Finance in Crisis: Causes, Lessons, Consequences, and an Application to Latin America

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Why and how have the Latin American financial systems managed to survive more or less unscathed the biggest financial crisis the world has known since the Great Depression? Will the 2008–09 crisis affect the future of financial development in the region? Is financial development in Latin America after the crisis destined to continue to lag that in many other parts of the world, or is a rapid catch-up now more likely than before?1 Answering these interrelated questions requires looking back at the recent economic history of the region and examining the possible lessons one can draw from the crisis as regards the inner dynamics of financial development and financial stability.

There is little disagreement that financial development has lagged in the region due to a history of acute macroeconomic volatility combined with misconceived microeconomic policies. These resulted in repressed financial systems during the 1970s and 1980s, a situation that eventually led to a shift in favor of a two-tiered policy for financial development that emerged clearly during the 1990s and that has prevailed until now. The conventional wisdom became Get the macro right, and let those markets go free!

Yet, the crisis has led to a questioning of this policy. It was precisely the combination of stable, successful macroeconomic policies during a
long period of “great moderation” and largely free but inadequately regulated financial markets that were at the core of the dynamics of the crisis. What does this mean, then, for the future of financial development in Latin America? Should the conventional wisdom that prevailed prior to the crisis be revisited and reshaped? Or is the region still at a level of financial development where crisis lessons from the center are only marginally, if at all, relevant to the periphery?

This chapter argues that the above-mentioned precrisis tenets of financial development policy will continue to hold at the core, but that that will not be enough. They will need to be complemented and revisited at the edges.

On the macro side, the stable policies of the recent past will need to be supported by the introduction, or in some cases strengthening, of macroprudential instruments. As for industrial countries, these instruments will need to boost the resilience of financial systems of Latin America and the Caribbean (LAC) to endogenous risk dynamics. But they will also need to strengthen their independence from imported perturbations. Given the sharper constraints faced by the monetary policies of the region, arising in particular from concerns about the adverse effects on growth of excessive exchange rate volatility, the use of these instruments may be even more crucial in Latin America than in industrialized countries. At the same time, a minimum degree of currency independence will continue to be needed to limit the cross-border regulatory arbitrage resulting from more active and independent macroprudential policies.

On the microprudential side, contestable, deeper, more innovative financial markets should remain the order of the day. However, a more attentive, forward-looking, and smarter presence of the state will be crucial to maintaining financial markets pointed in the right direction. This will require a closer monitoring and control of systemic risk, both over time and across institutions. While many of the policy implications will be similar to those being debated in industrial countries, several issues, such as devising appropriate countercyclical prudential norms, introducing Pigovian taxes\(^2\) to induce intermediaries to internalize the adverse systemic effects of their actions, revisiting the perimeter of regulation to limit dynamic regulatory arbitrage, and remolding prudential supervision to enhance systemic monitoring, should have a distinct regional flavor
in view of the more limited financial development or generally weaker institutions.

Other issues are more clearly Latin America–specific. For instance, should the region revisit certain dimensions of its insertion into global financial markets? In particular, should it continue with the trend of increasing its net creditor position in debt contracts vis-à-vis the rest of the world while at the same time continuing to raise its net debtor position in equity contracts? And should it rethink the role of foreign banks in local markets and perhaps ring-fence them from the pressures faced by their parent banks abroad? More broadly, should Latin America’s regulatory framework deviate from the one currently taking shape in the industrial world?

As regards the role of the state in financial development, should Latin America revisit the mission of public banks to emphasize their catalytic and countercyclical leveraging capacity? (This latter capacity was de facto amply used during the recent crisis.) And should the region use regulatory or tax policy, or both, more actively to internalize externalities? (Unlike the debate in industrial countries, which is mainly centered on stability issues, the discussion in Latin America should also address developmental aims.) Many of these issues are quite contentious and likely to remain at the center of the regional agenda for years to come.

