003). Second, while there is general agreement that countries that are still closed should not open too soon or too fast, there is less agreement on the adequate policy for countries that have already opened up their financial systems. Some analysts

Figure 1. Extent of Financial Liberalization across Selected Regions



Note: The financial liberalization index, calculated as the simple average of three indexes (liberalization of the capital account, domestic financial sector, and stock market), ranges form 1 (no liberalization) to 3 (full liberalization). Data are annual averages calculated from monthly figures and are averaged across countries in each region. The data for the Group of Seven (G-7) countries are averages for Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. The data for Latin American economies are averages for Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. The data for East Asian economies are averages for Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; Philippines; Taiwan, China; and Thailand. The data for European countries are averages for Denmark, Finland, Ireland, Norway, Portugal, Spain, and Sweden.

Source: Kaminsky and Schmukler (2003).

emphasize imperfections and anomalies in international capital markets, such as moral hazard, asymmetric information, asset bubbles, herding behavior, and contagion, arguing that these factors largely explain the financial crises in emerging markets over the last decades.[4] The resulting policy prescription is to roll back capital market opening and manage financial integration through capital controls and other limitations on international asset trading (see, for example, Stiglitz 1999, 2000; Tobin 2000; Ocampo 2003). Proponents of a softer, and perhaps more widely accepted, version of the sequencing view advocate delaying further liberalization until the regulatory and institutional environments are strengthened.

Even as policy thinking broadened from a narrow focus on financial liberalization to a multidimensional emphasis on institution building, it was guided by the goal of freeing financial markets and making them work better, both at home and across borders. In particular, despite the debates surrounding financial liberalization and sequencing, emerging market economies have continued to open up their capital accounts. Two prominent examples are China and India, which, although still partially closed, have taken steps to open up their financial systems in recent years (see Lane and Schmukler 2006 for a summary of recent developments in financial liberalization and integration in these two countries). The reform agenda aimed at achieving regulated laissez-faire, and international financial market integration was also boosted by the program of convergence toward international standards mentioned earlier.

Hermeneutics of Financial Crises

The second driver shaping financial development policy thinking in emerging economies has been the onslaught of recurring financial crises, particularly the policy lessons that emerged from the hermeneutics of financial crises. Three major lessons and associated policy prescriptions that flowed from the process of interpreting and reinterpreting financial crises are discussed here briefly to illustrate this point.

Poor macroeconomic fundamentals are particularly dangerous in open financial systems. This central lesson was conceptually enshrined in the first-generation models of financial crises (Eichengreen, Rose, and Wyplosz 1995; Eichengreen 1999; Krugman 2003). Krugman's (1979) seminal article on balance of payments crises paved the way, followed by an avalanche of theoretical work that clarified the dynamic processes by which fundamental imbalances can set the stage for a sudden attack on the currency or the banking system. This type of attack is deterministic, in the sense that a crisis is inevitable given the policies, even if its exact timing is difficult to predict and is not necessarily associated with appreciable changes in fundamentals (see also Dooley 2000; Aghion, Bacchetta, and Banerjee 2001; Burnside, Eichenbaum, and Rebelo 2001). Subsequent empirical work found that a deterioration in fundamentals preceded financial crises in most countries (see, for example, Kaminsky and Reinhart 1999). This led to efforts to identify early warning signs that could alert policymakers to take countermeasures to avert a financial crisis.

A first and enduring lesson of financial crises was that financial openness dramatically raises the importance of strong liquidity and solvency (fiscal and financial) positions. The associated policy prescription was to avoid bad macroeconomic and financial policies that generate imbalances. In particular, the policy

advice was to closely monitor certain indicators that have been empirically found to precede financial crises—fiscal and external disequilibria, real exchange rate overvaluation, large amounts of short-term debt, rapid printing of money and accelerating inflation, fast credit growth, and real estate price bubbles, among others. Such early detection of problems would have to be followed by the earnest adoption of preventive actions.

Multiple equilibria, self-fulfilling attacks, and contagion are real threats. A second lesson that financial crises drove home was that such phenomena as multiple equilibria, self-fulfilling attacks, and contagion are not just theoretical curiosities. They are real threats, especially as domestic financial markets become exposed to large flows of international capital and to investors who can diversify risk across countries. These phenomena received significant theoretical attention in the second-generation models of financial crises, which consider the occurrence of a crisis to be subject to indeterminacy (Obstfeld 1994, 1996; Ozkan and Sutherland 1998; Wyplosz 1998).

According to these models, fundamentals continue to matter, but whether the crisis occurs will depend not only on the state and trajectory of fundamentals, but also on a complex interplay between market expectations, the government's willingness and capacity to defend the currency or the banking system, and the overall degree of macroeconomic and financial fragility. For instance, where the banking system and public finances are weak, the balance between the potential benefits of mounting a defense (reaffirmed credibility, price stability) and the potential costs (high interest rates, rising public debt, increased moral hazard, economic contraction) is difficult to ascertain, with expectations hard to pin down. Such circumstances create fertile ground for multiple equilibria, as different constellations of interest and exchange rates become compatible with the same fundamentals. The actual outcome depends on expectations about the resolve of the government (and its multilateral supporters) to prevail in a defensive fight. As a result, speculative attacks can become self-fulfilling. This implies that crises are not necessarily the result of irresponsible policies (although these may make a self-fulfilling attack more likely) and may occur suddenly in situations where they are not inevitable.

In these circumstances, policy prescriptions were naturally aimed at counteracting financial market imperfections and avoiding the slide into high-vulnerability zones. Sound macroeconomic and prudential policies gained prominence, with an emphasis on transparency (to reduce information asymmetries) and fiscal and financial sector buffers (to compensate for revenue shortfalls in bad times and to diminish bubbles and cushion bursts in the financial sector). The threat of multiple equilibria also lent support to prescriptions favoring credible pre-commitments—policy actions that tie the government's hands to minimize time-inconsistent behaviors—which led to the temporary popularity of hard pegs.

Major mismatches (maturity, duration, and currency) in debtor balance sheets are "ticking time bombs." Mismatches were driving factors in many crises, including the East Asian financial crises in the second half of the 1990s and the crises in Ecuador (1999) and Argentina (2001). Subsequent work (Calvo, Izquierdo, and Mejia 2004) found empirical evidence suggesting that liability dollarization increases the probability of a sudden stop in capital inflows. Argentina illustrated the deep drawbacks of a rigid currency pre-commitment, including the troublesome feature that such pre-commitments exacerbate currency mismatches (de la Torre, Levy Yeyati, and Schmukler 2003).

The lessons that emerged from financial crises led to important revisions in policy prescriptions. Following the financial crises of the mid-1990s, it became generally accepted that emerging market economies should move to corner solutions—adopting either full exchange rate flexibility or rigid institutional commitments to fixed exchange rates—and abandon intermediate regimes such as basket pegs, crawling pegs, bands, and adjustable pegs (Council on Foreign Relations 1999; Eichengreen 1999; Minton-Beddoes 1999; Summers 1999; Meltzer 2000. Frankel 2004 presents a critical assessment of this view). Brazil, Indonesia, the Republic of Korea, Mexico, Russia, Thailand, and Turkey, among others, were all forced by speculative attacks to abandon some type of basket peg or band, while Argentina and Hong Kong, China, which had currency boards, seemed to have sailed through relatively unscathed. However, the Argentine crisis of 2001 and Ecuador's experience with dollarization subsequently undermined the conventional wisdom that countries with firm commitments to fixed exchange rates could import credibility, avoid financial crises, and achieve convergence in interest rates. As a result, policy thinking has swung in favor of exchange rate flexibility as a way to avoid one-sided bets (Goldstein 2002; Mishkin 2003) and discourage liability dollarization (Ize and Levy Yeyati 2003).

Recent crises also prompted the policy recommendation to develop markets for long-term government and private debt securities denominated in local currency, to help avoid currency and maturity mismatches. Following the East Asian financial crisis, many argued that the vulnerability of emerging market economies was linked to the lack of diversification in their financial systems, which relied excessively on bank-based intermediation. In particular, many argued that local currency bond markets, mostly missing in the region before 1997, would have made East Asian economies less vulnerable to financial crises (Greenspan 1999; Batten and Kim 2001; Herring and Chatusripitak 2001; Hausler, Mathieson, and Roldos 2004). Subsequent crises in Argentina, Ecuador, and Uruguay highlighted the contribution of mismatches to financial crises and the need to develop markets for long-term local currency–denominated debt securities, as well the importance of reducing systemic risks that breed mismatches (de la Torre and Schmukler 2004) and of developing prudential regulations to

ensure that banks internalize the risks of lending in foreign currency to local currency earners (Ize and Powell 2005).

Financial Stability and International Benchmarks

The new perspectives of market-based financial development and the hermeneutics of crises have interacted in complex ways over the last decades. Despite sometimes heated debates, opposing sides have usually been united by a strong pro-market orientation. Views on exchange rate policy have focused on reducing risks and maximizing the benefits of integrating into international financial markets. Vigorous efforts have been made to upgrade the regulatory and supervisory frameworks, often to enhance the complementarities between prudential regulation and market discipline.

The shift toward market-based financial development has endured in large part because it has constructively internalized the hard lessons from financial crises. This process has, however, tilted the emphasis of policy thinking in favor of systemic risk management, and priority has consequently been given to achieving financial stability. Other dimensions of financial development—efficiency, depth, diversity, and breadth of access—have not been ignored, but they have moved to the periphery, while some important areas of financial development, such as access to finance, have only recently started to receive more attention (see, for example, Beck and de la Torre 2006; de la Torre, Gozzi, and Schmukler 2006b).

The dominant policy thinking has grown richer to the extent that it has incorporated the crucial role of uncertainty and incentives in markets characterized by asymmetric information and incomplete contracts. This has balanced the confidence in the power of market competition with a growing emphasis on the institutional environment. However, the strengthening of institutions has been seen largely (and increasingly) through the lens of convergence toward international standards. The emergence of numerous international standards and codes, while initially motivated by financial stability concerns, has provided a framework for policymakers to combine stability and development issues in policy formulation. The centrality of stability concerns and the institutional benchmarks set out by international standards have driven policy thinking on financial development over the last decades.

