

**FINANCIAL DEVELOPMENT IN LATIN AMERICA:  
BIG EMERGING ISSUES, LIMITED POLICY ANSWERS**

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**Abstract**

This paper argues that the dominant policy paradigm on financial development is increasingly insufficient to address big emerging issues that are particularly relevant for financial systems in Latin America. This paradigm was shaped over the past decades by a fundamental shift in thinking toward market-based financial development and a complex process of financial crises interpretation. The result has been a richly textured policy paradigm focused on promoting financial stability and the convergence to international standards. We argue, however, that there is a growing dissonance between the current paradigm and the emerging issues, which we illustrate by discussing challenges in three areas: stock markets, SME loans, and defined-contribution pension funds. We conclude that the dominant policy paradigm is ill-suited to provide significant guidance vis-à-vis the big emerging issues. We emphasize the need to take a fresh look at the evidence, improve the diagnoses, revisit expectations, and revise the paradigm.

**JEL classification codes:** G15; G18; G20

**Keywords:** capital market development; financial stability; financial crises; emerging markets; financial sector reform; financial globalization; access to finance; Latin American finance

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## 1. Introduction

Imagine a safe and responsible driver going down an unknown highway in a foreign country who suddenly realizes that she brought along the wrong set of roadmaps. The mix of frustration and disorientation that she experiences is not unlike that felt by many policymakers concerned with financial development in Latin America. This paper discusses such an odd situation. Its main thesis is that the current paradigm for policy thinking on financial development in the region, while sharpened through remarkable theoretical and empirical work and rich lessons from experience, is increasingly insufficient to address many of the big emerging issues and challenges. Like the perplexed driver in our example, the problem is not that we lack maps, do not know the basic traffic rules, or are driving irresponsibly. It is not even a problem of not understanding how we got to where we are or of not knowing where we want to go. The problem is thinking that the “roadmaps” or intellectual tenets that dominate current policy thinking on financial development are sufficient for all roads and can help us get where we want to go. Such tenets and prescriptions are of course useful and, in many respects, essential. They should not be thrown away, lest we get lost even in what we consider to be familiar terrain. However, they are of limited assistance for some of the highways and secondary roads that we have to travel to reach our destination and for the new roads that will have to be built along the way.

In this paper, we present, in a stylized fashion, the salient features of the current state of policy thinking on financial development in Latin America. We argue that such policy thinking is 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 intensively on the links between the monetary and financial sectors, and aim at promoting convergence towards the “best practices” codified in a multiplicity of international standards and codes.

We then discuss the main drivers behind the evolution of policy thinking on financial development in Latin America over the last two decades or so. We argue that these drivers are (i) an enduring paradigm shift towards market-based development and (ii) an arduous process of interpreting and reinterpreting financial crises. We illustrate how these drivers have operated and interacted, creating the richly textured policy paradigm of today.

To see how the dominant policy paradigm fits into the realities of Latin American countries, we discuss some of the big emerging issues in financial markets in these economies. We argue that these issues are, on the one hand, acquiring a high-priority status among the concerns of policymakers and, on the other, increasingly defying the main tenets of the current policy paradigm and associated toolkit. In particular, the emerging issues have much less to do with financial stability and the degree of convergence towards international standards and codes, and much more with difficulties in completing financial markets in small economies in the context of financial globalization. To illustrate this basic argument, we characterize—admittedly using broad brush strokes and being very selective—some of the emerging issues in equity markets, SME (small and medium enterprises) finance, and defined-contribution pension funds.

Before moving forward, it is worth clarifying two points on the scope of this paper. First, although we focus on Latin America, our analysis applies to many developing countries, especially to those that are usually referred to as emerging markets. Some of the topics are even relevant for developed economies. But applying our analyses and conclusions to countries in other regions requires care and taking into account the intrinsic features of the local institutional environment, as well as the specific problems and challenges faced by the financial system in each country. Second, the focus of this paper is on issues related to domestic policies—i.e., those policies under the control of local authorities. It thus leaves out the interesting and important field of cooperative multilateral policies aimed at improving directly the international financial architecture for all countries.<sup>1</sup>

The rest of the paper is structured as follows. Section 2 describes the main features of the current policy paradigm on financial development in Latin America. Section 3 discusses the main drivers behind the evolution of policy thinking on financial development. Section 4 discusses the selected big emerging issues in financial markets that are increasingly challenging the dominant paradigm. Section 5 concludes with some final reflections.

## **2. Policy Thinking on Financial Development: Where We Stand**

Current policy thinking on financial development in Latin America rests on two key tenets. The first is that financial markets, when allowed to work freely under a sound regulatory environment, provide the best mechanism for efficiently mobilizing resources from savers to consumers and investors, as well as for allocating risks to those that are best suited to bear them. This tenet highlights the critical function of relative prices under competition—to capture and signal relative scarcities and relative risks so as to adequately guide, as if through an invisible hand, myriads of decentralized self-interested decisions towards the collective good. This first 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, the current policy thinking rests on an equally important second tenet—that there is an essential and well-defined role for the government. Such role is to foster systemic stability through sound prudential regulations, appropriate accounting and disclosure practices, and supervision, so as to avert unnecessary financial crises and mitigate their cost if and when they occur, all without unduly raising moral hazard. The government is also called upon to facilitate financial market development through the establishment of 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 (like banks, insurance companies, investment banks, asset managers, and broker dealers) that act as intermediaries through financial products (typically loans, bonds, deposits, stocks, derivatives, investment funds, and insurance policies), which, in turn, channel and embody contractually the allocation of resources and risks.

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<sup>1</sup> A cogent and fairly comprehensive discussion of reform issues concerning the international financial architecture is found in Eichengreen (1999).

The policy prescriptions that follow from these two basic tenets are, of course, innumerable and not static. There are nonetheless a few prescriptions that, in our opinion, command widespread consensus and delineate the basic profile of the current state of policy thinking on financial development in Latin America and emerging markets in general. Let us mention four of them in stark—and, hence, oversimplified—terms.

A first policy prescription is: *strive to converge to international standards and codes*. The underlying conviction is that these standards help identify gaps, set the reform objectives and priorities, and give direction to the reform effort. A battery of standards has emerged in the recent period, as part of initiatives to strengthen the international financial architecture in the wake of the financial crises of the second half of the 1990s. International standards and codes that are relevant to the functioning of the financial system include, among many others, the following: Basel Core Principles for Effective Banking Supervision, IOSCO Objectives and Principles of Securities Regulation, CPSS Core Principles for Systemically Important Payment Systems, CPSS-IOSCO Recommendations for Securities Clearance and Settlement, IAIS Core Principles for Insurance Supervision, IMF Code of Good Practices and Transparency in Monetary and Financial Policy, OECD Principles of Corporate Governance, Accounting and Auditing Standards, and World Bank Principles and Guidelines for Effective Insolvency and Creditor Rights Systems.<sup>2</sup> Given the proliferation of standards as well as the intensity of efforts to assess the degree of country observance and implement the associated recommendations, it is not an exaggeration to say that, under the dominant policy paradigm, the reform agenda for financial development has become largely equated with convergence toward international standards.

A second policy prescription is: *cautiously allow the international integration of domestic financial markets*. While there is still vigorous debate on the sequencing and speed of international financial integration, there is much less disagreement on the general direction, which favors increased integration, at least for a large set of countries. This is as expected, given the mentioned basic tenet that markets should be allowed to work competitively under appropriate regulation. To be sure, it is recognized that financial integration has often not worked as initially predicted.<sup>3</sup> For many emerging 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, at least to the extent expected at the beginning of the liberalization process. Moreover, financial liberalization and globalization have in many cases exposed these economies to capital flow volatility and financial crises. Faced with this evidence, the prevailing policy thinking puts the emphasis on the institutional and regulatory pre-conditions for financial liberalization and on sequencing issues to minimize the risks and maximize the benefits of financial globalization, rather than advocating closing domestic

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<sup>2</sup> The International Monetary Fund and World Bank have been entrusted with a leading role in assessing the degree of observance of international standards and codes. These assessments are often conducted in connection with the Financial Sector Assessment Program (FSAP), a fairly thorough diagnosis of a country's financial system also led by these two institutions, and their results are summarized in the so-called Reports on the Observance of Standards and Codes (ROSC). For details see <http://www1.worldbank.org/finance/html/fsap.html> and <http://www.worldbank.org/ifa/rosc.html>.

<sup>3</sup> For a discussion of this issue see De la Torre, Levy Yeyati, and Schmukler (2002) and references therein.

financial markets permanently. Financial isolationism is seen as undesirable and unfeasible in practice, at least for those economies that are already partially open, given the incessant changes in information technology and financial product innovation.

A third policy prescription is: *move towards inflation targeting cum exchange rate flexibility*. This prescription reflects a sea of change in recent years.<sup>4</sup> It would not have been the dominant view less than a decade ago. At that time, hard-pegs or dollarization, on the one hand, and exchange rate flexibility, on the other, were seen as competing, albeit equally respectable, alternatives open to emerging economies seeking a safe integration into international capital markets.<sup>5</sup> But the view in favor of exchange rate flexibility has come to dominate policy thinking in the region and for most emerging economies in general (except of course in the case of the few countries that can be reasonably considered to meet “optimal currency area” conditions).<sup>6</sup> This regime is seen as the best alternative for countries trying to cope with the perils of financial globalization and capture its benefits. This intellectual convergence is the consequence of a major contrast between the current and previous waves of financial globalization. In effect, the current wave of financial globalization is unfolding in an environment where the major currencies in the “center” float freely against each other, rendering inadvisable for countries in the “periphery” to peg their currencies unilaterally. By contrast, the previous wave of financial globalization—from the mid-1800s to 1914—unfolded under a fixed exchange rate international arrangement, the gold standard, which was protected jealously and through a strong mutual commitment by the “center,” thus making it safer for the periphery to adopt pegs.<sup>7</sup> Note that the prescription to move towards inflation targeting cum exchange rate flexibility is underpinned by other policy prescriptions regarding macroeconomic (especially fiscal) and institutional fundamentals (ranging from central bank independence to the rule of law). There is a strong consensus that without such fundamentals in place, the benefits of actions focused on the monetary and exchange rate areas would not endure.

A fourth policy prescription is: *foster the development of local currency debt markets*. This is increasingly seen as a necessary condition to mitigate the vulnerability associated with un-hedged currency mismatches in debtor balance sheets, a vulnerability that has brought several financial systems in the region to their knees (e.g., Argentina 2001, Ecuador 1999, Uruguay 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 previous prescription on exchange rate flexibility. The “original sin” literature focuses on the inability of emerging economy sovereigns and corporates to issue long-term domestic currency-denominated debt. In its earlier stages, it tended to recommend the adoption of formal dollarization as the preferred route to overcome the “original sin” and develop domestic financial markets more safely within a financially globalized context (Calvo and Reinhart, 2002; Eichengreen and

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<sup>4</sup> Cogent assessments of the conceptual and empirical arguments behind this change can be found, for instance, in Goldstein (2002), Larraín and Velasco (2001), and Mishkin and Savastano (2001).

<sup>5</sup> See, for example, Calvo and Reinhart (2002), Eichengreen and Hausmann (1999), Fischer (2001), and Frankel (1999).

<sup>6</sup> See Mundell (1961).

<sup>7</sup> Bordo, Eichengreen, and Irwin (1999) present a detailed account of the characteristics of the current wave of financial globalization compared to the one before 1914.

Hausmann, 1999). In light of the collapse of the Argentine “convertibility” system, however, the “original sin” literature has tended to join the ranks of the proponents of exchange rate flexibility while advocating a “road to redemption” through the development of the markets for domestic currency denominated debt, which some argue should be achieved before completely opening the capital account (Eichengreen and Hausmann, 2002; Eichengreen, Hausmann, and Panizza, 2005). In all, various strands of thought have converged, so that we can safely claim that at present there is a broadly shared consensus on the policy prescription to give priority to the development of local currency debt markets.

Note that the mentioned policy prescriptions aim at linking appropriately key macro and microeconomic dimensions of financial development. In one way or another, they seek to achieve what we have called elsewhere (De la Torre, Levy Yeyati, and Schmukler, 2002) the “blessed trinity” for safe financial globalization. That trinity consists on the mutually reinforcing coexistence of: (i) a flexible exchange rate to enable efficient shock absorption; (ii) a local currency that is intensively used as a store of value for savings (at least at home and hopefully also abroad), around which financial contracts can be reliably organized; and (iii) a sound informational, contractual, and regulatory environment where the writing and enforcement of financial contracts can flourish.

But, how did we reach the current consensus around these policy prescriptions? What are the factors behind the evolution of policy thinking on financial development in the region? Understanding how we got to where we currently stand can help us to better assess the validity of the dominant policy paradigm and its potential limitations and can also guide any reformulation of policy thinking. We now turn to these issues.

### **3. Policy Thinking on Financial Development: Where We Come From**

The dominant policy paradigm on financial development in Latin America described in Section 2 is relatively new when seen from a long historical perspective. In effect, it took form over the past twenty-five years or so. It is, therefore, useful to recount the intellectual highlights of its historical evolution. We argue in this regard that there have been two key drivers shaping the recent evolution of policy thinking on financial development in the region. The first is the paradigm shift towards market-based financial development. The second is financial crises hermeneutics—i.e., the complex process of interpreting and reinterpreting crises. Lets us briefly discuss these drivers, their interactions, and implications for the policy debate.

The *paradigm shift towards market-based financial development* was part of a broader transformation in economic development policy thinking away from the state dirigisme that had prevailed in Latin America and many other regions during the 1960s and 1970s. In the financial sector, this shift can be interpreted in part as a reaction to what Ronald McKinnon called, in his influential 1973 book, “financial repression”—i.e., the underdevelopment and smallness of financial markets resulting from excessive public sector intervention.<sup>8</sup> Accordingly, the main premise of the paradigm shift was that government

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<sup>8</sup> For discussions on the pitfalls of excessive governmental ownership and dirigisme in financial markets see, for instance, Barth, Caprio, and Levine (2001), Caprio and Honohan (2001), and La Porta, Lopez-de-Silanes, and

interference—through directed credit schemes, credit ceilings, public 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 unduly raising moral hazard. The new paradigm thus called for a move away from state interventionism and towards regulated *laissez-faire* in financial markets.

This paradigm shift led initially to a generic and rather simplistic policy prescription: liberalize the domestic financial system and the capital account to achieve efficiency via competition. Policy actions unfolded quickly and liberalization swept throughout the Latin region starting in the late 1980s and early 1990s, as the systems of directed lending, credit ceilings, and controlled interest rates were dismantled, and public banks were privatized.<sup>9</sup> By the late 1990s, Latin America had reached levels of financial market liberalization comparable to those in the developed world (Figure 1).

