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Ideas for

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in the Americas

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# Bond Markets: A Spare Tire for the Domestic Financial System?



Inter-American Development Bank  
Research Department

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**S**trengthening financial markets has long been a priority of the reform agenda in Latin America and the Caribbean. However, developing local bond markets has often been an afterthought. After all, there seemed to be acceptable alternatives. Since the early 1990s, Latin American countries have counted on international bond markets for access to foreign funds. And for domestic financing, private sectors have relied on bank intermediation. But what if the door to international markets slams shut or local banks simply can't meet the demand. Domestic bond markets can be an important spare tire to keep the economy running.

There are additional drawbacks to the traditional strategies. Investors in international markets prefer bonds denominated in the major international currencies, such as U.S. dollars (this is what Barry Eichengreen and Ricardo Hausmann call the original sin problem), rendering borrowers vulnerable to currency mismatches and to disruptions if exchange rates change. Excessive dependence on bank intermediation, for its part, leaves economies open to systemic banking crises. Clearly, Latin American countries would benefit from better diversified financial systems and, specifically, deep and liquid bond markets.

Yet building bond markets is easier said than done. The development of a well-function-

**Local bond markets in Latin America have grown in size and liquidity but continue to lag behind emerging economies in Asia in a number of dimensions.**

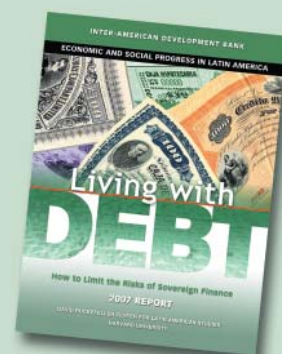
ing bond market presupposes extensive infrastructure, including well-developed accounting, legal and regulatory systems, payments and settlements systems, rating agencies, and networks of brokers to sell bonds. It requires rigorous disclosure standards and effective governance of corporations issuing publicly-

traded debt securities. It presumes the existence of well-established companies whose operations and credit standing are well known and that are large enough to defray the non-negligible fixed costs of placing a bond issue. These are not preconditions that develop overnight. Rather, they are by-products of the larger process of economic and financial development, which is why even in advanced countries bond markets historically have

been late to develop. As long as some of these developmental preconditions remain absent, borrowers may prefer to tap the more extensive and efficient bond-market infrastructure that exists in the major financial centers. Or they may find it easier to borrow from banks, which rely on long-term relationships with their clients to obtain information and enforce repayment, thereby enabling them to circumvent imperfections in the information and contracting environments.

Predictably, bond market development in Latin America presents something of a mixed

## COMING SOON!



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## Bond Markets: A Spare Tire...?

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picture. On the one hand, there has been extensive reform and, as a result, growth in the size and liquidity of local bond markets. Governments have improved market infrastructure, including regulation. They have privatized utilities and other public enterprises, expanding the pool of large enterprises that potentially satisfy the preconditions for accessing bond markets. They have reformed pension systems, creating a natural constituency of investors in long-term, local currency bonds. They have enhanced macroeconomic and financial stability, limiting the aggregate volatility that has traditionally deterred investment in long-term, local currency debt securities. The result has been rapid growth of local bond market capitalization since the mid-1990s and especially in the last five years. In turn, institutional and individual investors from outside the region have shown a growing interest and participation in

the local markets of Latin American and Caribbean countries.

Still, the picture is not entirely rosy. Latin American bond markets continue to lag in a number of dimensions, not just when compared with industrial countries but even when assessed relative to the emerging economies of Asia, which are similarly seeking to develop local bond markets. The duration of issues on Latin American markets remains relatively short. The region has made some progress here, but in terms of, say, the share of bonds with a residual maturity of less than one year it still compares unfavorably with Emerging East Asia, much less with the advanced economies. (See Figure 1.) The majority of issues on Latin American markets have floating rates, and investors demand that interest rates be indexed to inflation or the exchange rate, in contrast to Emerging Asia where fixed rates are the norm and indexation is virtually

nonexistent. About 80% of all bonds issued in East Asia between 2000 and 2005 (weighted by value) had a maturity of more than a year and no indexation, whereas the comparable figure for Latin America was less than 10%. With the exception of a few benchmark issues, turnover rates remain relatively low, leaving markets relatively illiquid. And regional markets are still disproportionately dominated by government bonds. Public sector bonds comprise 30% of regional GDP, compared to a more modest 23.3% in Emerging Asia, reflecting the more extensive government borrowing that has traditionally been characteristic of Latin America. In contrast, the corporate side of domestic markets remains particularly underdeveloped: in Latin America domestic corporate bonds amount to only 2.7% of regional GDP, compared to 8.9% in East Asia.

The question is whether these contrasts are likely to be short-lived or enduring. If the problem in Latin America is that years of budget deficits have led to excessive government bond issuance that has crowded out private bond issuance, then many years of primary fiscal surpluses may have to pass before the “overhang” of government bonds is worked down. If the problem is that Latin America’s history of macroeconomic and financial instability limits investors’ demands for debt securities with interest rates indexed to inflation or the exchange rate, then it may be many years before stronger policies reduce volatility enough to produce a demand for longer-term issues. If perceptions of imperfect corporate governance and unreliable contract enforcement currently make investors reluctant to hold corporate bonds at any price, then it may take time for the relevant reforms to create significant demand. If in smaller Latin American and Caribbean

This issue of IDEA was coordinated by Ugo Panizza and draws on papers prepared by Eduardo Borensztein, Kevin Cowan, Barry Eichengreen and Ugo Panizza. Much of the newsletter is based on research performed for the 2006 Economic and Social Progress Report titled **Living with Debt** and the Latin American Research Network project on the Development of Bond Markets in Latin America.

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# A Boom for Bonds?

