Whither Capital Markets in Developing Countries?
Many Lessons from Latin America

Sergio Schmukler
with Augusto de la Torre and Juan Carlos Gozzi
World Bank
Latin financial systems have under-performed

What went wrong?
- H1: Insufficient/inconsistent reforms
- H2: Wrong sequencing
- H3: Wrong expectations

Back to basics
- Financial globalization
- Size
- Segmentation of access
Latin Financial Systems Have Under-Performed
Latin Financial Markets
Comparatively Small and Underdeveloped

Financial Sector Size Across Countries

Percent of GDP, 2002

Argentina  Brazil  Chile  Colombia  Mexico  Peru  Hong Kong  Malaysia  Thailand  Japan  U.K.  U.S.

Bank Credit to the Private Sector  Stock Market Capitalization  Amount Outstanding of Domestic Private Sector Bonds

Credit to the Private Sector in LatAm Trails Behind

Credit to the Private Sector by Deposit-Taking Institutions

Percent of GDP

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% 110%


Latin American Countries
G-7 Countries
East Asian Countries

Latin Securities Markets Have Not Compensated: Stock Market Cap & Liquidity Lag other Regions

Corporate Bond Markets Also Trail Behind

Domestic Private Sector Bonds Outstanding

Percent of GDP

What Went Wrong?

H1: Insufficient and Inconsistent Reform
H1: Thesis and Diagnosis

- What needs to be done is well-known
  - Guided by international standards and codes

- Reform is not easy...
  - It is complex and multidimensional
  - Application to country circumstances is challenging
  - Crises are part of growing pains

- ... but reforms are right and will get us “there”
  - Perseverance will eventually pay – witness Chile
  - “There” = mini Wall Streets?

- Latin under-performance is due to reform shortfall and inconsistent reform implementation
H1: Assessment
True, LatAm is Far from Int’l Financial Standards…

**FIGURE 6.2 Compliance by Average Country Type**


Source: IDB, Unlocking Credit, IPES 2004.
**H1: Assessment**

... And its Contractual Environment is Relatively Weak

**FIGURE 2.6 Effective Creditor Rights**

*Index, 0-1*

<table>
<thead>
<tr>
<th>Region</th>
<th>Index Value</th>
</tr>
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<tbody>
<tr>
<td>Average South East Asia</td>
<td></td>
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<tr>
<td>Average OECD</td>
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<tr>
<td>Average Latin America</td>
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<tr>
<td>Chile</td>
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<td>Costa Rica</td>
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<td>Venezuela</td>
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<td>Uruguay</td>
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<td>Trinidad and Tobago</td>
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<td>Ecuador</td>
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<td>Brazil</td>
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<td>Panama</td>
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<td>Dominican Republic</td>
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<td>Peru</td>
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<td>El Salvador</td>
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<td>Honduras</td>
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<td>Mexico</td>
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<td>Colombia</td>
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<td>Bolivia</td>
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<tr>
<td>Argentina</td>
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*Note:* The effective creditor rights index measures legal protection for creditors and the degree of law enforcement. The index ranges from 0 to 1. Higher values measure greater creditor protection.

*Source:* La Porta and others (1998); World Bank (2003); Chapter 12 of this Report.

The liberalization index is calculated as the simple average of three indices (liberalization of the capital account, domestic financial sector, and stock market) that range between 1 and 3, where 1 means no liberalization and 3 means full liberalization. These data are then aggregated as the simple average between countries of each region.

H1: Assessment
... And Was an Active Financial Reformer in the 1990s

Percentage of Latin American Countries Having Implemented Reforms

Econometric evidence shows that reforms boost domestic stock market activity \textit{as well as} its internationalization...

... but not symmetrically – “pro-internationalization bias”

Reforms favor stock market internationalization \textit{more than} local stock market development (De la Torre and Schmukler, 2004)

Bias may be because internationalization takes place \textit{at the expense} of local market development

Internationalization hurts local markets via trade migration, spillover, and diversion effects (Levine & Schmukler, 2004)

LatAm is different – it has a “domestic market shortfall”
H1: Assessment
Latin “Shortfall” in Domestic Mkts, Given Fundamentals

Predicted and Actual Stock and Local Currency Bond Market Development for LatAm, Given Fundamentals
(Average 1996-2000)

H1: Assessment
Latin “Shortfall” in Reform Impact on Local Stock Mkts

What Went Wrong?

H2: Wrong Sequencing
H2: Thesis and Diagnosis

- Int’l standards say where to go but not how to get there
- Sequencing is essential
- Financial fragility and underdevelopment is the result of wrong sequencing
  - Premature liberalization (before institutional & regulatory strengthening) magnifies boom-bust cycles
  - Premature int’l financial integration (before development of local currency debt markets) accentuates mismatches and vulnerability
  - Inattention to preconditions (ignoring building-block nature of financial development) renders certain reforms ineffective
H2: Assessment
Liberalization Has Raised Instability in SR, Not in LR...

