

The benefits of integrating Public Debt Management into an ALM framework

– Why ALM is important –

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ALM -Why should we care?

- ALM = Consider all Assets and Liabilities
- An evaluation of all Assets and Liabilities is needed to have the full picture of your net worth position and of relevant vulnerabilities:
 - Currency Mismatches
 - Maturity Mismatches
 - Contingent Liabilities (Guarantees, SOEs, Banks, Loc. Gov't)
 - Exposure to Macroeconomic shocks – Revenue volatility (crises, recessions, commodity prices, external shocks, etc.)

Balance Sheet of a Sovereign is Different

Conceptual Government Balance Sheet

Assets

PV of fiscal revenues
Foreign exchange reserves
Marketable securities
Onlending (e.g., IBRD loans)
Investments in SOEs
Investment in infrastructure (e.g. roads)

Liabilities

Direct Liabilities

PV of fiscal expenditures
Net market value of sovereign debt⁹

Contingent Liabilities

Explicit contingent liabilities
Implicit contingent liabilities

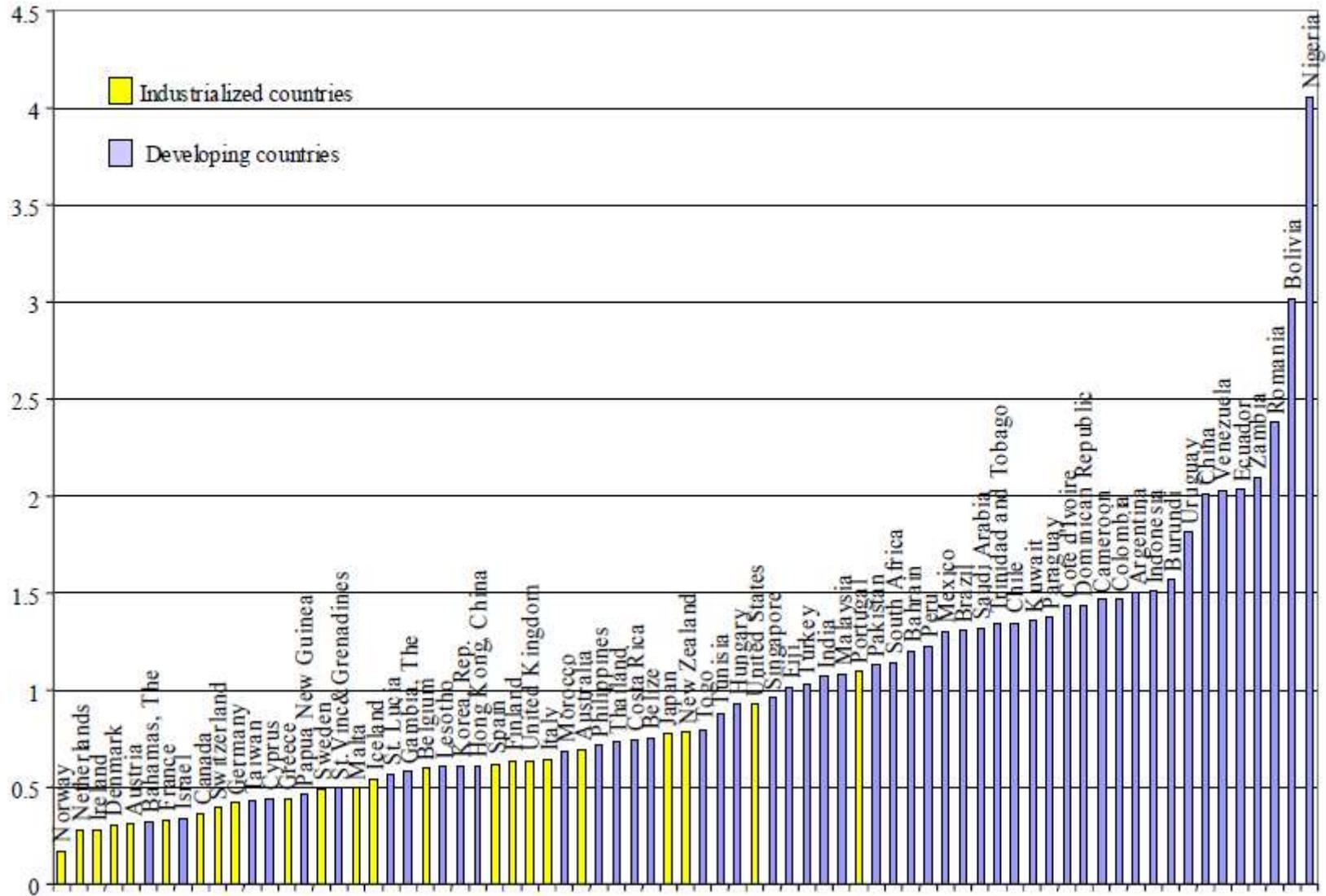
Equity

Net worth of government estate

ALM -Why should we care?

- ALM makes you aware of the relevant risks:
 - Exchange rate risk and interest rate risk
 - Commodity price risk (very important in Africa)
 - Liquidity risk
 - Credit risk (contingent liabilities)
 - Recessions
 - Natural disasters
- It reminds you that good debt management is not only about portfolio risk management but also an insurance against extreme bad events.

Volatility of the long run real exchange rate



What ALM is about

- The ALM approach show how to reduce the volatility of net worth by applying basic concepts, like diversification and hedging.
- The aim of ALM is to contain risk by matching the characteristics of the assets and liabilities, so that one side of the balance sheet will be hedged –or immunized – by the other side.

The Benefits of ALM

Asset Liability Management:

- Makes you aware of the relevant risks and the need for insurance;
- Extends monitoring to fiscal risks, commodity risk, contingent liabilities;
- Shows how to hedge risks;
- Makes you think in term of trade-offs between expected costs and risk.

Bad Thought

- ALM was first adopted in advanced economies with low debt:
 - New Zealand, Australia, Denmark, Sweden
- Maybe because they had no debt to manage?
- Is ALM less important for developing countries?
- Is ALM less important at high levels of debt?

No...

Good Thought

- In high-debt countries, good management of Asset-Liability Risks is crucial to withstand crises
- Developing countries have large foreign reserves
- In developing countries commodity risk is substantial
- Public Companies and Public Banks are important assets and a potential source of contingent liabilities.
 - Public injections into the banking system after the Asian crisis more than doubled the size of debt-to-GDP in Korea and Thailand (Wheeler, 2004).

Supervision is good!