This initial prescription was subsequently shaken by the modest results of liberalization in terms of financial depth and, especially, by the recurrence of financial crises.<sup>10</sup> As a result, policy thinking shifted towards questions regarding the speed and sequencing of financial liberalization and placed greater emphasis on the enabling environment—e.g., 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; Klapper and Zaidi, 2005; Rajan and Zingales, 2001).

Even as policy thinking broadened from a narrow focus on liberalization towards a multi-dimensional emphasis on institution building, it was all along guided by a quest towards freeing financial markets and making them work better, both at home and across borders. In particular, capital accounts continued to open up—as efforts to attract foreign financial entities and portfolio investors to the local market required allowing greater freedom for capital and financial services to exit the local market. Later on, the reform agenda geared at achieving regulated *laissez-faire* and international financial market integration was boosted by the program of convergence towards international standards mentioned above.

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Shleifer (2002). A number of studies have also analyzed empirically the impact of financial repression on economic growth, finding evidence of a negative effect (see, for example, Easterly, 1993; Galindo, Micco, and Ordoñez, 2002; Roubini and Sala-i-Martin, 1992; and World Bank, 1989).

<sup>9</sup> Some Latin American countries (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.

<sup>10</sup> A pioneering investigation into the linkages between liberalization and financial crises is the classic paper by Carlos Diaz-Alejandro (1985), cleverly entitled “Good-Bye Financial Repression, Hello Financial Crash.” A number of more recent theoretical papers show that financial liberalization may be associated with crises (see, for example, Allen and Gale, 2000; Bachetta and van Wincoop, 2000; Calvo and Mendoza, 2000; and McKinnon and Pill, 1997). Empirically, several papers have found links between financial deregulation, boom-bust cycles, and banking and balance of payments crises (see, for example, Corsetti, Pesenti, and Roubini, 1999; Demirguc-Kunt and Detragiache, 1999; Kaminsky and Reinhart, 1999; and Tornell and Westermann, 2005).

The second driver shaping financial development policy thinking in the region has been the onslaught of recurring financial crises and, in particular, the policy lessons that emerged from the *hermeneutics of financial crises*.<sup>11</sup> To illustrate this, we briefly discuss three major lessons and the associated policy prescriptions that flowed from the process of interpreting and reinterpreting financial crises.

First, recurrent crises confirmed that *poor macroeconomic fundamentals are particularly dangerous in open financial systems*. This central lesson was conceptually enshrined in the so-called first generation models of financial crises.<sup>12</sup> Krugman's seminal 1979 article on balance of payments crises paved the way in this regard and was followed by an avalanche of theoretical work that clarified the dynamic processes whereby 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 it anticipates the inevitable (i.e., the devaluation of the currency or the collapse of the banking system will come with or without the attack), even if its exact timing is difficult to predict and is not associated with appreciable changes in fundamentals.<sup>13</sup> Subsequent empirical work (e.g., Kaminsky and Reinhart, 1999) found that a deterioration in fundamentals preceded financial crises in most countries. This led to efforts to identify early warning indicators that could signal in advance the probability of a financial crisis and could, thus, allow policymakers to take countermeasures to avert it.

In all, 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 thus to avoid bad macro 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/external disequilibria, real exchange rate overvaluation, large amounts of short-term debt, rapid money printing and accelerating inflation, fast credit growth, and real estate price bubbles, among others. Such an early detection of problems would have to be followed by the earnest adoption of preventive actions.

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 that can diversify risk across countries. Again, these phenomena received significant theoretical attention in the so-called second generation

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<sup>11</sup> Latin America was the region with the highest incidence of banking crises during the 1974-2003 period. The 1990s and early 2000s constituted a particularly turbulent period for the region, with many twin (currency and banking) crises, including Venezuela 1994, Mexico 1995, Brazil 1999, Ecuador 1999, Argentina 2001, Uruguay 2002, and Dominican Republic 2003. See Caprio and Klingebiel (2003) and IADB (2004).

<sup>12</sup> A succinct but lucid discussion of models of financial crises is found in Eichengreen (1999).

<sup>13</sup> In this connection, see also Dooley (2000), who argues that, where there is fear of floating, international reserves provide a "double guarantee," for bank deposits and the currency, which heightens the country's vulnerability to runs engineered at a time where there are no perceptible changes in fundamentals by agents that, to avoid capital losses, anticipate the inevitable. See also Aghion, Bacchetta, and Banerjee (2001) and Burnside, Eichenbaum, and Rebelo (2001).



models of financial crises.<sup>14</sup> A central message of these models is that the occurrence of a crisis is subject to indeterminacy, making crisis prediction an inherently elusive undertaking. To be sure, fundamentals continue to matter in these models too, as self-fulfilling attacks appear more likely in the case of countries that have already slipped into a zone of high vulnerability as a result of poor macro and financial fundamentals.<sup>15</sup> But whether the crisis occurs or not will not only depend on the state and trajectory of fundamentals, but on a complex interplay between market expectations, the government's willingness and capacity to defend the currency or the banking system in light of its own evaluation of the costs and benefits of such an action, and the overall degree of macro 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, avoidance of adverse balance sheet effects) and the potential costs (high interest rates, rising public debt, increased moral hazard, economic contraction, and the associated weakening in repayment capacity among debtors) is difficult to ascertain, with expectations hard to pin down. Such circumstances create a fertile ground for multiple equilibria, as different constellations of interest and exchange rates become compatible with the same fundamentals, with the actual outcome depending on expectations regarding the resolve of the government (and its multilateral supporters) to put up and prevail in a defensive fight. As a result, speculative attacks can become self-fulfilling, creating a financial crisis that would not have otherwise occurred, with the disturbing feature that markets cannot learn from the counterfactual (as the outcome only validates their expectations).

In the face of the threats posed by multiple equilibria, self-fulfilling prophecies, and contagion, policy prescriptions naturally aimed at counteracting financial market imperfections and avoiding the slide into high-vulnerability zones. The latter objective further boosted the importance of sound macroeconomic and prudential policies. The former added a new set of policy implications that emphasized increasing transparency (to reduce information asymmetries) as well as establishing or strengthening fiscal and financial sector buffers (so as to compensate for revenue shortfalls in bad times, and to dim bubbles and cushion bursts in the financial sector). The threat of multiple equilibria also gave sustenance to prescriptions favoring the undertaking of credible pre-commitments—i.e., policy actions whereby governments tie their hands in order to minimize time inconsistent behaviors—which in turn led to the temporary popularity of hard pegs.

A third lesson from financial crises has been that *major mismatches (maturity, duration, currency) in debtor balance sheets are “ticking bombs.”* While mismatches were driving factors in many crises, including the South East Asian crises in the second half of the 1990s, the darkest side of mismatches was best illustrated in Latin America by the devastating crises in Ecuador (1999) and Argentina (2001). Subsequent work (e.g., Calvo, Izquierdo, and Mejia, 2004) has found empirical evidence suggesting that liability dollarization increases the probability of a sudden stop in capital inflows. The case of Argentina, furthermore, illustrated the deep drawbacks of a rigid currency pre-commitment,

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<sup>14</sup> See, for instance, Obstfeld (1996), Ozcan and Sutherland (1998), and Wyplosz (1998).

<sup>15</sup> Second generation models of financial crises do not discard, however, the possibility of pure contagion leading to a crisis in a country with initially strong fundamentals, which deteriorate vastly and instantaneously as a result of the crisis.

including the troublesome feature that such pre-commitments exacerbate currency mismatches.<sup>16</sup> The lessons that emerged from these devastating experiences led to important revisions in policy prescriptions. A salient one was, as noted above, the swing in favor of exchange rate flexibility to avoid one-sided bets (Goldstein, 2002; Mishkin, 2003) and discourage liability dollarization (Ize and Levy Yeyati, 2003). Other policy prescriptions called for reducing those systemic risks that breed mismatches (De la Torre and Schmukler, 2004a); enhancing public debt management to focus on risk, not just costs, and fostering the development of local currency debt markets (Eichengreen and Hausmann, 2002; Eichengreen, Hausmann, and Panizza, 2005); and developing prudential regulations specifically designed to ensure that banks internalize appropriately the risks of lending in foreign currency to local-currency earners (Ize and Powell, 2004).

These two factors—the shift in paradigm towards market-based financial development and the hermeneutics of crises—have interacted in complex ways over the last decades. This interaction has resulted in heated debates and contrasting opinions but, beyond their differences, warring parties have usually been united by a strong pro-market orientation. The love affair with free financial markets has gone through ups and downs, but has not resulted in divorce. Views on exchange rate policy have been wide ranging and, as noted, subject to large oscillations, yet 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, but always trying to enhance the complementarities between prudential regulation and market discipline. Tense debates have surrounded the discussion of policies to address financial market imperfections, with some emphasizing that the main problem to be corrected is moral hazard (due to expectations that investors will be bailed out by the local government or multilateral agencies) while others arguing that the main culprit is globalization hazard (the negative externalities of a faulty international financial architecture, with large exogenous shifts in the returns required by international investors to hold emerging market assets).<sup>17</sup> Similarly, debates have raged concerning sequencing issues in financial market liberalization, with some advocating throwing “sands in the wheels” of international integration and postponing it until local markets and institutions are strong, while others doubting the effectiveness of efforts to block financial integration and rather emphasizing that liberalization is needed to dislodge resistance to reform.<sup>18</sup> But again, those taking sides in these debates have generally shared a common desire to ensure that financial markets work properly.

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<sup>16</sup> See, for instance, De la Torre, Levy Yeyati, and Schmukler (2003), who argue that Argentina did not adopt policies to mitigate currency mismatches because that would have undermined the credibility of the commitment to the one peso-one dollar peg. Moreover, fixed exchange rate regimes might induce agents to underestimate the possibility of future currency changes, leading to excessive foreign exchange borrowing (Eichengreen, 1994), and might also generate moral hazard in the presence of implicit or explicit bailout guarantees (Burnside, Eichenbaum, and Rebelo, 2001; McKinnon and Pill, 1998; Schneider and Tornell, 2004).

<sup>17</sup> See Broner, Lorenzoni, and Schmukler (2004); Calvo (2002); Eichengreen (1999); and Obstfeld (1998).

<sup>18</sup> Ocampo (2003), Stiglitz (1999, 2000), and Tobin (2000), present renditions of the view that favors sequencing and even suggest that financial integration should be managed on a permanent basis. For the contrasting view that emphasizes the role of liberalization in promoting financial reform see, for example, Rajan and Zingales (2003).

The paradigm shift towards market-based financial development has endured in large part because it has constructively internalized the hard lessons from financial crises. This process, however, has understandably tilted the emphasis of policy thinking in favor of systemic risk management and consequently priority has been given to the achievement of financial stability. To be sure, other dimensions of financial development—efficiency, depth, diversity, and breadth of access—have not been ignored but they have not occupied the center stage. The dominant policy paradigm, furthermore, has grown richer to the extent that it has strived to take into account the crucial role of uncertainty and incentives in markets characterized by asymmetric information and incomplete contracts. This has balanced the paradigm's confidence in the power of market competition with a growing emphasis on the institutional environment. However, the strengthening of institutions has been largely (and increasingly) seen through the dominant lenses of convergence towards international standards. The mentioned emergence of numerous international standards and codes, while initially motivated by financial stability concerns, has in effect provided a basic framework for policymakers to combine stability and developmental 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. Are they, however, sufficient to address the emerging, and rather daunting, challenges that Latin financial markets face going forward? To this question we now turn.

#### **4. Big Emerging Issues, Limited Policy Answers**

It should be clear from the foregoing discussion that the growth in knowledge that has underpinned the evolution of policy thinking on financial development in Latin America has been impressive. For all its richness, however, the dominant policy paradigm is being increasingly outstripped by some big emerging issues. We do not have a strong view on whether a paradigm shift will be required to address these issues adequately, or if a flexible adaptation of the existing paradigm will suffice. In the remainder of this paper, we only attempt to illustrate few of the many ways in which emerging issues are exposing the limits of the dominant policy paradigm.

Before getting to specifics, however, we note that a *prima facie* indication that something is wrong or missing in the current policy paradigm is the gap between, on the one hand, the intensity of financial sector reforms undertaken in Latin America and the expectations they generated and, on the other, the low level of observed financial development in the region. This gap is a feature that cuts across the emerging issues discussed below. We have discussed elsewhere and at length the nature of this gap with respect to the state of development of Latin American securities markets (De la Torre, Gozzi, and Schmukler, 2006a; De la Torre and Schmukler, 2004b), showing that these markets, especially those for private sector securities, score poorly by international comparison and are below of what can be expected (in terms of commonly used measures of size and liquidity) after controlling for per capita income, economic size, macroeconomic policies, indices of legal and institutional development, and reforms.<sup>19</sup> The reader is, thus, referred to that research.

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<sup>19</sup> See also Borensztein, Eichengreen, Panizza (2006).

For the purposes of this paper, it suffices to put forward a few exhibits. The intensity of financial sector-related reforms in Latin America is reflected in Figure 1, which makes it hard to argue that there was a reform shortage in the region. In effect, this figure shows that Latin countries not only liberalized their financial systems extensively, but also implemented significant reforms in areas considered key for the adequate functioning of capital markets, such as custody arrangements, clearing and settlement systems, trading platforms, and insider trading regulations. Contrasting the intense reform effort is the comparatively low development of financial markets in the region, as depicted in Figures 2 to 5. Figure 2 provides a snapshot that displays the depth of domestic financial markets in Latin American countries compared to those in other emerging economies and developed countries, at year-end 2004. Financial depth is measured by credit to the private sector by financial intermediaries, stock market capitalization, and the amount outstanding of private sector domestic bonds, all as a percentage of Gross Domestic Product (GDP). As this figure shows, although there are differences among Latin American countries, most countries in the region have significantly smaller financial markets than G-7 and East Asian countries. Chile is the only exception, as the size of its financial markets, especially its stock market, vastly exceeds that of other Latin American countries and also compares favorably with financial markets in developed and East Asian countries. However, analyzing measures of actual stock market activity, such as value traded, shows that Chile's stock market remains underdeveloped compared to markets in East Asia and developed countries.<sup>20</sup> Figures 3, 4, and 5 show the evolution of these indicators of financial depth over time, comparing the average of the seven largest Latin economies with that of East Asian and G-7 countries. Again, the pictures of these time series are disappointing—with Latin America clearly falling behind (i.e., diverging) from the comparator trends. The divergence in terms of stock market activity (both in terms of capitalization and trading) and corporate bonds outstanding (Figures 3 and 4) is even more concerning in light of the virtual stagnation of credit to the private sector in the region (Figure 5). Indeed, credit to the private sector in Latin countries has hovered around 30 percent of GDP over the past 25 years, in sharp contrast with raising trends in East Asian and G-7 countries, where bank credit to the private sector has by now reached levels of around 76 and 126 percent of GDP, respectively.<sup>21</sup>

The question of why Latin America shows such low levels of financial development by international comparison despite extensive reforms (including rapid market opening and significant legal and regulatory strengthening) challenges the adequacy of the dominant policy paradigm. Telling policymakers to “be patient and redouble the reform effort” does not seem to be a convincing answer any longer, especially considering the vigorous financial development trends in other emerging markets. Having made the general point that the current policy paradigm is challenged by disappointing outcomes, let us now turn to

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<sup>20</sup> Value traded over GDP reached 12.4 percent in Chile in 2004, compared to 65.5 percent in France, 74.2 percent in Japan, and 165.9 percent in the U.S. The East Asian countries presented in the figure also had significantly higher levels of trading activity than Chile, with value traded over GDP reaching 94 percent in Korea, 50.8 percent in Malaysia, and 66.7 percent in Thailand.

