

Asset and Liability Management (ALM): The case of New Zealand, Turkey, and Denmark

The ALM approach is widely used by financial intermediaries to manage the corporate balance sheet. Starting from the 1990s, some of the developed countries adapted the same approach to the management of sovereign assets and liabilities. New Zealand has become one of the pioneers to introduce a comprehensive ALM approach, while countries like Denmark adopted ALM in a narrow scope. A decade later, some of the emerging countries, such as Turkey, initiated the ALM framework with a sub-portfolios approach. This note summarizes three country cases of New Zealand, Turkey, and Denmark.

New Zealand

The New Zealand Treasury ("Treasury") conducts sovereign balance sheet risk analyses to support its fiscal, balance sheet and debt management strategies. The New Zealand Debt Management Office (NZDMO) is an operating unit of the Treasury that aims to ensure "the composition of the core Crown debt portfolio and funding programs are structured to optimize Crown balance sheet risk and return outcomes over the long term." The NZDMO has adopted a broader sovereign asset-liability management (SALM) approach to public debt management that accounts for total Crown risk and return outcomes when determining debt and portfolio management strategies. These strategies are informed by analyses of the government's entire balance sheet, which is constructed from a variety of documents, including the government's monthly Financial Statements and publicly available semi-annual fiscal forecasts.

Country Context

The Treasury conducts balance sheet risk analyses to support its fiscal, balance sheet, and debt management strategies. The NZDMO aims to ensure that "the composition of the core Crown debt portfolio and funding programs are structured to optimize Crown balance sheet risk and return outcomes over the long term." New Zealand is a country that has adopted a broader sovereign asset-liability management (SALM) approach to public debt and fiscal management.

Main Stakeholders

Treasury: is the government's lead economic and financial advisor and is guided by a vision to increase living standards for New Zealand citizens.

NZDMO: "oversee[s] the Government's borrowing requirements and associated activities, with a goal of managing debt in a way that minimizes costs while keeping risk at an appropriate level."

The Risk Policy function –NZDMO's middle office – is responsible for measuring NZDMO's performance and risk; monitoring compliance with the approved policies for managing the Government's net debt portfolio; ensuring NZDMO's portfolio and risk management frameworks are consistent with international best practices.

The Balance Sheet function is responsible for assessing financial risks across the Crown's balance sheet and formulating an Asset and Liability Management framework for the Crown as a whole.

Process

Treasury's Balance Sheet function uses stress tests and other means to measure and monitor total Crown risk exposures, including concentration risk, and aggregate credit and ownership exposures. This information is used to inform policy advice, fiscal strategy, and debt management. NZDMO combines two functions: (i) core debt management and (ii) treasury services. Debt management consists of actions such as issuing treasury bills and government bonds and managing core-Crown cash and liquidity and investor relations. Treasury services include intermediating risk for departments and Crown entities, managing Crown lending and IMF transactions, and advising on capital markets issues. Financial risk generated through these functions is managed with due consideration of total Crown risk and return, including the total Crown interest rate and currency risk. The Balance Sheet function shapes its analysis using a comprehensive government balance sheet, which it constructs from monthly government financial statements and publicly available semi-annual fiscal forecasts.

Turkey

After Turkey experienced a financial crisis in 2000-2001, the country started working with the IMF on a financial reform program that strengthened the country's fiscal fundamentals. As a part of the reforms, the government enacted Law No. 4749 on Regulating Public Finance and Debt Management; created a Risk Management Unit in the Treasury and a high-level Debt and Risk Management Committee; and integrated cash and debt management which allowed for a more holistic practice of asset and liability management.

Country Context

After Turkey experienced political and economic instability in the 1990s, including high inflation, high government debt, and public sector deficits, the country faced a major financial crisis in 2001. The country's domestic debt stock to GDP ratio has increased from 27.1% in 2000 to 57.3% in 2001 (18.2% was due from the banking sector bailouts*.) Turkey initiated debt management reform in 2002, starting with the enactment of Public Finance and Debt Management Law. Later, as a part of the reform agenda, the Undersecretariat of Treasury (Treasury), established the middle office, developed state of the art risk management models, reorganized debt management organization, modernized cash management, issued bylaws on all areas of cash, debt and risk management.

Main Stakeholders

The Undersecretariat of Treasury manages public debt, carries out treasury operations, issues and manages state guarantees, takes and gives grants, and loans. Besides, among other duties, Treasury also capitalizes state-owned enterprises and represents the shareholder rights, makes a capital contribution to international organizations, and issues promissory notes on behalf of Turkey. Besides, Treasury act as the secretariat of the Financial Stability Committee chaired by the Deputy Prime Minister in charge of economic coordination and composed of the Undersecretary of Treasury, the Governor of Central Bank, and the presidents of Banking Regulation and Supervision Agency, Capital Markets Board and Savings Deposit Insurance Fund.