**The Precrisis Conventional Wisdom in Latin America**

The recurrent currency and banking crises that hit the Latin American region during the 1980s and 1990s confirmed that poor macroeconomic fundamentals are particularly dangerous in open financial systems. Ex ante, the uncertainty resulting from macroeconomic volatility—particularly high and unpredictable inflation—was deleterious to financial development, most of all at the longer maturities. It corroded the role of money as a store of value, leading to a gradual buildup of currency and duration mismatches, often associated with a displacement of domestic intermediation by cross-border intermediation. It also induced a drastic shortening of funding that exposed financial systems across the region to recurrent rollover and liquidity risks.

Ex post, inflexible exchange rate regimes—adopted in part to bring down inflation expectations in the midst of rising international financial
integration—became extremely vulnerable to self-fulfilling attacks. This compounded the proneness to currency crashes associated with unsustainable fiscal positions. In turn, widespread currency, duration, and maturity mismatches boosted the fragility of financial systems and their susceptibility to currency upheavals, interest rate volatility, and runs on banks. In addition to thwarting and setting back financial development by years at a time, the repeated financial crises led to multiple ownership changes. By facilitating the entry of often unfit, improper, or poorly capitalized bankers, some re-privatizations of banking systems in turn compounded the brittleness of financial development.

The policy response to such problems—which became increasingly better defined as the 1990s unfolded—rested on two pillars: Get the macro right, and let those markets go free! The first pillar reflected the dominant perception that unlocking the process of financial development had necessarily to start with macro stability at home. The latter was recognized as an essential precondition for financial stability, which in turn was the key to financial development. Therefore, over the past 20 years or so, ensuring stable and low inflation—increasingly through the introduction of inflation targets and a flexible exchange rate regime—became the first order of business toward unleashing the forces of financial development. Fiscal reform and the development of local currency public bond markets were viewed as the natural complements to a successful monetary reform.

A cautious, hands-on prudential oversight, buttressed by sufficient capital and liquidity buffers, was also viewed as an indispensible complement to ensure that financial institutions withstood systemic turbulence. The program to make this a reality included efforts to adopt the international prudential standards emanating mainly from the Basel Committee on Banking Supervision. These efforts began in the early 1990s, but were visibly deepened after the Asian and Russian crisis in the latter part of that decade. They went in tandem with a global push for convergence toward a large battery of international standards and codes and with a shift of emphasis toward risk-sensitive capital requirements and risk-based supervision. They increasingly aimed at monitoring the activities of financial conglomerates on a consolidated basis.

Paradoxically, this Basel-inspired program, although aimed at systemic stability, was focused on the measurement and management of the
idiosyncratic risks faced by the individual institution (or conglomerate), thereby largely ignoring the oversight of systemic risk. However, this was partially compensated in the region by efforts to address liquidity risks, mainly via substantial liquidity and reserve requirements, particularly on dollar liabilities. At the same time, the entry of reputable foreign bankers with deep pockets was viewed as an obvious response to the twin problems of inexperienced bankers and recurrent deposit outflows.

The emphasis on macroeconomic and financial stability and the consequent priority given to the modernization of the prudential oversight framework were accompanied by a similarly drastic shift of the microeconomic paradigm (that is, resource allocation). The shift favored a frankly market-based approach to financial development—the second pillar of the precrisis consensus. The conventional wisdom thus drifted away from the predominance that had been previously given to state-owned financial institutions and state dirigisme in the mobilization and allocation of finance and toward the promotion of market forces and private intermediation.

This market orientation helps explain why Latin America’s quest for systemic financial stability through macroeconomic stability was nonetheless accompanied by a Basel-inspired prudential agenda that ignored systemic risk. The implicit premise was that, given Basel norms and sufficient information disclosure, disciplined markets would spawn and self-regulate, with the consequence that risks would be appropriately priced and managed. Sound financial institutions would add up to a sound system that would, in turn, buttress the financial stability achieved through macro policy rectitude.