**B**ond markets in general and corporate bond markets in particular have been relatively late to develop around the world, and Latin America is no exception. Prior to the 1980s, corporate bond markets were essentially nonexistent outside the United States. During the 1980s, U.S. and Japanese bond markets blossomed as restrictive regulatory frameworks gave way to widespread liberalization. The Big Bang reforms of the 1990s propelled growth even further and European corporate bond markets joined the race following the advent of the European Market and the euro. In Latin America, there were no local corporate bond markets to speak of prior to 1990. At that point, macroeconomic stabilization and stronger securities market and corporate governance regulations ignited the takeoff of local markets. Nevertheless, viewed comparatively, Latin American corporate

bond markets have not only been late bloomers but decidedly less dynamic than even their emerging market counterparts.

A cursory look at the development of Latin American bond markets illustrates that crises, either domestic or international, are often the event that kick-starts the domestic bond market. Mexico and Uruguay started issuing domestic government bonds after the debt crisis in 1982 cut off access to the international capital market. In the case of Argentina, the government bond market made its debut in 1990-91 when the government issued several bonds to consolidate central bank debt with commercial banks and to consolidate existing liabilities with pensioners, suppliers and victims of the military regime. But domestic bonds became less important as soon as the Argentine government gained access to the international capital

market after successfully restructuring its defaulted international bank loans. The most striking case is Chile, where the large amount of outstanding government bonds (mostly issued by the Central Bank) are the inheritance of the banking crisis that hit the country in the early 1980s. Interestingly, considering the most recent crisis, Chile's experience seems to be the exact opposite of most other countries in the region. In fact, after the Russian crisis that plunged the country into a deep recession, the size of the Chilean domestic government bond market started shrinking very rapidly.

Overall, since the mid-1990s, growth in local bond markets in a number of Latin American countries has been very rapid. The origin of this surge was the Tequila crisis that hit the region in 1995. The financial turmoil that followed the Mexican devaluation

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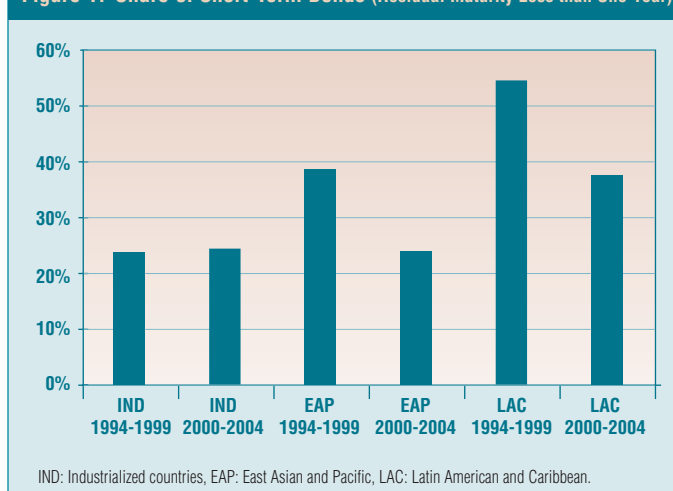
## Bond Markets: A Spare Tire...?

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countries the local market's lack of scale is the obstacle to spreading the fixed cost of an issue and enhancing secondary-market liquidity, then there may be a question as to whether this obstacle can ever be overcome. Or maybe these qualms are overstated; maybe the relevant reforms will succeed in producing deeper and more liquid bond markets in short order.

This edition of IDEA looks at these and other

**Figure 1. Share of Short-Term Bonds (Residual Maturity Less than One Year)**



issues as it examines domestic bond markets in Latin America. It draws heavily on background papers for the 2006 issue of the annual Economic and Social Progress Report titled **Living with Debt** and on the results of the Latin American Research Network project on The Development of Bond Markets in Latin America as it asks how long it will take Latin America to develop deep and liquid bond markets.

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deprived several countries of access to the international capital market and forced them to rely on the domestic market. Under regular circumstances, countries would have probably quickly reverted to international borrowing. But the series of financial crises (East Asia in 1997, Russia in 1998, Brazil in 1999 and Argentina in 2001) that followed the Mexican debacle led to a discontinuous access to the international capital market and convinced policymakers of the importance of developing a reliable domestic source of financing.

Figure 2 shows the growth of the bond market, where market capitalization is scaled by GDP, in the decade ending in 2004. In Chile, where the process began somewhat earlier, domestic market capitalization grew right in line with the economy, while in Peru, Colombia, Mexico and above all Brazil, where there was more scope for catch-up, the bond market grew even faster than the output of goods and services. However, this exceptional growth has been due mainly to the surge in the stock of government bonds, reflecting prevalent budget def-

icits until recent years and government use of bond finance. Again, the one exception is Chile, where the market in public bonds has grown more slowly than GDP while that in corporate bonds has expanded more quickly.

Despite this exceptional growth, when bond markets are measured relative to GDP, on balance Latin America continues to lag behind not just the advanced countries but also Emerging East Asia. While Latin America has a larger stock of government bonds as of 2004—a reflection of the region's budget deficits—the segments of the bond market accounted for by the issues of financial institutions and corporations is noticeably smaller than in East Asia (Figure 3). Interestingly, this differential in the growth of local markets is less pronounced when capitalization is scaled by the size of the financial sector. Put differently, Latin American bond markets are small relative to GDP but not relative to the financial sector because Latin American financial sectors and not merely the bond market are underdeveloped.

That these markets seem to grow in tandem suggests that bond mar-

ket development is a corollary of the larger process of financial development. This is hardly surprising since the development of banking systems and the development of bond markets have a number of prerequisites in common. In both cases, public confidence requires a reasonable level of information disclosure. In turn, mandating such disclosure and solving “lemons problems” may demand regulation by a supervisory agency or securities commission. The development of both a bond market and a sound banking system require strong creditor rights and an effective system of corporate governance, so that small creditors can be assured of being dealt with fairly. In both cases, confidence among depositors and investors may be contingent upon macroeconomic stability so that depositors and investors do not fear that the value of their claims will be inflated away, and strong creditor rights so they are confident they will get a square deal in the event of a debt crisis or a banking crisis.