Policy Thinking on Financial Development: Emerging Issues

While the growth in knowledge underpinning the evolution of policy thinking on financial development in emerging market economies has been impressive, some issues that are acquiring high-priority status among policymakers have not been

adequately addressed. Three of these are local equity markets, small- and medium-size enterprise financing, and defined-contribution pension systems. These are described here only in broad brush strokes, as the objective is to point out limitations in the current policy thinking and to suggest new directions. More research is needed before a consensus can be reached on suitable policy packages to address these issues.

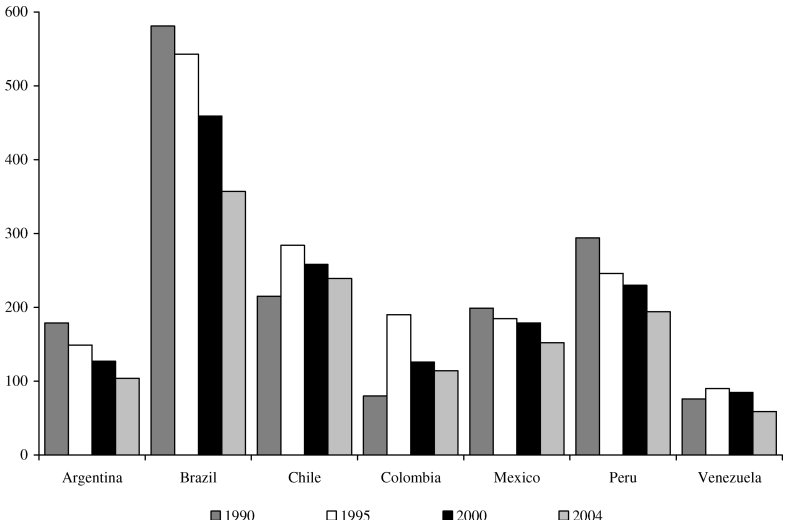
The Future of Domestic Stock Markets in a Globalized Context

A key issue for financial sector reformers in emerging market economies, especially in smaller economies, is the need to revise their vision for the development of local stock markets. Until recently, the implicit view was that domestic financial market development in emerging market economies should be measured against the benchmark of financial markets in industrial countries and that the reform agenda, though difficult, is clear. Growing evidence suggests, however, that the implicit vision of building "mini Wall Streets" at home may need to be revised (Bossone, Honohan, and Long 2002; de la Torre and Schmukler 2006; de la Torre, Gozzi, and Schmukler forthcoming-a).

The conventional wisdom among reformers has been that local equity markets would grow as a result of reforms focused on strengthening the enabling environment, particularly accounting and disclosure standards, minority shareholder protection (and property rights, more generally), corporate governance practices, tax enforcement, trading and securities clearing and settlement infrastructures, and stock market regulations and enforcement. Several relevant standards and codes emerged, giving policymakers clear points of reference for convergence-oriented reform efforts in areas such as securities market regulation, corporate governance, accounting, and auditing. The expectation was that as reforms succeeded and convergence to international standards progressed, domestic capital markets in emerging market economies would increasingly resemble those in developed economies. What actually happened, at least in Latin American and Eastern European countries, has been that the number of stocks listed in local exchanges shrank over the past decade or so (figures 2 and 3).

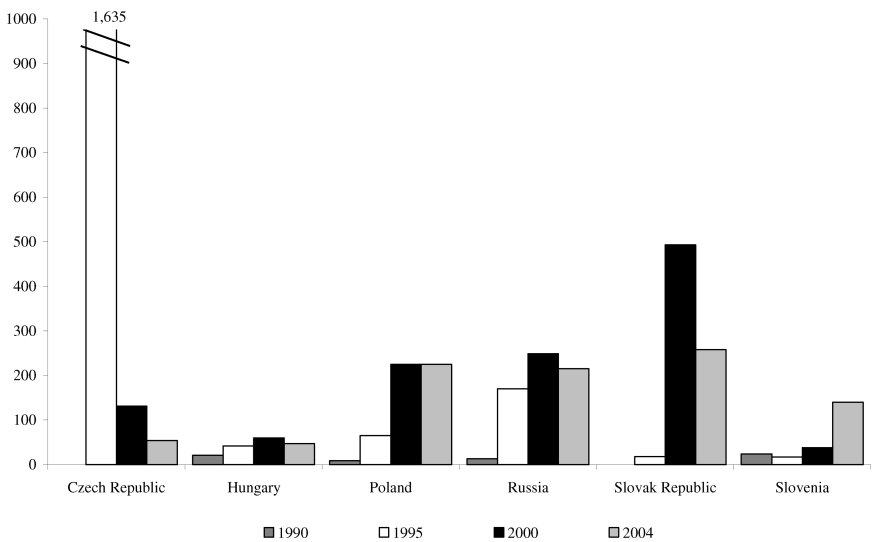
For Latin America, the reduction in the number of listed firms has been associated with the increasing migration of firms to international financial centers such as New York and London.[5] An important element of globalization over the last decades has been the internationalization of financial services and the use of international financial intermediaries by issuers and investors from emerging market economies. Latin American firms have actively participated in this process by listing in foreign exchanges and issuing depositary receipts (for details on depository receipts, see Levy Yeyati, Schmukler, and van Horen 2006). The internationalization of equity issuance and trading in Latin America is

Figure 2. Number of Listed Firms in Domestic Stock Markets in Latin America, Selected Years



Note: Year-end values.
Source: Authors' analysis based on data from Standard & Poor's.

Figure 3. Number of Listed Firms in Domestic Stock Markets in Eastern Europe, Selected Years



Note: Year-end values. The data for Hungary, Poland, Russia, and Slovenia are for 1991 rather than 1990.
Source: Authors' analysis based on data from Standard & Poor's.

significantly higher than in other regions (figure 4), with activity abroad now exceeding activity in local exchanges for many countries.

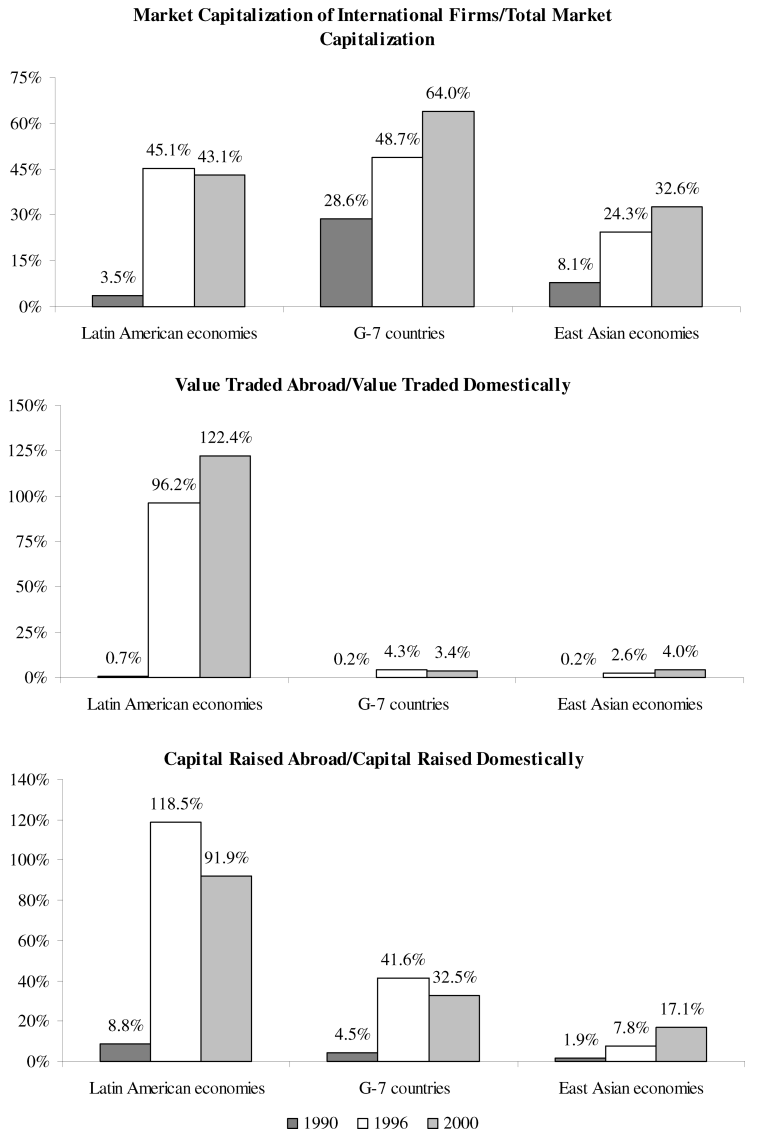
In addition to the growing migration and delistings, domestic equity markets in the region are highly concentrated, with only a few stocks dominating market capitalization and trading. Local markets remain illiquid, in part as a result of very low "float" ratios (a low proportion of listed shares available for trading). Stock markets in Latin America have clearly fallen behind trends in East Asian and the Group of Seven (G-7) countries in recent decades, in both capitalization and trading (figure 5). This divergence in stock market activity is a cause for greater concern in light of the virtual stagnation of credit to the private sector in the region (figure 6) and the lack of development of corporate bond markets, at least until recently (figure 7).