The “let competitive markets breathe” motto of the microeconomic paradigm implied a reform agenda geared at fostering and strengthening the multiple facets (institutional, informational, contractual) of the enabling environment. As noted, this was naturally accompanied by efforts to sharply reduce or eliminate the direct intervention of the state in financial activities, including the state’s tendency to quickly bail out troubled institutions. Rapid financial market liberalization and a more cautious yet widespread adherence to the dynamics of financial globalization were viewed as necessary complements toward an efficient and sound path of financial development. And to maintain the course, prudential regulation was supposed to be increasingly focused on fostering
of market discipline by ensuring adequate buffers of risk-sensitive capital (“skin in the game”) and the continuous upgrading of information and transparency standards.

This precrisis consensus on the stability-oriented and market-friendly tenets of financial development policy was legitimized by the visible successes achieved in stabilizing and reducing the vulnerability of financial systems across the region. The newly gained resiliency paid off handsomely during the 2008–09 global crisis, as Latin America avoided financial crises at home while the rich economies saw the crippling of their financial systems. However, the depth and reach of financial intermediation in the region in the years prior to the crisis remained limited, partly explaining its greater resilience during the crisis. Moreover, much of the growth was concentrated in consumer lending. Hence, especially as the new millennium dawned, the need to expand financial inclusion and broaden the access to financial services became a central source of concern. The latter was increasingly added to the financial development agenda as an objective, albeit with limited clarity and consensus on the policy reform agenda.

Causes and Lessons from the Global Financial Crisis

The 2008–09 global financial crisis seems to have turned the links among macroeconomic stability, financial stability, and financial development on their heads. Rather than macro stability feeding both financial stability and financial development, macro stability actually fed an unsustainable process of financial development in rich-country financial systems, particularly the United States, which culminated in catastrophic financial instability. At the same time, macro stability interacted with a regulatory architecture predicated on a strong belief in the self-disciplining role of markets, to unleash a series of new market failures that fueled ultimately perverse dynamics.

Such new market failures included novel varieties within the traditional paradigm of asymmetric information, around which most of the precrisis prudential policy was established. For example, as the “skin in the game” thinned for the various agents acting at the nodes of the originate-and-distribute model (mortgage originations, lenders, packagers, rating agencies, investment banks, providers of credit default protection, and
so forth), incentives to take advantage of the less informed swelled, fueling excessive risk taking with someone else’s money. At the same time, the multiplication of agents and complex instruments aggravated the problems of asymmetric information by producing an increase in systemic opacity (Ashcraft and Schuermann 2008; Gorton 2008).

The emergence of these “second-generation” asymmetric information problems runs contrary to the naive view that the reduction in transaction (including informational) costs should gradually dilute the agency problems associated with asymmetric information. While it seemed natural to expect that better and cheaper information would give the agent a better handle on the principal, better information and lower transaction costs also attracted new agents and promoted new instruments. Thus, the new nodes of agency frictions (along the originate-and-distribute chain, for example) arose at a faster pace than the ability of principals to catch up.

However, new market failures also proliferated, and perhaps more treacherously, well beyond the confines of the information asymmetry paradigm, deeply involving the newer and less familiar territory of the collective cognition and collective action paradigms, as discussed below.7

The apparent success of monetary policy in stabilizing inflation and smoothing out the business cycle fueled a mood of excessive optimism and exuberance, reflecting collective cognition failures associated with uncertainty and bounded rationality. As the observed macrofinancial volatility declined, making pricing more predictable and deepening market liquidity, financial innovation was quickened, risk appetite boosted, and highly procyclical leveraging stimulated. The low-volatility environment had the immediate mechanical effect of reducing values at risk, and the more it persisted, the more it fed collective cognition failures and mood swings. The prevailing feeling was that “this time around, things are different and the good times are here to stay.” Of course, when unexpected icebergs popped up on the horizon (say, an initial but nationwide downturn in housing prices in the United States), moods swung sharply to panic.

These cognition failures fed on the process of financial innovation. It privately paid to develop new instruments; it did not pay to fully understand their potentially adverse systemic implications. More broadly, it generally paid to understand how risks and returns compared across a
range of possible investments at any point in time, but it did not pay to investigate and understand how the system as a whole was wired and what the systemic tail risks laying ahead (perhaps years away) might be. Private costs clearly exceeded private returns. Furthermore, such collective cognition failures were concealed under an impressive apparatus of complex risk measurement systems and value-at-risk analysis, which created the impression that risk pricing and management was under scientific control.