<sup>21</sup> The Latin average in credit to the private sector shown in Figure 5 masks the very high volatility of this variable in individual countries over time. Moreover, in some countries, such as Mexico, there have been long periods of declining and/or stagnant credit to GDP ratios following financial crises.

illustrations of dissonance between this paradigm and emerging issues in three areas: local equity markets, SME financing, and defined-contribution pension systems.

#### 4.1. The Future of Small Domestic Stock Markets

A key policy challenge for financial sector reformers in Latin America, especially in the smaller countries, is the need to revamp their vision for the development of local stock markets. This was not perceived as challenge until recently because of the implicit view—shared between local policymakers and advisors from multilateral institutions (among many others)—that domestic financial market development in emerging economies should be measured against the benchmark of financial markets in industrialized countries and that the reform agenda, though difficult, is clear. Growing evidence suggests, however, that things are not as clear as initially believed and that the implicit vision of building a “mini Wall Street” at home is misguided and in need of major revision.<sup>22</sup>

In effect, the conventional wisdom among reformers has been that local equity markets would grow through 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 their enforcement. Corporate governance and tax reforms have been typically considered the most difficult ones in Latin America, given the high concentration of wealth as well as the high degree of tax evasion, which hinder the willingness to “go public,” as this entails a dilution of control and having to disclose the true financial condition of firms. No sensible policymaker thought that the reform path would be easy, but most tended to think that the technical aspects of the reforms were well understood. Again, several relevant standards and codes emerged (e.g., on securities markets regulation, corporate governance, accounting and auditing), giving policymakers clear points of reference for convergence-oriented reform efforts. The associated expectation was that, as reforms succeeded and convergence to international standards progressed, domestic capital markets in the region would increasingly resemble those in developed countries.

Like the main character in the popular film *Field of Dreams*, who heard a voice (“if you build it, they will come”) that inspired him to build a baseball field on his land in the hope of bringing back legendary baseball players, Latin reformers worked hard at building the enabling environment for their local stock markets in the hope that “they”—that is, corporate issuers and local and foreign investors—“would come.” What has actually happened in many countries has rather been the opposite. “They” actually left, as the number of stocks listed in local exchanges shrunk over the past decade or so in most Latin stock markets (Figure 6). This reduction in the number of listed firms has been associated with the increasing migration of Latin American firms to international financial centers, such as New York and London.<sup>23</sup> An important element of the globalization trend over the last decades

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<sup>22</sup> See De la Torre, Gozzi, and Schmukler (2006a) and De la Torre and Schmukler (2004b) for more discussion on this issue.

<sup>23</sup> Merger and acquisition activity as well as majority shareholders trying to increase their controlling stakes have also been brought forward as possible explanations for stock market delistings in Latin America. A

has been the internationalization of financial services, which has meant the use of international financial intermediaries by issuers and investors from emerging economies. Latin firms have actively participated in this process by listing in foreign exchanges and issuing depositary receipts.<sup>24</sup> In fact, the internationalization of equity issuance and trading in Latin America is significantly higher than in other regions (Figure 7). In many Latin countries, activity abroad now exceeds activity in local exchanges. Even domestic investors have started trading stocks from their own countries in the more liquid and less costly international markets, bypassing local exchanges. This is easy to achieve in a world where trading can be done electronically from anywhere. 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 (Figure 8). Moreover, these markets remain illiquid, in part as a result of very low “float” ratios (a low proportion of listed shares available for trading).

These outcomes do not imply that reforms have been ineffective or should not be undertaken. They do mean, however, that the expectations associated with reforms should be revised and that a fresh look at the reform agenda is needed. In effect, recent empirical work shows that improvements in macroeconomic and institutional fundamentals, as well capital market-related reforms, have had a pro-internationalization bias. While these factors have indeed promoted 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, 2005). There is, in addition, interesting empirical research that suggests that the below-expectations development of local stock markets is not independent of their internationalization—as the migration of stock issuance and trading abroad has been found to have had an adverse effect on the trading and liquidity of local markets (Levine and Schmukler, 2006a,b).

To be sure, the reformers of the 1990s were not dismissive of the globalization process; they rather supported it. But they tended to expect that the effect of reforms would be to attract foreign investors and global liquidity to their domestic markets. They did not anticipate that the fruit of their efforts would be an increased tendency for the best equity

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regional comparison of stock listings data over the last decade shows that, in contrast with the delistings in Latin markets, stock markets in East Asia have been recording a strong listings increase. Different explanations have been put forward to explain these diverging trends. One explanation is that, unlike the American and European stock markets, which performed well over the 1990s, stock markets in Hong Kong and Tokyo, the natural candidates for migration in Asia, have not done well in recent years (World Bank, 2004).

<sup>24</sup> There are different ways to “list” domestic stocks in international financial markets. A traditional way is to cross-list the share in another exchange. European companies tend to use this method of internationalization most often. A popular way to internationalize among emerging market firms has been through depositary receipts (DRs), called American Depositary Receipts (ADRs) or Global Depositary Receipts (GDRs). These are foreign currency denominated derivative instruments, issued by international banks, representing home securities held with a local custodian. ADR trading in U.S. exchanges has expanded from US\$75 billion in 1990 to one trillion in 2005, and there are currently more than 1,900 sponsored ADR programs issued by firms from 73 countries. DR programs grow or shrink depending on demand, since the issuance of DRs and the conversion back to the underlying shares only involves a small transaction cost. See Levy Yeyati, Schmukler, and van Horen (2006).

issuers and issues to move to international markets and, in the process, adversely affect the liquidity of the domestic stock market.

The mentioned evidence (low stock market development in the region despite intense reforms, pro-internationalization bias of reforms, etc.) raises questions that the dominant policy paradigm seems ill suited to answer. While much research is still needed, we have argued elsewhere (De la Torre and Schmukler, 2004b) that a better understanding of the interaction between globalization, local market size, and key features of equity contracts is a good place to start in trying to make sense of the evidence. Small market size is arguably a key factor behind the illiquidity of Latin stock markets, considering that secondary market liquidity is a positive function of market size, with the related scale economies and network and agglomeration effects. This simple fact explains why global liquidity is increasingly clustering around few international financial centers. It also constitutes sobering news for the smaller countries in Latin America because illiquidity begets illiquidity (by limiting the capacity of investors to unwind their positions without affecting prices, illiquidity discourages the entry of new players which, in turn, further limits liquidity) and fundamentally hinders “price revelation” (one of the most distinctive functions of stock markets vis-à-vis, say, banking markets).<sup>25</sup>

Another factor that could further foster the internationalization of stock issuance and trading is that this internationalization does not engender balance sheet mismatches.<sup>26</sup> Hence, by itself, it carries no systemic vulnerability implications, even if the integrating country has a weak currency. Arguably, this increases the incentives for equity issuers to migrate towards the larger, deeper, and immensely more liquid international markets, so long as they can break the size and cost barriers to issuing stocks abroad.<sup>27</sup> This reasoning suggests that, given globalization, the reforms and institutional improvements at home may actually make it easier and more affordable for large local issuers to go abroad by making them more

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<sup>25</sup> In the absence of reasonably secondary market liquidity, concerns regarding price integrity cannot be fully dispelled. Illiquidity means that stock valuation needs to be done via methods that, even where 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. By undermining price revelation—even where disclosure standards are high—secondary market illiquidity causes “marking to market” to lose much of its meaning and turns fair value accounting into an inherently tentative task.

<sup>26</sup> In this respect, equity contracts sharply differ from debt contracts. In the case of debt, internationalization can magnify the weak currency problem. This is because in countries where the equilibrium real exchange rate is subject to significant fluctuations, borrowing in foreign currency exposes debtors in the non-tradable sector to real exchange rate risk and, as a result, exposes their creditors to the real exchange rate-induced default risk. In contrast, equity contracts are not subject to default risk because they do not commit the issuer to paying a flow that is independent of her performance. As a result, the issuer of an equity security does not take any exposure to exchange rate risk, even if her income is derived from the emerging economy’s non-tradable sector. To be sure, her performance might be affected by real exchange rate fluctuations in various ways, but such effects are passed on to equity investors via changes in dividend payments.

<sup>27</sup> Based on over 30 structured interviews with market participants, Ladepkarl and Zervos (2004) conclude that securities issued in amounts under US\$150-200 million “remain unattractive to many large emerging market investors.” Claessens, Klingebiel, and Schmukler (2004), using a large sample of firms from 53 countries, show that firm size is an important determinant of the probability of accessing international financial markets.

attractive to international investors, which is consistent with the evidence (Claessens, Klingebiel, and Schmukler, 2006; De la Torre, Gozzi, and Schmukler, 2005).<sup>28</sup>

Be it as it may, the point is that a number of difficult questions increasingly haunt policymakers regarding the future of local stock markets, especially in the smaller Latin countries. Is there a suitable “light” version of domestic securities markets for small countries that is complementary to international financial market integration? Should such “light version” de-emphasize centralized local exchanges and rather be characterized by lower accounting and disclosure standards and by relatively more private equity placements and over-the-counter activity? What could be expected from such a market, given that it would be structurally illiquid and, hence, would play a very limited “price revelation” role? What to do with the costly and underutilized infrastructures of centralized stock exchanges? Should small countries simply “throw the towel,” forget about developing a local stock market, 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 compared to simply promoting global integration?

While our ability to answer these difficult questions is only at an early stage, one thing is certain: the answers are not likely to be found by simply relying on the conventional wisdom of the prevailing stability-oriented and international standards-laden policy paradigm.

#### **4.2. Financing for Small and Medium Enterprises**

In the history of financial development in the now advanced economies, bank credit to firms, including small and medium enterprises, preceded the expansion of consumer credit. In recent years, Latin America seems to be playing that film in reverse—with growth in consumer credit substantially exceeding growth in credit to SMEs. The loanable funds available in the local markets for the private sector (i.e., those funds left after the government has satisfied its, often large, financing needs) are not flowing in significant amounts to SMEs. Formal financial systems seem to be failing in terms of “irrigating” resources broadly and bridging the gaps in access to finance.<sup>29</sup> SMEs are becoming a focal case in point, which is raising increasing concerns among policymakers throughout the region.

SMEs are a segment that appears to be squeezed out of the mainstream circuit of financing to the private sector. At one extreme of the corporate lending market are the large, reputable corporations. They have access to a broad a range of products to raise debt or

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<sup>28</sup> The evidence is also consistent with the findings in Aggarwal, Klapper, and Wysocki (2004)—they analyze portfolio holdings of emerging market equities by U.S. mutual funds and find that funds are more likely to invest in countries with stronger accounting standards, shareholder rights, and legal frameworks. Similarly, Ladekarl and Zervos (2004) find that macroeconomic policies, corporate governance, and the legal and regulatory framework are important determinants of whether countries are considered “investable” or not by portfolio investors in emerging markets. Wojcik, Clark, and Bauer (2004) find that firms with better corporate governance practices are more likely to cross-list in the U.S.

<sup>29</sup> See Beck and De la Torre (2006) and De la Torre, Gozzi, and Schmukler (2006b) for discussions of conceptual issues in access to finance.



equity capital, from banks or securities markets, in local or international markets. At the other extreme are micro-enterprises. Although these firms have traditionally lacked access to formal financing, in recent years there has been a vigorous expansion of commercial microfinance. This growth has been driven by the development of innovative lending techniques and significant technological advances (scoring methods, e-banking, etc.), whose effects have been boosted by the growing presence of credit bureaus, thereby enabling microfinance institutions to reach the needed scale and bring costs down substantially.<sup>30</sup> In the middle between these extremes of the corporate credit market are SMEs, for which financing has tended to stagnate. At the same time, as mentioned above, there has been a strong growth in consumer credit. Financial institutions initially focused on providing consumer finance—ranging from loans for durable goods to flexible credit card lending—to well-off households. In recent years, with the growing commercialization of microfinance, financial institutions have also started to grant micro-consumer loans to lower-income households. In sum, the unfolding story seems to be that, as competition in the lending market for large corporations has increased—reflecting financial globalization and the expansion of local bond markets—banks have switched to commodity-like, mass credit products like financing to micro-entrepreneurs and consumer lending. In the process, the SME segment has been bypassed, at least for the time being.

The solutions to this apparent squeezing of SMEs out of the mainstream financing circuit are not easy. A few reasons—which we put forward mainly as hypothesis, given the dearth of empirical research—can be submitted to make the point that the problems in SME finance constitute a tough policy nut to crack. First, individual SMEs are arguably too small to access capital markets directly and individually. In effect, they are not able to issue debt or equity securities in the minimum amounts (say, 30-50 million U.S. dollars) required by institutional investors. (Institutional investors do not normally want to be the only or main holder of an issue and, at the same time, want an issue with a minimum degree of secondary market liquidity that would facilitate “exit” when needed.)

Second, local and foreign pension funds and other institutional investors are not likely to seek individual SME assets as part of their portfolio diversification strategies. It simply does not pay. Or, to put it more formally, the marginal risk reduction achieved by including one more issuer in the portfolio appears to be offset by the marginal cost of issuer screening and monitoring at a much earlier point than commonly believed. The risk-return frontier is thus reached with relatively few assets, which adds yet another reason to explain why participation in capital markets is segmented in favor of large issuers and issues, even in countries like Chile and Mexico, where corporate bond markets have been growing fast.<sup>31</sup> As

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<sup>30</sup> See, for example, Hardy, Holden, and Prokopenko (2002) for a description of how the availability of debtor information systems combined with scoring technologies has allowed Banco del Trabajo in Peru to become a commercially-viable microfinance institution. CGAP (2003) presents an overview of how scoring works and its application to microfinance.