These outcomes stand in sharp contrast to the extent of macroeconomic, institutional, and capital market-related reforms implemented by Latin American countries over the last decades. While these outcomes do not imply that reforms have been ineffective or should not have been undertaken, they do mean that the expectations associated with the reforms should be revised and that the capital market reform agenda needs a fresh look. Securities markets in Latin America, especially for private sector securities, score below what can be expected (according to commonly used measures of size and liquidity) after controlling for per capita income, economic size, macroeconomic policies, and indices of legal and institutional development and reforms (Borensztein, Eichengreen, and Panizza 2006; de la Torre and Schmukler 2006; de la Torre, Gozzi, and Schmukler forthcoming-a). And recent empirical work shows that improvements in macroeconomic and institutional fundaments, as well as capital market-related reforms, have had a pro-internationalization bias. While these factors appear to have fostered local stock market development, they have spurred even more the internationalization of stock issuance and trading (Claessens, Klingebiel, and Schmukler 2006; de la Torre, Gozzi, and Schmukler forthcoming-b). There is also empirical research suggesting that the disappointing development of local stock markets is not independent of their internationalization. The migration of stock issuance and trading abroad has been found to have had an adverse effect on trading and liquidity in local markets (Levine and Schmukler 2006, forthcoming).[6]

To be sure, the reformers of the 1990s were not dismissive of globalization. Indeed, they supported it. But most of them expected the reforms to attract foreign investors and global liquidity to domestic markets. They did not anticipate the increased tendency for the best equity issuers and issues to move to international markets and, in the process, to adversely affect the liquidity of the domestic stock market.

All this evidence raises important questions that have not been adequately addressed in the policy debate. While much more research is needed, a better

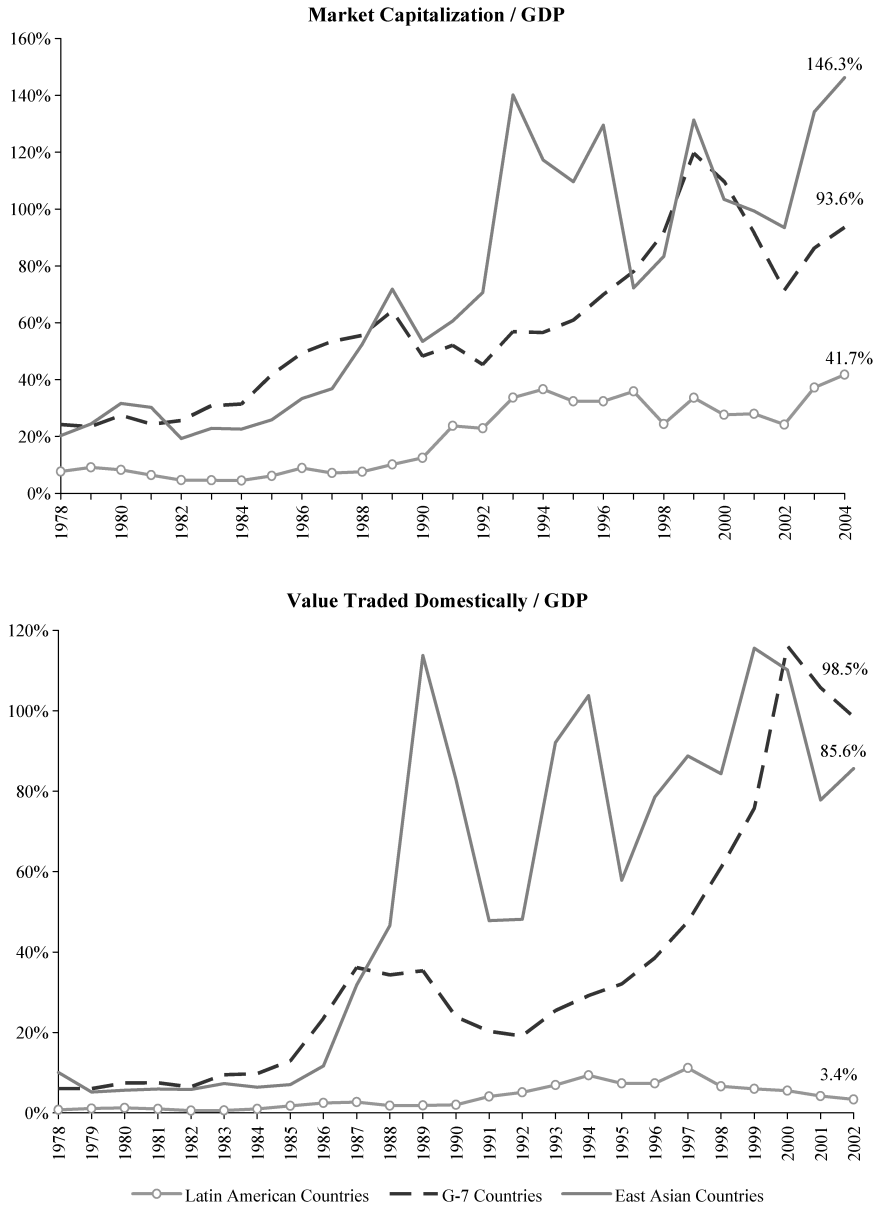
Figure 4. Internationalization of Stock Markets Relative to Domestic Activity



Note: The series are averages across countries. The data for the Group of Seven (G-7) countries are averages for Canada, France, Germany, Italy, and Japan. United Kingdom and United States are not included because they are considered international financial centers. The data for East Asian economies are averages for Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; Philippines; Taiwan, China; and Thailand. The data for Latin American economies are averages for Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. International firms are those having at least one active depositary receipt program at any time in the year, having raised capital in international markets in the current or previous years, or trading in the London Stock Exchange, New York Stock Exchange, or NASDAQ.

Source: de la Torre and Schmukler (2006).

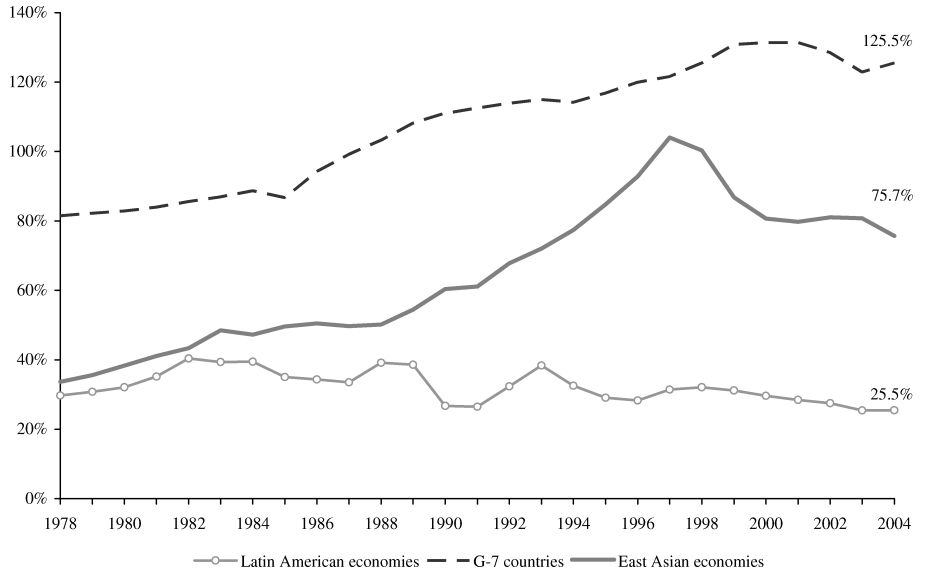
Figure 5. Domestic Stock Market Development



Note: The series are averages across countries. The data for the Group of Seven (G-7) countries are averages for Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. The data for East Asian economies are averages for Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; Philippines; Taiwan, China; and Thailand. The data for Latin American economies are averages for Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela.

Source: Authors' analysis based on data from Standard & Poor's.

Figure 6. Evolution of Credit to the Private Sector by Financial Institutions (percent of GDP)



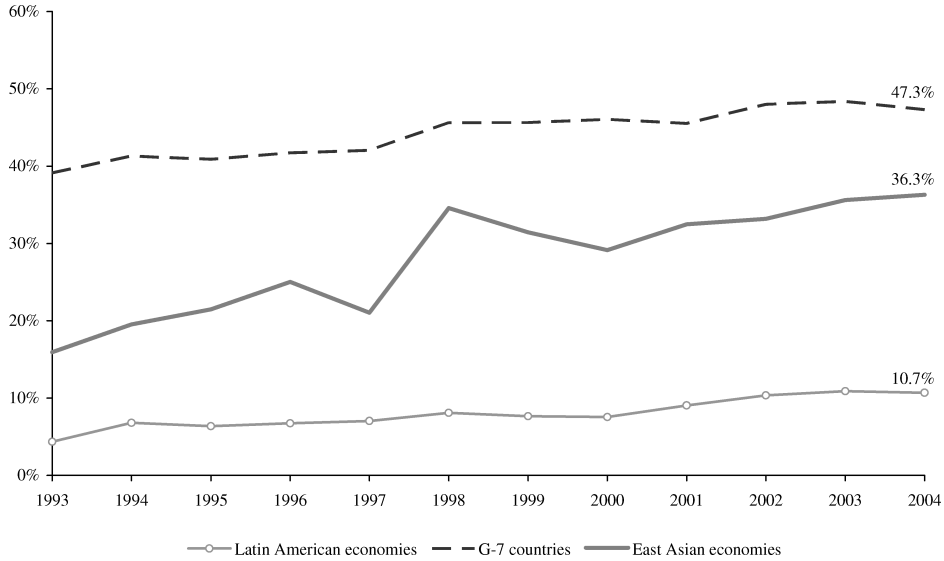
Note: The series are averages across countries. The data for the Group of Seven (G-7) countries are averages for Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. The data for East Asian economies are averages for Indonesia, the Republic of Korea, Malaysia, Philippines, and Thailand. The data for Latin American economies are averages for Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela.