The adverse side effects of macro stability on financial development (the unsustainable systemic risk buildup) were also driven by collective action failures linked to a fundamental asymmetry in the underlying process of market completion. While market forces incessantly pushed for completing markets through new instruments and forms of intermediation, they did not provide the tools or markets that would be needed to fully insure against systemic risks. What individuals did in the pursuit of their private risk and return calculus directly conflicted with the welfare of the group, raising a growing asymmetry between private market completion and social market completion. This situation was likely exacerbated by what Caballero and Krishnamurthy (2009) call the “other imbalance,” namely, an “insatiable demand for safe debt instruments,” which advanced financial systems tried to satisfy but at the expense of generating systemic risk in the process.

Specifically, financial frictions and the lack of systemic insurance led to amplification effects that were not properly internalized by individual agents. This led them to undervalue the social benefits of liquidity in crisis states and to take on socially excessive levels of systemic risk, chiefly by leveraging up steeply and with undue reliance on wholesale short-term funding (Brunnermeier 2008; Brunnermeier and Pedersen 2008; Korinek 2010). The shift from relationship lending (based on private information) to arms-length lending (based on public information) accentuated these effects by limiting the net private benefits of monitoring (market discipline). Instead, it encouraged wholesale investors to keep a tight leash on their borrowers by free riding on publicly available information and maximizing the option to lend-short-and-run (the dark side of wholesale finance) (Huang and Ratnovski 2008). In the process, they failed to internalize the systemic cost of eventual and sudden deleveraging. These problems were compounded by the inability of
financial intermediaries to coordinate in the face of neck-to-neck competition driven by short-term returns (the famous quote by Charles Prince from Citigroup that you need to keep dancing until the music stops). More generally, the gap between private and social market completion manifested itself through the asymmetry between the positive private externalities of market depth and institutional interconnectedness in the good times (the bright side) and the negative social externalities when everybody was running for his or her life (the dark side).

An equally important consequence of uninternalized externalities was their implication for regulatory arbitrage. The intent of the Glass-Steagall Act—to shift risk away from regulated intermediaries to capital markets and unregulated intermediaries—was in this sense fundamentally misguided. While it could presumably have solved the agency problem (by shifting risks to the land of the well informed), it exacerbated the externalities problem. Well-informed investors had no incentives to internalize systemic liquidity risk and other externalities. The side-by-side existence of a regulated sector—where systemic concerns were partially factored in—and an unregulated sector—where externalities were not at all internalized—created a wedge in returns between the two worlds, giving rise to a fundamentally unstable construct where shadow banking grew rapidly out of proportion (Adrian and Shin 2007).

On the micro, resource allocation side, the lessons of the crisis were equally stark and similarly conflicted with the precrisis conventional wisdom. First and most remarkably, of course, market efficiency was severely put to the test. During the upswing, markets were prone to deviate from fundamentals and feed the bubbles; during the downswing, markets became panic stricken and failed to properly allocate resources. At the same time, the crisis tore to shreds the perception that a comprehensive statistical price history (presumed to be normally distributed) is all you needed for good risk management. Instead, it brought to the surface the specter of a world populated by high-likelihood (fat tails) and truly unexpected (black swans) catastrophic events (Taleb 2007). The crisis also brought to an end the widely shared perception that the resiliency of a financial system depended on the resiliency of each of its components. Instead, the crisis clearly demonstrated that the sum of individual protection of financial institutions was not equivalent to the protection of the system as a whole. The preconception that not everything could go wrong
at once and that diversification (splicing, dicing, and spreading risk across market participants) always helped, failed. Indeed, the crisis showed that everything could go bad at the same time and interconnectedness could be lethal.