The fact that bond markets grow hand in hand with the rest of the finan-

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Figure 2. Growth of the Bond Market, 1994–2004

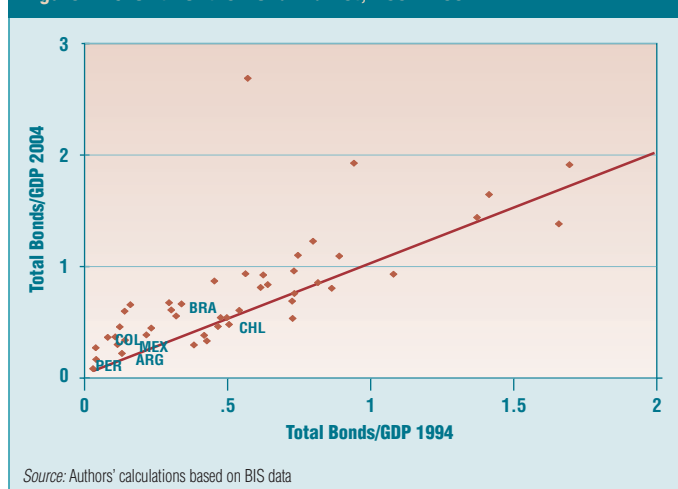
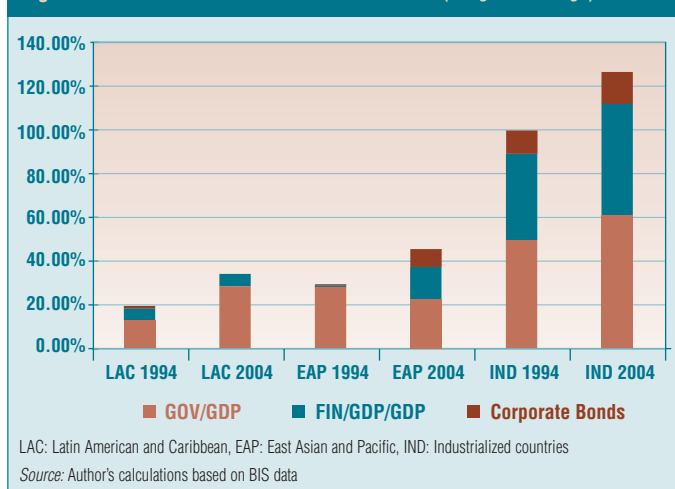


Figure 3. Domestic Bonds as a Share of GDP (Weighted Average)





# Bonds Versus Banks

**D**o bond markets crowd out banks, as many analysts charge? The answer, according to the research, is no. Actually, bond market development and bank lending seem to reinforce one another (Jiang, Tang and Law, 2001). Moreover, bond markets act as a spare tire (albeit a semi-inflated one) providing a limited offset to reductions in bank lending (Hawkins, 2002). In several countries, banks are major holders of both corporate and government bonds and act as managers for retail investors. Furthermore, banks play a key role in the development of the bond market by securitizing their loans and by acting as underwriters (i.e., guaranteeing that a given issuance of corporate bonds will be fully subscribed) and credit enhancers (i.e., guaranteeing part of the payment of corporate bonds).

From a theoretical point of view, there are interesting interactions among the corporate and government bond markets and bank lending. Bolton and Freixas (2006) study the determinants of the composition of sovereign bonds, corporate bonds, and bank financing of an emerging market economy with a shortage of capital, weak debt enforcement institutions, and potential government overborrowing which may expose the country to sovereign default. In their model, bank financing is more flexible because banks have better information and can show forbearance towards a firm that has liquidity, or even solvency, problems. For the same reason bank monitoring is more costly to the firm and imposes more conditions. Bonds, instead, do not have the same flexibility but have a lower cost. The implication is that firms that are less likely to fail will prefer bonds.

When the government enters this picture, the presence of such a big player lowers the cost of issuing bonds (because of economies of scale) but also increases the probability of a banking crisis if it defaults. In a banking crisis, a run on deposits leads to bank failures and also triggers bankruptcies in firms with bank debt, thus increasing the risk of bank debt. In this sense, the bond market acts as a “spare tire” because it helps isolate firms from sovereign default risk and the associated banking crisis. Hence, introducing the government leads to an additional benefit of having a bond market. Besides the standard effect of providing lower cost financing to the safest firms, the presence of a bond market saves these firms from the cost of a banking crisis. Therefore, the benefits of creating

such a market are higher in emerging markets than in advanced economies that are less likely to face a banking crisis. The flip side of this coin is that when a larger fraction of firms start using bond finance, the government realizes that the cost of a banking crisis is now lower and it takes more risk (by overborrowing), thereby increasing the probability of default.

An alternative is securitization. With this form of financing, firms preserve the flexibility of bank financing but are immune from banking crises. However, transaction costs increase because firms need to pay both bank fees and bond issuance costs. A result of this set up is that firms that are least likely to fail issue bonds, intermediate firms go for securitized bank loans, and the weakest firms use bank loans.

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cial system, which means in practice with the banking system, suggests that banks and bond markets are complements rather than substitutes. Banks provide underwriting services for prospective domestic issuers, advising the issuer on the terms and timing of the offer. They provide bridge financing during the period when the marketing of bonds is still underway. They offer distribution channels for government bonds and form an important part of the primary dealer network. Their institutional support may also be conducive to secondary-market liquidity. Finally, and most directly, banks, owing to their relatively large size, can be major issuers of domestic bonds themselves. While some of these services can be

purchased from foreign banks, the costs of doing so can be substantial. And for some functions, such as the provision of a distribution network to retain local investors, foreign banks may lack the relevant institutional capacity. All this suggests that bond market development should not be seen as an alternative to the development of an efficient banking system but rather as part of a single organic process.