Source: Authors' analysis based on data from the World Bank.

understanding of the interactions among globalization, local market size, and key features of equity contracts is a good place to start in trying to make sense of the evidence (de la Torre and Schmukler 2006). International financial centers that attract international liquidity are arguably a key factor behind the illiquidity of many local stock markets. Scale economies and network and agglomeration effects help explain why global liquidity is increasingly clustering around a few international financial centers. This is sobering news for many local equity markets that are trying to escape from what appears to be chronic illiquidity. Illiquidity begets illiquidity: by limiting the capacity of investors to unwind their positions without affecting prices, illiquidity discourages the entry of new players, further limiting liquidity. And this fundamentally hinders "price revelation," a distinctive function of stock markets.[7]

Also potentially fostering the internationalization of stock issuance is the fact that internationalization does not engender balance sheet mismatches. Unlike borrowing in foreign currencies, foreign equity contracts by themselves carry no systemic vulnerability implications, even if the integrating country has a weak currency. Arguably, this increases the incentives for equity issuers to migrate

Figure 7. Evolution of the Amount Outstanding of Private Sector Domestic Bonds in Domestic Markets (percent of GDP)



Note: The series are averages across countries. The data for the Group of Seven (G-7) countries are averages for Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. The data for East Asian economies are averages for Hong Kong, China; the Republic of Korea; Malaysia; Taiwan, China; and Thailand. The data for Latin American economies are averages for Argentina, Brazil, Chile, Mexico, and Peru.

Source: Authors' analysis based on data from the Bank for International Settlements and the World Bank.

toward the larger, deeper, and immensely more liquid international markets, so long as they can break the size and cost barriers to issuing stocks abroad (for more on these barriers, see Ladekarl and Zervos 2004; Claessens and Schmukler 2006). Reforms and institutional improvements at home may make it easier and more affordable for large local issuers to go abroad by making these issuers more attractive to international investors.

Difficult questions about the future of local stock markets haunt policymakers. Is there a suitable "light" version of domestic securities markets that can complement international financial market integration? What characteristics should such markets have? Should they have lower accounting and disclosure standards, lower listing and transaction costs, and more private equity placements and over-the-counter activity? What could be expected from such markets, which would be structurally illiquid and so would play a very limited price revelation role? What should be done with the costly and underused infrastructure of centralized stock exchanges? Should many countries simply forget about trying to develop deep local stock markets and let their investors and large resident corporations

obtain equity market services in international financial centers? Is there any advantage in pursuing regional stock market integration in place of promoting global integration?

Financing for Small- and Medium-Size Enterprises

Policymakers and entrepreneurs often express concern that the loanable funds available in local markets for the private sector are not flowing in significant amounts to small- and medium-size enterprises, which, at least until very recently, appeared to be squeezed out of the mainstream financing circuit. At one extreme of the corporate lending market are the large, reputable corporations with access to a broad range of products to raise debt or equity capital, from banks or securities markets, in local or international markets. At the other extreme are microenterprises. Although these firms have traditionally lacked access to formal financing, in recent years there has been a vigorous expansion of commercial microfinance, driven by the development of innovative lending techniques, significant technological advances (scoring methods, e-banking), and the growing presence of credit bureaus (see Hardy, Holden, and Prokopenko 2002; CGAP 2003, 2004; Daley-Harris 2003). Accompanying these trends in business lending has been strong growth in consumer credit in emerging market economies (see, for example, BIS 2005; *The Economist* 2006), especially as competition in the lending market for large corporations increased—reflecting financial globalization and the expansion of local bond markets. In the process, the small- and medium-size enterprise segment appears to have been bypassed.

The picture seems to be changing in recent years, as banks in some emerging market economies are increasingly turning to small- and medium-size enterprise financing in search of new business opportunities. However, it remains to be seen whether banks can find a successful business model to serve small- and medium-size enterprises and whether this constitutes a permanent shift.

Financing small- and medium-size enterprises presents several difficulties and requires lending technologies not widely available in many emerging market economies. Given the dearth of empirical research, several hypotheses are submitted to make the point that the problems in small- and medium-size enterprise finance constitute a tough policy nut to crack. While these hypotheses require further analysis and testing, recent anecdotal evidence suggests that some financial institutions are trying to cope with some of the problems described next.

One hypothesis is that individual small- and medium-size enterprises are too small to access capital markets directly and individually. They are not able to issue debt or equity securities in the minimum amounts (roughly \$30–\$50 million) required by institutional investors. Institutional investors do not typically

want to be the only or even the main holder of an issue, and they want an issue with at least a minimum degree of secondary market liquidity to facilitate exit.

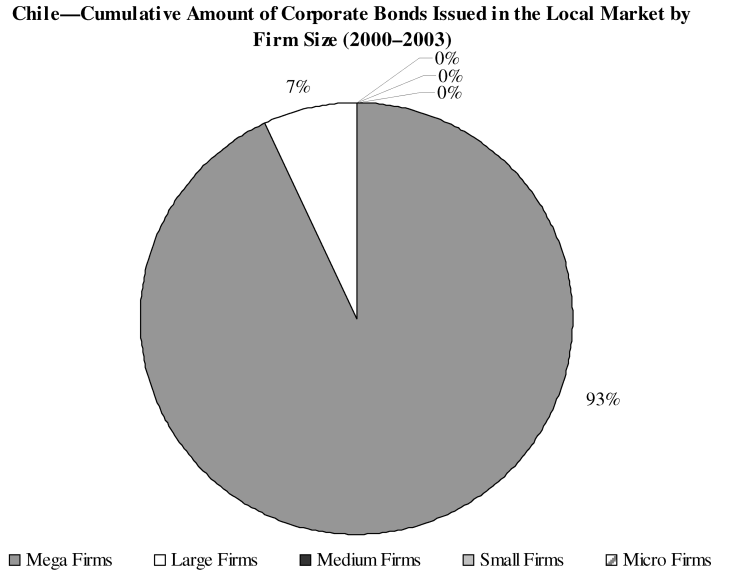
A second hypothesis is that pension funds and other institutional investors at home and abroad are not likely to seek individual small- and medium-size enterprise assets as part of their portfolio diversification strategies. The marginal risk reduction achieved by including one more issuer in the portfolio appears to be offset by the marginal cost of screening and monitoring at a much earlier point than commonly believed. The risk-return frontier is thus reached with relatively few assets, which helps to further explain why participation in capital markets is segmented in favor of large issuers and issues, even in countries like Chile and Mexico (figure 8), where corporate bond markets have been growing fast.[8]

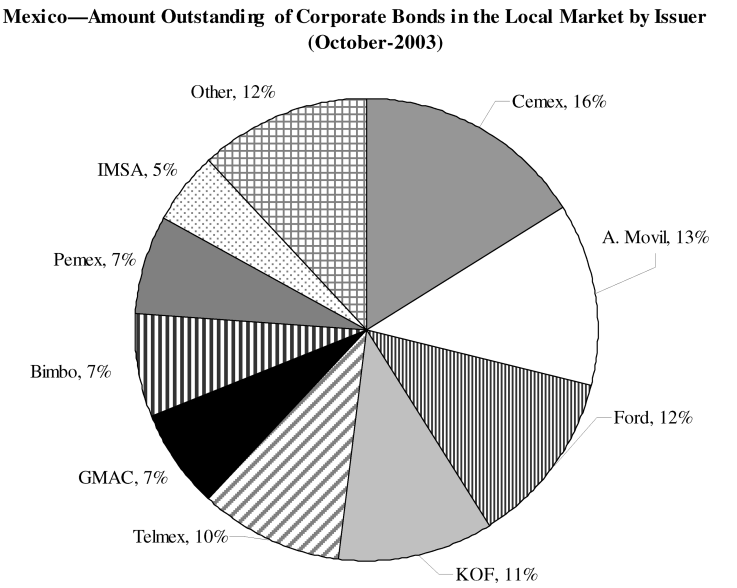
A third reason that may explain why small- and medium-size enterprises have been bypassed is that bank loans to such enterprises are not easily converted into a commodity-like mass-credit product (Mu 2003). Because of the opacity and heterogeneity of risks of different small- and medium-size enterprises, lending technology cannot rely heavily—as microfinance and consumer lending technologies do—on scoring methods. These methods work by analyzing large samples of borrowers to identify the characteristics that predict the likelihood of default and the loss given default. Thus, they are more applicable to homogeneous borrowers and to lending products that can be mass-produced.

The risks of a microloan can be scored with information on the microenterprise owner, since the financial viability of the business is closely tied to that of its owner. This information is relatively easy to gather. The risks of a small- and medium-size enterprise loan are less amenable to scoring techniques, and therefore such lending cannot as easily be converted into a commodity-like mass-credit product. An assessment of a small- and medium-size enterprise, which is likely to be a limited liability company with various owners, generally requires an understanding of the nature of the business, its cash flow projections and operations, and the specifics that underpin the quality of management. These features differ for different enterprises, requiring more individualized lending techniques to sort out and monitor.

Fourth, except for very short-term loans, small- and medium-size enterprise loan technology makes more intensive use of the local institutional infrastructure for credit contract writing and enforcement than microconsumer loans or credit card loan technologies, which do not normally require collateral and whose post-default procedures consist mainly of writing off the claim and registering the default with the credit bureau. In credit card and microloan technologies, in effect, creditors typically do not expect to pursue post-default recovery through the judicial system, and they price this factor into the interest rate. This helps explain why microcredit and mass consumer credit have grown rapidly even in countries with weak contractual environments.