Finally, the crisis turned the spotlight on the inherent difficulties of regulatory reform in a multiparadigm world where the policy prescriptions to fix the main failures of regulation often conflict across paradigms. For example, a prudential norm seeking to limit rollover risk, while desirable from a collective action perspective, is undesirable from an information asymmetry perspective where short-term funding plays an important market-disciplining function. In the past, such tensions originated wide swings in regulation that, by seeking to address the central problem under one paradigm, made the problems under the others worse. The path ahead will ultimately require difficult judgment calls as to whether the benefits of a regulation on account of one paradigm will exceed the potential costs on account of another.

**Implications for Latin America**

Why have the region’s financial systems weathered the crisis so successfully? Much has been said, and rightly so, about the dividends of a decade of sensible, cautious macro policies, anchored on flexible exchange rates, high international liquidity, low public debts, and more assertive and countercyclical monetary policies. The wisdom of stable macroeconomic policies was confirmed since they clearly helped cushion the blow (Porzecanski 2009; IMF 2010; World Bank 2010).

While macroeconomic turbulence might be lower in absolute terms for LAC going forward, the 2008–09 global crisis suggests that the future sources of turbulence are more likely to be imported than domestic, partly reflecting the continuously rising exposure to financial globalization. It is the growing interconnectedness of financial institutions—either within or across borders—that exacerbates systemic risk, given the mentioned market failures. But for the region, the cross-border interconnectedness and substitutability of domestic and cross-border intermediation will likely be of greater relative relevance, at least transitorily as its domestic systems deepen and broaden. These cross-border exposures are also ripe with the type of externalities (both positive and negative) and other
collective action and collective cognition failures (including shifting capital flows driven by external mood swings) that characterized the subprime malaise.

A second key realization is that the small size and simplicity (including the dearth of complex derivatives and structured products) of Latin American financial systems will not in the future remain a continuous source of sturdiness, as was arguably the case during the 2008–09 crisis. Hence, the risks associated with financial innovations turned sour (reflecting collective cognition failures) are likely to become increasingly relevant for the region going forward. Indeed, the difficulties experienced at the outset of the global crisis by some of Mexico’s and Brazil’s largest nonfinancial corporations in the foreign exchange derivatives markets or by Mexican non-deposit-taking finance companies (Sofoles) in the commercial paper and bond markets can be viewed as good first examples of endogenous financial shocks (Jara, Moreno, and Tovar 2009). Such shocks are likely to become increasingly relevant as financial markets, encouraged by the more stable macro environment, deepen and become more complete. As was the case for the United States, the rising gap between private market completion and social market completion is likely to open up cracks through which the crises of tomorrow may materialize.

To meet these new challenges—in Latin America as in industrialized countries—a monetary policy aimed at stable and low inflation will need to be complemented by macroprudential instruments directly targeting financial stability. But in the region, the case for macroprudential tools is even stronger than in rich countries. This is because Latin America’s monetary policy is relatively more constrained and burdened as a result of the region’s exposure to capital flows and the potentially adverse implications for growth of excess exchange rate volatility. Macroprudential instruments can in these circumstances even contribute to mitigating inflationary pressures and dampening the business cycle without appreciating the exchange rate, thereby partly unburdening monetary policy. Indeed, this sort of situation explains the active use in recent years of reserve requirements as a countercyclical (macroprudential) tool in several countries of the region, including Brazil, Colombia, and Peru.

At the same time, however, a more aggressive use of macroprudential tools, while allowing in principle for a more independent monetary policy
stance, will unavoidably raise incentives for cross-border regulatory arbitrage, potentially exacerbating systemic risk. By boosting currency risk and limiting the substitutability of domestic and cross-border intermediation, floating currencies should help attenuate such problems. Thus, while the building up of a macroprudential capability in LAC should help contain excess exchange rate volatility, it is important for its success that exchange rates retain a significant degree of flexibility.

On the microprudential side, the challenges brought about by external shocks or local financial innovations will also require an ambitious policy response. The region’s conservative prudential response to its long history of truly systemic perturbations (that is, periods of acute stress affecting the whole financial system) puts it naturally ahead of the curve and should provide a good base on which to build. Indeed, the resilience of local financial systems to the crisis can also be partly attributed to the fatter systemic cushions (particularly as regards liquidity), a more hands-on supervisory style, and tighter leashes on financial innovations imposed by many Latin American supervisory authorities. Moreover, and somewhat ironically, the region’s more limited reliance on market valuations and statistics, reflecting the thinness of many of its markets, may in hindsight be seen as a relative strength. Latin American supervisors often had to rely more on their judgment than on allegedly unquestionable “market truths.” Nonetheless, much remains to be done.

