Strengthening Capacity for Effective Asset and Liability Management in National DMOs

Buenos Aires, July 18, 2011

Outline

- Motivation
- ALM
- Description of the project

How Debt Grows?

- The economics 101 debt accumulation equation states that:
    - *CHANGE IN DEBT = DEFICIT*
- Practitioners use:
    - *CHANGE IN DEBT = DEFICIT+SF*
    - *SF*=Stock-flow reconciliation, or the <u>unexplained part</u> of public debt
- The stock-flow reconciliation is often considered a residual entity of small importance
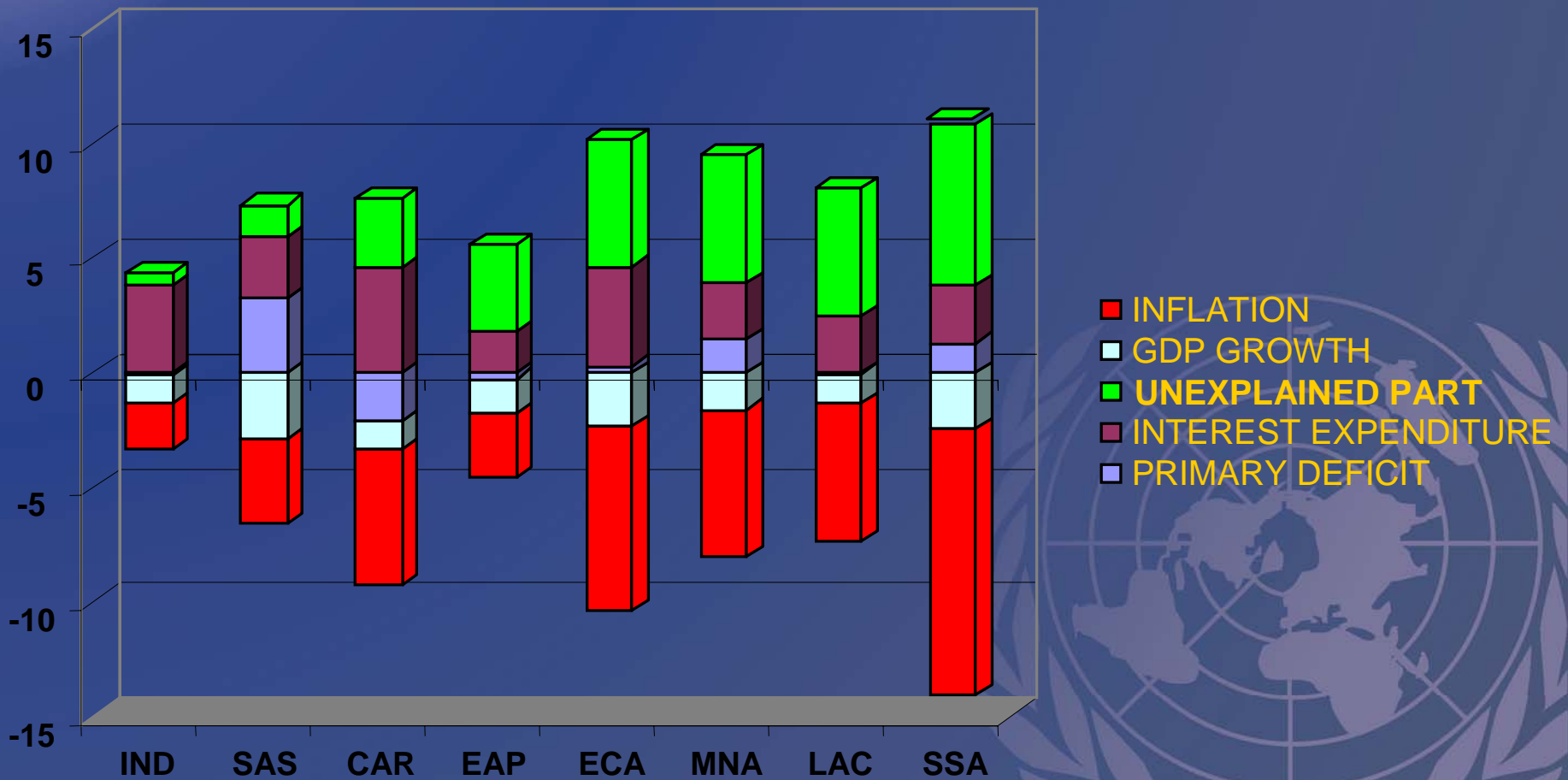- Is it?

