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Word Count: 1620

**Managing the cost and risk of debt:****The approach of the corporate and sovereign borrower.**

Debt management is a relatively new activity. Capital market developments, especially the availability of swaps, the growth of larger portfolios and the availability of technology and systems, have been the main factors making debt management possible. Because it is relatively new, and more an art than a science, best practice is not well established. In my experience, sovereign borrowers have generally given more priority to the development of their methodologies and concepts for debt management than their corporate equivalents. The proposition of this article is that corporate treasurers can benefit from the approach adopted by their sovereign cousins.

*The common ground*

At first glance, sovereign (or public) and corporate (or private) debt management could be regarded as very different activities but this is not the case. The objectives of sovereign and corporate borrowers are almost the same; both seek to minimise cost on an overall portfolio basis, while in some way taking account of the various risks. Both highly rated sovereigns and corporates have wide market access (although the sovereign has a special position in its domestic capital market). Both are active users of swaps and have access to non-debt financing; privatisations in the public sector and divestments in the private. Organisationally, there are similarities. With the trend towards borrowing at sub-national levels of government for example at regional or municipal level, a parallel can be seen between the corporate centre/operating subsidiary and the central government/local government organisation. Well-developed borrowers in each area adopt a standard front, middle and back office treasury structure. Of course there are

differences (e.g. the macroeconomic policy environment for the sovereign borrower) but the common ground is quite large.

### *Sovereign debt management*

'Public sector' can sometimes carry the presumption that it lags behind the professionalism and efficiency of the private sector. In my experience that is not the case in fact for public sector debt management. The growth of public sector deficits in the 70's and 80's and the ongoing requirement for infrastructural investment has meant that management of public debt is a critical treasury activity, whether at national or local levels of government. As a consequence, considerable expertise has developed by the leading practitioners in this area. In addition, agencies such as the World Bank have coached the development and implementation of sound methodology and this has also contributed to 'best practice'.

### *What does 'minimise cost' really mean?*

The area I am focusing on in particular is the objective of 'minimising cost subject to taking account of the risks'. What does this mean in practice? What cost and risk concepts are adopted and measured? The 'cost of debt' can mean many different things; it can be nominal or real, absolute or relative, interest only or inclusive of capital gains and losses. To complicate it further, it has a time dimension, so do we minimise cost for this year at the expense of next year, or over a multi-year period? 'Risk' too has at least as many dimensions. In reality, the objective of minimising cost subject to risk can be simply stated but putting it into practice means going much further and defining the concepts and the methodology.

### *Conceptual framework and methodology*

Effective debt management requires a conceptual framework that defines the cost and risk measures as a basis for measurement and reporting. Policy and debt management guidelines need to be in place, otherwise the treasurer is operating in a vacuum with objectives open to personal interpretation and actions exposed to the wisdom of hindsight. The guidelines need to be specific enough to ensure that policy is implemented

and, at the same time, that enough room is allowed for the treasurer to manage the portfolio. Because of the requirement for accountability and transparency – and to avoid the sovereign debt becoming a political football – sovereign treasurers are more inclined to explicitly define their concepts, objectives and methodology. The leading sovereign borrowers publish details of their portfolios and cost/risk management in greater detail than in the corporate sector and this has been an incentive for them to decide and document their approach. On the other hand, corporates can get by with fairly basic disclosure in their annual reports. Unless this is supported by more rigorous internal measurement and reporting however, it can be a weakness.

### *The ALM approach*

One interesting element of methodology is the asset/liability approach. The company balance sheet has facilitated the adoption of an asset/liability approach to debt management by corporates, mainly to reduce or eliminate the risk on foreign currency assets with offsetting foreign currency liabilities. Sovereigns, whose reporting is much different and more concerned with financial flows than assets, have adopted the balance sheet approach as a debt management tool. This is because managing liabilities in isolation is quite limited, especially from a risk perspective. Whereas corporate treasurers work with the actual balance sheet and ‘currency match’ these assets and liabilities, sovereign treasurers go further and include a wide range of quasi-assets and liabilities, many of which are the present values of variety of expected future cash flows e.g. future export earnings. The benefit of this approach is that it provides a framework for a wider approach to risk management.