All told, Latin American bond markets have followed the global trend and expanded at a healthy clip. However, the operative word here is “followed” as the region’s underdeveloped financial system may have acted as a brake on a potentially booming bond market.

# Strategies for Developing the Bond Market: East Asia versus Latin America

**P**olicy initiatives for developing bond markets can essentially be divided into five different areas: (i) efforts to strengthen financial and legal systems; (ii) investments in building dedicated market infrastructure; (iii) steps to encourage the participation of institutional investors; (iv) measures to encourage the participation of foreign investors; and (v) extra-national initiatives. How do Latin America and East Asia compare in these policies?

**Strengthening legal and financial systems.** East Asia is in the lead in this area. While the measures of legal infrastructure vary widely, Latin America tends to fare poorly both in terms of investor and creditor protection. In both cases, the highest ranked Latin American country (Chile) has values that are lower than the Asian average. The principal East Asian countries do better than their Latin American counterparts in terms of measures of financial transparency. Except for Mexico and Peru, every Latin American country for which the International Accounting Standards Committee provides this information ranks behind each and every Asian country for which comparable data are available.

**Investment in dedicated market infrastructure.** Both regions have come a long way in developing the relevant market infrastructure. By 2002, 88% of Latin American countries had created a supervisory authority; 91% had established custody arrangements; 92% had invested in a clearing and settlement process. All countries in the region had put modern trading systems in place. The same is true of all the middle- and high-income countries of East Asia, but not so

of their lower-income counterparts. At the same time, several Asian countries have taken exceptional steps to enhance the transparency of the secondary market. Malaysia set up a Bond Information Dissemination System on which dealers must enter price and volume information within ten minutes of a trade. The Thai Bond Market Association requires traders to report OTC trades within three minutes and distributes its information to members four times daily. The Korea Security Dealers Association requires dealers to report their transactions within 15 minutes via its information distribution system and then posts these data to its website on the same day. Indonesia now plans to move in the same direction by establishing an autonomous bond pricing agency. Initiatives to disseminate information on the secondary market in Latin America are less ambitious.

**Encouraging participation by institutional investors.** Latin American countries have long had generous pension and retirement systems. Their privatization in recent years has thus created a large constituency of institutional investors with an appetite for locally-issued bonds, in particular government bonds. In Asia, in contrast, social security systems have historically been underdeveloped, encouraging households to rely on high saving rates to prepare for retirement. But state provident funds have strong demands for fixed-income securities to match their annuity profiles.

**Encouraging foreign participation.** This is where the differences between the strategies followed by the two regions are more pronounced. The Latin American economies are proceeding on

a country-by-country basis, each seeking to enhance the efficiency of market infrastructure, the predictability of transactions, and the transparency of regulation. Each country is, in effect, competing with its neighbors for foreign investors. East Asian countries, in contrast, are moving as a group, not just upgrading arrangements but also harmonizing institutions and regulation within the region, and creating not just national investment vehicles attractive to foreign investors but regional investment vehicles like the Pan Asian Index Fund.

In principle, each approach has its advantages. Latin America's decentralized approach allows countries with the desire to do so to move ahead quickly, while East Asia's collective approach applies peer pressure to those apt to lag behind. The Latin approach promises an immediate payoff to countries that succeed in implementing ambitious reforms but it threatens to run up against limits of minimum efficient scale. That is, even if a small Central or South American country succeeds in creating one of the world's most efficient corporate bond markets and in encouraging high levels of foreign investor participation, the small size of the country, its firms and its market mean that it will still lack the liquidity and low costs of larger markets, given that bond issuance and trading are subject to strongly increasing returns to scale. The Asian approach is likely to be slower because consensus must precede reform. But it promises to deliver an integrated regional bond market and relax the constraint of insufficient scale.

Another difference between the two regions is that several Latin American countries have sought to relax the

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## New Publications

### RESEARCH DEPARTMENT WORKING PAPERS

#### **An Evaluation of the Contractionary Devaluation Hypothesis (WP-582)**

*By Ricardo Bebczuk, Arturo Galindo and  
Ugo Panizza*

Using a panel of 57 countries across the world and various newly constructed measures of dollarization, we test whether the balance sheet effect hypothesis has been relevant during the past decades in explaining economic downturns. Additionally, we explore the channels through which devaluations can be contractionary; in particular, we explore whether investment and consumption decisions are negatively affected by exchange rate devaluations under currency mismatches.

#### **Weak Instruments and Weak Identification in Estimating the Effects of Education on Democracy (WP-569)**

*By Matteo Bobba and Decio Coviello*

Is there any relation between education and democracy? Once we correct for weak instruments and identify education as 'weakly exogenous' we find new evidence that education systematically predicts democracy. The results are robust across model specification, instrumentation strategies, and samples.

#### **Corporate Governance and Firm Value in Mexico (WP-564)**

*by Alberto Chong and  
Florencio López-de-Silanes*

The objective of this paper is twofold. On one hand, we analyze the recent evolution of capital markets and their effect on the availability of external financing in Mexico in the last two decades. On the other hand, based on a newly assembled firm-level data set on corporate governance and firm performance, we show that better firm-level corporate governance practices are linked to higher valuations, better performance and more dividends disbursed to

investors. Overall, the evidence shows that the Mexican legal environment poses serious problems for access to capital.

#### **Public Debt and Social Expenditure: Friends or Foes? (WP-563)**

*By Eduardo Lora and Mauricio Olivera*

This paper assesses the effects of total public debt (external and domestic) on social expenditure worldwide and in Latin America using an unbalanced panel of around 50 countries for the period 1985-2003. The most robust and important finding is that higher debt ratios reduce social expenditures while defaulting on debt obligations helps to increase social expenditures. The adverse effects of debt and debt-interest payments are significantly stronger in Latin America, which makes defaults more beneficial to social expenditures. The main policy implication is that there is no better way to protect social expenditures than to avoid overindebtedness, especially in Latin America.