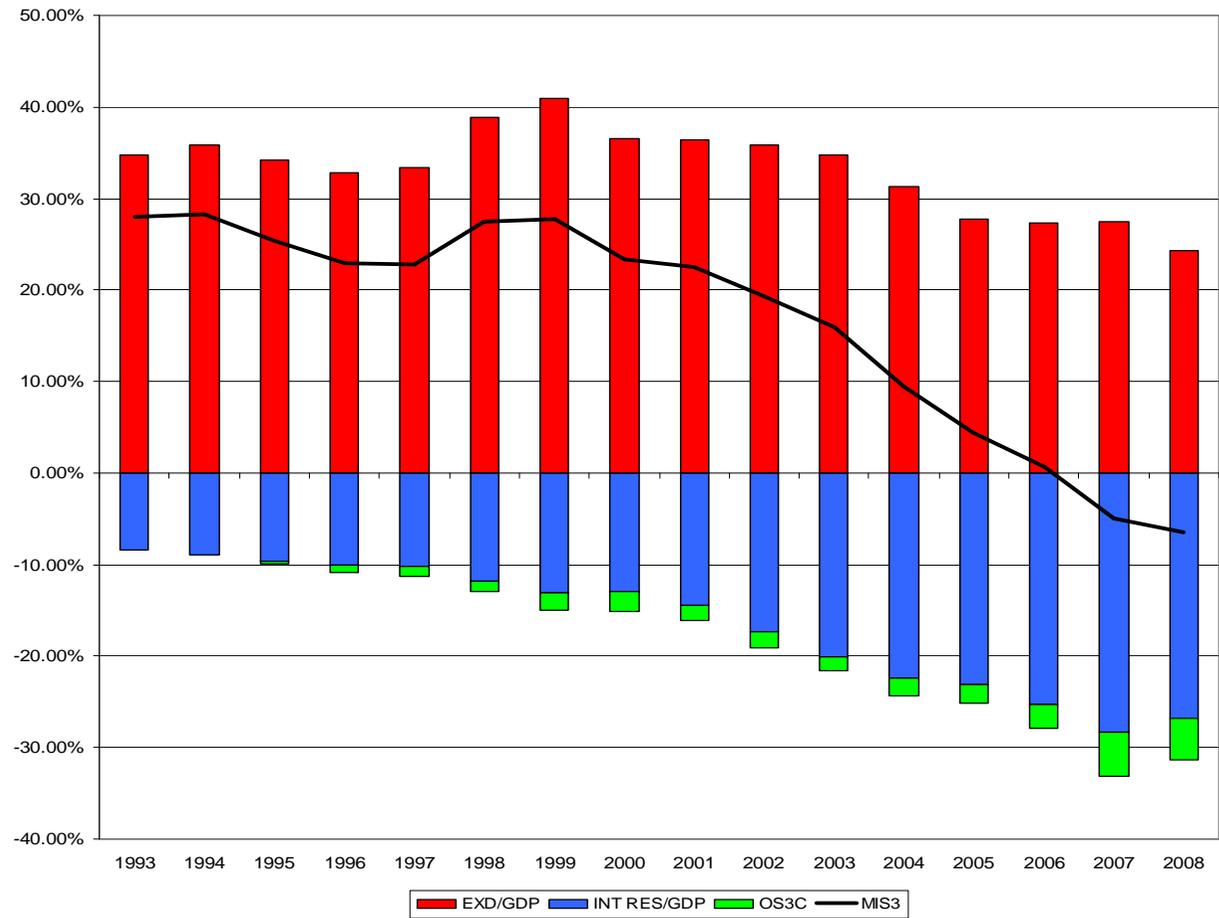
Monitoring Contingent Liabilities

- In a financially integrated world, crises are not only about debt, but also banks, companies...
- It is efficient for the Government to monitor guarantees and balance-sheet risks of Public Companies, Banks and Local Authorities so as to ensure that actions of third parties do not increase its exposure as guarantor of last resort.
 - Currie and Avelandia (2002).

Asset-Liability - Example 1

- Suppose that the US dollar is expected to depreciate against the Euro.
- Your external debt is in dollars – fine!
- If Foreign Reserves were managed separately by the Central Bank, there would be an incentive to hold Euros.
- By contrast, if Reserves and debt are managed together under ALM, it is unlikely that the CB will shift to euro reserves.

Currency Mismatches have decreased



Source: Hausmann and Panizza (2009)

Asset-Liability - Example 2

- Suppose you have a long-term debt in dollars and foreign reserves in dollars
- Should reserves be used to redeem debt?
 - Interest rates on debt could be higher
- If private debt and contingent liabilities are considered, then foreign reserves can be held to cover short-term private debt and prevent a liquidity crisis in case of a sudden stop.

Indeed, access to international capital is volatile, and foreign reserves have an insurance role.

Asset-Liability - Example 3

Commodity/Fiscal Risk

- Revenues from commodity exports are subject to substantial commodity-price risk (and long run depletion)
- ALM considers ways to hedge commodity price volatility:
 - Exchange rate flexibility
 - Future markets (very illiquid for long run horizons)
 - Debt indexed to the price of commodity (very costly)
 - Stabilization Fund (partial self insurance)
(appropriability, governability problems)
 - Foreign reserves (as a substitute for SF?)

ALM long-term perspective also allows for intergenerational equity considerations.

Asset (Revenues)-Liability - Example 4

- Short-term debt is cheaper than bonds because it is preferred by commercial banks
- BUT, if the fiscal position deteriorates, say, because of a fall in export revenues, funding needs will increase at the same time short-term debt must be rolled over.
- Long-term bonds are more costly but provide insurance, and the more so if denominated in local currency.

To conclude

- ALM makes you aware of the relevant risks and the need for insurance
- ALM shows how to hedge risk
- ALM makes you think in terms of trade-offs between expected costs and risk

THANK YOU!