The figure shows the average amplitude of booms and crashes in the different periods and markets. 
*Source:* Kaminsky and Schmukler (2001)
H2: Assessment
... Arguably Because Liberalization Stimulates Reforms

Percentage of Countries Having Implemented Reforms

Emerging Markets
Permanent Improvements in Law and Order: 18%
Enforcement of Insider Trading Laws: 11%

Developed Countries
Permanent Improvements in Law and Order: 44%
Enforcement of Insider Trading Laws: 50%

Source: Kaminsky and Schmukler (2003)
H2: Assessment
Currency Mismatches Do Reflect Poor Peso Debt Mkts

Source: IDB, Unlocking Credit, IPES 2004.
H2: Assessment

But ...

- No evidence that liberalization itself engenders mismatches
- Mismatches also arise in closed financial systems
  - Currency mismatches via off-shores
  - Duration mismatches
- Closed systems are not immune to crises (of different type)
- No evidence that faulty sequencing hinders financial development permanently...
- ... but evidence that liberalization stimulates reforms
- It is doubtful that financial systems can be kept closed
  - Given globalization trends, financial engineering, technology
  - Especially in countries that are already liberalized and open
What Went Wrong?

H3: Wrong Expectations
H3: Thesis and Diagnosis

For all their insights, H1 and H2 have shortcomings

- H1 underestimates actual reform effort in LatAm...
- ... and its predictions are dissonant with “pro-internationalization bias” and “domestic shortfall”
- H2 naively assumes that resistance to reform will yield in the absence of competition at home and from abroad...
- ... and it has not shown that liberalization and financial opening are harmful in the long run
- H1 and H2: both assume that developed financial markets are the goal and benchmark for developing countries

Step back, revisit basic issues, and adjust expectations
Back to Basics

1. Financial Globalization
2. Size
3. Segmentation of Access
Financial Globalization

It is not a detail!
- Measuring financial development by domestic variables alone is misguided – what matters is access to financial services

It can magnify weak-currency problems in debt markets
- Weak currencies are those not easily accepted as store of value
- In small open economies, the shock-absorption function of local currencies could undermine their store-of-value function

It can undercut development of local stock markets
- Stock market internationalization can have negative spillovers on the local market but does not result in balance sheet vulnerabilities
Size

- Liquidity is a positive function of size of market and issues
  - Ongoing clustering of world-wide liquidity in few int’l centers
  - Illiquidity begets illiquidity
  - Illiquidity hampers “price revelation” – core function of capital mkts

- Larger economies and financial markets facilitate the development of local currency debt markets

- Size of issues matter for risk diversification
  - Small issues are too marginal or redundant in risk diversification strategies of local and foreign institutional investors
  - Small issuers/issues are not included in portfolios of pension funds when their investment regulations are relaxed (the case of Chile)
Segmentation of Access
A Few Large Companies Dominate Latin Stock Markets

Stock Market Concentration, 2000

Percent

Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela, Hong Kong, Malaysia, Thailand, Japan, U.K., U.S.

Share of trading of top ten companies

Segmentation of Access
Even in Successful Corporate Bond Mkts, Like Chile’s…

Chile - Corporate Bonds issues in Domestic and International Markets

Million U.S. dollars

Mega firms are defined as those with annual sales net of VAT above UF600,000 (US$17.2 million); large firms have sales between UF100,000 (US$2.8 million) and UF600,000; medium firms have sales between UF25,000 (US$0.7 million) and UF100,000; small firms have sales between UF2,400 (US$68,688) and UF25,000 and micro firms have sales below UF2,400. Micro firms represent around 82 percent of all firms, while small firms are 15 percent and medium firms two percent. Large and mega firms combined account for only one percent of all firms. *Source: World Bank (2004)*
Segmentation of Access
Banks Too May Be Discouraged from Lending to SMEs

- In weak contractual environments, Basel- and AML-type regulations may undermine SME access to finance
  - Banks’ ability to engage in “relationship finance” with opaque SMEs in informal sector is hindered
  - Bank credit exposure to the local sovereign is encouraged
    - As it does not require regulatory capital
  - But contractual and informational environment is not yet conducive to “arm’s-length” or “impersonal” lending to SMEs

- Unintended effects of Basel- and AML-type regulations?
  - Crowding out and...
  - ... a bias in favor of “commoditized lending” (consumer, micro)
    - Lending to SMEs is not easily “commodity-izable”
Conclusion
More Questions than Answers

- How to overcome the Latin “shortfall” in local currency debt markets without barriers to international integration?
  - The key missing market is for long-duration peso debt
  - Is there a role for multilateral development banks?