#### **The Gender Wage Gap in Chile 1992- 2003 from a Matching Comparisons Perspective (WP-562)**

*By Hugo Ñopo*

This paper analyzes the evolution of the gender wage gap in Chile during the period 1992-2003. The results suggest that, despite the high educational attainment of females, there are noticeable gender wage gaps in Chile favoring males. These unexplained differences in wages, which hover around 25% of average female wages, show no clear tendency during the period. The wage gaps are higher at the highest percentiles of the wage distribution, among those with higher educational attainment, among directors and among part-time workers.

#### **Public Debt around the World: A New Dataset of Central Government Debt (WP-561)**

*By Dany Jaimovich and Ugo Panizza*

This paper presents a new dataset that includes a complete series of central government debt for 89 countries over the 1991-2005 period and for seven other countries for the 1993-2005 period. The data set can be found at: [http://www.iadb.org/res/pub\\_desc.cfm?pub\\_id=DBA-005](http://www.iadb.org/res/pub_desc.cfm?pub_id=DBA-005)

#### **Sovereign Debt: Indexation and Maturity (WP-560)**

*By Laura Alfaro and Fabio Kanczuk*

This paper reviews the literature on sovereign debt with particular emphasis on indexation and maturity and the main policy proposals related to these topics. In studying the sustainability of sovereign debt, the tradeoff between nominal and indexed debt, and the optimal debt maturity, we find some of the proposals advanced in the literature regarding lengthening debt maturity and issuing nominal debt to be unsustainable in emerging (volatile) economies.

#### **The Reform of Fiscal Institutions in Latin America (WP-559)**

*By Mauricio Cardenas and Eduardo Lora*

Fiscal deficits on average only 1.4% of GDP; debt coefficients on the decline; early debt repayments to the International Monetary Fund and massive repurchases of Brady bonds that 15 years ago were the last salvation for overly indebted governments. This doesn't look like Latin America, the region with the strongest tradition of macroeconomic instability in the world and the longest history of noncompliance with its public debt commitments. However, these are some of the fiscal events that have been occurring since the beginning of 2006, a particularly favorable time for the region.

#### **Debt Instruments and Policies in the New Millennium: New Markets and New Opportunities (WP-558)**

*By Ugo Panizza, Barry Eichengreen and  
Eduardo Borensztein*

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## New Publications

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Spreads on sovereign bonds are at an all-time low, at least since the current era of emerging economy bond markets began in the 1990s. This paper examines the current state of the international and domestic bond markets and asks whether the current favorable trends will constitute a durable change or a temporary fad. It also discusses what the IDB and other IFIs can do to help consolidate the positive trends and prevent new sudden stop episodes in Latin America.

### Who's Afraid of Foreign Aid? The Donors' Perspective (WP-556)

By Mark Gradstein and Alberto Chong

This paper examines the factors affecting support for foreign aid among voters in donor countries. The theoretical model suggests that government efficiency is an important factor, and ties individual income to aid support through the elasticity of substitution. An empirical analysis of individual attitudes reveals that two factors are positively related to support for foreign aid: satisfaction with own government performance and individual relative income. We also find that aid is negatively tied to inequality, corruption and taxes.

### Global Factors and Emerging Market Spreads (WP-552)

Eduardo Levy Yeyati and  
Martín González Rozada

This paper shows that much of the variability of emerging market bond spreads is explained by the evolution of global factors such as risk appetite (as reflected in the spread of high yield corporate bonds in developed markets), global liquidity (measured by international interest rates) and contagion (from systemic events like the Russian default). This link has remained relatively stable over time and helps provide accurate long-run predictions. Overall, the results highlight the critical role played by exogenous factors in the evolution of the borrowing cost faced by emerging economies.

### The Under-Registration of Births in Latin America (WP-551)

Leslie Stone, Analía Olgiati and  
Suzanne Duryea

Approximately 14% of births are unregistered in Latin America according to estimates by UNICEF (2001). Children who lack an official birth certificate can be denied access to education and health services. This paper examines birth under-registration in Bolivia, Brazil, Colombia, the Dominican Republic, Peru, and Nicaragua using Demographic and Health Surveys (DHS). Under-registration of children younger than 5 ranges from 8.4% in Peru to 25.8% in the Dominican Republic. Striking regional differences exist in all six countries.

## LATIN AMERICAN RESEARCH NETWORK WORKING PAPERS

### Veto Players, Fickle Institutions and Low-Quality Policies: The Policy- making Process in Ecuador (R-523)

By S. Saiegh, A. Mejía,  
A. Pérez-Liñán and M. Araujo

This paper seeks to understand why political actors, institutions and legal reforms have systematically failed to produce cooperation in the Ecuadorian policymaking process. It identifies two policymaking paths leading to poor policy outcomes. In the first one, the executive agenda is eclipsed by the short-term clientelistic demands of multiple veto players in the legislature, thus contributing to policy deadlock. In the second, executive power is delegated to a decisive, often technical bureaucracy isolated from political pressures, but the lack of institutional stability leads to policy volatility.

### Revisiting the Employability Effects of Training Programs for the Unemployed in Developing Countries (R-522)

By Angel Calderón

This paper estimates the additional weeks individuals work as the result of training, relative to what would be the case without

it. Based on hazard functions, we calculate a program's impact on both the time spent searching for a job and the time spent in that job. We show that a failure to distinguish between finding a "sustained" job versus finding "a job" can lead to misleading conclusions about a program's effectiveness.

### Political Institutions, Policymaking Processes and Policy Outcomes in Chile (R-521)

By C. Aninat, J. Landregan,  
P. Navia and J. Vial

In analyzing the policymaking process (PMP) in Chile, this paper finds that the salient features of the Chilean PMP are the electoral system and the associated party system, characterized by two long-lived coalitions, a powerful Executive with de facto control over the agenda, a relatively independent judiciary, a bureaucracy that is relatively free from corruption even by the standards of the OECD, and a series of veto points in the policymaking process that permit adversely affected actors to block policy change.

