Sovereign Debt Management

Emerging Market Trends, Implications for Debt Managers, and Country Experiences and Challenges

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Outline

- What do we see as the trends in emerging market debt?
- How have the debt managers done and possible implications?
- What are the risk factors for further work in 2007?
Most of 2005 trends continued during 2006…

- Favorable environment for global financial markets
- Strengthened financial position of EMCs
- Growing demand for EM debt by Institutional Investors
- Market turbulence in the second quarter of 2006; steps to attenuate vulnerabilities
EM bonds have shown increasing resistance to external shocks

Emerging Market Corrections Compared (in percent)

S&P 500  EM Equity  Forex  External Bonds  Local Bonds

2004  2006

Source: IMF
nevertheless, lower rated countries were hit harder by the May 2006 market correction

Credit Default Swap Spreads vs. Sovereign Credit Ratings (In basis points)

As of 6/09/06  
As of 5/09/06  

Source: IMF
Recent depreciation of the dollar has lead to an increase in volatility across assets; volatility remains comfortably lower than during the May turbulence.

Source: IMF
and vulnerabilities remain, particularly in the EMEA (Emerging Europe and Africa) region, where sovereign debt markets have lagged behind since the May-June correction.

Emerging Market Sovereign Spreads
(From Merrill Lynch, bps)

Source: IMF
Search for Yield

- Search for yield continues as dominant theme:
- Stems from historically low long-term bond yields and flat yield curves in mature markets
- Despite recent turn in credit cycle
Flat Yield Curve

Yield Curve Steepness
(Ten-year minus two-year; in percentage points)

Graph showing the yield curve steepness for Japan, U.S., and Euro from 1994 to 2006.
EM Spreads Continue to Decline

Emerging Market Debt Spreads and 10-Year Treasury Yields

Sources: Bloomberg L.P.; JPMorgan Chase & Co; and IMF staff estimates.
Financial Position of EMCs

- **Continues to strengthen**
  - Current account strengthening
  - Asset accumulation increasing buffers to absorb shocks
  - FDI increasing

- **Fiscal and monetary policies** have played an important role in the improvements
## EM and Developing Countries: Current Account Balance and External Financing

(In billions of U.S. dollars)

<table>
<thead>
<tr>
<th></th>
<th>1996</th>
<th>2001</th>
<th>2004</th>
<th>2005</th>
<th>Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current account balance</strong></td>
<td>-81</td>
<td>44</td>
<td>220</td>
<td>423</td>
<td>487</td>
</tr>
<tr>
<td><strong>External financing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI</td>
<td>132</td>
<td>185</td>
<td>233</td>
<td>265</td>
<td>270</td>
</tr>
<tr>
<td>Private debt</td>
<td>129</td>
<td>-36</td>
<td>150</td>
<td>215</td>
<td>168</td>
</tr>
<tr>
<td><strong>Asset Accumulation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by official sector</td>
<td>90</td>
<td>85</td>
<td>510</td>
<td>634</td>
<td>704</td>
</tr>
<tr>
<td>by private sector</td>
<td>163</td>
<td>147</td>
<td>160</td>
<td>301</td>
<td>301</td>
</tr>
</tbody>
</table>
Emerging markets prove resilient supported by improved fundamentals

Indicators of External Vulnerabilities
(In percent of GDP-Simple unweighted average of 49 countries)

- Gross public sector debt (left scale)
- Reserve cover (left scale)
- Fiscal balance (right scale, inverted)

Source: International Monetary Fund
Falling public debt since 2002

Public Debt \(^1,2\) (in percent of GDP)

Source: Country authorities and staff estimates.
1/ Unweighted averages.
2/ 2005 based on staff projections.
with domestic debt at increasingly longer maturities

Domestic Sovereign Debt Maturing in Less than One Year
(in percent of total sovereign debt)

Source: Global Financial Stability Report, IMF, April 2006
Increased EMC Upgrades

Emerging Market Sovereign Rating Actions (Moody's and S&P)

- **Upgrades**
- **Downgrades**

<table>
<thead>
<tr>
<th>Year</th>
<th>Upgrades</th>
<th>Downgrades</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>32</td>
<td>20</td>
</tr>
<tr>
<td>2003</td>
<td>36</td>
<td>18</td>
</tr>
<tr>
<td>2004</td>
<td>31</td>
<td>9</td>
</tr>
<tr>
<td>2005</td>
<td>32</td>
<td>9</td>
</tr>
<tr>
<td>2006 (YTD)</td>
<td>34</td>
<td>2</td>
</tr>
</tbody>
</table>
Cyclical and structural contributions to the falling public debt

Public Debt $^{1,2}$

(In percent of GDP)

Source: Country authorities and staff estimates.