### *Systems*

It is difficult to actively manage a debt portfolio without specialist systems. In my view, sovereign treasurers give higher priority to these systems than corporates. Corporate treasurers are still prepared to get by with spreadsheets, ad-hoc analyses and whatever outputs their transaction processing systems can provide. In the public sector, the size of the portfolios, the fact that it is public money, the work ethic of civil servants which places a premium on limiting risk, and to some extent the availability of resources, has

meant that proper systems are seen as a prerequisite for active debt management. The ability to run scenario portfolios for cost and risk modelling, and benchmark portfolios for performance measurement, are regarded as essential tools for effective debt management by the leading practitioners.

### *Measuring cost and risk*

‘What is the cost of our debt’ and ‘what is our risk’ are basic questions for debt managers. To answer them, some summary numbers are needed. Having worked with a wide range of sovereigns and corporates, I find that in practice treasurers are doing different things when it comes to selecting the summary numbers for cost and risk measurement and reporting. Corporate annual reports give a lot of information on borrowings but the format and content is indicative of the lack of ‘best practice’ standards. Whether for internal or external purposes, the goal is to provide summary, comprehensible data on the main characteristics of the debt portfolio i.e. size, currency and interest rate composition, maturity profile, duration and cost.

### *Specific measures*

Value-at-risk in my experience is not widely used either by corporates or sovereigns. It has obvious attractions eg it is a single, summary measure of possible loss. I think that one reason behind its limited use is that for many potential users it is not intuitive and, in terms of transparency, it is something of a black box. However, I also believe that it is not seen as the most practical, relevant measure. Managing cash and cashflow is the most basic aspect of treasury and this gives priority to the cashflow measures. Of course, cost must measure the value of outstandings as well the cash flow. However, marking-to-market and value-at-risk, because they deal with amounts that will not be realised in cash near-term, are secondary measures for the majority of treasurers. It appears that value-at-risk is more commonly used by trading operations where risk-taking for profit is the goal rather than the management of cost over time as is the case for sovereigns and corporates.

Treasurers are using more basic approaches as measurers of risk. One of the more common is scenario-based and measures the gain/loss resulting from a parallel shift in the yield curve or a specified movement in exchange rates. Sovereigns also use cashflow measures of risk and this methodology could also be valuable for corporates.

Recognising that refinancing risk can mean more than any theoretical measure of possible loss, sovereign treasurers in particular focus on the ratio of short term debt to long term debt, proven to be a good indicator of impending financial crises. Sovereign treasurers also measure and report duration as a single number (i.e. average maturity) on an overall portfolio basis, whereas the duration measure is rarely mentioned in corporate annual reports.

A number of leading borrowers use benchmark portfolios, both to set guidelines (e.g. for duration) and also to have a basis for performance measurement. These benchmarks vary from those derived from sophisticated modelling to more basic, subjective 'optimum' portfolios. Regardless of their sophistication, a soundly-based benchmark portfolio gives a better basis for comparison of cost than 'actual versus budget'. The benchmark approach generally has a multi-year perspective which is essential for cost/return trade-offs and besides, good performance against budget may mean just good budgeting. Sovereigns usually take a multi-year view whereas corporate reporting can put the focus very much on the current financial year. The benchmark approach can also ensure that 'cost' and 'risk' are considered together. This is a strong feature of sovereign debt management whereas cost management can be given priority in the corporate sector.

### *Conclusion*

Cost and risk measurement for debt management does not have a universally applied best practice. It is a complex area but clear concepts, methodology and systems can make a difference. In general, sovereign borrowers have had to adopt more structured approaches for their debt management. Good debt management reduces long-term costs and corporate treasurers can benefit from applying the methodology now widely used by sovereigns.