- Can small Latin countries overcome the size problem and generate a suitable version of local stock markets?
  - One that features systematic illiquidity and accepts the pro-internationalization bias of reforms

- How can SME access to finance be broadened where Basel- and AML-type regulations coexist with a weak contractual environment and financial globalization?
END
Bonus Material
LAC is a Leader in Stock Market Internationalization

Ratio of Value Traded Abroad to Value Traded Domestically

- **Latin American Countries**: 1% in 1990, 96% in 1996, 122% in 2000
- **G-7 Countries**: 0% in 1990, 4% in 1996, 3% in 2000
- **East Asian Countries**: 0% in 1990, 3% in 1996, 4% in 2000

Legend:
- Blue (1990)
- Yellow (1996)
- Orange (2000)
Significant De-Listings in LAC Stocks Markets…

Number of Firms Listed in Domestic Stock Exchanges in Latin America
Number of Firms Listed in Domestic Stock Exchanges in Eastern Europe

- **Czech Rep.**: 1,635 (1996)
- **Hungary**: Low in all years
- **Poland**: Moderate in all years
- **Russia**: Moderate in all years
- **Slovak Rep.**: Significant increase from 2000 to 2003
- **Slovenia**: Low in all years
- **Turkey**: Low in all years

**Key Dates**:
- 1990
- 1996
- 2000
- 2003
But More Listings in East Asian Stock Markets

Number of Firms Listed in Domestic Stock Exchanges in South East Asia

- China
- Indonesia
- Malaysia
- Philippines
- South Korea
- Taiwan
- Thailand

Graph showing the number of firms listed in domestic stock exchanges from 1990 to 2003, with different countries and years represented by different colors.
**H1: Assessment**

Reforms Enhanced Financial Development Everywhere

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<table>
<thead>
<tr>
<th>Dependent Variable: Market Capitalization / GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial liberalization</td>
</tr>
<tr>
<td>Infrastructure reform</td>
</tr>
<tr>
<td>Institutional reform</td>
</tr>
<tr>
<td>Enforcement of insider trading laws</td>
</tr>
<tr>
<td>Pension reform</td>
</tr>
<tr>
<td>Privatization</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>No. of Observations</th>
<th>1,108</th>
<th>605</th>
<th>568</th>
<th>816</th>
<th>368</th>
<th>904</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Countries</td>
<td>49</td>
<td>23</td>
<td>33</td>
<td>33</td>
<td>17</td>
<td>39</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.23</td>
<td>0.26</td>
<td>0.11</td>
<td>0.28</td>
<td>0.20</td>
<td>0.26</td>
</tr>
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</table>

Least square regressions estimated using fixed effects models for countries implementing reforms between 1975 and 2002. A constant is estimated but not reported.

*, **, *** mean significant at 10, 5, and 1 percent, respectively.

**H1: Assessment**

**But Reforms Favored Stock Mrkt Internationalization...**

<table>
<thead>
<tr>
<th>Dependent Variable: Value Traded Abroad / Value Traded Domestically</th>
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<tr>
<td>Financial liberalization</td>
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<td>Enforcement of insider</td>
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<tr>
<td>trading laws</td>
</tr>
<tr>
<td>Pension reform</td>
</tr>
<tr>
<td>Privatization</td>
</tr>
</tbody>
</table>

| No. of Observations | 341 | 156 | 260 | 313 | 114 | 311 |
| No. of Countries    | 32  | 13  | 23  | 27  | 11  | 28  |
| R-squared           | 0.02 | 0.15 | 0.05 | 0.06 | 0.13 | 0.01 |

Least square regressions estimated using fixed effects models for countries implementing reforms between 1975 and 2000. A constant is estimated but not reported.

*, **, *** mean significant at 10, 5, and 1 percent, respectively

**H1: Assessment**

... and Internationalization Hurt Local Stock Markets

<table>
<thead>
<tr>
<th>Dependent Variable: Log of One Plus the Turnover Ratio of Domestic Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of internationalized firms</td>
</tr>
<tr>
<td>Log of one plus aggregate turnover ratio in international markets</td>
</tr>
<tr>
<td>Log of GDP per capita</td>
</tr>
<tr>
<td>Law and order</td>
</tr>
<tr>
<td>Capital account liberalization</td>
</tr>
<tr>
<td>Log of total assets</td>
</tr>
<tr>
<td>Number of firms</td>
</tr>
<tr>
<td>Number of observations</td>
</tr>
<tr>
<td>Country dummies</td>
</tr>
<tr>
<td>Year dummies</td>
</tr>
<tr>
<td>R-squared</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>2,400</th>
<th>1,531</th>
<th>1,530</th>
<th>1,509</th>
<th>1,517</th>
<th>1,494</th>
</tr>
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<tbody>
<tr>
<td>Number of firms</td>
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<tr>
<td>Number of observations</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
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<td>Yes</td>
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<tr>
<td>R-squared</td>
<td>0.70</td>
<td>0.71</td>
<td>0.71</td>
<td>0.71</td>
<td>0.70</td>
<td>0.70</td>
</tr>
</tbody>
</table>

Least square regressions with robust standard errors for a panel of data covering over 3,000 firms across 55 emerging market countries during the years 1989 to 2000.

*, **, *** mean significant at 10, 5, and 1 percent, respectively.