Figure 8. Segmentation in Access to Domestic Bond Markets: Chile and Mexico



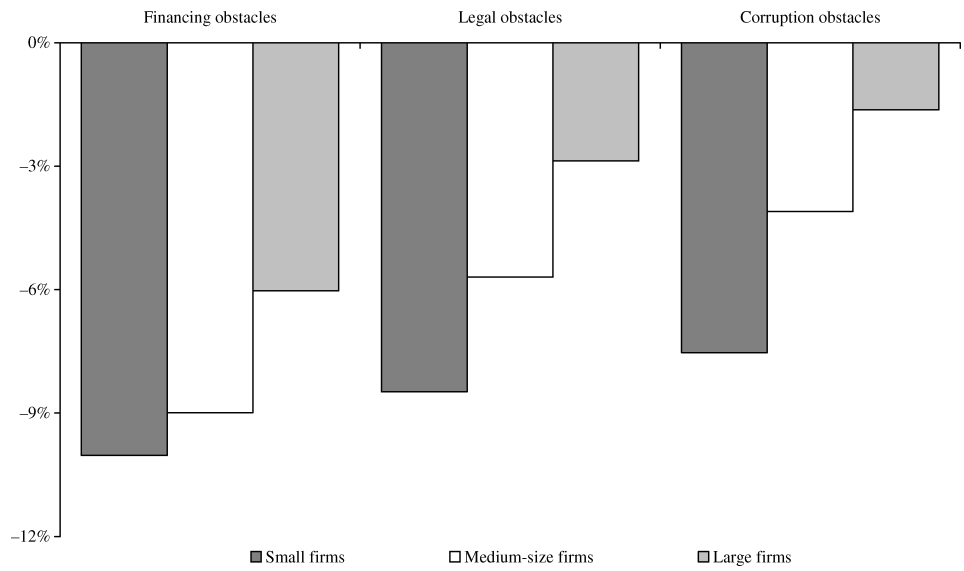


Note: In Chile, mega firms are defined as those with annual sales net of the value-added tax of more than \$17.2 million; large firms have sales of \$2.8–\$17.2 million; medium firms have sales of \$0.7–\$2.8 million; small firms have sales of \$68,688–\$0.7 million; and microfirms have sales below \$68,688. Large and mega firms combined represent 1 percent of firms in the economy, medium firms 2 percent, small firms 15 percent, and microfirms 82 percent.

Source: Authors' analysis based on data from Bolsa Mexicana de Valores and J.P. Morgan; Sirtaine (2006).

In contrast, small- and medium-size enterprise lending technologies cannot avoid a heavy reliance on contract enforcement institutions. Such enterprise lending tends to depend on collateral to mitigate principal-agent problems, and recovery efforts through the courts are the norm in cases of default. As a result, the quality of collateral laws, the clarity of creditor rights in the event of bankruptcy, and the reliability of judicial processes are all highly relevant. Consistent with this argument, Beck, Demirgüç-Kunt, and Maksimovic (2005) find that the extent to which financial, legal, and corruption problems affect firm growth depends on firm size, with smaller firms being most affected (figure 9). Similarly, Chong, Galindo, and Micco (2004) find not only that small- and medium-size enterprises finance a significantly lower share of their investments with bank credit than do large firms, but also that the difference in bank financing is higher in countries with worse creditor protection and less efficient judicial systems. With small- and medium-size enterprises having no access to securities markets,

Figure 9. Impact of Financial and Legal Obstacles on Firm Growth by Size



Note: The reported values are calculated as the mean value of each obstacle for the firm groups multiplied by the coefficients for the firm groups estimated from a regression of firm growth over the previous three years (measured by firm sales) on measures of ownership, industry characteristics, firm size, country-level variables, and interaction terms between dummy variables for the firm groups and the reported obstacles to firm growth. Firms are classified as small if they have 5–50 employees, medium if they have 51–500 employees, and large if they have more than 500 employees. Data on the relevance of obstacles are based on survey responses to questions requiring firms to rate the extent to which financing, legal, and corruption problems present obstacles to the operation and growth of their businesses. Data cover more than 4,200 firms from 54 countries.

Source: Beck, Demirgüç-Kunt, and Maksimovic (2005).

this lower level of bank financing implies that a higher share of their investment has to be financed with retained earnings or supplier credit.

The fifth potential obstacle to expanding small- and medium-size enterprise finance is that Basel Accord and anti-money laundering regulations may be inadvertently discouraging loans to this segment. These regulations may reduce the value for banks of relationship lending based on knowledge of borrowers. For example, regulations that require banks to use information from credit bureaus in loan origination and to supply relevant loan information to such bureaus reduce banks' ability to appropriate the benefits from their own efforts at building individualized knowledge of small- and medium-size enterprises. Similarly, banks' capacity to deal with informal, opaque small- and medium-size enterprises through relationship lending may be undercut by regulations that require loan origination dossiers to include formal financial statements, sophisticated cash flow analysis, and transparency in tax compliance. Likewise, anti-money laundering regulations that require substantial documentation to satisfy the know-your-client requirements may be excluding informal small- and medium-size enterprises that would otherwise have been included.

All of these are hypotheses that require more rigorous exploration, but anecdotal evidence throughout emerging market economies suggests that more analysis could have significant payoffs. Small- and medium-size enterprise finance is an important issue for policymakers concerned with financial development. The topic is complex, and short- or even medium-term solutions are not easy to identify, raising tough questions about what governments can do, other than patiently wait for reforms to result in substantial improvements in the contractual environment. While the search for policy answers must continue, it must also be said that current policy thinking seems to provide little guidance.

Defined-Contribution Pension Funds. Chile's pioneering example in pension reform had a major demonstration effect throughout Latin America, and many countries adopted similar reforms during the 1990s, including Argentina, Bolivia, Colombia, Costa Rica, El Salvador, Mexico, Peru, and Uruguay (Queisser 1998; de Ferranti, Leipziger, and Srinivas 2002; Gill, Packard, and Yermo 2005). Many transition economies, including Hungary, Kazakhstan, Lithuania, Poland, and Slovakia, also adopted Chilean-style pension reforms (Rutkowski 1998, 2002). The reforms consisted of a shift away from government-administered, pay-as-you-go, defined-benefit pension systems toward systems that rely mainly on mandatory, privately administered, defined-contribution pension funds ("second pillar" systems). This type of reform followed the paradigm shift in favor of pro-market financial development and reflected a strategic decision to give markets the predominant role in administering retirement-related savings and providing old-age income security. Many of the associated policy issues are related to financial

development and yet they fail to register on the radar screen of the dominant policy thinking on financial development.

As the Chilean-style pension systems continue to mature, complex issues are emerging. The ability of policymakers to adequately address them is central to enhancing the performance of the reformed systems and ensuring their socio-political sustainability. A better understanding of these issues will also provide valuable insights to countries contemplating similar reforms. While the big emerging issues can be identified, the development of suitable policy answers is still at an early stage.

Arguably, the biggest challenge for pension systems in Latin America and other emerging market economies with large informal sectors is their low coverage (Gill, Packard, and Yermo 2005)—an issue outside the scope of financial development policy and mainly within the scope of social protection policy. Two key issues of the defined-contribution pension system that are of particular concern to financial development policy are how to raise expected replacement rates (the ratio of retirement pension to pre-retirement income) and how to build a sound market for annuities.

Raising expected replacement rates without unduly increasing risk. There is no easy answer to the fundamental question of whether the system of mandatory, defined-contribution pension funds will be able to consistently generate adequate replacement rates in the future, given the current rates of contribution. Adequate replacement rates mean an expected stream of income during retirement that is consistent with life-cycle consumption smoothing and that minimizes the risk of poverty in old age.

One important threat comes from low accumulated balances in pension funds at the time of retirement, because of long unemployment spells or prolonged periods of informal sector employment, for example. But even where accumulated balances are high, maximizing expected replacement rates for a given risk through financial markets has proved more difficult to achieve than envisaged. In particular, the high real returns achieved by the mandatory pension funds in Latin America during the 1990s—on the order of 10 percent a year in several countries—are unlikely to be repeated, and this would automatically lead to lower expected replacement rates for a given risk.

The reasonable assumption that lower average real returns than those in the 1990s are in store for the future puts a premium on policy efforts aimed at increasing net real returns in defined-contribution pension funds without unduly raising risk. Policies thus would need to facilitate the achievement of higher gross returns or lower fees for pension fund administrators. Rocha (2004) reckons that a permanent decrease in fees by 30–40 basis points of assets would lead to a 7–9 percent increase in replacement ratios in the case of Chile, for example.

At first glance, the general direction of policies appears obvious: make pension fund administrators operate in a contestable market while giving them freedom to diversify the portfolios they administer, subject to fulfilling their fiduciary responsibilities. Freedom and competition, the argument goes, will result in lower fees and higher returns for a given risk. Things are not that simple, however, as policy tensions and technical issues complicate matters much more than initially believed.

Consider first the policy objective of enabling higher returns by allowing greater local and international diversification of mandatory pension fund portfolios. In reality, policymakers in Latin America and other emerging market economies that implemented similar reforms have not been free to pursue this objective. Rather, they have felt compelled to balance it against three competing policy objectives.

The first competing objective is fiscal: to facilitate the government's cash flow management in order to finance the pension reform transition. Absent a compensatory fiscal adjustment (Chile was the only reforming country in Latin America able to engineer it, mainly through a major increase in tax revenue), governments have relied on debt financing to meet payments to retirees under the old pay-as-you-go system while no longer receiving contributions from workers who join the new system. The resources in second-pillar pension funds have been tapped for this purpose (and for general government deficit financing needs), often aided through regulations mandating that a high share of pension fund portfolios be allocated to government paper. It is thus not surprising that the portfolios of most mandatory second-pillar pension funds in Latin America are only weakly diversified and are dominated by government debt securities, with Chile and Peru the exceptions (Gill, Packard, and Yermo 2005; de la Torre and Schmukler 2006).

The second competing policy objective has been to harness pension funds' investment power to stimulate the development of local financial markets and the local economy, especially by supplying long-term finance to the private sector, without sacrificing fiduciary duty. This objective has led to a reluctance among policymakers to give pension fund administrators much latitude to diversify fund portfolios through investment in foreign assets. This reluctance has often been reinforced by a nationalistic discourse and concerns that allowing investments in international markets smacks of an official blessing of capital flight. As the growth of pension funds has been outstripping the availability of suitable assets at home, policymakers have been prompted to raise the ceiling on pension fund investments abroad, however gradually and reluctantly. Chile is well ahead of the pack in this regard, currently allowing up to 30 percent of pension fund portfolios to be invested in external assets.

