Sovereign Debt Management Forum 2014

Summary Note for Breakout Session 5

Measuring and managing risks related to credit guarantees and on-lending

I. Summary of session

Fred Haddad who manages the counterparty credit risk team at the World Bank framed the session by highlighting the risks sovereign credit guarantees and on-lending can pose to government finance and hence, how important prudent risk management is in the process of issuing guarantees and on-lending funds as well as in risk monitoring.

The three country presentations from Indonesia, South Africa, and Turkey illustrated how debt managers have developed frameworks to analyze, measure, and manage risks related to credit guarantees and on-lending. The three cases show how the respective frameworks are highly context-specific and how the design of the frameworks are driven by factors such as the characteristics of the guarantee and on-lent portfolios (e.g. size, types of beneficiaries), previous experience in credit risk management, and the availability and quality of (historic) data on the performance of beneficiary institutions and credit events.

Concluding the presentations, Fritz Bachmair from the World Bank Treasury presented a four step process that can be used by risk managers to develop a framework for analyzing and measuring risks related to credit guarantees and on-lending.

In a final question and answer session participating debt managers followed up on specific aspects of the risk management frameworks described by presenters, including the use of market data to inform risk quantification, and the application of risk management tools such as guarantee fees.

II. Key insights from presentations and discussion

Lalu Taruna's presentation of the Indonesian experience illustrated how a debt management office with limited prior experience in credit risk management can develop a risk management framework informed by risk analysis and risk quantification. Mr. Taruna explained that his team chose to develop an internal credit scoring methodology to assess default risk of entities which borrow under a government guarantee in order to be able to assess the government's specific risk exposure, to build capacity to understand key risk drivers within the team, and because not sufficient historic data was available to calibrate a statistical model on. The results of credit scoring are than translated into expected loss and

market values using data on historic credit events and bond spreads by rating category from rating agencies. Mr. Taruna showed how the results are amended to fulfill policy objectives and reflect the specific situation in Indonesia when guarantee fees are set and when budget allocations that are then transferred to a guarantee fund reserve account are appropriated.

Mkhulu Maseko spanned the spectrum of contingent liabilities his team is monitoring in South Africa, ranging from explicit credit guarantees to risks from public private partnerships (PPPs) and implicit contingent liabilities, such as various insurance funds (e.g. unemployment insurance fund, export credit insurance company, etc.). Mr. Maseko then shared with participants how his team has developed credit scorecards to assess the risk of guarantees to state-owned enterprises (SOEs) materializing. His team undertakes an assessment of business risks (i.e. more qualitative indicators such as corporate governance and operating environment) and financial risks (i.e. more quantitative measures such as various financial ratios derived from income statements and balance sheets). In monitoring and reporting risks Mr. Maseko's team ranks all relevant SOEs on a scale from 1 (low risk) to 10 (high risk) and tracks the evolution of individual entities and the overall portfolio to flag developments that need attention and the application of risk mitigation tools.

The key insight from Emre Elmadag's presentation was the illustration of a statistical model the Turkish Treasury has developed in-house to assess credit risk of four different types of entities, including SOEs, public and development banks, municipalities, as well as municipal administrations. The model presented draws on historic data on financial information and credit events collected by the Turkish government for several decades and uses this information, together with information on post collection performance (i.e. recovery of payments when guarantees materialize) to calibrate a regression model that estimates default probabilities and expected losses per institution. The information obtained through the model then informs the design of several risk mitigation tools, including the setting of guarantee fees, partial guarantee coverage, appropriations to a risk account, as well as limits on the guarantee and on-lent stock. Mr. Elmadag further illustrated other measures the Turkish Treasury employs to mitigate risks, such as pre-conditions set on entities to qualify for government guarantees, including sound financial capacity and no overdue debt to Treasury.

Fritz Bachmair attempted to draw communalities from the country experiences presented, as well as experience from Sweden and Colombia and presented a four step process to develop a risk analysis and measurement framework. According to this framework government risk managers would start by defining the key characteristics of the respective guarantee portfolio, the institutional setup, and the availability of data before choosing a methodology for risk analysis. Following the risk analysis, the results can then be translated into quantifiable measures which may inform the application of various risk management tools, such as the setting of guarantee fees, reporting, budget appropriations, and the design of a contingency reserve account, among others.

III. Conclusion and issues for further discussion

The discussion between government risk managers illustrated how context specific risk management frameworks have to be designed in order to best support the management of risks related to guarantees

and on-lending. While the specific design of approaches is highly context specific, government risk managers can draw upon rich experience from other countries, the private sector, especially financial institutions, and academia to help them choose among various approaches and methodologies that they would then customize. Also, irrespective of the particular approach chosen, countries can set up a process to guide them through the design of a risk management framework, consisting of four steps, as discussed above.

As several countries intend to increase the number of PPP projects which may include government guarantees to absorb several risks, the risk analysis of project finance and the analysis and quantification of risks related to specific (non-credit) government guarantees is an important issue for further discussion among government risk managers and may be picked up at a future event such as the Sovereign Debt Management Forum.