The Unexplained Part of Public Debt

- The growth rate of the debt-to-GDP ratio is equal to:
  - Primary deficit/GDP + interest payments/GDP+ – GDP growth – inflation
    - The last two variables are multiplied by the debt-to-GDP ratio

- If you like math:

$$\Delta\left(\frac{D}{Y}\right) = \frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}} = \frac{PD_t}{Y_t} + i\frac{D_{t-1}}{Y_t} - (g + \pi)\frac{D_{t-1}}{Y_t} + \frac{SF_t}{Y_t}$$

The Unexplained Part of Public Debt

Source: Campos, Jaimovich and Panizza (2006)

What drives the Unexplained Part of Debt?

- **Mostly mismatches and contingent liabilities**
- **The joint management of government assets and liabilities can help**

Outline

- Motivation
- ALM
- Description of the project

ALM

➢ Context:
  ➢ As financial markets grow more complex, more tools become available to diversify the type of instruments in which assets and liabilities are held

➢ Idea:
  ➢ Match financial characteristics of assets and liabilities
    ➢ ALM are all actions taken to match the financial attributes (interest rate, exchange rate, maturity, liquidity) of assest and liablilities, thereby creating a natural hedge
  ➢ If the hedge is successful, any deviation in the value of the liability will be followed by a similar movement in the value of the asset
    ➢ Therefore, the government's net wealth will not change

Example of sovereign balance sheet.

Assets	Liabilities
Government Deposits	PV of fiscal expenditures
On-lending	Government debt
PV of future fiscal revenues	*Contingent liabilities*
Foreign exchange reserves	
Investments in SOE	

Challenges

- **Government balance sheet**
  - **Liabilities are usually easier to identify**
    - Public debt, guarantees, future contractual payments, ..
    - Contingent!!!
  - **Assets are more difficult *to identify and to evaluate properly***
    - Book value or market value
    - How to value the public services of libraries parks,..
    - PV of future tax revenues
- **Modeling capacities**
- **Availability of instruments to hedge positions**
- **Coordination among policymakers**

Country experiences

➤ **ALM approach used by:**

- **Denmark**
- **Hungary**
- **New Zealand**
- **Australia**
- **Norway**
- **Brazil**
- **South Africa**
- **Turkey**

Outline

- Motivation
- ALM
- Description of the project

Overall Objectives

1. Strengthen the institutional capacity to manage public debt

2. Develop the capacity to move to a debt management approach based on an integrated Asset and Liability Management (ALM) framework

Target and Timing

- 6 (+1) debt offices in Africa and Latin America
  - Ethiopia, Uganda, Zambia
  - Argentina, Bolivia, Mexico
- Execution Period:
  - 48 months (2010-2013/2014)

Needs?

- Data collection
  - Liabilities
    - External public debt
    - External private debt
    - Domestic public debt
    - Contingent liabilities
  - Assets
    - Financial assets
    - Non-financial assets
    - PV of streams of revenues (tax, royalties, **AID**)

Needs?

- Analytical capacity
  - Build models that predicts flow of funds of assets and liabilities with the objective of reducing mismatches
  - Implementing the desired debt structure

Expected Accomplishments

1) DMOs in target countries collect and report data on the level and structure of total public debt (external and domestic) and on external private debt

2) DMOs in target countries have a roadmap (and an workplan) for moving from standard debt management to and ALM framework

3) Other countries in the region are informed about the process and enabled to assess whether implementing an ALM framework would be desirable/feasible

Activities

1) Conceptual framework
   - Lesson learned in the developed countries.
     - Are they transferable to developing countries?
   - What are the analytical challenges to conducting risk analysis in developing countries?
     - What are the solutions to these challenges?
   - Can an ALM framework be applied to issue which are specific to low income countries (foreign aid, official lending)?

2) Studies of DMOs in target countries
   - What are the country's main needs in terms of data collection and reporting?
   - Can the target country implement an ALM framework?

Activities

3) Use the needs identified under (2) to provide TA in data collection and reporting

4) Use the needs identified under (2) to provide TA on how to collect information about assets

- Support target countries in their analysis of the correlation between assets and liabilities with the objective of formulating an appropriate ALM strategy

Activities

5) Study tours of staff from the DMOs of target countries to DMOs of countries with more advanced debt management capacities

6) One regional dissemination workshop (per region) with participants from 10-15 countries

Activities

7) Intra-regional study tours in which target countries host staff from DMOs of non-target countries

8) Compendium

9) E-learning

10) Evaluation

Strengthening Capacity for Effective Asset and Liability Management in National DMOs

Buenos Aires, July 18, 2011