Room to relax pension fund investment regulations has also been constrained by the competing (often implicit) policy objective of limiting the volatility of pension fund returns and replacement rates. This risk aversion in policy is

particularly strong in countries where the second pillar constitutes the core of the national social security scheme. Allowing pension funds to take on more risk in order to raise returns also implies that funds would incur losses from time to time. Such losses would raise greater political sensitivities in countries with second-pillar-dominated national pension systems, where workers bear all the market risk, than in countries where the second pillar is a complement to a core pay-as-you-go system, where workers bear less market risk overall (Rocha 2004). It should not be surprising to find that regulators tend to be more risk averse and more biased in favor of conservative portfolio allocations in countries where the second pillar is the core of the national social security system.

In all, the policy objective of raising expected replacement rates by liberalizing pension fund regulations is caught up in a nontrivial tension with other policy objectives that pull in a different direction. While reasonable people can differ on the relative weight that should be given to each competing policy objective, there is no question that the policy path toward higher replacement rates through freer pension portfolio allocations is fraught with complications that were not fully foreseen at the time of the reform.

Raising expected replacement rates by fostering competition among pension fund administrators on the fees they charge for asset management has also proven to be much more challenging than envisioned, mainly because of complications related to industrial organization features of the pensions industry. These features make it difficult to simultaneously promote competition and ensure the achievement of economies of scale.

Competition seems crucial to bringing down fees. However, increased competition through lower entry barriers and greater freedom for affiliates to move across pension fund administrators can backfire, as Chile's experience in the mid-1990s demonstrated. It can lead to marketing wars between numerous pension fund administrators, blunting the ability of the industry to capture scale economies, resulting in high administrative and selling costs and, thus, high fees. The opposite approach can also backfire. If the regulatory authorities raise entry barriers, promote cartel-like understandings among pension fund administrators, and restrict the ability of affiliates to move from one pension fund administrator to exploit economies of scale, the resulting lack of market contestability will increase the scope for the few incumbent pension fund administrators not to pass the administrative cost reductions on to affiliates and to enjoy abnormally high profits instead.

The appropriate policy to break away from this impasse is neither obvious nor easy to design and implement. Several approaches have been tried to bring down costs and fees, with mixed results. One promising approach is the Swedish model (James, Smalhout, and Vittas 2001; Palmer 2000), which unbundles the basic pension-related services that are subject to economies of scale (contributions

collection, accounts management, payouts to retirees, and so on) and provides them in a centralized manner (through a government institution or a regulated private sector monopoly), while services for which economies of scale are not significant, such as asset management, are left to thrive in highly contestable markets.

The challenge of building a well-regulated, deep, and efficient local market for annuities. A local annuities market is the key complement to defined-contribution pension funds and is crucial to enable pensioners to deal with "longevity risk"—the risk of outliving the savings accumulated during their working life. A well-functioning annuities market allows workers to transfer this risk to life insurance companies, which manage it through pooling and complex asset-liability modeling, passing on to insured individuals the benefits of risk diversification through pooling.

Despite the theoretical advantages of annuitization (Yaari 1965; Davidoff, Brown, and Diamond 2005; Babbel and Merrill 2006), voluntary demand for annuities worldwide is far below what is considered optimal by most economists, and annuity markets remain relatively underdeveloped, even in high-income economies.[9] Potential contributing factors include adverse selection (which decreases incentives to supply annuities), bequest motives (which decrease incentives to buy annuities), and annuity-provider default risk. Empirical work by James and Vittas (2000) suggests that adverse selection cannot account for the lack of annuities market development. Brown and Poterba (2000) find that the bequest motive is not a significant factor in the decision to forgo annuitization. And Babbel and Merrill (2006) show (theoretically) that annuity purchase decisions can be highly sensitive to the perception of default risk of annuity providers.

The annuities market is highly sophisticated, demanding high-quality risk managers, appropriate institutional and market infrastructures, access to suitable assets, and risk-oriented regulation and supervision. Whether countries across all income levels will be able to develop such markets remains an open, yet crucial question, as does the question of whether, and under what conditions, a global pension fund and annuities industry might be a substitute, or even a superior alternative, to having a local industry.

Final Thoughts

This article has argued that some issues that are rising in priority among policymakers in many emerging market economies have not been adequately addressed by the current policy thinking on financial development. These issues have less to do with financial stability and the principles codified in international standards

and codes, and much more to do with completing markets in the context of increasing globalization. To a large extent, these issues have grown out of the interaction between the reforms adopted in emerging market economies over the past 25 years and developments in global financial markets. They pose technical challenges and political economy dynamics, whose nature and complexity were difficult to anticipate at the time of the reforms. The dominant financial development policy thinking seems to offer limited answers on how to confront these issues. An underlying tension for current policy thinking comes from growing questions among policymakers in many emerging market economies on whether the more stable, internationalized, and better regulated financial systems of today are contributing as much to social and economic development as expected.

The most common financial sector policies, focused on financial system stability and convergence to international standards, do not seem to be creating the broad, deep, and diverse financial services that households and firms require. For example, the markets for small- and medium-size enterprise and small-farmer finance appear only recently to be taking off in some emerging market economies. Affordable housing finance remains underdeveloped in most cases. Only the largest firms in the larger emerging market economies seem to have access to long-duration local currency finance. Much of the population in developing countries do not have access to even basic banking services, let alone to pension or insurance products to hedge risks. Moreover, the segmentation of access to financial services seems to be deepening as local financial systems grow and become better integrated into international markets. Financial globalization is arguably producing major benefits, but these seem to be concentrated among large corporations and higher income households.

The associated policy questions point to new areas for research to enrich and expand the current policy thinking on financial development. What reforms could redirect financial systems to more rapidly and effectively bridge the access gaps? How could countries overcome short-termism in financial contracting? Which financial services should be provided at home and which abroad? Is there a suitable version of domestic stock markets for most countries? Should governments take a more proactive policy role to foster financial development, going beyond the current focus on stability and improving the enabling legal and regulatory environment? For example, should government try to complete markets where there are apparent market failures? If so, what type of activities should governments undertake? Should governments provide financing, guarantees, infrastructure, or simply coordinate the activities of different stakeholders?

These types of questions highlight the limitations of the current policy thinking on financial development. This does not mean, however, that the current policy prescriptions should be abandoned or ignored. By and large, such prescriptions, especially those on financial stability, are based on strong theory and well-digested

lessons from experience. The question going forward is how to modify this thinking to provide fresh answers to the new emerging issues, and what form future financial sector reforms should take. Much more research is clearly needed, along with careful reconsideration of the evidence to develop better diagnoses. And a degree of intellectual modesty will be required to suitably revise the dominant policy thinking and amend expectations.

Notes

Augusto de la Torre is a senior advisor in Financial Systems at the World Bank; his email address is adelatorre@worldbank.org. Juan Carlos Gozzi is a consultant in the Development Research Group at the World Bank and Ph.D. Student at Brown University; his email address is juan_carlos_gozzi_valdez@brown.edu. Sergio L. Schmukler (corresponding author) is a lead economist in the Development Research Group at the World Bank; his email address is sschmukler@worldbank.org.
The authors are grateful to Shanta Devarajan and three anonymous referees for helpful comments. This article draws on an earlier paper presented at the conference "A New Development Agenda for Latin America" held in Salamanca, Spain, October 2005 (de la Torre, Gozzi, and Schmukler 2006a). The conference proceedings will be published by the United Nations Economic Commission for Latin America and the Caribbean and Fundación Centro de Información y Documentación Internacionales en Barcelona. The authors thank the conference participants for useful discussions. They are grateful to Francisco Ceballos for excellent research assistance.

1. The International Monetary Fund and World Bank have a leading role in assessing the degree of observance of international standards and codes, often in connection with the Financial Sector Assessment Program (FSAP). Results are summarized in the Reports on the Observance of Standards and Codes (ROSC). For details, see www1.worldbank.org/finance/html/fsap.html and www.worldbank.org/ifa/rosc.html. See also IMF and World Bank (2005) for an assessment of the standards and codes initiative.

2. Links to full descriptions of these standards and codes are available at www.fsforum.org/compendium/key_standards_for_sound_financial_system.html

3. A pioneering investigation into the links between liberalization and financial crises is by Díaz-Alejandro (1985). More recent theoretical studies show that financial liberalization may be associated with crises (see, for example, McKinnon and Pill 1997; Allen and Gale 2000; Bacchetta and van Wincoop 2000[01]; Calvo and Mendoza 2000). Empirically, several studies find links between domestic financial deregulation, boom-bust cycles, and banking and balance of payments crises (Corsetti, Pesenti, and Roubini 1999; Demirgüç-Kunt and Detragiache 1999; Kaminsky and Reinhart 1999; Tornell and Westermann 2005).

4. In contrast with the literature showing a link between domestic financial liberalization and banking and balance of payments crises, there is little empirical evidence supporting the oft-cited claim that greater exposure to international capital flows through capital account liberalization has resulted in a higher incidence of financial crises (Kose and others 2006; Edwards 2007).

5. Merger and acquisition activity and efforts by majority shareholders to increase their controlling stakes are other possible explanations for stock market delistings in Latin America. In Eastern Europe, delistings have been associated with the way privatization schemes were implemented (Claessens, Djankov, and Klingebiel 2000). In contrast, stock markets in East Asia have recorded strong listings increases. One explanation for this diverging trends is that, unlike the American and European stock markets, stock markets in Tokyo and Hong Kong, China, the natural candidates for migration for firms in Asia, have not done well in recent years (World Bank 2004).

6. See also Karolyi (2004) and Moel (2001) on the relation between stock market development and the use of American Depositary Receipts in emerging market economies.

7. In the absence of reasonable secondary market liquidity, concerns about price integrity cannot be fully dispelled. Illiquidity means that stock valuation takes place through methods that, even when well designed and uniformly applied, are imperfect substitutes for the real thing—an observable and reliable market price. Those methods are blunt in their capacity to capture in real time the changes in the actual and perceived risks and prospects of the issuer. Secondary market illiquidity, by undermining price revelation (even where disclosure standards are high), causes marking-to-market to lose much of its meaning and turns fair value accounting into an inherently tentative task.