### The Pitfalls of Policymaking in Peru: Actors, Institutions and Rules of the Game (R-511)

Eduardo Morón and Cynthia Sanborn

Policymaking in Peru over the last 25 years has been largely dominated by the Executive, and influenced by a variety of structural and political factors as well as by the personal ambitions of presidents and the public perception of crisis. With few exceptions, neither the Congress nor the other branches of government have played effective roles. This is due to constitutional arrangements, electoral outcomes, and the historical weaknesses of political parties and other actors. While certain arenas of decision-making have been reformed since 2001, in many spheres policymaking remains an arbitrary and unpredictable process, resulting in policies that are of low quality, poorly enforced and easily reversed.

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## New Publications

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### Political Institutions, Policymaking Processes, and Policy Outcomes: The Case of Uruguay (R-510)

By M. Bergara, A. Pereyra, R. Tansini, A. Garcé, D. Chasquetti, D. Buquet and J. Moraes

Uruguay generates a variety of policy outcomes ranging from relatively stable policies to inflexible, low-quality policies. The main outer feature of Uruguayan policies is rigidity, which originates from institutional factors (multiple veto points, factionalized parties and direct democracy mechanisms) and political conflict (divergent policy preferences). Political institutions can achieve political compromise in the short run, but cannot establish stable and flexible policies in the long run.

### OTHER PUBLICATIONS

#### Bank Ownership and Lending Behavior

Alejandro Micco and Ugo Panizza.  
POLIS. Università del Piemonte Orientale "Amedeo Avogadro" Alessandria Working Papers. No.67. February, 2006, and Central Bank of Chile Working Paper Series. No.369. July, 2006.

This paper checks whether state-ownership of banks is correlated with lending behavior over the business cycle and finds that their lending is less responsive to macroeconomic shocks than the lending of private banks.

#### Bank Ownership and Performance: Does Politics Matter?

Alejandro Micco, Ugo Panizza, Mónica Yañez.  
POLIS. Università del Piemonte Orientale "Amedeo Avogadro" Alessandria Working Papers. No.68. February, 2006.

This paper uses a new dataset to reassess the relationship between bank ownership and bank performance, providing separate estimations for developing and industrial countries. It finds that state-owned banks located in developing countries tend to

have lower profitability and higher costs than their private counterparts, and that the opposite is true for foreign-owned banks. The paper finds no strong correlation between ownership and performance for banks in industrial countries. The paper finds that the differential in performance between public and private banks widens during election years, suggesting it is driven by political considerations.

#### Inequality and Informality

Alberto Chong and Mark Gradstein.  
Centre for Economic Policy Research Discussion Papers. No.5545. March, 2006.

This paper presents theory and evidence on the determinants of the size of the informal sector. We propose a simple theoretical model in which it is positively related to income inequality, more so under weak institutions, and is negatively related to the economy's wealth. These predictions are then empirically validated using different proxies of the size of the informal sector, income inequality, and institutional quality.

#### Inflation and Labor Market Flexibility: The Squeaky Wheel Gets the Grease

Ana María Loboguerrero and Ugo Panizza  
POLIS. Università del Piemonte Orientale "Amedeo Avogadro" Alessandria Working Papers. No.63. February, 2006.

Inflation can "grease" the wheels of the labor market by relaxing downward wage rigidity but it can also increase uncertainty and have a negative "sand" effect. This paper studies the grease effect of inflation by looking at whether the interaction between inflation and labor market regulations affects how employment responds to changes in output. The results show that in industrial countries with highly regulated labor markets, the grease effect of inflation dominates the sand effect. In developing countries, we rarely find a significant effect of inflation or labor market regulations, which could be due to large informal sectors and limited enforcement of de jure labor market regulations.

### Phoenix Miracles in Emerging Markets: Recovering without Credit from Systemic Financial Crises

Guillermo Calvo, Alejandro Izquierdo and Ernesto Talvi.

NBER Working Paper No.12101. March, 2006.

Using a sample of emerging markets that are integrated into global bond markets, we analyze the collapse and recovery phase of output collapses that coincide with systemic sudden stops. Our findings indicate the presence of a very similar pattern across different episodes: output recovers with virtually no recovery in either domestic or foreign credit, a phenomenon we call Phoenix Miracle, where output "rises from its ashes," suggesting that firms go through a process of financial engineering to restore liquidity outside the formal credit markets.

#### Real Exchange Rates, Dollarization and Industrial Employment in Latin America

Arturo Galindo, Alejandro Izquierdo and José Manuel Montero. Bank of Spain Working Papers. No.0601. 2006.

We use a panel dataset on industrial employment and trade for 9 Latin American countries to test whether real exchange rate fluctuations have a significant impact on employment, and analyze whether the impact varies with the degree of liability dollarization. Econometric evidence supports the view that real exchange rate depreciation can impact employment growth positively, but this effect is reversed as liability dollarization increases. In industries with high liability dollarization, the overall impact of a real exchange rate depreciation can be negative.

#### Relative Price Volatility Under Sudden Stops: The Relevance of Balance Sheet Effects

Guillermo Calvo, Alejandro Izquierdo and Rudy Loo-Kung  
Journal of International Economics. Vol.69, No.1. 2006.

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## New Publications

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Sudden Stops are associated with increased volatility in relative prices. We introduce a model based on information acquisition to rationalize this increased volatility. An empirical analysis confirms the relevance of Sudden Stops and potential balance-sheet effects as key determinants of relative-price volatility, where balance-sheet effects are captured by the interaction of a proxy for potential changes in the real exchange rate and a measure of domestic liability dollarization.

