Managing currency composition under an asset-liability management framework

I. Summary of session

Phillip Anderson introduced the topic by providing an overview of the asset and liability management (ALM) framework and pointing out that it is an approach more discussed than implemented in countries. He stated that i) not many governments have a clear idea of their balance sheet and they do not publish a comprehensive balance sheet, ii) various assets and liabilities are managed by different entities with different objectives, and iii) different accounting practices adopted by the institutions (accrual based or market based value) challenge the implementation of the ALM. He concluded that the objective of the ALM is still valid for governments, especially in the management of the currency risk which is one area where countries have been successful at applying this technique. The reasons are the relative ease of keeping track of the risk exposure from an analytical point of view and the tools to manage the currency risk. The most frequent application is to match the composition of the foreign reserves against the composition of the debt portfolio.

Following the introduction, three presenters took the floor.

Ib Hansen, Special Advisor at the National Bank of Denmark responsible for international financial stability and stress testing presented the case of Denmark. In the 1980’s, Denmark undertook a series of reforms in the area of public debt management. An assessment by the auditors of the government’s balance sheet consolidating the public debt portfolio and the CB reserves showed that the gains and losses on the FX exposure were very high. Based on the recommendations from the auditors, the debt management office was transferred to the CB to facilitate the borrowing operations but also to manage the risks from an ALM perspective. The debt management office assessed that it was possible to establish a mechanism to reduce the foreign currency mismatch in the government’s balance sheet consolidating the public debt portfolio and the CB reserves, whereas to fit the interest rate risk into an ALM framework proved to be difficult due to the way this risk is measured by the two institutions. Further analysis into the foreign currency risk showed that a risk minimizing portfolio would be to keep the exposure in Euro. As a result, Denmark which has a fixed exchange rate regime has been financing the budget deficit through domestic currency borrowing while building international reserves through
external borrowing. This approach led to the smoothening of the net FX exposure not only of the consolidated balance sheet but also of the asset and liability sides separately.

**Fatos Koc**, Head of Market Risk Management at the Turkish Treasury presented the Turkish and South African approaches to the ALM. Both countries adopted a narrow definition of the ALM focusing mainly on the assets and liabilities of the central government; Turkey takes into account the cash reserves, the stock of receivables, public debt stock and the contingent liabilities while South Africa especially considers the risk exposure of the state owned entities. Both countries adopted the strategy of minimizing the foreign currency exposure. No benchmarks were designed for the currency composition of the debt stock but Turkey follows a strategy of borrowing in currencies strongly correlated with the Turkish Lira. South Africa provides risk management guidance to the state owned entities and uses foreign borrowing to build international reserves.

**Heri Setiawan**, Deputy Director at the Ministry of Finance presented Indonesia’s recent work on establishing an ALM framework. A project implemented with the support of the World Bank helped the government assess the foreign currency risk exposure from the balance sheet of the central government debt portfolio, the CB and the six big state owned entities in a consolidated way. The rationale for including the state owned entities is due to their increasing borrowing from abroad which creates vulnerabilities in the current account balance. The project limits the scope to financial assets and liabilities, intends to develop recommendations for the management of the consolidated portfolio. To conduct a numerical analysis has proved to be challenging due to the different objectives of the relevant entities and the accounting practices. As a conclusion of this analysis, Indonesian government decided to reduce their borrowing in JPY and issue more in Euros and Dollars to match the financial characteristics of the CB’s balance sheet. Going forward, the government plans to improve the study, and incorporate the duration of the FX into the analysis.

**II. Key insights from presentations and discussion**

A few take-away from the session are the following:

- According to Ib Hansen, the full integration of the asset and liability side of the government’s balance sheet is not possible and not wanted: “Governments should take on risk when it makes sense and should not when it is does not”
- Presenters agreed that the ALM is important but institutionally very challenging; especially due to accounting differences in the books of the debt management offices and the central banks. Another key challenge is the coordination with the other institutions, for example the Central Bank and the institutional capacity of the debt management office.
- All emphasized that managing the FX exposure should be the priority, given the limited ability of the governments to generate FX revenues. Fatos Koc stressed that the FX risk on the government’s debt portfolio and the FX reserves can be managed jointly without specific modelling.
Another observation was that reducing the exposure with passive and active hedging depends on several factors including the capacity of the risk management unit, the institutional choices and depth of financial markets.

It was discussed that the composition of the FX portfolio can be set either by considering the composition of the FX reserves or in currencies highly correlated with the local currency.

Regarding Denmark’s ALM practices, the audience commented that it is easier to implement the AML type of framework in countries with a fixed exchange rate regime since it is simpler to identify the minimum risk portfolio.

Swedish participant observed that looking from central government point of view, to minimize the variability in terms of the domestic currency rather that the FX reserves makes is a more rational approach.

III. Conclusion and issues for further discussion

Some of the conclusions of the session were as follows:

- Indonesia case helped illustrate the power of information in collecting data and conduct an ALM analysis.
- Contrast in the approaches between Denmark and Sweden showed that it is debatable which institution should be responsible for designing and implementing an ALM framework.
- **What is measured is managed.** To the extent that governments do not publish consolidated balance sheets about government’s net worth, there is no awareness on the benefits which could be drawn from an ALM approach.
- Given public debt is the biggest liability for the government, debt managers have an incentive to take a look at the issue of ALM to have insight into how the sovereign’s net wealth is affected by changes in the FX and interest rates. But it is clear this is an area where a lot of work lies ahead.