8. In Chile, efforts have been under way for some time to enhance risk diversification at home by relaxing regulatory limits on domestic investment by mandatory pension funds and by introducing a system of multiple funds with different risk-return profiles. Results have been disappointing, and the range of corporate issuers represented in the aggregate portfolio of pension funds has remained narrow (Rocha 2004), suggesting the presence of structural factors limiting the diversification of institutional investor portfolios.

9. See Cardinale, Findlater, and Orszag (2002) for an overview of annuities markets in developed countries, and Palacios and Rofman (2001) for an overview in Latin America.

References

Aghion, P., P. Bacchetta, and A. Banerjee. 2001. "Currency Crises and Monetary Policy in an Economy with Credit Constraints." *European Economic Review* 45(7):1121–50.

Allen, F., and D. Gale. 2000. "Bubbles and Crises." *Economic Journal* 110(460):236–55.

ADB (Asian Development Bank). 2001. *Government Bond Market Development in Asia*. Manila: Asian Development Bank.

Babbel, D. F., and C. B. Merrill. 2006. "Rational Decumulation." Wharton Financial Institutions Center Working Paper 06-14. Philadelphia: University of Pennsylvania.

Bacchetta, P., and E. van Wincoop. 2000. "Capital Flows to Emerging Markets: Liberalization, Overshooting and Volatility." In S. Edwards ed., *Capital Flows and the Emerging Economies: Theory, Evidence, and Controversies*. Chicago: University of Chicago Press.

Barth, J., G. Caprio, and R. Levine. 2001. "Banking Systems around the Globe: Do Regulation and Ownership Affect Performance and Stability?" In F. Mishkin, ed., *Prudential Regulation and Supervision: Why Is It Important and what are the Issues?* Cambridge, Mass.: National Bureau of Economic Research.

Batten, J., and Y. Kim. 2001. "Expanding Long-Term Financing through Bond Market Development: A Post-Crisis Policy Task." In K. Yun-Hwan ed., *Government Bond Market Development in Asia*. Manila: Asian Development Bank.

Beck, T., and A. de la Torre. 2006. "The Basic Analytics of Access to Financial Services." Policy Research Working Paper 4026. World Bank, Washington, D.C.

Beck, T., A. Demirgüç-Kunt, and V. Maksimovic. 2005. "Financial and Legal Constraints to Firm Growth: Does Firm Size Matter?" *Journal of Finance* 60(1):137–77.

BIS (Bank for International Settlements). 2002. "The Development of Bond Markets in Emerging Economies." BIS Papers 11.

———. 2005. *75th Annual Report*. Basel.

Bordo, M. D., B. Eichengreen, and D. A. Irwin. 2000. "Is Globalization Today Really Different than Globalization a Hundred Years Ago?" *Wirtschafts Politische Blatter* 2:121–29.

Borensztein, E., B. Eichengreen, and U. Panizza. 2006. "Building Bond Markets in Latin America." Inter-American Development Bank and University of California, Berkeley.

Bossone, B., P. Honohan, and M. Long. 2002. "Policy for Small Financial Systems." In G. Caprio, P. Honohan, and D. Vittas eds., *Financial Sector Policy for Developing Countries—A Reader*. Oxford, UK: Oxford University Press.

Brown, J., and J. Poterba. 2000. "Joint Life Annuities and Annuity Demand by Married Couples." *Journal of Risk and Insurance* 67(4):527–53.

Burnside, C., M. Eichenbaum, and S. Rebelo. 2001. "Hedging and Financial Fragility in Fixed Exchange Rate Regimes." *European Economic Review* 45(7):1151–93.

Calvo, G., and E. G. Mendoza. 2000. "Rational Contagion and Globalization of the Securities Market." *Journal of International Economics* 51(1):79–113.

Calvo, G., and C. M. Reinhart. 2002. "Fear of Floating." *Quarterly Journal of Economics* 107(2):379–408.

Calvo, G., A. Izquierdo, and L. F. Mejia. 2004. *On the Empirics of Sudden Stops: The Relevance of Balance Sheet Effects*. Working Paper 10520. Cambridge, Mass.: National Bureau of Economic Research.

Caprio, G., and J. Hanson. 2001. "The Case for Liberalization and Some Drawbacks." In G. Caprio, P. Honohan, and J. Stiglitz, eds., *Financial Liberalization: How Far, How Fast?* Cambridge, U.K.: Cambridge University Press.

Caprio, G., and P. Honohan. 2001. *Finance for Growth: Policy Choices in a Volatile World*. New York: World Bank and Oxford University Press.

Cardinale, M., A. Findlater, and M. Orszag. 2002. "Paying Out Pensions: A Review of International Annuities Markets." Watson Wyatt Research Report 2002-RU07. Washington, D.C.: Watson Wyatt Worldwide.

CGAP (Consultative Group to Assist the Poor). 2003. "Scoring: The Next Breakthrough in Microcredit?" Occasional Paper 7, Washington, D.C.

———. 2004. "Financial Institutions with a 'Double Bottom Line:' Implications for the Future of Microfinance." Occasional Paper 8.

Chong, A., A. Galindo, and A. Micco. 2004. "Creditor Protection and SME Finance." Manila: Inter-American Development Bank.

Claessens, S., and S. Schmukler. 2006. "International Financial Integration through Equity Markets: Which Firms from Which Countries Go Global?" World Bank, Washington, D.C.

Claessens, S., S. Djankov, and D. Klingebiel. 2000. "Stock Markets in Transition Economies." In L. Bokros, A. Fleming, and C. Votava eds., *Financial Transition in Europe and Central Asia: Challenges of the New Decade*. Washington, D.C.: World Bank.

Claessens, S., D. Klingebiel, and S. Schmukler. 2006. "Stock Market Development and Internationalization: Do Economic Fundamentals Spur Both Similarly?" *Journal of Empirical Finance* 13(3):316–50.

Corsetti, G., P. Pesenti, and N. Roubini. 1999. "What Caused the Asian Currency and Financial Crisis?" *Japan and the World Economy* 11(3):305–73.

Council on Foreign Relations. 1999. *Safeguarding Prosperity in a Global Financial System: The Future of International Financial Architecture*. Washington, D.C.: Institute for International Economics.

Daley-Harris, S. 2003. "State of the Microcredit Summit Campaign Report 2003." Microcredit Summit Campaign, Washington, D.C.

Davidoff, T., J. R. Brown, and P. A. Diamond. 2005. "Annuities and Individual Welfare." *American Economic Review* 95(5):1573–90.

de Ferranti, D., D. Leipziger, and P. S. Srinivas. 2002. "The Future of Pension Reform in Latin America." *Finance and Development* 39:39–43.

de la Torre, A., and S. Schmukler. 2004. "Coping with Risks through Mismatches: Domestic and International Financial Contracts for Emerging Economies." *International Finance* 7(3):349–90.

————. 2006. *Emerging Capital Markets and Globalization: The Latin American Experience*. Palo Alto: Stanford University Press.

de la Torre, A., J. C. Gozzi, and S. Schmukler. 2006a. "Financial Development in Latin America: Big Emerging Issues, Limited Policy Answers." Policy Research Working Paper 3963. World Bank, Washington, D.C.

————. 2006b. "Innovative Experiences in Access to Finance: Market Friendly Roles for the Visible Hand?" World Bank Latin America and Caribbean Regional Study, Washington, D.C.

———— forthcoming-a. "Capital Market Development: Whither Latin America?" In S. Garcia, and M. Edwards eds., *Financial Markets Volatility and Performance in Emerging Markets.* Chicago: University of Chicago Press.

———— forthcoming-b. "Stock Market Development under Globalization: Whither the Gains from Reforms?" *Journal of Banking and Finance*.

de la Torre, A., E. Levy Yeyati, and S. Schmukler. 2002. "Financial Globalization: Unequal Blessings." *International Finance* 5(3):335–57.

————. 2003. "Living and Dying with Hard Pegs: The Rise and Fall of Argentina's Currency Board." *Economia* 3(2):43–107.

Demirgüç-Kunt, A., and E. Detragiache. 1999. "Financial Liberalization and Financial Fragility." In Annual World Bank Conference on Development Economics. Washington, D.C.: World Bank.

Díaz-Alejandro, C. 1985. "Good-Bye Financial Repression, Hello Financial Crash." *Journal of Development Economics* 19(1–2):1–24.

Dooley, M. P. 2000. "A Model of Crises in Emerging Markets." *The Economic Journal* 110(460):256–72.

Edwards, S. 2007. "Capital Controls, Sudden Stops, and Current Account Reversals." In S. Edwards, ed., *International Capital Flows*. Chicago: University of Chicago Press.

Eichengreen, B. 1999. *Toward a New International Financial Architecture: A Practical Post-Asia Agenda*. Washington, D.C.: Institute for International Economics.

Eichengreen, B., and R. Hausmann. 1999. "Exchange Rates and Financial Fragility." In New Challenges for Monetary Policy. Proceedings of symposium sponsored by the Federal Reserve Bank of Kansas City.

————. 2002. "How to Eliminate Original Financial Sin." *Financial Times*, November 22.

Eichengreen, B., R. Hausmann, and U. Panizza. 2005. "The Mystery of Original Sin." In B. Eichengreen, and R. Hausmann eds., *Other People's Money: Debt Denomination and Financial Instability in Emerging Market Economies*. Chicago: University of Chicago Press.

Eichengreen, B., A. Rose, and C. Wyplosz. 1995. "Exchange Market Mayhem: The Antecedents and Aftermath of Speculative Attacks." *Economic Policy* 10(21):249–312.

Fischer, S. 2001. "Exchange Rate Regimes: Is the Bipolar View Correct?" Distinguished Lecture on Economics in Government, delivered at the American Economic Association meeting in New Orleans, January 6.

Frankel, J. 1999. "No Single Exchange Rate Regime is Right for All Countries or at All Times." Princeton Essays in International Finance 215. Princeton, N.J.: Princeton University.

————. 2004. "Experience of and Lessons from Exchange Rate Regimes in Emerging Economies." In *Monetary and Financial Integration in East Asia: The Way Ahead*. New York: Asian Development Bank and Palgrave Macmillan Press.

