

# Sovereign Asset and Liability Management

## The Canadian Strategy



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# Outline

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- Funds Management Objectives and Governance
- Issuance strategy
- Debt stock and structure
- Government's financial assets
- Combining the two: ALM strategies

# Funds Management Objectives and Governance



# Funds Management Objectives

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- Funds management activities encompass issuance of debt, management of liquidity and investment of financial assets
- Two key functions:
  - Financial Asset and Liability Management
  - Risk Management
- Guided by key principles:
  - Efficiency and effectiveness; transparency and accountability; risk management; and fiscal prudence

# Funds Management Governance

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- Ultimate authority for funds management policy rests with the Minister of Finance
- Bank of Canada is the government's fiscal agent, responsible for:
  - Collaborating with Finance to develop policies and strategies
  - Banking and treasury management services
  - Operation implementation of borrowing and investment programs
  - Risk management and oversight
- Work is coordinated through key governance committees

# Domestic Debt Issuance Strategy



# Debt Management Objectives and Trade-Offs

## Stable, low-cost funding



### Trade-offs:

- **Cost/Risks:** a shorter-term debt structure will on average be less costly but exposes the Government to more volatility in debt cost and refinancing risk, while a longer-term debt structure can reduce these risks but have a higher cost
- **Cost/Contingency:** issuance in longer-term debt, while more costly, helps preserve funding capacity in key sectors in case of a stress event

## Maintain a well-functioning market



### Trade-off:

- **Cost-Risks/Well-functioning markets:** maintaining regular issuance across a wide range of maturity sectors supports well-functioning government securities and broader capital markets and diversifies access to funding, but could divert us from optimal debt structure in terms of cost and risks

# The Canadian Debt Strategy Model

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- Provides a comprehensive framework to quantify the cost and risks trade-off between issuing shorter-term and long-term debt based on a wide range of interest rate and economic scenarios
- This allows the decision makers to apply their risk preference to determine the optimal structure to target in the long-run
- The results from the Canadian Debt Strategy Model serve as the basis for the annual debt management strategy



# The Canadian Debt Strategy Model

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**Step 1:** Produces a long-run range of economic scenarios



**Step 2:** Evaluates a set of representative strategies under these scenarios



**Step 3:** Finds the group of efficient debt targets over a wide range of risk levels, and represents that with an Efficient Frontier

# Current Debt Program



# Composition of Market Debt

	2012-13 Actual	2013-14 Actual	2014-15 Actual	2015-16 Estimated	2016-17 Projected
Marketable Bonds	469	474	488	503	544
Treasury Bills	181	153	136	136	134
Foreign Debt	11	16	20	24	24
Retail Debt	7	6	6	6	5
Total Market Debt	668	649	649	669	706

# Bond Program

	2012-13 Actual	2013-14 Actual	2014-15 Actual	2015-16 Estimated	2016-17 Projected
Gross Bond Issuance	96	88	99	92	133
Buybacks	-1.1	-1	-0.5	-0.7	-0.8
Net Issuance	94	86	98	92	132
Maturing Bonds and Adjustments	-74	-82	-84	-76	-92
Change in bond stock	21	4	15	16	41

# Financial Assets



# Official International Reserves

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	<b>August 31 2016</b>
<b>Securities</b>	67,748
<b>Deposits</b>	5,840
<b>Total securities and deposits (liquid reserves)</b>	73,588
<b>Gold</b>	0
<b>SDRs</b>	7,855
<b>Total EFA</b>	81,443
<b>IMF reserve position</b>	2,313
<b>Total official international reserves</b>	83,756

# Official International Reserves – Currency Composition

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August 31 2016	Millions of USD	% of Liquid Reserves
US dollars	51,766	70.3
Euro	15,285	20.8
Pound Sterling	5,910	8.0
Yen	627	0.9
Total	73,588	100.0

# An ALM Strategy





# Asset/ Liability Management

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- The national balance sheet has CAD670 billion in debt and about CAD95 billion in liquid financial assets (denominated in foreign currency)
- This mismatch between the currency and term-to-maturity of the assets and liabilities raises financial risks
- Joint management of the assets and liabilities can reduce fiscal volatility

# Asset/ Liability Management

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- Canada manages its reserve assets on an ALM basis
  - Reserves assets have an associated liability
  - Align assets and liabilities as closely as possible in terms of currency and duration to effectively eliminate currency and interest rate risks
  - Explicitly transform the funding of the reserves into foreign currency liabilities
    - Direct foreign currency issuance
    - Cross-currency swaps of domestic debt

## Benefits of ALM

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- Effectively mitigates adverse impacts from changes in interest rates and foreign exchange rates
- In the case of Canada, the FX and interest rate risk of the EFA is minimal
  - VaR of  $< 0.05\%$  of the value of the liquid reserves
- ALM enhances transparency of funding cost and investment return
- Funding costs are equal to the spread between the return on reserve assets and the yield on the matched liability.

# Challenges

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- Credit risk is not hedged in the ALM framework
  - Can be significant basis risk between the assets and liabilities
- Intervention opens unhedged FX position; not suited to a country with an active intervention policy
- Typically relatively expensive
  - Countries have a comparative advantage in borrowing in their domestic currency
  - Direct foreign currency funding can be expensive
  - Liquid CCS markets may not exist

# Canada's Experience

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- ALM strategy has served Canada extremely well
- There are a number of factors that explain this:
  - Floating exchange rate with very infrequent intervention. Reserves stay hedged.
- High credit quality and well-developed capital markets means Canada can borrow relatively cheaply, both directly and synthetically
  - Lowest cost SSA borrower. Direct issuance at <10 bps over US Treasuries.
  - Synthetic borrowing (CCS) at rates substantially below reference issuers.
- Allows Canada to meet its objectives (liquidity and capital preservation) at a positive net return and materially reduces financial risk (fiscal volatility)

# Questions?