For starters, in LAC as in the rest of the world, the powers and systemic responsibilities of the supervisor will need to be expanded and strengthened. In view of the region’s traditionally weak and often conflicted institutions, finding the institutional setup most conducive to a proper mix of rules versus discretion will likely be one of the trickiest challenges.

As regards regulation, it should be clear that an uneven regulatory treatment of functionally equivalent financial services provided by different entities will unleash the forces of dynamic regulatory arbitrage. This may breed systemic risk, like the migration of activities to the less-regulated field of shadow banking did in the United States. While specificities and speeds of adjustment may differ, reflecting different stages of financial development, this issue is as present in Latin America as it is in the industrialized countries.
For curbing of dynamic regulatory arbitrage while strengthening systemic oversight, a repositioning of the perimeter of prudential regulation will thus be required. On the one hand, the silo-based regulation (that is, regulation by institution and according to the type of license) that currently prevails in most of the region will need to gradually give way to a unified regulation that focuses on functions (rather than on license) with full consolidation of financial groups. On the other hand, the border between financial and nonfinancial corporations (such as department stores) will need to be better defined and made more watertight. In addition, a line will need to be traced to separate from the rest the very small financial institutions (microlending institutions, credit coops, and the like) that can thrive in the region’s more limited financial environment.

In turn, the issue of regulatory arbitrage connects with a deeper theme of crucial relevance across the region: to what extent should Latin America’s regulation deviate from that taking shape in the center? Should not regional peculiarities (different risks that reflect different stages of financial development and different macrofinancial environments) lead to a tailor-made set of regulations? A different regulation would not arguably be needed if risks were measured uniformly across the world and the way they interact is sufficiently linear, so that the same Basel II–type approach can be uniformly applied across the board. If so, the end result (say, the capital adequacy ratios) could differ across regions, yet the regulation would remain one and the same. It would bite equally at the margin. However, neither of these assumptions may hold, raising the issue of whether and to what extent a different regulation could be adopted regionally without unleashing the demons of cross-border regulatory arbitrage. As in the case of macroprudential instruments, the argument can be made that more independent and credible currencies should help provide a degree of regulatory independence.

Financial globalization raises a number of additional issues. First, should Latin America continue with the trend of increasing its net creditor position in debt contracts vis-à-vis the rest of the world while at the same time continuing to raise its net debtor position in equity contracts? (This would require the further, energetic development of long-term local-currency debt markets and accumulation of international reserves, coupled with aggressive strategies to attract foreign direct investment.) Second, should LAC more explicitly add Chilean-style capital controls to
its standard policy toolkit? (The systemic stability benefits would need to outweigh the efficiency costs and questionable effectiveness of such controls.) Third, should the role of foreign banking in the region be rethought and purposeful measures taken to ring-fence these banks from the pressures coming from their headquarters at times of trouble? While this may be good from a short-term stability perspective, it could affect the willingness of foreign banks to invest in the region.) The tradeoffs involved in the mentioned amendments to the texture of international financial integration imply a difficult balancing act that calls for careful assessment and even more careful implementation.

Finally, reopening the debate on the role of the state in financial development is likely to be unavoidable. The key issue here will be the determination of the conditions under which the state may adopt more active catalytic and risk-absorption roles that clearly go beyond its unquestionable responsibility in improving the enabling environment. In this connection, the mission and importance of development banks in the postcrisis world of market failures are also likely to become two of the most lively and potentially contentious issues in the region. The advocates of development banking clearly see, now more than before, the need to preserve a sizable countercyclical capacity as a primary reason for maintaining a large public presence even in normal times. As the rationale goes, how else can one mount large and effective lending programs in troubled times? In particular, how can one limit the basic problems of asymmetric information that are likely to plague public lending in times of stress if public banks do not already know markets and customers by lending to them in normal times?