Debt and Risk Management Committee is a high-level decision-making platform chaired either by the Deputy Prime Minister or the Undersecretary, and that sets and monitors medium-term strategic benchmarks.

Central Bank, as the agent of the Treasury, keeps Treasury bank accounts, including the Treasury Single Account, organizes the auctions, makes domestic and external debt service and public payments. Central Bank considers the structure of the government debt portfolio and cash flows while managing the country's reserve.

Government Decisions

In 2002 the government enacted Law No. 4749 on Regulating Public Finance and Debt Management, reorganized debt management with the focus of the implementation of asset/liability management framework. Treasury established the Risk Management Unit, which developed models and strategies to manage the risks associated with the government's debt portfolio, state guarantees including the PPPs, on-lent loans. After integrating cash and debt management, Treasury introduced active cash management.

Outcome

Net public debt stock (% of GDP) fell from 64.8% in 2001 to 8.4 % in 2016. The currency composition of gross central government debt (%) changed from 58.1% in foreign currency to 32.3% over the same period. "Turkey no longer issues FX [foreign currency] denominated or linked debt in domestic markets since 2008, and domestic debt is entirely composed of local currency securities since 2010."

Model

"The mid-office built a simulation model based on Capital at Risk methodology to develop strategic benchmarks for borrowing. This debt simulation model presents cost and risk indicators for each debt funding strategy, as well as maturity and composition profiles for different borrowing amount scenarios. Also, the model enables debt managers to test the impact of different financing requirement amounts, which vary based on different primary surplus and privatization revenue targets, Treasury receivables, and undertaken guarantees projections and liquidity buffer targets on cost and risk indicators."

Denmark

Before 1991, Denmark's debt management office was part of the Ministry of Finance (MoF). In 1991, it was moved to the central bank – Danmarks Nationalbank (DNB) – partly in response to a report prepared by the Government's public auditors. The report found that the DNB already carried out most of the assignments related to Government debt and, as a result, duplication occurred between the bank and the MoF. The report suggested that stronger coordination between the DNB's foreign exchange reserves management and the Government's foreign debt would be beneficial. It also suggested that attracting and maintaining staff with the relevant skills would be easier if the DNB houses the debt office. The move to the central bank has helped to centralize knowledge of most aspects of financial markets within a single authority. Since 1991, the DNB has undertaken all administrative functions related to government debt management. The division of responsibility is outlined in an agreement between the Ministry of Finance and the DNB.

Country Context

The DNB's Government Debt Management Office manages the Government's debt on behalf of the Ministry of Finance. The Government borrows from financial markets to meet its financing requirements, such as payments due on maturing loans and funds to cover budget deficits.

Main Stakeholders

DNB: has several departments that are involved in the Government's debt management. These include its Banking and Markets Department, which houses the debt management unit's front, middle, and back-office functions; the Accounting Department; the Internal Audit Department; and the Legal Department. The separations of these functions are critical to their integrity.

MoF: supports the government in pursuing a sound economic policy, enhance growth and productivity, and ensure efficiency in the public sector. MOF is responsible for the management of the government debt together with and the Nationalbank of Denmark. The overall strategy for the government's borrowing and debt management is determined at quarterly meetings between the MoF and the DNB. MoF is responsible for fiscal sustainability and structural policies.

Government Decisions

Based on the recommendations of the audit report, the government decided to move debt management functions to Danmarks Nationalbank to manage the exchange rate risk in a holistic approach. The Ministry of Finance and the DNB determine the overall strategy for government borrowing at quarterly meetings based on written proposals from the DNB. The adopted strategy is authorized and signed by the Ministry of Finance by a set of written conclusions at the meeting signed.

Outcome

Since 1992, the exchange-rate risk on the government's foreign debt and DNB's foreign-exchange reserve has been managed jointly. This has given a clearer picture of the aggregate risk exposure of the central government and DNB, and limited the overall exchange-rate risk by ensuring that the government does not borrow in one currency. At the same time, DNB invests in another, as well as significantly reduced fluctuations in the government budget due to exchange-rate changes. Since 2001, the government's foreign borrowing has entirely been with final exposure in euro, and the foreign-exchange reserve is mainly exposed to euro. This implementation has simplified risk management and risk assessment significantly. The resulting transparency and simplicity are also valued by market

participants and institutions that make credit quality assessment of Denmark, e.g., credit rating agencies, and investors.

Model

Denmark looks at both assets and liabilities when managing interest rate risk. The strategy for issuance concerns the central government's issuance volume and choice of debt instruments and includes a target for issuance in government securities in the coming year. The strategy is determined based on a range of factors, such as market conditions and the central government's expected borrowing requirement. The strategy for risk management relates to the management of interest-rate risk on the overall government debt portfolio and central government assets. The strategy for the year is inter alia determined based on quantitative analyses of interest-rate risk in the CaR model. The strategy specifies the expected domestic and foreign borrowing requirement and includes a set of decisions for the following year.