1/ Unweighted averages.
2/ 2005 based on staff projections.
Implications for EM Debt Managers?

Opportunities for *active* debt management and implementation of *risk reduction* strategies
Opportunities

- **Strong demand for new international bond issues**
  - Lower gross issuance
  - Unsatisfied demand?
  - Lower funding costs and increasing maturities
    - Average maturity extension of about 5 years for 18 EMEs

- **Facilitating active debt management operations**
  - Pre-financing and pre-payment
    - Brazil pre-financed 2007 FX amortizations
    - Uruguay pre-paid IMF November 2006
    - Colombia pre-paid multilaterals
    - Mexico pre-paid multilaterals
Lower Gross Issuance on International Market than 2005

Cumulative Gross Annual Issuance of Bonds
(In billions of U.S. dollars)
Opportunities: Investor Diversification

- Retail programs
  - South Africa’s program continues to grow – 20,000 investors
  - Brazil’s success with Treasury Direct – 70,000 investors
  - Indonesia issued first retail bond August 2006
  - But still small percentage of total stock (e.g. Poland savings bonds < 2% of total stock)

- Institutional investors
  - Continued demand from foreign institutional investors for EM debt
Strong Institutional Investor Demand
for EM Assets

Cumulative Net Flows to Emerging Market Funds (US$ bn)

Equity
Debt
## Increased Foreign Participation in Local Markets

<table>
<thead>
<tr>
<th>Country</th>
<th>Dec 2000</th>
<th>Dec 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>4%</td>
<td>23%</td>
</tr>
<tr>
<td>Hungary</td>
<td>17%</td>
<td>27%</td>
</tr>
<tr>
<td>Poland</td>
<td>12%</td>
<td>21%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>n.a.</td>
<td>7%</td>
</tr>
<tr>
<td>Mexico</td>
<td>1%</td>
<td>8%</td>
</tr>
</tbody>
</table>
…with higher proportion held by foreign investors

EM Domestic Debt: Shares Held by Foreign Investors
(In percent of total)

Source: IMF
While holdings of domestic institutional investors steadily increasing

Broad Domestic Holders of Emerging Markets Domestic Debt
(In percent of total)

Source: IMF
Innovations in Market Instruments

- Extension of maturity in domestic fixed-rate bonds
  - Czech republic just launched 30-year bond (Dec 2006)
  - Mexico introduced 30-year bond (Oct 2006)
  - Korea introduced 20-year bond (Jan 2006)
Innovations in Market Instruments

- **Exotic instruments**
  - Islamic or “sukuk” gaining in significance
    - Significant corporate issues
    - Dubai, Malaysia and Pakistan current sovereign issuers
  - Special options
    - Mexican exchange warrants

- **International markets**
  - Continued tapping of international bonds in local currency
    - Brazil – September 2005 issued 10-year Global Reais
    - Colombia – tapped the 2015 Global TES in March and August 2006
Enhanced transparency

- Korea
  - Market Development Strategy 2006
- Indonesia
  - Debt management strategy
  - Auction calendar
  - Debt statistics
  - Investor relations unit
- Macedonia
  - Debt management strategy
  - Market development report
  - Auction calendar
Improvements in Market Approach

- **Israel**
  - Introduced PDs (2006)
  - MTS-Israel launched
  - Special repo facility available to PDs
  - Tax exemptions for foreign investors

- **Turkey**
  - Retained tax exemption for foreign investors
  - Increased dialogue with PDs / active consultation on new instruments (e.g., CPI-linked bonds)
  - More information on local market translated into English

- **Korea**
  - Quoting obligations for PDs
  - Non-competitive incentives offered

- **Brazil**
  - Tax exemptions for foreign investors
And, for International Bonds…

- Euro Global MTS platform
  - Launched summer 2005
  - Issuers listed are:
    - Bulgaria, Romania, Croatia, Brazil, China, Mexico, South Africa, Turkey, Venezuela.
    - Must be supported by 7 market makers
    - Bonds euro-denominated benchmarks
  - 18 market makers involved
  - March 2006 total trading volume surpassed EUR 1 billion
New segment launched August 2006