Yet, in view of the declining importance of relationship lending and the rising importance of broader risk management issues, the question arises as to whether it is not more important for development banks to know how private banks manage their risk (that is, to know their risk management systems) than to build proprietary information on particular customers in direct competition with private banks. Arguably, development banks that do not directly compete with private institutions in normal times may in the end be better able to have access to private banks’ information. This could help development banks overcome problems of asymmetric information in troubled times and without which they could not sensibly control their risk exposure when lending countercyclically.
In effect, private institutions would feel less threatened by—hence, more willing to cooperate with—development banks whose exclusive vocation is to expand the frontier of finance by creating public goods, mobilizing synergies, and spilling over positive externalities.

A final related issue is the use of tax and subsidy policy. Taxes and subsidies should in principle have an increasing role to play in fostering stability and development in financial systems where the importance of externalities rises. Indeed, this will be the case to the extent that financial development breeds network and scale effects and greater needs for coordination. Thus, for example, should capital gains taxes be used as an instrument to help develop capital markets? And shouldn’t Pigovian taxes be put in place to induce financial intermediaries to better internalize the adverse systemic implications of their individual actions?

Yet LAC’s history and record of state interventions aimed at fostering development through taxes and subsidies is worrisome. The downside risks of using taxes and subsidies are all too clear for Latin Americans, making this topic highly contentious. As in the case of development banks, it also raises particularly thorny issues of measurement. How can tax incentives be designed that do not cause more harm than good, and how can their social impact be measured over time in a way that allows for a proper calibration? While these are hardly new issues, the 2008–09 global financial crisis has thrown a new light on them, stressing the need for a second and deeper look.

Notes

1. Credit to the private sector in Latin American countries has hovered around 30 percent of gross domestic product (GDP) during the past 25 years, in sharp contrast with rising trends in East Asian and G-7 countries (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States), where bank credit to the private sector has reached 76 percent and 126 percent of GDP, respectively.

2. A Pigovian tax (named after economist Arthur Pigou) is a tax levied on a market activity that generates negative externalities. The objective of the tax is to correct the socially inefficient market outcome.

3. A detailed discussion of the evolution of financial development policy in LAC, along with relevant references to the copious literature on the subject, can be found in de la Torre, Gozzi, and Schmukler (2006).

4. The thrust of this microeconomic paradigm is at the core of World Bank (2001).
5. See de la Torre and Schmukler (2007, chapter 4) for a characterization of the financial liberalization sequencing debate, along with the relevant references.

6. The microfinance revolution provided considerable momentum to the access (“inclusive finance”) agenda. A comprehensive review of the state of the art in measuring analytical and policy issues in access to financial services can be found in World Bank (2007).

7. In the asymmetric information paradigm, the better informed intentionally take advantage of the less informed or farther removed. In particular, they expect to capture the upside while leaving the downside to others (moral hazard). In the collective action paradigm, individuals are free agents who have no ill intent but focus only on their private costs and benefits. Failure to internalize externalities or to coordinate individual behaviors leads to outcomes that are suboptimal for society as a whole. In the collective cognition paradigm, a constantly evolving, uncertain world of rapid financial innovation leads to inefficient equilibria and mood swings driven by rational but poorly informed decision making, bounded rationality, or emotional decision making. This paradigm is naturally associated with bouts of risk euphoria followed by episodes of sudden alarm and deep risk retrenchment. For interpretations of the 2008–09 crisis according to each of these paradigms, and a detailed discussion of their prudential implications, see de la Torre and Ize (2010).

8. The fact that foreign banks in Latin America financed their domestic operations mainly with domestic local currency deposits, rather than imported dollar funds (as in most Eastern European countries), provided a good measure of stability (Raddatz 2009; Kanales-Kriljenco, Coulibaly, and Kamil 2010). Nonetheless, some large foreign-owned banks were pressured by their parent companies to limit their risk and transfer some of their liquidity abroad (Ortiz 2009).

**Bibliography**