<sup>31</sup> This hypothesis is consistent with available evidence, although more research is needed to determine whether it passes more rigorous empirical and theoretical tests. Consider, by way of illustration, the case of Chile, where efforts have been underway for some time to enhance risk diversification at home via the relaxation of regulatory limits on domestic investment by mandatory pension funds and the more recent introduction of a system of multiple funds with different risk-return profiles. The results of these efforts have been disappointing. In particular, the range of corporate issuers represented in the aggregate portfolio of pension

Figure 9 shows for the case of Chile, only the largest firms have been able to issue bonds in the local market. Similarly, for the case of Mexico, only a handful of large, well-known firms account for most of the amount outstanding in the local corporate bond market.

A third reason that can explain why the SME segment has been bypassed is that bank loans to SMEs are not easily “commodity-izable” (Mu, 2002). Because of the opacity and heterogeneity of risks of different SMEs, the corresponding SME lending technology cannot rely heavily—as microfinance and consumer lending technologies do—on scoring methods.<sup>32</sup> These methods work by analyzing large samples of borrowers to identify the characteristics that predict the likelihood of default and the loss given default. Hence, they are more applicable to homogeneous borrowers and lending products that can be mass produced. The risks of a micro loan can be “scored” with information on personal characteristics of the micro-enterprise owner, given that the financial viability of the enterprise is closely tied to that of its owner. This information is easy to gather, including through electronic means. The risks of an SME loan, by contrast, are less amenable to scoring techniques and therefore, SME lending cannot be converted into a commodity-like mass-credit product, especially as we move up the enterprise size from small to medium. In effect, an SME is likely to be a limited liability company with various owners, which makes the individual characteristics of the owners less relevant for assessing creditworthiness. Such assessment 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, however, are not only difficult to observe but also different for different SMEs, requiring more individualized lending techniques to sort out and monitor SME debtors. The associated high monitoring and screening costs deter capital-constrained banks from developing an SME lending capacity, especially when more standardized lending technologies in markets for commodity-like, massive credit products offer profitable opportunities. Moreover, because of their heterogeneity, SME loans are much more difficult to securitize—that is, to be packaged into a pool of assets that backs securities to be sold in capital markets—which further limits the bridging of banking and capital markets in favor of SME finance.<sup>33</sup>

Fourth, the SME loan technology makes intensive use of the local institutional infrastructure for credit contract writing and enforcement, unlike, say, the micro-consumer loan or credit card loan technologies, which make little use of such infrastructure. The latter technologies do not normally require collateral and their post default procedures consist mainly on writing off the claim and registering the default with the credit bureau. In credit card and micro-loan technologies, in effect, the pursuit of post-default recovery through the judicial system is typically not worthwhile and creditors anticipate this and price it ex-ante

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funds has remained narrow (Rocha, 2004). This suggests that, even under a more liberal investment regime, there seem to be structural factors limiting the extent of diversification of institutional investor portfolios.

<sup>32</sup> Credit scoring is an automated statistical technique used to assess the credit risk of loan applicants. It involves analyzing a large sample of past borrowers to identify the characteristics that predict the likelihood of default and the loss given default. Scoring systems usually generate a single quantitative measure (the credit score) to evaluate the credit application.

<sup>33</sup> One exception in this connection is the factoring of SME receivables, especially when such receivables are claims on large, reputable corporations in connection to goods or services already delivered by the SME. For a discussion of factoring markets and the possible role of government policy, see De la Torre, Gozzi, and Schmukler (2006b) and Kappler (2005).

into the interest rate. This helps explain why micro credit as well as mass consumer credit are thriving industries even in countries with weak contractual environments. By contrast, SME lending technologies cannot avoid a heavy reliance on the contract enforcement institutions. For instance, and given the limited applicability of scoring techniques, SME lending tends to resort to collateral requirements to adequately mitigate principal-agent problems and recovery efforts via the courts are the norm in the event of default. As a result, the quality of collateral laws, the clarity of creditor rights in the event of bankruptcy, and the reliability of the judicial processes are all highly relevant for SME lending. Consistent with this argument, there is some—albeit still limited—empirical evidence suggesting that the quality of the institutional environment has a larger impact on the growth and access to finance of SMEs. For instance, Beck, Demirguc-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 by these factors (Figure 10). Similarly, Chong, Galindo, and Micco (2004) find that SMEs not only finance a significantly lower share of their investments with bank credit relative to large firms, but also that the difference in bank financing between SMEs and large firms is higher in countries with worse creditor protection and less efficient judicial systems. Given that SMEs lack access to securities markets, 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 difficulty in expanding SME finance is the possibility that Basle-type and Anti-Money Laundering (AML)-type regulations may be, inadvertently, discouraging loans to this segment. These regulations may reduce the value for banks of relationship lending based on individualized knowledge of borrowers. For example, regulations that require banks to use the information from the credit bureau in the process of loan origination and to supply relevant loan information to such bureau reduce banks' ability to appropriate the benefits from their efforts at building individualized SME knowledge. Thus, these regulations, contrary to common expectation, may actually deter banks from entering the SME lending business, especially in the absence of a compensatory improvement in the contractual environment. Similarly, banks' capacity to deal with informal, opaque SMEs 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, AML regulations that require substantial documentation to satisfy the know-your-client requirements may be excluding from the lending circuit informal SMEs that would have otherwise been included. All of these are, of course, hypotheses that require more rigorous exploration, but anecdotal evidence throughout the region suggests that they cannot be readily dismissed.

In sum, SME finance (or the lack thereof) is a big emerging issue in the minds of Latin policymakers. As noted, the topic is quite complex and short- or even medium-term solutions are not easy to identify, raising tough questions on what could governments do, other than patiently wait for the eventual materialization of substantial improvements in the contractual environment as a result of reforms. While the search for policy answers must continue, the discussion above should make it clear that the dominant policy paradigm provides little guidance for this task.

### 4.3. Defined-Contribution Pension Funds

Chile's pioneering example in pension reform had a major demonstration effect throughout Latin America, as similar reforms were adopted by many countries subsequently, during the 1990s—including in Argentina, Bolivia, Colombia, Costa Rica, El Salvador, Mexico, Peru, and Uruguay. These reforms consisted, basically, in a shift away from government-administered, pay-as-you-go (PAYG), defined-benefit (DB) pension systems towards systems that rely mainly on the so-called “second pillar,” that is, on mandatory, privately-administered, defined-contribution (DC) pension funds. This type of pension reforms constituted a salient manifestation of the paradigm shift in favor of pro-market financial development discussed above. They reflected a strategic, almost philosophical decision: to give markets the predominant role in administering retirement-related savings and providing old-age income security.

There is little question that Chile-style pension reforms point in the right direction, for a number of reasons, of which we highlight three. First, is the potential for such reforms to boost capital markets development and economic growth.<sup>34</sup> Second is these reforms' consistency with fundamental trends in labor markets. In effect, the competitive economies of today require greater job mobility and frequent career shifts, which can be facilitated via portable individual pension accounts. Third, and perhaps more importantly, is the fact that the ongoing rise in life expectancy, which is observed in developed and emerging economies alike, clearly militates in favor of increasing the role of the individual savings (or self-insurance) component of national social security systems relative to the insurance (or risk pooling) component. Let us briefly elaborate on this latter point.

Rising life expectancies imply a rising probability that individuals will outlive their capacity to work—that is, that they will likely live for a significant number of years after ceasing to earn labor income due to the natural deterioration of working capacity that comes with aging. As this particular probability goes up, individual savings should play a bigger role relative to insurance (or risk-pooling across individuals) because the cost of insurance increases with the probability of the loss event in question, while the cost of savings (self-insurance) is independent of such probability. It follows that, as the likelihood of having a relatively long life after retiring increases, so does the cost of insurance relative to the cost of self-insurance, inducing rational individuals to rely more on savings (rather than on insurance) to deal with the risk of loss due to such a likely event (Ehrlich and Becker, 1972).<sup>35</sup> The same logic can be applied at the aggregate social level: pooling risks across individuals by financing retirement benefits on a PAYG basis becomes more expensive as

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<sup>34</sup> In a comprehensive study, Corbo and Schmidt-Hebbel (2003) concluded that Chile's pension reform, partly through its positive impact on capital market development, raised GDP growth by an additional one-half percentage point per year, on average, during the 21-year period between 1981 and 2001.

<sup>35</sup> In this seminal article, Ehrlich and Becker provide a “comprehensive insurance” theory for old age income security. They show that, faced with various old-age related risks, rational individuals will allocate their efforts among self-protection (to reduce the probability of the loss event), savings (to self-insure against the loss event), and market insurance (to hedge against the loss event via risk pooling). The weight that individuals will give to each alternative depends in large part on the cost of insurance relative to cost of savings which, in turns, depends on the relative probabilities of the different types of old-age related risks.

the ratio of the elderly to the working age population increases, while the cost of self-insurance through individual savings remains unchanged. In sum, it makes sense to give greater importance to individual savings in social security systems as new generations live longer than old ones. This does not mean, of course, that there is no significant room left for an insurance (risk-pooling) component in reformed pension systems. Insurance is relevant to hedge against the relatively lower-probability risks. It can take the form of market insurance—e.g., annuities to hedge against the risk of outliving in retirement the savings accumulated while working. It can also take the form of a social safety net—e.g., a PAYG “first pillar” designed to deal with the risk of falling into poverty in old age.

As the reformed pension systems in the region continue to mature, new and complex challenges are emerging that were not well anticipated at the reform inception. The ability of policymakers to adequately address these challenges is key to enhancing the performance of the reformed systems and ensuring their socio-political sustainability. While the big emerging challenges in this area can be identified and characterized, the development of suitable policy answers is at an early stage.

Arguably, the biggest challenge for the Latin pension systems is posed by their low coverage (Gill, Packard, and Yermo, 2004). This challenge, however, falls outside the scope of financial development policy and mainly concerns social protection policy. To be sure, there are some links to financial policy. For example, reformers had originally expected—rather naïvely—that involving financial markets in the management of individual savings for retirement would spontaneously lead to increases in coverage. Workers would no longer see their pension contributions as a tax, the argument went, but as their own money and would therefore voluntarily join the system, leading to a natural expansion of coverage.<sup>36</sup> From hindsight, it is clear that the expectation was exaggerated and that the impact of pension reform on coverage has been rather small.<sup>37</sup>

Be it as it may and given the scope of this paper, we must avoid dwelling on the crucial issue of coverage and move on to discuss some of the emerging issues in DC pension systems that concern of financial development policy. To this end, we focus on three key challenges in achieving the objectives of second-pillar based pension system: (i) raising

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<sup>36</sup> Packard (2001) analyzes empirically the impact of Chile-style pension reforms on coverage in Latin America and finds a positive incentive effect, but one that occurs only gradually, as workers become familiar with the new social security system.

<sup>37</sup> Pension coverage of the economically active population is worryingly low throughout the region and it has not increased appreciably since the reform in most cases. In all Latin countries, with the exception of Chile, less than half of the economically active population participates in the mandatory pension system, and in many countries coverage is below 25 percent. Low coverage is clearly a bigger source of policymaker insomnia than the problems of access to finance for SMEs or the lack of equity market development. Low pension coverage today means a high and growing risk of people falling into poverty in old age in the future—i.e., a looming social crisis. The risk of poverty in old age is, compared to the risk of outliving the working age, of a lower probability type. Hence, as noted, it is a risk that is in principle better dealt with through pooling (insurance) rather than saving (self-insurance). The debate has, therefore, refocused on the potential complementary role of a revised PAYG “first pillar” in addressing the coverage problem. First pillar systems are by definition based on risk pooling across individuals and could be used to set a floor to old age income for most citizens, but that floor would need to be funded either through additional worker contributions or out of general revenues, not a trivial task.

expected replacement rates;<sup>38</sup> (ii) limiting the volatility of replacement rates over time; and (iii) building a sound market for annuities.

Let us first consider the *challenge of raising expected replacement rates*. It is increasingly evident that there is no easy answer the fundamental question of whether the system of mandatory, DC pension funds will be able to consistently generate, for those covered by the system, adequate replacement rates in the future, given current rates of contribution. By adequate replacement rates we 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 in this regard comes from low accumulated balances in pension funds at the moment of retirement due to low contribution density ratios—that is, the problem originated in individuals not contributing continuously to their pension funds over their working lives due to, say, long unemployment spells or prolonged dips into the informal sector while working. But even where contribution density is high, the maximization of expected replacement rates for a given risk is more difficult to achieve through financial markets than originally believed. In particular, the high real returns achieved during the 1990s—which were of the order of ten percent per year in several of the countries that implemented pension reforms—are unlikely to be repeated in the future, and this would lead automatically to lower expected replacement rates for a given risk.

The reasonable assumption that lower average real returns (compared to those in the 1990s) are in store for the future puts a premium on policy efforts aimed at increasing *net* real returns in DC pension funds without unduly raising risk. This necessarily points to policies aimed at facilitating the achievement of higher gross returns *and/or* the reduction in the fees charged by AFPs (pension fund administrators).<sup>39</sup> At first glance, the general direction of the appropriate policies actions appears obvious: make AFPs operate in a contestable market while giving them freedom to diversify the portfolios they administer, subject to ensuring that they continuously fulfill their fiduciary responsibilities as managers of workers' savings. Freedom and competition, the argument goes, will result in lower fees and higher returns for a given risk. In fact, we have learned that things are not that simple, with policy tensions and technical issues complicating matters much more than initially believed, as discussed below.

Let us first turn to the tensions arising in connection with the policy objective of enabling higher returns by allowing greater local and international diversification of mandatory pension fund portfolios. In reality, policy makers in the region have not been free to pursue this objective; they have rather felt compelled to balance it against three competing policy objectives. The first competing policy objective has been fiscal: to facilitate the government's cash flow management given the need to finance the pension reform transition. Absent a compensatory fiscal adjustment (Chile was the only reforming country in the region able to engineer it, mainly through a major increase in tax revenue), debt financing has been relied upon by governments to meet payments to retirees under the old PAYG system while

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<sup>38</sup> The replacement rate is formally defined as the ratio of retirement pension to pre-retirement income.