- Facilitates trading of other euro-denominated bonds (i.e. non-benchmarks)
  - No market making requirements for this segment
  - Open to all MTS participants
- Initial list of securities encompasses bonds issued by the governments of Argentina, Brazil, Bulgaria, China, Colombia, Jamaica, Iceland, Israel, Korea, Lebanon, Macedonia, Mexico, Morocco, Peru, the Philippines, South Africa, Turkey, Ukraine, Uruguay and Venezuela
Leading to more Robust Debt Structures

Emerging Markets Sovereign Debt

- External Sovereign Debt
- Domestic Sovereign Debt

Source: JPMorgan
But … Risks Remain
Exchange rate movements since May 2006 (Index = 100, May 1)
Net Flows out of EM debt …
Requiring a Tightening of Local Credit Conditions in Some Markets
No Room for Complacency

- Fund increasing surveillance of these issues
  - Encourage development of medium-term debt strategies within medium-term fiscal frameworks
- Increased emphasis on debt sustainability analysis
  - Both for EMEs and LICs
  - Improving the capture of domestic debt issues in DSA
- Working with multilateral task force on debt statistics
  - Improve data on debt issued in domestic markets
  - Continued emphasis on improving transparency
No Room for Complacency

- Stronger focus on an integrated approach towards risks in a sovereign balance sheet
  - Set up a Sovereign ALM Unit (3Ms: Macro, Management, Markets)

- Stronger operational link between sustainable debt and its prudent management

- Nature of global liquidity? Who are the current providers and why/how they provide it? Can one differentiate between reversible and more sticky liquidity?

- Changes in the local and foreign investor bases; Would asset allocation preferences remain?
No Room for Complacency

- Petrodollar savings or accumulation of foreign exchange reserves: broadened the investor base?
- Role of regional investors? Is “home bias” important?
- Are investors continuing to expand their interest in relatively less well-known (riskier) emerging markets?
No Room for Complacency

- Which structural features of local EM capital markets are critical in reducing vulnerabilities?
- Continuing challenges in implementing an effective institutional framework for debt management.
- Obstacles and challenges of developing a medium-term debt management strategy.
- Need for an active role for debt managers in broader economic and financial market development policies.
Sovereign Debt Management in Emerging Markets: Country Experiences and Challenges
Agenda

Review progress and challenges for developing and emerging market countries in the areas of:

1. Developing government debt management strategies
2. Coordination with macroeconomic framework
3. Governance
4. Capacity
5. Implementing reforms

What do we mean by a public debt management strategy?

A document that describes the intended composition of the public debt in the medium term:

- Provides a “roadmap” for borrowing transactions
- Includes assumptions, supporting analysis, limitations, rationale
Progress in 12 Country Cases

Countries ranged from low income to high middle income, across six regions

Initially none had a medium-term sovereign debt management strategy:

- Three countries now have comprehensive strategies
- Three others have active work programs with external assistance

### Sovereign Debt Management Forum: Questionnaire Responses

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have general guidelines on managing risk</td>
<td>45%</td>
<td>48%</td>
</tr>
<tr>
<td>Have strategic targets or benchmarks for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>foreign currency debt</td>
<td>24%</td>
<td>27%</td>
</tr>
<tr>
<td>Have strategic targets or benchmarks for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>domestic debt</td>
<td>13%</td>
<td>33%</td>
</tr>
</tbody>
</table>

The major risk to be managed in the debt portfolio:

- Interest rate risk: around 50% of respondents
- Currency risk: around 35%
- Rollover risk: 20% (35% as second most important)
## Data on Country Strategies

<table>
<thead>
<tr>
<th>Status</th>
<th>Number of countries</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic targets</td>
<td>23</td>
<td>32</td>
</tr>
<tr>
<td>Guidelines</td>
<td>24</td>
<td>34</td>
</tr>
<tr>
<td>No formal strategy</td>
<td>24</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Status</th>
<th>Number of countries</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy public</td>
<td>38</td>
<td>81</td>
</tr>
<tr>
<td>Strategy not public</td>
<td>9</td>
<td>19</td>
</tr>
<tr>
<td>Total with strategies</td>
<td>47</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: World Bank Staff*
Common Challenges in Developing Strategic Targets

- Absence of a formal policy framework for total debt management – split responsibilities
- Insufficient staff with the skills to undertake analysis; lack of analytical tools
- Absence, lack of access or unreliable access to developed financial markets

✓ However, most debt managers have a good understanding of the risks that they face – *implicit* strategies may address these risks
Reduced Share of External Debt
Emerging Markets Sovereign Debt

- External Sovereign Debt
- Domestic Sovereign Debt

Source: JPMorgan
Sovereign debt portfolio changes:

- Seven increased domestic debt as share of total public debt, unchanged in three

- Eight extended maturities of domestic debt, some considerably (although a few resorted to forced placement with public sector entities)

A formal debt management strategy is important

What does this mean?
- A written document that provides a clear framework for all borrowing transactions and sets out a plan for the medium to long term
- It is agreed by the Executive (Minister of Finance, Cabinet, as appropriate)

Why is it important?
- Reduces the opportunity for short-term fiscal expediency, at the cost of increased risk in the future
- Ensures that debt management is not dominated by monetary policy
- Avoids conflicting “sub-strategies” for different components of the debt portfolio
- Provides coherence for domestic debt market development
- Reduces risk of “supply driven” borrowing
- It helps ensure that there is consistency in borrowing strategies
...Strategy Development Can be Gradual

- Codify and document existing approach – move from implicit to explicit
- Relatively simple analysis can provide very useful information for decision makers
- Tailor the strategy to country circumstances – for some, a broad direction is a good start

All countries should have an explicit strategy to guide necessary decisions on the composition of the debt
2. Coordination between debt management and macroeconomic policies

In an ideal world:

- Fiscal policy is conducted within a medium-term framework – debt managers contribute to sustainability analysis, and help to reduce risks to the budget over the medium term.
- Monetary policy and debt management are implemented with separate policy objectives and instruments.
- Cash management is implemented effectively and supports efficient public debt management.
However, Significant Challenges Remain

Coordination with fiscal policy:

- Evidence of “fiscal dominance” in some countries, especially when public debt levels are high:
  - Reduce debt interest costs in the short run, but increase risk

Coordination with monetary policy:

- Separation of debt management and monetary policy difficult in practice for many countries especially when:
  - Central bank has extensive role in debt management due to weak capacity in finance ministries; or
  - Underdeveloped debt market results in sharing of policy instruments.

- Risk of policy conflict – credibility of monetary policy undermined or prudent management of government debt sacrificed
  - Situation is compounded if the central bank has a weak capital position, e.g. large quasi-fiscal losses
As well as with Cash Management

Poor cash flow forecasting common in many countries, resulting in:

- Limited scope for active cash management – debt managers have to time long-term debt issuance to meet short-term cash needs
  - Predictable calendar not possible for the primary market

- Need for high precautionary cash balances – adds to costs when yield curve is positive
Implications for Reform

- A narrow focus on public debt management may miss key policy linkages – a broader program is mutually reinforcing.

- Often need to work with “second best” alternatives,
  e.g.:
  - Use of agency agreements to clarify roles when debt management remains in the central bank
  - Improved coordination when there are multiple issuers in the government-risk debt market
3. Governance

An effective governance structure is required to:

- Ensure that a prudent debt management strategy is developed and adhered to: this is the most important element of public debt management.

- Provide accountability - debt managers are responsible for sizeable portfolios with significant risks. The public and investors require assurance that these are well managed.

- Increase predictability - disclosure of the borrowing program increases certainty for investors … and lowers the borrowing cost to the Government in the long-run.
Common Issues

Legal framework
- Most countries meet the minimum requirement of clarifying who has the authority to borrow
  - Although it may be scattered across a number of laws (different levels of authority for different types of borrowing)
- Few countries have legislation that includes debt management objectives, and that sets out requirements for strategy development, reporting and evaluation

Organization
- Management of public debt is often split across a number of entities – ministries of finance, central banks, economic and development ministries:
  - Can make it difficult to develop an overall strategy, may be inefficient (duplication of resources, coordination costs), hamper accountability, reduce flexibility in choices of borrowing sources
  - Institutional and organizational reform may be difficult to implement, but other approaches may be used such as coordination between groups to achieve key outputs, e.g. strategy development
Governance Issues: Accountability

Reporting
- Public financial reporting (accounts) in many countries has little information on public debt
- Specific reporting on public debt may be required under separate laws to compensate for this
- Many countries produce substantial information on public debt, even if not required by law – outside sources of demand often the reason (e.g. rating agencies, investors)

Audit
- Specialized nature of debt and related transactions may be a challenge for auditors

Operational Risk
- Documentation of procedures and processes can reduce operational risk – mixed picture across countries
- Few countries have specific codes of conduct for debt management staff
- At the extreme, an absence of adequate procedures and due diligence can lead to fraud
4. Capacity

- Recruiting, training and retaining staff with the appropriate skills mix for all aspects of modern public debt management remains a challenge for most countries.