Gill, I., T. Packard, and J. Yermo. 2005. *Keeping the Promise of Old-Age Income Security in Latin America.* Palo Alto, Calif.: Stanford University Press.

Goldstein, M. 2002. *Managed Floating Plus*. Washington, D.C.: Institute for International Economics.

Greenspan, A. 1999. "Do Efficient Financial Markets Contribute to Financial Crises?" Paper presented at the Financial Markets Conference of the Federal Reserve Bank of Atlanta, Sea Island, Georgia.

Hardy, D., P. Holden, and V. Prokopenko. 2002. "Microfinance Institutions and Public Policy." IMF Working Paper 02/159. Washington, D.C.: International Monetary Fund.

Hausler, G., D. J. Mathieson, and J. Roldos. 2004. "Trends in Developing Country Capital Markets around the World." In R. Litan, M. Pomerleano, and V. Sundarajan eds., *The Future of Domestic Capital Markets in Developing Countries*. Washington, D.C.: Brookings Institution.

Herring, R., and N. Chatusripitak. 2001. "The Case of the Missing Market: The Bond Market and Why It Matters for Financial Development." Wharton Financial Institutions Center Working Paper 01-08. Philadelphia: University of Pennsylvania.

IDB (Inter-American Development Bank). 2006. "Living with Debt: How to Limit the Risks of Sovereign Finance." Report on Economic and Social Progress in Latin America. Washington, D.C.

IFC (International Finance Corporation). 2001. *Building Local Bond Markets: An Asian Perspective*. Washington, D.C.

IMF (International Monetary Fund) and World Bank. 2001. *Developing Government Bond Markets: A Handbook*. Washington, D.C.

———. 2005. "The Standards and Codes Initiative: Is It Effective? And How Can It Be Improved?" Washington, D.C.

Ize, A., and E. Levy Yeyati. 2003. "Financial Dollarization." *Journal of International Economics* 59(2):323–47.

Ize, A., and A. Powell. 2005. "Prudential Responses to De Facto Dollarization." *The Journal of Policy Reform* 8(4): 241–62.

James, E., and D. Vittas. 2000. "Annuity Markets in Comparative Perspective: Do Consumers Get Their Money's Worth?" Policy Research Working Paper 2493. World Bank, Washington, D.C.

James, E., J. Smalhout, and D. Vittas. 2001. "Administrative Costs and the Organization of Individual Account Systems: A Comparative Perspective." In R. Holzmann, and J. Stiglitz eds., *New Ideas About Old Age Security.* Washington, D.C.: World Bank.

Johnston, B. R., and V. Sundararajan. 1999. *Sequencing Financial Sector Reforms: Country Experiences and Issues*. Washington, D.C.: International Monetary Fund.

Kaminsky, G. L., and C. M. Reinhart. 1999. "The Twin Crises: The Causes of Banking and Balance-of-Payments Problems." *American Economic Review* 89(3):473–500.

Kaminsky, G. L., and S. Schmukler. 2003. *Short-Run Pain, Long-run Gain: The Effects of Financial Liberalization.* Working Paper 9787. Cambridge, Mass.: National Bureau of Economic Research.

Karolyi, G. A. 2004. "The Role of American Depositary Receipts in the Development of Emerging Equity Markets." *Review of Economics and Statistics* 86(3):670–90.

Klapper, L., and R. Zaidi. 2005. "A Survey of Government Regulation and Intervention in Financial Markets." World Bank, Washington, D.C.

Kose, M. A., E. Prasad, K. Rogoff, and S. Wei. 2006. "Financial Globalization: A Reappraisal." IMF Working Paper 06/189. Washington, D.C.: International Monetary Fund.

Krugman, P. 1979. "A Model of Balance-of-Payments Crises." *Journal of Money, Credit and Banking* 11(3): 311–25.

————. 2003. "Crises: The Next Generation?" In E. Helpman, and E. Sadka eds., *Economic Policy in the International Economy: Essays in Honor of Assaf Razin*. Cambridge, U.K.: Cambridge University Press.

La Porta, R., F. Lopez-de-Silanes, and A. Shleifer. 2002. "Government Ownership of Banks." *Journal of Finance* 57(1):265–301.

Ladekarl, J., and S. Zervos. 2004. "Housekeeping and Plumbing: The Investability of Emerging Markets." *Emerging Markets Review* 5(3):267–94.

Lane, P., and S. Schmukler. 2006. "The International Financial Integration of China and India." In L. A. Winters, and S. Yusuf eds., *Dancing with Giants*. Singapore: Institute for Policy Studies.

Larraín, F., and A. Velasco. 2001. "Exchange-Rate Policy in Emerging-Market Economies: The Case for Floating." Princeton Essays in International Economics 224. Princeton, N.J.: Princeton University.

Levine, R., and S. Schmukler. 2006. "Internationalization and Stock Market Liquidity." *Review of Finance* 10(1): 153–87.

———— forthcoming. "Migration, Spillovers, and Trade Diversion: The Impact of Internationalization on Domestic Stock Market Liquidity." *Journal of Banking and Finance*.

Levy Yeyati, E., S. Schmukler, and N. van Horen. 2006. "International Financial Integration through the Law of One Price." Policy Research Working Paper 3897. World Bank, Washington, D.C.

McKinnon, R. 1973. *The Order of Economic Liberalization: Financial Control in the Transition to a Market Economy*. Baltimore, Md.: John Hopkins University Press.

McKinnon, R., and H. Pill. 1997. "Credible Economic Liberalizations and Overborrowing." *American Economic Review* 87(2):189–93.

Meltzer, A. 2000. "Report of the International Financial Institution Advisory Commission." Submitted to the U.S. Congress and the Department of the Treasury, March 8. Washington, D.C.

Minton-Beddoes, Z. 1999. "From EMU to AMU? The Case for Regional Currency Blocs." *Foreign Affairs* 78(4): 8–13.

Mishkin, F. 2003. "Financial Policies and the Prevention of Financial Crises in Emerging Market Countries." In M. Feldstein ed., *Economic and Financial Crises in Emerging Market Countries*. Chicago: University of Chicago Press.

Mishkin, F., and Savastano, M. 2001. "Monetary Policy Strategies for Latin America." *Journal of Development Economics* 66(2):415–44.

Moel, A. 2001. "The Role of American Depositary Receipts in the Development of Emerging Markets." *Economia* 2(1):209–73.

Mu, Y. 2003. "A Framework for SME Finance." World Bank, Washington, D.C.

Mundell, R. A. 1961. "A Theory of Optimum Currency Areas." *American Economic Review* 51(4):657–65.

Obstfeld, M.. 1994. "The Logic of Currency Crises." *Cahiers Economiques et Monetaires* 43:189–213.

————. 1996. "Models of Currency Crises with Self-Fulfilling Features." *European Economic Review* 40(3–5): 1037–47.

Ocampo, J. A. 2003. "Capital-Account and Counter-Cyclical Prudential Regulations in Developing Countries." In R. French-Davis, and S. Griffith-Jones eds., *From Capital Surges to Drought: Seeking Stability for Emerging Markets*. London: Palgrave MacMillan.

Ozkan, F. G., and A. Sutherland. 1998. "A Currency Crisis Model with an Optimizing Policymaker." *Journal of International Economics* 44:339–64.

Palacios, R., and R. Rofman. 2001. "Annuity Markets and Benefit Design in Multipillar Pension Schemes: Experience and Lessons from Four Latin American Countries." Social Protection Discussion Paper 0107. World Bank, Washington, D.C.

Palmer, E. 2000. "The Swedish Pension Reform Model: Framework and Issues." Social Protection Discussion Paper 0012. World Bank, Washington, D.C.

Queisser, M. 1998. "Pension Reform: Lessons from Latin America." Policy Brief 15. Paris: OECD Center.

Rajan, R., and L. Zingales. 2001. "Financial Systems, Industrial Structure, and Growth." *Oxford Review of Economic Policy* 17(4):467–82.

————. 2003. *Saving Capitalism from the Capitalists*. New York: Crown Business Division of Random House.

Rocha, R. 2004. "Chile: The Pensions Sector." Technical Background Paper to the Chile Financial Sector Assessment Program. World Bank, Washington, D.C.

Rutkowski, M. 1998. "A New Generation of Pension Reforms Conquers the East: A Taxonomy in Transition Economies." *Transition* 9(4):16–19.

————. 2002. "Pensions in Europe: Paradigmatic and Parametric Reforms in EU Accession Countries in the Context of EU Pension System Changes." *Journal of Transforming Economies and Societies* 9:2–26.

Sirtaine, S. 2006. "Access to Finance by Chilean Corporations." Policy Research Working Paper 3845. World Bank, Washington, D.C.

Stiglitz, J. 1999. "Bleak Growth for the Developing World." *International Herald Tribune*, April 10–11, 6.

————. 2000. "Capital Market Liberalization, Economic Growth, and Instability." *World Development* 28(6): 1075–86.

Summers, L. 1999. Testimony before the Senate Foreign Relations Subcommittee on International Economic Policy and Export/Trade Promotion, January 27 Washington, D.C.

The Economist. 2006. "Making Advances." January 12.

Tobin, J. 2000. "Financial Globalization." *World Development* 28(6):1101–04.

Tornell, A., and F. Westermann. 2005. *Boom-Bust Cycles and Financial Liberalization*. Cambridge, Mass.: MIT Press.

World Bank. 2004. *Global Development Finance 2004—Harnessing Cyclical Gains for Development*. Washington, D.C.

————. Various years. *World Development Indicators*. Washington, D.C.

Wyplosz, C. 1998. "Globalized Financial Markets and Financial Crises." In J. J. Teunissen ed., *Regulatory and Supervisory Challenges in a New Era of Global Finance*. Amsterdam: Forum on Debt and Development.

Yaari, M. 1965. "Uncertain Lifetime, Life Insurance and the Theory of the Consumer." *Review of Economic Studies* 32(2):137–50.