<sup>39</sup> The effects of higher returns or lower fees on replacement rates build over time to nontrivial magnitudes. Rocha (2004) reckons that a permanent decrease in fees by 30-40 basis points of assets would lead to a seven to nine percent increase in replacement ratios in the case of Chile.

no longer receiving contributions from workers that join the new system. The resources in second-pillar pension funds have been tapped for this purpose (as well as for general government deficit financing needs), and this has typically been 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 second-pillar pension funds in the region are rather undiversified and dominated by government debt securities.<sup>40</sup>

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 their primary fiduciary duty.<sup>41</sup> This objective has led to a reluctance among Latin policy makers to give AFPs ample latitude to diversify pension fund portfolios through investment in foreign assets. This reluctance has been often reinforced by a nationalistic discourse and concerns that allowing AFPs to find assets in international markets smacks of an official blessing to capital flight. As discussed in the previous section, expectations that pension funds would diversify into a very wide range of local assets, including SME finance, proved to be misplaced. In any case, as the growth of pension funds has been clearly outstripping the availability of suitable assets at home, policy makers have been prompted to raise the ceiling on pension fund investments abroad, albeit ever so gradually and reluctantly. Chile is again well ahead of the pack in this regard, currently allowing up to 30 percent of pension fund portfolios to be invested in external assets.

Finally, the room to relax pension fund investment regulations has been constrained by a deeper policy concern, present especially 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 implies also that losses would be made now and then. But such losses would raise greater political sensitivities in countries with a second-pillar dominated national pension systems, where workers bear all the market risk, compared to countries where the second pillar is a complement to a core PAYG system and where, as a result, workers bear less market risk overall (Rocha, 2004). Hence, in the case of the former countries, a full liberalization of pension fund investment regulations cannot be reasonably expected. Rather, it should not be surprising to find, as in fact we do, that regulators in such cases tend to be more risk averse and regulations more biased in favor of conservative portfolio allocations.

In all, the policy objective of raising expected replacement rates via the liberalization of 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 of the competing policy objectives, there is no question that the policy path towards higher replacement rates via a freer pension portfolio allocations is fraught with complications that were not fully foreseen at the time of the reform.

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<sup>40</sup> Chile and Peru are exceptions where government debt does not absorb the lion share of pension fund portfolios. Data on pension fund portfolio composition is presented, for instance, in Gill, Packard and Yermo (2004) and De la Torre and Schmukler (2004b).

<sup>41</sup> In effect, fostering financial development at home can be in fact consistent with pension funds' fiduciary duties to the extent that domestic financial deepening promotes growth.

Let us now turn to the policy issues involved in trying to raise expected replacement rates by fostering competition among AFPs on the fees they charge for asset management. This too has proven to be a much more challenging task for the reformed systems than initially 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. Let us explain. Competition seems crucial to bring down fees. However, increased competition through lower entry barriers and greater freedom for affiliates to move across AFPs can backfire, as the Chilean experience in the mid-1990s demonstrated. It can lead to marketing wars between numerous AFPs, which blunt the ability of the industry to capture scale economies, resulting in high administrative costs and, thus, high fees. The opposite can also backfire. That is, if the regulatory authorities were to raise entry barriers, promote cartel-like understandings among AFPs, and restrict the ability of affiliates to move from one AF to another—all in order to facilitate the exploitation of economies of scale—the resulting lack of market contestability will increase the scope for the few incumbent AFPs not to pass the administrative cost reductions to affiliates and, rather, enjoy abnormally high profits. The appropriate policy to break away from this dilemma is neither obvious nor easy to design and implement.

Several approaches have been tried in the region to bring down costs and fees, with mixed results. One line of attack to enhance competition on fees has been to facilitate switches to low-fee funds, as done in the case of Mexico.<sup>42</sup> Another line of attack has been to enhance transparency via the disclosure of fees in a comparable manner.<sup>43</sup> The effectiveness of these actions, however, has been dampened by the seemingly general reality that pension fund affiliates tend to be rather insensitive to differences in fees and net returns across funds—a phenomenon that begs for greater research.<sup>44</sup> Hence, some countries, like Bolivia, have rather auctioned out licenses for pension fund management to very few operators, giving them exclusivity (to enable them to capture scale economies) while putting a ceiling the asset management fees they can charge. The policy debate has, therefore, been wide ranging, with more radical reforms proposals entering the discussion in recent years. These proposals essentially focus on unbundling the basic pension-related services that are subject to economies of scale (contributions collection, accounts management, payouts to retirees,

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<sup>42</sup> In Mexico, undecided pension contributors are assigned automatically to AFPs in the lowest quartile in terms of fees charged. This policy has been complemented by lowering entry barriers for AFPs, relaxing the one-year restriction on switches if individuals migrate to lower fee funds, and facilitating switches over the internet.

<sup>43</sup> Comparability of fees across AFPs is typically complicated by multiple fee structures, as AFPs may charge fees as a percent of either contributions, wages, or assets under management. In some countries AFPs can also charge fixed fees. Efforts have been made to mitigate the comparability problem. For example, Mexican authorities calculate and disclose “equivalent fees over assets” across funds. This calculation, however, is a second best, valid only for an “average” individual. Fees as percent of contributions were allowed to facilitate entry into the nascent pensions industry at the time of the reforms. Switching to a uniform fee structure based on fees as percent of assets at this stage is not trivial, for it would have important distributional consequences and consolidate the market power of incumbent AFPs, which already have a large asset based on which to collect fees.

<sup>44</sup> For instance, in the case of Chile, Bernstein and Micco (2002), Bernstein and Ruiz (2005), and Marinovic and Valdes (2005) provide econometric evidence of switching patterns of affiliates from one AFP to another, showing that switching is only weakly related to APF performance.



etc.) from those services where competition can thrive (asset management), along the lines of the Swedish model.<sup>45</sup> The basic, and promising, idea of this type of proposals is to promote centralization and cooperation in infrastructure and back-office services, where scale economies are most significant, and competition on prices and quality in asset management services, where scale economies are lower. While this idea carries a significant potential of increasing expected replacement rates via lower fees, its specific design and tailoring to individual country circumstances are a highly complex affair.

Let us now consider the *challenge of limiting the volatility of replacement rates over time*. The point we wish to make in this connection is that there appears to be a significant policy tradeoff—inherent in DC funded pension systems—between raising expected replacement rates (by increasing competition on fees and returns), on the one hand, and maintaining stable replacement rates over time, on the other.<sup>46</sup> To develop this point, we first note that there is an unavoidable degree of volatility in replacement rates across cohorts in pure DC funded pension systems. In these systems, individuals bear all the investment risk (market, credit, inflation, etc.) during the accumulation phase and the annuitization risk (the risk of receiving a low stream of old age income because the annuity is bought when interest rates are low) at retirement. As these two sets of risks do not necessarily offset each other, replacement rates are volatile over time. This means that individuals in different generations may obtain different replacement rates even if, over their working lives, these individuals have similar real earnings and make a similar saving effort for retirement. In sum, under pure DC funded systems, some variance in the retirement incomes of similar individuals in different cohorts is unavoidable and depends on luck—creating a problem of intergenerational horizontal inequity.

This unavoidable core of intergenerational horizontal inequity can, however, be greatly exacerbated by policies aimed at increasing competition among AFPs on net returns. This poses a policy tradeoff, at the heart of which is the principal-agent problem in DC pension fund administration. Let us explain. AFPs are pure asset managers—they do not have a formal liability that is payable to workers at retirement; rather, as noted, they pass on to the worker all the risks. This entails an inherent agency problem, as the investment behavior of AFPs need not be consistent with the life-long interests of the contributing worker. To mitigate this agency problem, policies seek to increase transparency and competition on fees and returns through, for example, continuous mark-to-market accounting of pension fund portfolios, periodic disclosure of fees and investment returns, and freedom

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<sup>45</sup> In 1994 Sweden reformed its pension system, replacing its pay-as-you-go, defined benefit system with a system that combines a pay-as-you-go notional defined contribution pillar and a funded defined-contribution second pillar with privately managed individual account. This second pillar is based on a clearinghouse model where a public agency acts as an intermediary between contributors and asset managers and centralizes most of the activities that are subject to economies of scale (contributions collection, accounts management, record-keeping, etc.). Workers can choose how to allocate their funds among (several hundred) registered mutual funds and the central clearinghouse then transfers their contributions to the selected funds. Asset management companies only know the total investment of pension contributions, not who the individual investors are, reducing the danger of a marketing war among funds (see James, Smalhout, and Vittas, 2001 and Palmer, 2000 for details).

<sup>46</sup> We owe much of the ideas in the following paragraphs of this section (particularly the formulation of the policy tradeoff in terms of replacement rate volatility) to enlightening discussions with Gregorio Impavido.

for affiliates to move across AFPs. But increased competition and greater transparency are likely to result in a shortening of AFPs' investment horizons, an intensification of their herd mentality, and a greater emphasis placed on tactical (versus strategic) investment considerations. All of this can exacerbate the volatility of replacement rates over time. Furthermore, short investment horizons imply that AFPs will not be the dedicated and continuous investors in long-duration assets as people tend to expect. In fact, recent experiences in Mexico and Colombia show that AFPs can buy long duration assets as easily as they can dump them, depending on their expectations regarding interest rates and the associated short-term capital gains or losses.

In sum, the policy tradeoff between promoting price competition and maintaining stable replacement rates is inherent to DC funded pension systems. A movement towards one policy goal is at the expense of the other. This tradeoff is bound to create greater tension in countries where the second pillar is the only, or the dominant, component of the national social security system. Striking an appropriate balance given this tradeoff is clearly not an easy task. The thinking on policies to reduce the volatility of replacement rates without unduly reducing their level is at an embryonic stage. However, the direction of reforms seems clear: reforms would have to aim at more tightly and smoothly linking the accumulation phase (DC pension funds) with the decumulation phase (annuities and other retirement products). A number of options on the debate table seem to warrant consideration in this regard. In particular, the choice of pension funds could be made life cycle-dependent. For example, older workers could be constrained to choose only among portfolios heavily weighted in favor of long-duration and relatively safe fixed income securities.<sup>47</sup> In addition, a default, life-cycle pension fund could be introduced, with portfolio composition changing automatically with the age of the worker. Complementary, more adequate information on replacement rates could be provided.

Finally, we turn to the *challenge of whether all Latin countries will be able to build a well-regulated, deep, and efficient local market for annuities*. This market is the key complement to DC pension funds and is crucial to enable pensioners to deal with the so-called "mortality risk"—i.e., the risk of outliving in their retirement the savings they accumulated during their working life. As suggested earlier, since this is a lower-probability risk (compared to the risk of outliving one's working capacity), it is better dealt with through the insurance rather than through self-insurance. An annuities market that functions well enable that precisely—it allows workers to transfer mortality risk to life insurance companies, which manage it for a price, through pooling and complex asset-liability modeling, passing on to insured individuals the benefits of risk diversification through pooling. The annuities market is, however, a highly sophisticated market where risks are complex, demanding high quality risk managers, appropriate institutional and market infrastructures, access to suitable assets, risk-oriented regulation and supervision, etc. Whether all countries in the region will be able to develop such a market locally remains an open, yet crucial question. This, of course, raises the question of whether, to what extent,

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<sup>47</sup> To fully eliminate annuitization risk, the portfolio composition of the pension fund as the worker approaches retirement age should converge the portfolio composition of the life insurance company that that sells an annuity to the worker at the moment of her retirement.

and under what conditions would a global pension fund and annuities industry be a substitute, or even a superior alternative, to having a local industry.

The discussion above has hopefully been enough for the reader to get a flavor of the big emerging issues with respect to the markets for DC pensions and annuity products. It should also have made it clear that, while improving the performance of the reformed pension system constitutes a policy imperative in the region, the associated policy issues fall largely outside the radar screen of the dominant policy paradigm on financial development.

## **5. Final Thoughts**

This paper has argued that the big emerging issues for the policy agenda regarding financial development in Latin America have less to do with financial stability and the principles codified in international standards and codes, and much more with completing markets in the context of increasing globalization. These emerging issues, which to a large extent grew out of the interaction between the reforms adopted in the region over the past 25 years and developments in global financial markets, pose technical challenges and political economy dynamics whose nature and complexity were not well anticipated at the time of the reforms. The dominant financial development policy paradigm appears ill suited to confront these issues. In effect, an underlying and significant tension for the current policy paradigm comes from growing questions among Latin policymakers of whether the more stable, internationalized, and better regulated financial systems of today are actually contributing to social and economic development as much as expected.

Financial system stability and the pursuit of convergence to international standards do not seem, of themselves, to be leading to the desired results—in terms of breadth, depth, and diversity in key financial services that households and firms need. For example, the markets for SME and small-farmer finance do not appear yet to be taking off in most of the region. Affordable housing finance remains underdeveloped. Only the largest firms in the larger countries in the region seem to have access to long-duration local-currency finance. Much of the Latin population does not have access even to 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 get better integrated into international markets. The financial globalization process is arguably producing major benefits, but these seem to be concentrated in favor of large corporations and higher-income households.

The related policy challenges are thus daunting. 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 small countries? How could we reduce the volatility of replacement rates in mandatory DC pension systems without unduly reducing the expected level of replacement rates? 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?

The more these questions intensify, the clearer it becomes that the dominant policy paradigm, for all of its richness, is unlikely to shed much light and provide significant guidance on these issues. This does not mean, of course, that the policy prescriptions of this paradigm (as discussed earlier in this paper) should be abandoned or ignored. By and large, such prescriptions are enduring, especially with regard to financial stability, as they are based on strong theory and well-digested lessons from experience. The question going forward is whether and how this paradigm will be revisited and modified to provide fresh answers to the pressing new issues. More research is clearly needed. The evidence needs to be carefully reconsidered to develop better diagnoses. And a degree of intellectual modesty will be required to suitably revise the policy paradigm and amend expectations.