### Religion and Education Gender Gap: Are Muslims Different?

Mandana Hajj and Ugo Panizza

*POLIS. Università del Piemonte Orientale "Amedeo Avogadro" Alessandria Working Papers. No.70. February, 2006.*

This paper uses individual-level data and a differences in differences estimation strategy to test whether the education gender gap of Muslims is different from that of Christians. In particular, the paper uses data for young Lebanese and shows that girls (both Muslim and Christian) tend to receive more education than boys and that there is no difference between the education gender gap of Muslims and Christians. Therefore, the paper finds no support for the hypothesis that Muslims discriminate against female education.

### Streamlining and Privatization Prices in the Telecommunications Industry

Alberto Chong and Virgilio Galdo

*Económica. Vol. 73, No. 291. August, 2006.*

This paper studies the link between state-owned restructuring before privatization and privatization sales prices for the telecommunications industry. We use new data to cover 84 telecommunications privatizations, which account for nearly 80% of the sector in terms of value. Focusing on streamlining policies and regulatory issues prior to privatization, we find that while most labor streamlining measures have no bearing on privatization prices, the presence of a regulatory agency prior to privatization does impact prices, especially if it was set up well before the sale took place.

### The Effect of Parental Presence, Parent's Education, and Household Headship on Adolescent's Schooling and Work in Latin America

Suzanne Duryea and

Mary Arends-Kuenning.

*Journal of Family and Economic Issues. Vol.27, No.2. April, 2006.*

We investigate how the presence and education of parents affect adolescents' school attendance, work participation, and school attainment in Brazil, Ecuador, Nicaragua

and Panama. Adolescents who live in single-mother families have significantly lower school attendance and attainment than adolescents living with both parents. However, the effects of living in a single-mother family are small relative to the effects of parents' education. Adolescents who live in single-mother families are not more likely to work than adolescents in two-parent families. Targeting benefits to children in single-mother families would reach more children at risk of poor school outcomes than targeting children in female-headed households.

### The Long-Run Volatility Puzzle of the Real Exchange Rate

Ugo Panizza, Ricardo Hausmann and Roberto Rigobón.

*Journal of International Money and Finance. February, 2006.*

This paper documents large cross-country differences in the long run volatility of the real exchange rate. In particular, it shows that the real exchange rate of developing countries is approximately three times more volatile than the real exchange rate in industrial countries. It finds that the magnitude of shocks and the differences in elasticities can only explain a small part of the difference in RER volatility between developing and industrial countries.

## Strategies...

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constraint of small market size and the difficulty of quickly strengthening investor and creditor rights by facilitating the efforts of domestic entities to also borrow in the major international financial centers. Latin America continues to look to global markets. East Asia, in contrast, has sought a regional solution to these problems. Of course this characterization paints the contrasting strategies with a broad brush; the reality is more complex, especially in Latin America where there is a much lower level of coordination.

## WELCOME TO RES

The Research Department is pleased to announce the addition of Eduardo Cavallo to its research staff. Eduardo, a native of Argentina, holds a Ph.D. in Public Policy and an MPP from Harvard University, and a B.A. in economics from Universidad de San Andres (UdeSA) in Buenos Aires, Argentina. He has been a research fellow at the Center for International Development (CID), a visiting scholar at the Federal Reserve Bank of Atlanta, and a member of the faculty at the Kennedy School of Government's Summer Program. He co-founded Fundación Grupo Innova, an Argentine think tank. His research interests are in the fields of international finance and macroeconomics with a focus on Latin America. In recent work he explores the connection between trade openness and the likelihood of capital account crises, also known as "Sudden Stops." He has also done work on the topics of debtor's incentives for institutional reform in risky financial markets (with Andres Velasco), vulnerability to currency crises (with Jeffrey Frankel), exchange rate policy and gross liability dollarization (with Pelin Berkmen), and trade openness and output volatility.



## Look Who's Talking

*This section of the newsletter spotlights presentations or events sponsored by RES in recent months.*

### Velasco Wins IDB Award for Excellence in Research

On Feb. 28, 2006, the Inter-American Development Bank presented the first IDB Award for Excellence in Research to Andrés Velasco of Harvard University's Kennedy School of Government and currently the Minister of Finance for Chile. Velasco was chosen for his rare mix of outstanding academic achievement and active and effective involvement in the policymaking process for Latin America and the Caribbean.

In remarks following his acceptance of the Award, Velasco cited three conditions as necessary for linking research and effective policymaking in Latin America. The first condition is the creation of useful knowledge on the part of researchers. There is no single or sure way to produce good ideas, but likening good ideas to giraffes, he assured that they are readily recognized when they appear. He noted that contributions by Latin American economists such as Carlos Díaz Alejandro, IDB Chief Economist Guillermo Calvo, and former IDB Chief Economist Ricardo Hausmann have proven particularly valuable.

A second condition is the presence of strong institutions that can translate ideas into policy. Putting effective institutions in place, however, is much easier said than done given institutions' "endogenous" nature as effects as well as causes of social conditions. Improving existing institutions nonetheless remains possible by means of increasing those institutions' resiliency to macro and micro shocks. This can be accomplished by strengthening mechanisms of social security so as to replace "social insecurities" such as procyclical government spending.

A third and final condition for linking research and policymaking is political will. This may not exist a priori, but can be generated by goals that inspire political will. In addition, each country must find an appropriate system for articulating the interests of its citizens. Of particular importance in

this regard is finding a way to align the preferences of representatives with the preferences of those they represent so that citizens are able to trust officials with asymmetrical abilities whose actions are not readily observed.

In concrete terms, the connection between research and policymaking in Latin America remains weak because of the relative scarcity of schools of public policy and the consequent scarcity of professionals who can bring the analytical tools of public administration to bear on their countries' problems. The establishment of many more schools of public policy is necessary to address this situation.