- Accurate and comprehensive IT systems support efficient debt management and enable more advanced analysis – and yet few countries are fully satisfied with the existing systems.
Staff capacity: a high priority issue

Forum 2006 Questionnaire: What are the main constraints/obstacles/concerns that you face in debt management?

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutional capacity</strong></td>
<td>51%</td>
<td>62%</td>
</tr>
<tr>
<td>Lack of appropriate organizational arrangement with trained staff</td>
<td>31%</td>
<td>18%</td>
</tr>
<tr>
<td>Lack of middle-office analytical capacity and staff</td>
<td>12%</td>
<td>35%</td>
</tr>
<tr>
<td>Back-office limitations</td>
<td>8%</td>
<td>9%</td>
</tr>
<tr>
<td>Legal framework</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>Macroeconomic risk</td>
<td>14%</td>
<td>9%</td>
</tr>
<tr>
<td>Developing a deep and liquid local debt market</td>
<td>6%</td>
<td>21%</td>
</tr>
<tr>
<td>Cost of funds</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Risk management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Funding risk</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>Liquidity/refinancing risk</td>
<td>3%</td>
<td>0%</td>
</tr>
<tr>
<td>Contingent liability risk</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Forum Questionnaire 2006:
What are the major constraints to having a strong staff capacity for debt management?

<table>
<thead>
<tr>
<th>Constraints</th>
<th>#</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureaucratic constraints (e.g. civil service laws/rules) that limit flexibility in recruitment</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Difficulty in recruiting highly trained university graduates</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Low salaries</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>High staff turnover to private sector and/or within the public sector</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Low priority given to debt management by senior policy-makers</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Lack of structured training programs</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Lack of budget for training programs</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>102</td>
<td>100</td>
</tr>
</tbody>
</table>
Forum Questionnaire 2006:

How important is strengthening staff capacity for public debt management in your country?

93 %  High priority
7 %  Medium priority
Forum Questionnaire 2006:

Which areas of expertise have priority in terms of strengthening staff capacity for debt management?

26 % Capital markets, both external and domestic, and bond placement
11% Loan negotiation
37% Front office issues

21% Risk identification and quantification
11% Debt strategy design
32% Middle office issues

11% Debt recording and statistics
5% Debt transaction confirmation and registration
16% Back office issues

16% Legal documentation and analysis
Common issues in 12-country pilot program

Needs assessments in the 12 countries revealed some similarities:

- Public sector laws, rules and practices impeded the recruitment and retention of staff with the appropriate skill mix (limits on number of staff, new staff determined by personnel office, compulsory staff rotation policies, low salaries)

- High staff turnover, especially as staff gained skills and experience

- Paucity of training opportunities and inadequate budgets for training
Conclusions From the 12-country pilot program

- These findings are not unique to public debt management, and affect many other core functions in MoF and other parts of government.

- First-best solution would be to focus on improving the quality of government services in general; but this is a long-term endeavour for many countries.

- In the near and medium-term, countries have had to be more creative in order to attract and retain skilled staff. Public debt management is highly specialized business, requiring finance, macroeconomics and public sector skills.
Conclusions From 12-Country Pilot Program

The mechanisms used to address these problems included:

- On-the-job training and short-term external assignments
- Limited but improved incentives for career progression
- Use of existing public sector capacity-building programs and international support networks
- Use of resident advisors, external consultants and secondments from central banks
- Establishing islands of excellence or enclaves (infrequent)

All these mechanisms have their pros and cons and have to be used judiciously and according to the best fit in each country given their specific needs.
Information Technology Systems

- A common issue is multiple IT systems – separate debt databases present integration problems and increase operational risk.
- New requirements may exceed capabilities of the existing systems – e.g. expanded domestic borrowing in a range of instruments, use of swap transactions.
- A full IT system development or acquisition is a significant management challenge – business processes should be reviewed first.
- Some countries have taken an approach of smaller steps – reduces risk and allows time to better assess longer-term business needs.
5. Reforms and Capacity Building

- A comprehensive diagnostic – including linkages with other policies and the governance environment – helps identify the nature of tradeoffs and develop realistic reform programs.

- More important to develop programs that are a ‘good fit’ rather than ‘best practice’:
  - Reform programs must reflect country-specific environment and priorities.

- As is the case for reforms in many areas, political commitment and an effective day-to-day leader of the process are required for successful implementation.

- Integrating debt management reforms into a broader agenda (e.g. public financial management or financial sector reforms) may assist with implementation.