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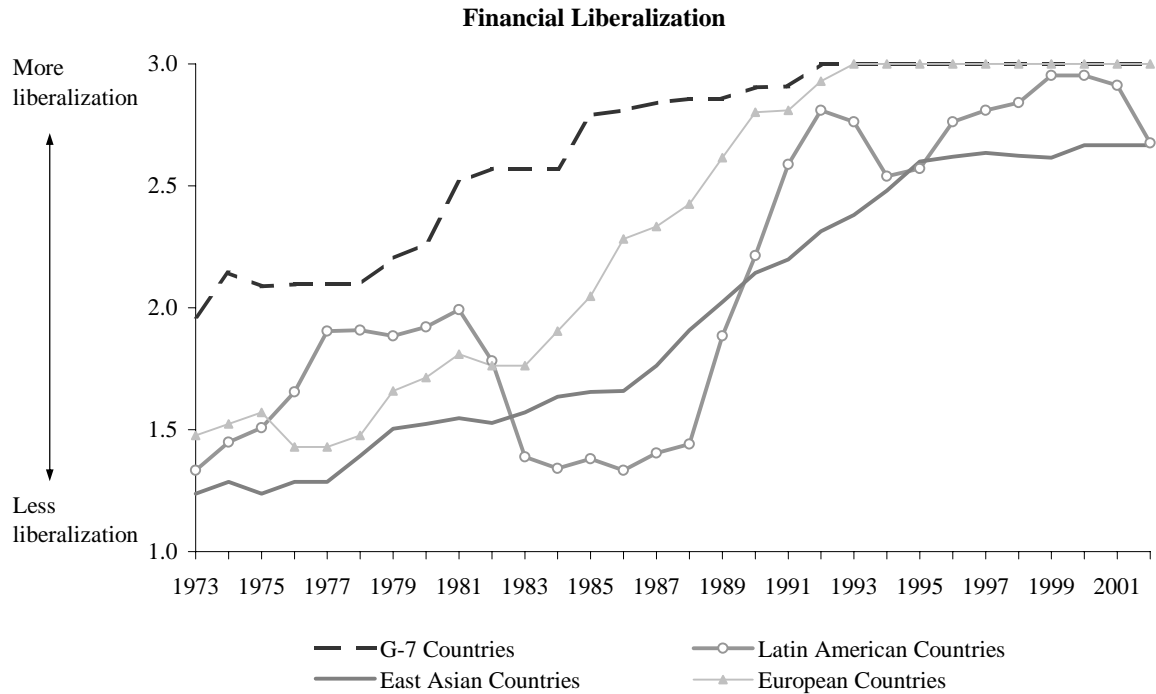
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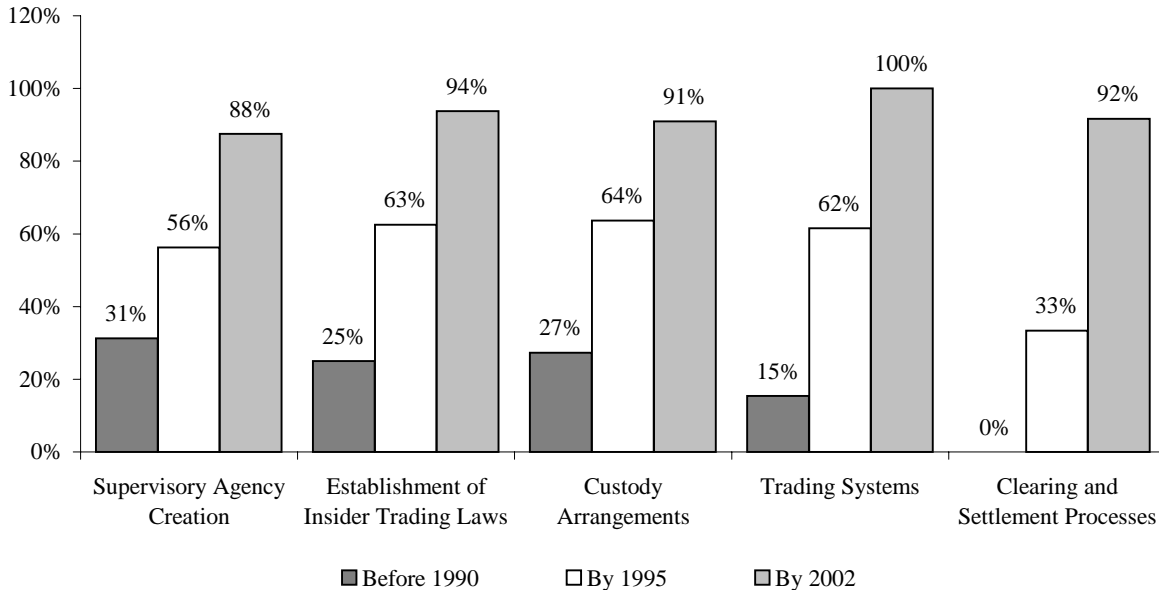
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**Figure 1**  
**Financial Sector Reforms**

The top figure shows the extent of financial liberalization across regions and the bottom figure shows the cumulative percentage of Latin American countries having implemented reforms in different areas of capital markets at different points in time. The financial liberalization index is calculated as the simple average of three indices (liberalization of the capital account, domestic financial sector, and stock market) that range between 1 and 3, where 1 means no liberalization and 3 means full liberalization. The series are averages across countries in each region. The data for G-7 countries are averages for Canada, France, Germany, Italy, Japan, United Kingdom, and United States. The data for Latin American countries are averages for Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. The data for East Asian countries are averages for Hong Kong, Indonesia, Korea, Malaysia, Philippines, Taiwan, and Thailand. The data for European countries are averages for Denmark, Finland, Ireland, Norway, Portugal, Spain, and Sweden. Data on financial liberalization are annual averages calculated from monthly figures.



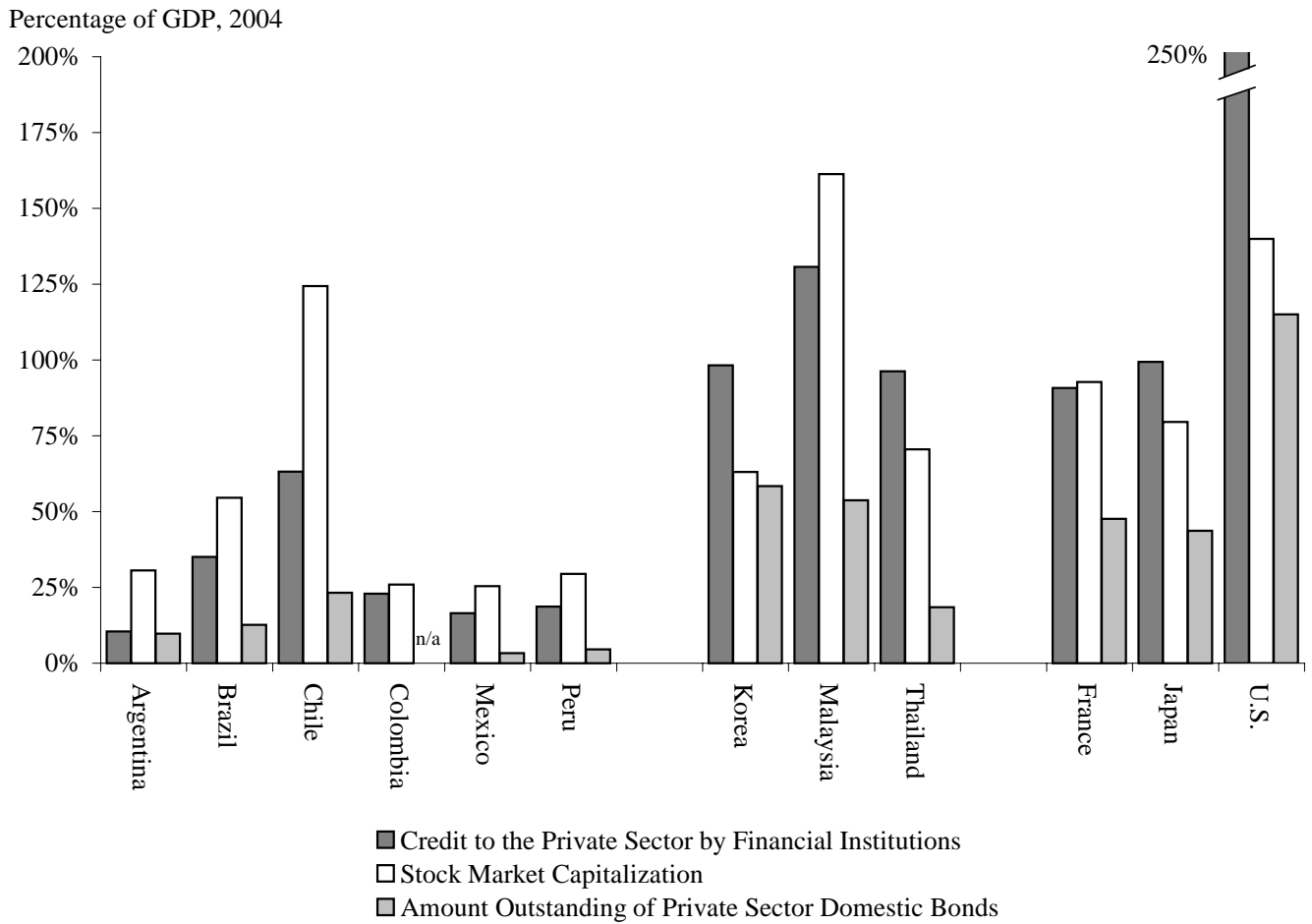
**Percentage of Latin American Countries Having Implemented Capital Market Reforms**



Source: De la Torre and Schmukler (2004b), Kaminsky and Schmukler (2003)

**Figure 2**  
**Domestic Financial Sector Development Across Countries**

This figure shows credit to the private sector by deposit money banks and other financial institutions over GDP, domestic stock market capitalization over GDP, and the amount outstanding of private sector domestic bonds over GDP at year-end 2004 for selected countries.

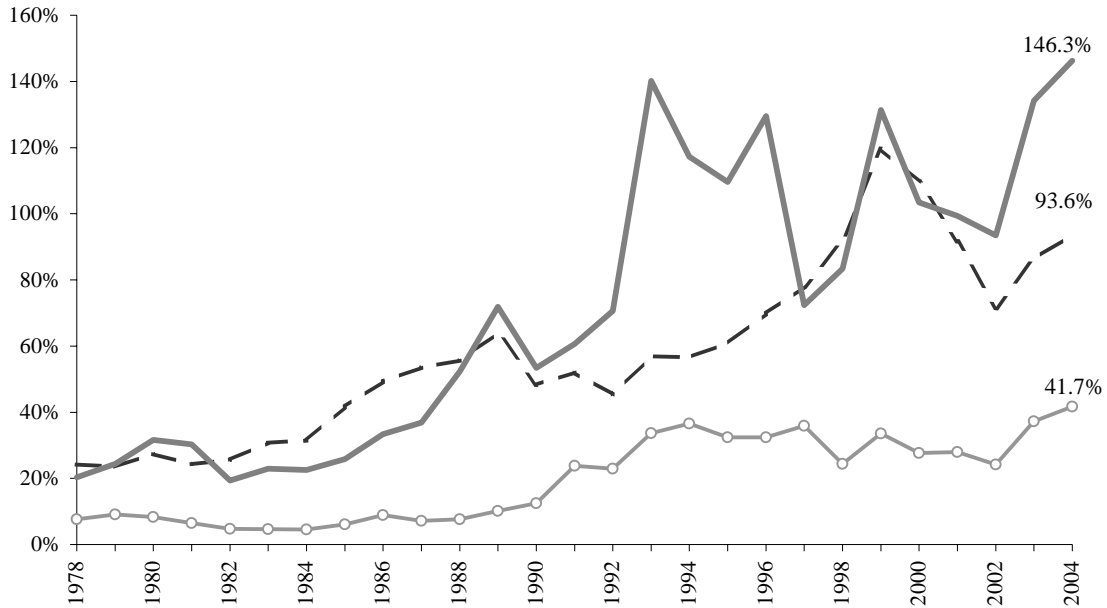


Source: BIS, IMF International Financial Statistics, S&P Emerging Markets Database, World Bank

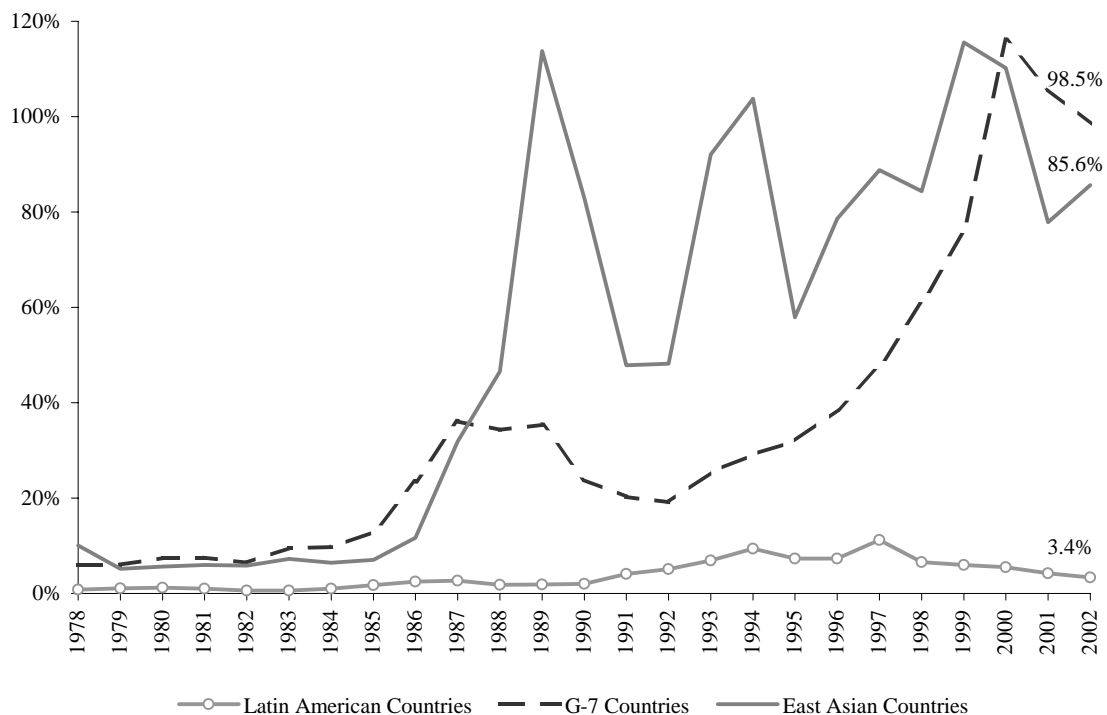
**Figure 3**  
**Domestic Stock Market Development**

This figure shows the evolution of domestic stock market capitalization over GDP and value traded domestically over GDP. The series are averages across countries. The data for G-7 countries are averages for Canada, France, Germany, Italy, Japan, United Kingdom, and United States. The data for East Asian countries are averages for Hong Kong, Indonesia, Korea, Malaysia, Philippines, Taiwan, and Thailand. The data for Latin American countries are averages for Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela.