### Norbert Schady spoke on January 17, 2006 on Early Childhood Development in Latin America, with Special Reference to Ecuador

Speaking at the IDB, Norbert Schady summarized the results of a recent literature survey and a study on the impact of Ecuador's *Bono de Desarrollo Humano* program. He began with the theoretical rationale for investing in Early Childhood Development (ECD). Both cognitive abilities such as intelligence and non-cognitive abilities such as impulse control are associated with positive outcomes later in life, and the development of those abilities depends either largely or entirely on appropriate children's environment and nutrition during specific windows of time. Parents, however, do not always make the appropriate investments in children's development because of insufficient money, information or concern. Moreover, it is more cost-effective to promote equality of opportunities earlier in the life cycle than to promote the equality of outcomes later.

Evidence from the United States suggests that early childhood interventions, including small-scale randomized assessments and the large-scale Head Start program, have positive effects, though questions exist regarding the cost-effectiveness

and differential impacts of Head Start. While evaluations of parenting and home visiting programs in the United States have yielded very poor results, a randomized study in Jamaica found important impacts on children's development. There remain several questions relevant to the design of programs in Latin America and the Caribbean. The first is whether interventions that focus on parenting practices may be more effective in Latin America than they have been assessed to be in the United States. A related question is how to design interventions that improve outcomes and are at the same time appealing to parents. A third question is determining what complementary investments need to be made after investments in ECD.

There has so far been little rigorous quantitative study of the impact of ECD investments in Latin America, and descriptions of varying outcomes in cognitive and non-cognitive development are still needed. The limited amount of evidence available from Ecuador suggests that socioeconomic gradients substantially influence cognitive and non-cognitive development, with widening gaps over time, although child health and parenting skills can diminish the impact of differences in wealth. Currently under study is the question of whether the Bono de Desarrollo Humano conditional cash transfer program can, all other things being equal, improve ECD indicators. Evidence from other countries in Latin America and the Caribbean suggests that similar interventions improve ECD, but the optimal combination of nutritional assistance, monetary assistance and environmental stimulation has yet to be determined.

Future research on this topic is likely to benefit from the use of internationally employed cognitive tests whose results have proven to be correlated with later outcomes. It will also be important to determine the causal pathways and the sensitive and/or critical ages at which different abilities are affected.

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## Look Who's Talking

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### Norman Loayza spoke to the IDB on March 7, 2006

*Openness Can Be Good for Growth:  
The Role of Policy Complementarities*

At a time when countries in the region are signing free trade agreements with both the United States and Asian countries, disagreement still exists on the development impact of trade openness and economic integration. Longstanding theoretical arguments in favor of openness, which assume functioning markets, have emphasized the efficiency brought about by competition and specialization. More skeptical analyses of openness have emphasized the role of market and institutional imperfections, which can result in unemployment, specialization in non-dynamic sectors, and concentration in extractive industries.

Latin America's experience lies somewhere between those extremes. While the available empirical evidence indicates a link between openness and long-term growth, short and medium-term findings are more ambiguous. Findings from large cross-country samples are favorable to open-

ness, and case studies provide a generally positive view of openness, but results vary among countries. At very low levels of per capita GDP, for instance, openness has a negative impact on growth. On the other hand, openness increases growth at higher levels of GDP, and richer countries reap greater benefits from openness. Moreover, the impact of openness on growth is mediated by other factors such as the quality of countries' rule of law.

A 40-year study of 82 countries further examines the role of intervening variables and suggests that the impact of openness on growth is determined largely by complementary reforms that go beyond economic integration to encompass institutional and macro factors. In addition to the rule of law, these factors include education, infrastructure (including telecommunications), financial depth, labor and regulatory flexibility, firm entry flexibility, and macroeconomic stability.

Two policy lessons emerge from these findings. First, while international integration per se is not necessarily beneficial for a country's economy, integration

can be beneficial in the proper environment. Policymakers in some developing countries may thus need to consider how to prepare their economies for openness.

Second, policymakers must act on the basis of growth strategies that take into account their countries' specific conditions, and they must consider what conditions must be changed in order for reforms to proceed. This implies that countries must determine where the areas of greatest need exist and set their priorities accordingly. Pursuant to this end, more in-depth analysis of country conditions is needed, as are detailed data that go beyond rough proxies. The measurement of education, for instance, should include not only enrollment figures but also indices of the quality of education.

A final question that enters into the policy discussion is why reforms are not undertaken. There appear to be a variety of reasons. In some instances necessary reforms may simply be too costly. In other cases, however, reforms face political economy constraints such as resistance from interest groups.



[www.iadb.org/res/researchnetwork](http://www.iadb.org/res/researchnetwork)

## Network News

### Latin American Research Network

#### *Project Seminars (All in Mexico City)*

#### **Discrimination and Economic Outcomes • Oct. 31-Nov. 1, 2006**

Research papers from Argentina, Bolivia, Chile, Colombia, Ecuador, Peru and Uruguay will be discussed at the seminar.

#### **Emergence of New Successful Export Activities in Latin America & The Caribbean • Oct. 31-Nov. 1, 2006**

Eight projects from six countries (Argentina, Brazil, Chile, Colombia, Ecuador, Uruguay) will be discussed at the meeting.

#### **Development of Latin American Bond Markets • Nov. 2, 2006**

In a special session of the LACEA Conference, four research papers from Argentina, Brazil, Chile and Mexico will be presented.

### Instituto Técnico Autónomo de México (ITAM), Mexico City

**LACEA 2006 • Nov.2-4, 2006**

At this year's Latin American and Caribbean Economics Association (LACEA) meetings, the Research Department will sponsor the following seminars:

- The Latin American Economy: Prospects and Challenges
- Labor Market in Mexico: Problems and Perspectives
- Foreign Banks in Emerging Economies
- Living with Debt. How to Limit the Risks of Sovereign Finance
- Debt, Default and Stabilization in Latin America
- How Experiments Can Add New Insights to the Development Economics Agenda