**Market Capitalization / GDP**



**Value Traded Domestically / GDP**

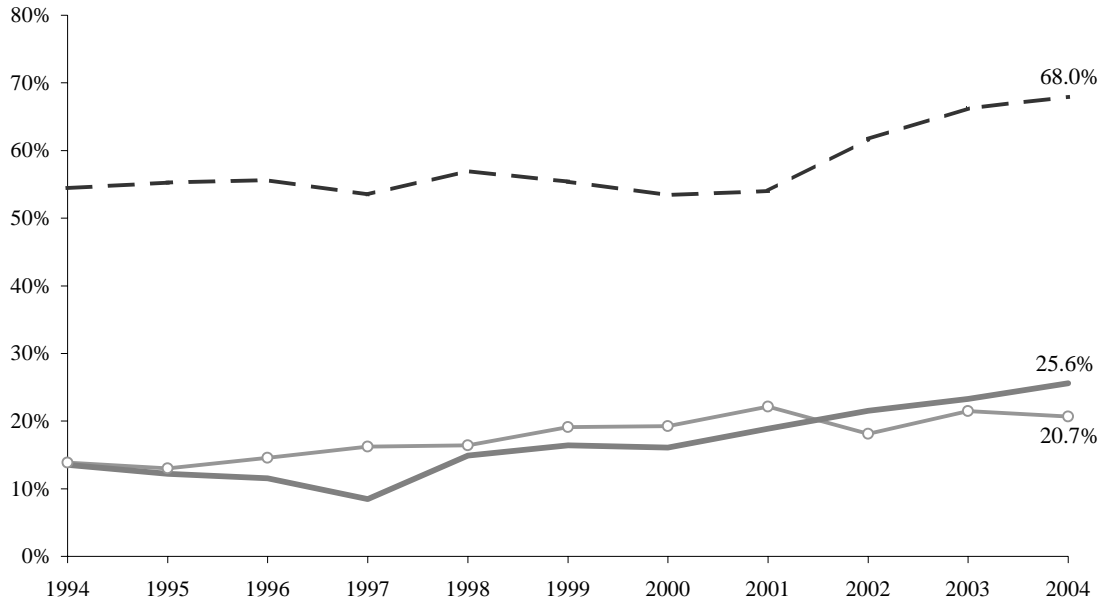


Source: S&P Stock Markets Factbook, World Bank

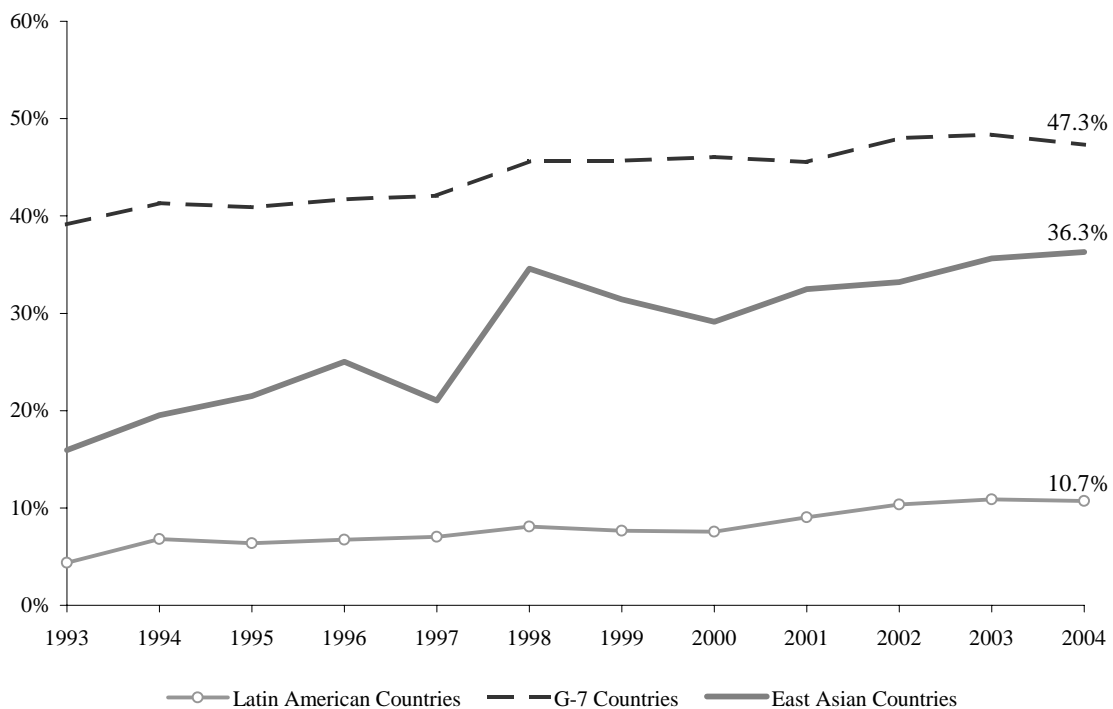
**Figure 4**  
**Domestic Bond Market Development**

This figure shows the evolution of the amounts outstanding of public and private sector bonds in domestic markets over GDP. The series are averages across countries. The data for G-7 countries are averages for Canada, France, Germany, Italy, Japan, United Kingdom, and United States. The data for East Asian countries are averages for Hong Kong, Korea, Malaysia, Taiwan, and Thailand. The data for Latin American countries are averages for Argentina, Brazil, Chile, Mexico, and Peru.

**Amount Outstanding of Public Sector Domestic Bonds/GDP**



**Amount Outstanding of Private Sector Domestic Bonds/GDP**

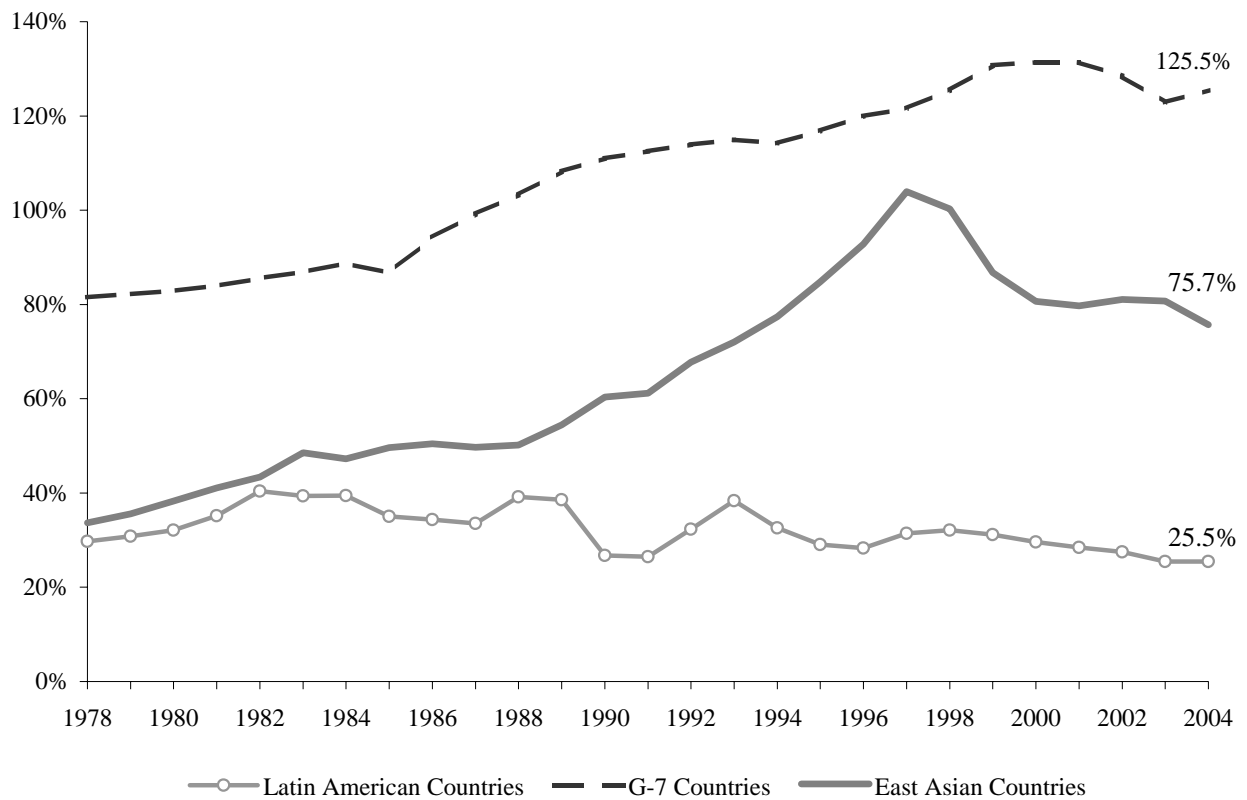


Source: BIS, World Bank

**Figure 5**  
**Financial Sector Development**

This figure shows the evolution of credit to the private sector by deposit money banks and other financial institutions over GDP. The series are averages across countries. The data for G-7 countries are averages for Canada, France, Germany, Italy, Japan, United Kingdom, and United States. The data for East Asian countries are averages for Indonesia, Korea, Malaysia, Philippines, and Thailand. The data for Latin American countries are averages for Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela.

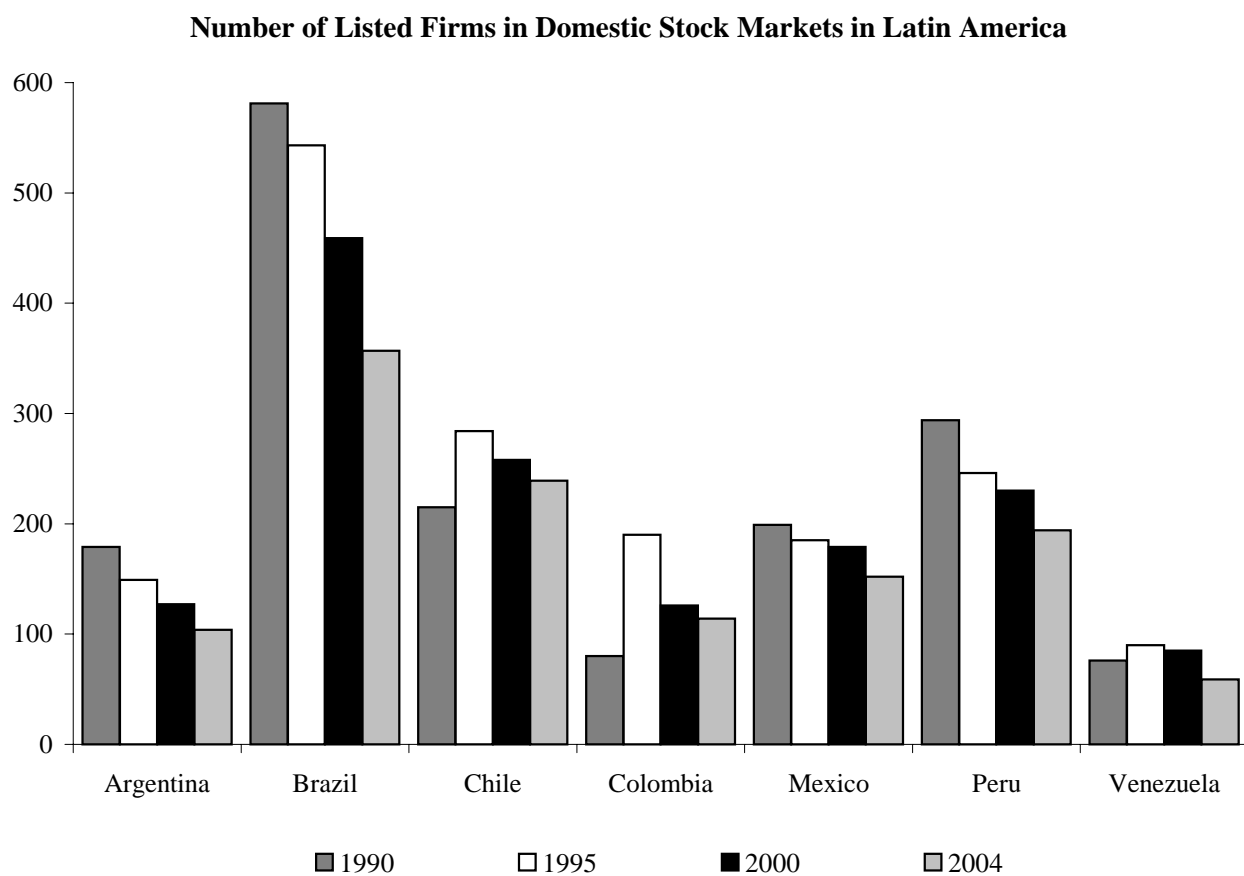
**Credit to the Private Sector by Financial Institutions/GDP**



Source: World Bank

**Figure 6**  
**Stock Market Delistings**

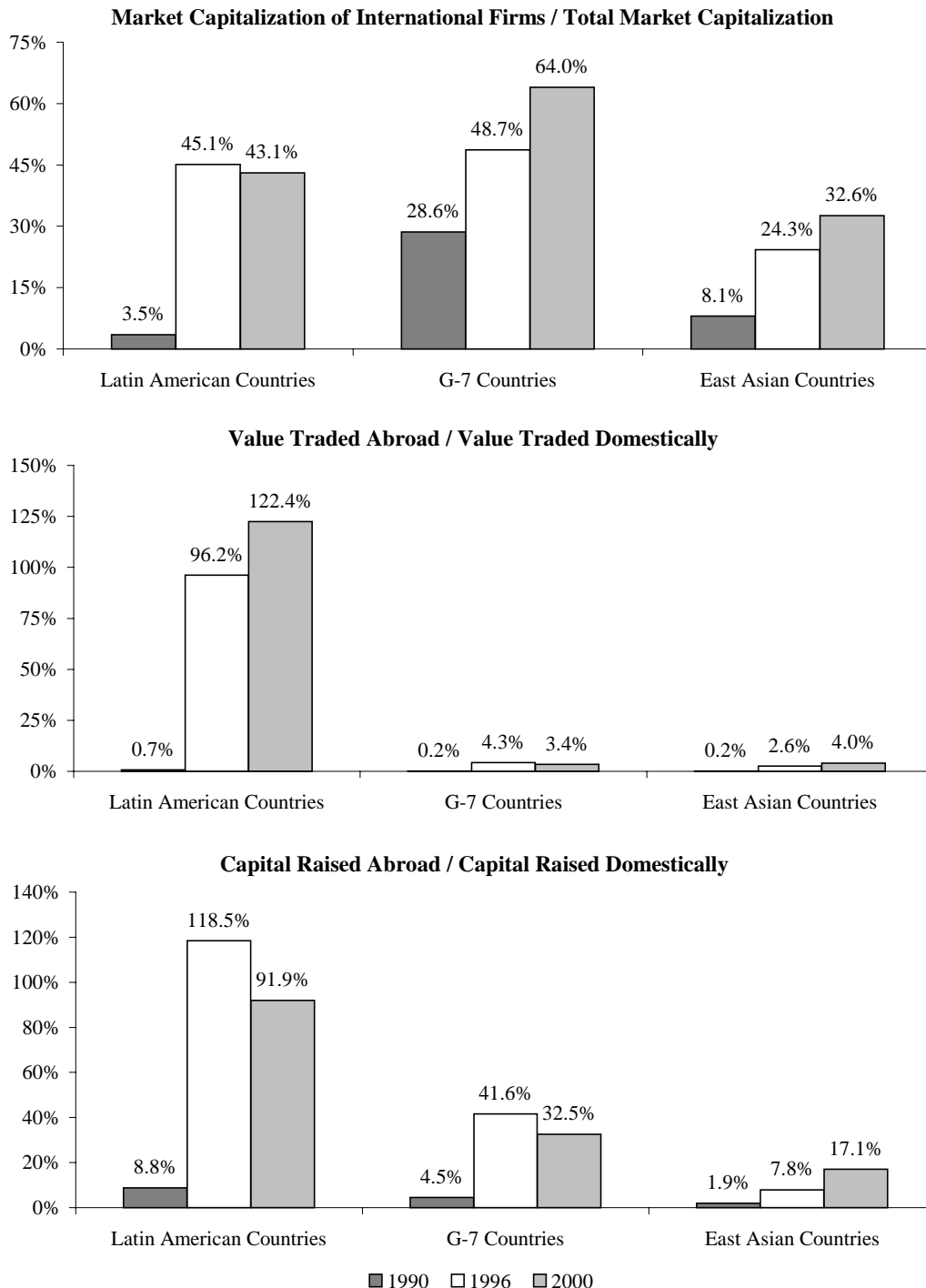
This figure shows the number of listed firms in domestic stock markets for selected Latin American countries.



Source: S&P Stock Markets Factbook

**Figure 7**  
**Internationalization of Stock Markets Relative to Domestic Activity**

This figure shows market capitalization of international firms over total market capitalization, value traded abroad over value traded domestically, and capital raised abroad over capital raised domestically. The series are averages across countries. The data for 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 countries are averages for Hong Kong, Indonesia, Korea, Malaysia, Philippines, Taiwan, and Thailand. The data for Latin American countries are averages for Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. International firms are those identified as having at least one active depositary receipt program at any time in the year, or having raised capital in international markets in the current or previous years, or trading in the London Stock Exchange (LSE), New York Stock Exchange (NYSE), or NASDAQ.

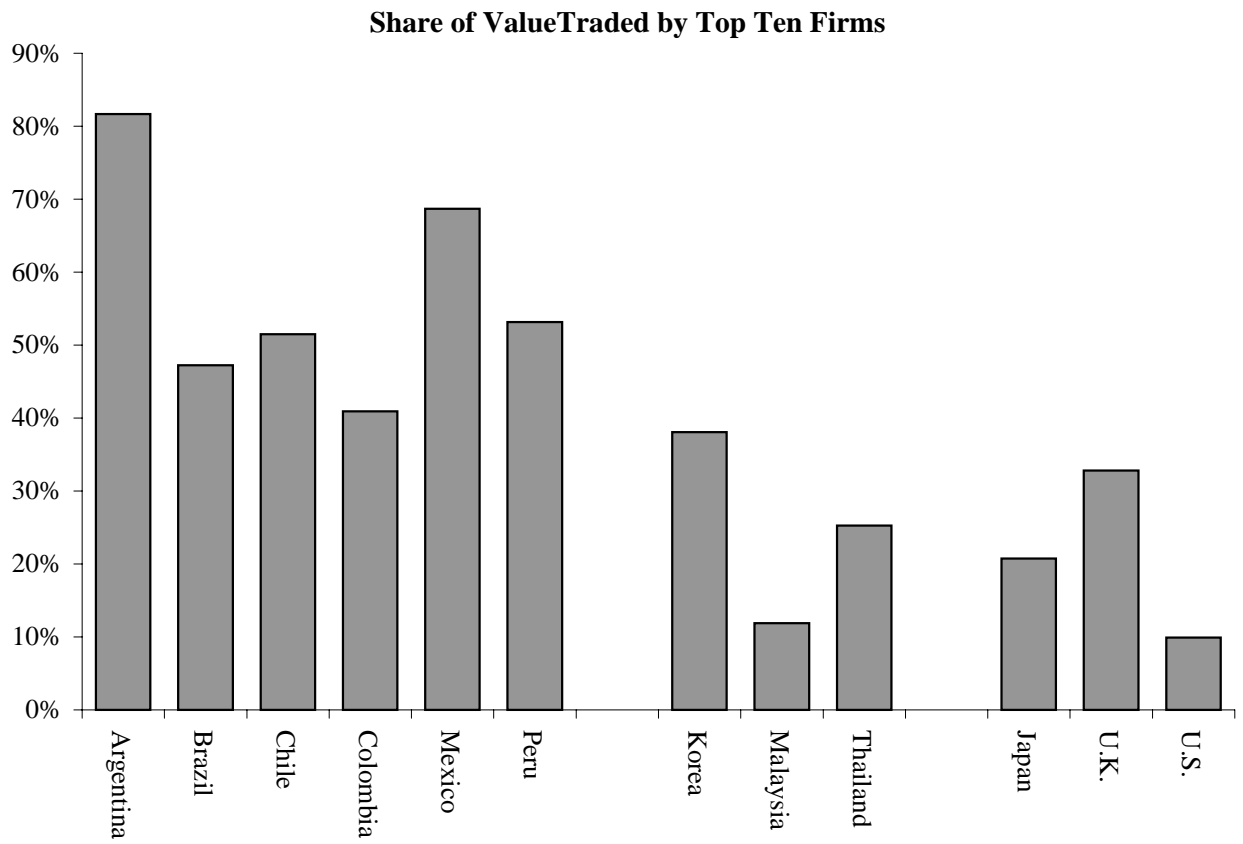


Source: De la Torre and Schmukler (2004b)



**Figure 8**  
**Stock Market Concentration**

This figure shows the share of total stock market value traded represented by the top ten firms in each market in 2004. Data for the U.S. correspond to the New York Stock Exchange.

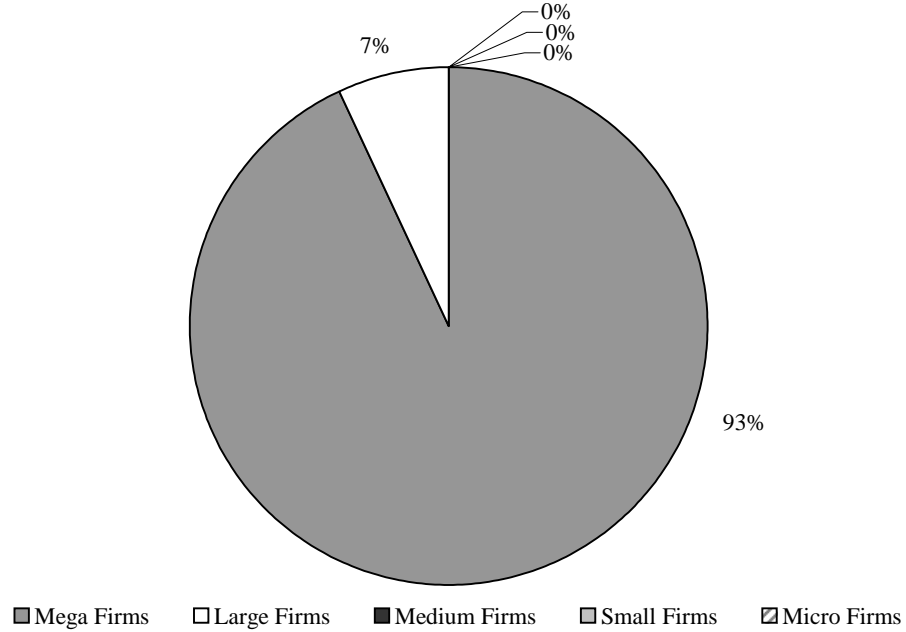


Source: World Federation of Exchanges

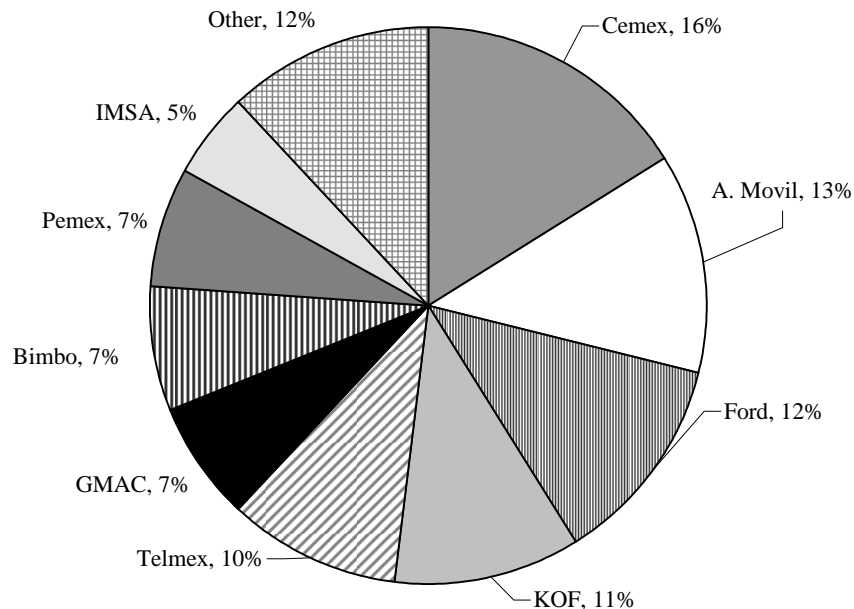
**Figure 9**  
**Segmentation in Access to Domestic Bond Markets**

The top figure shows the distribution of the cumulative amount of corporate bonds issued in the Chilean market over the 2000-2003 period by firm size. The bottom figure shows the distribution of the amount outstanding of corporate bonds in the Mexican market on October 2003 by issuer. Mega firms are defined as those with annual sales net of VAT above UF 600,000 (17.2 million U.S dollars); large firms have sales between UF 100,000 (2.8 million U.S dollars) and UF 600,000; medium firms have sales between UF 25,000 (US\$0.7 million) and UF 100,000; small firms have sales between UF 2,400 (68,688 U.S dollars) and UF25,000 and micro firms have sales below UF2,400. Micro firms represent around 82 percent of all firms in the economy, while small firms are 15 percent and medium firms two percent. Large and mega firms combined account for one percent of all firms.

**Chile - Cumulative Amount of Corporate Bonds Issued in the Local Market by Firm Size (2000-2003)**



**Mexico - Amount Outstanding of Corporate Bonds in the Local Market by Issuer (Oct-2003)**



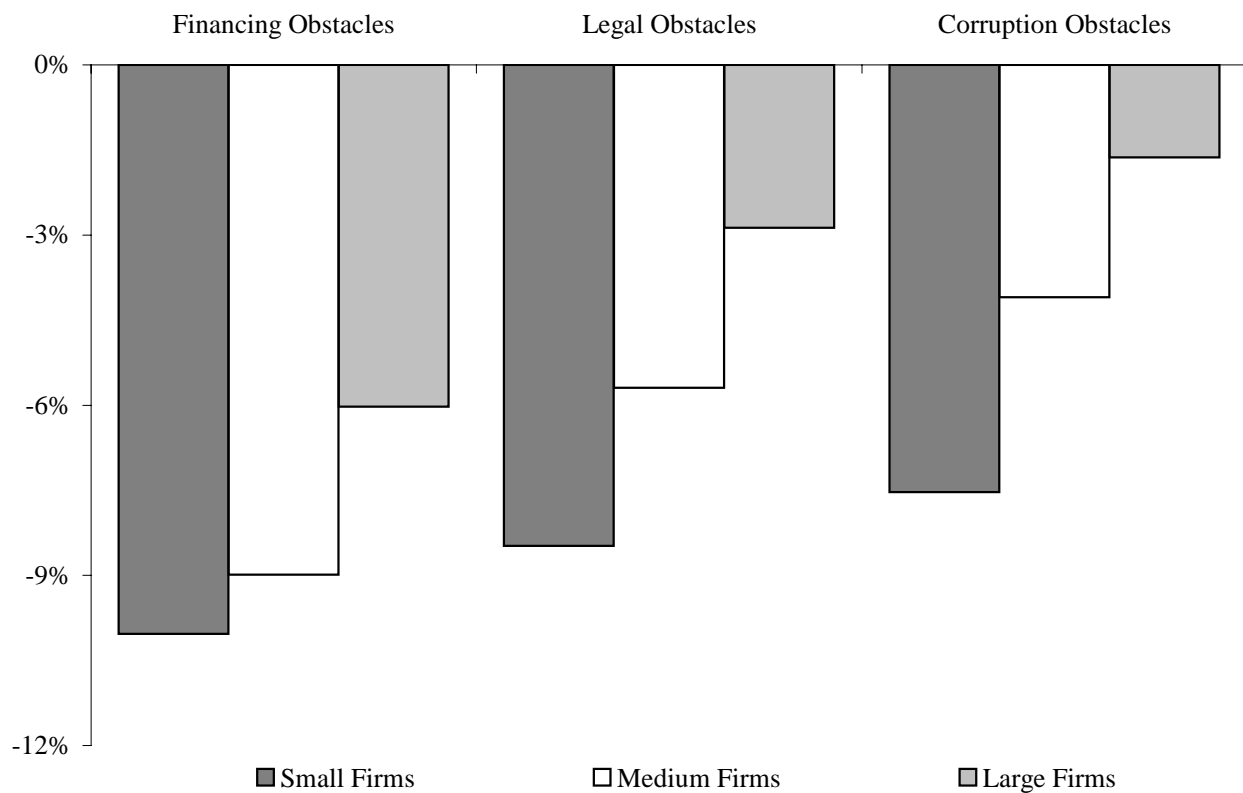
Source: Bolsa Mexicana de Valores, JPMorgan. Sirtaine (2004)

**Figure 10**

**Institutional Environment and SME Growth**

This figure shows the impact of different constraints on firm growth by firm size. The reported values are calculated as the mean value of each obstacle for the different firm groupings multiplied by the coefficients for the different firm groupings 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 dummies for the different firm groupings and the reported obstacles to firm growth. Firms are classified as small if they have between 5 and 50 employees, medium if they have between 51 and 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 are based on the World Business Environment Survey (WBES) and cover over 4,200 firms from 54 countries.

**Impact of Financial and Legal Obstacles on Firm Growth by Size**



Source: Beck, Demirguc-Kunt, and Maksimovic (2005)