



# NEDA Seminar Workshop on Debt Management and Fiscal Issues

## *Debt Sustainability Management (a creditor's view)*

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# Session Objectives

It is important to know how creditors see sovereign risks.  
Knowing your “enemy” is the best way to win battles!!

In this context, this session helps participants to understand:

- I. What is the sovereign risk and sovereign rating?
- II. How does JICA assign and monitor sovereign ratings?
- III. What is the public debt management?
- IV. What are the potential cost-risk tradeoffs of different financing options?

The views expressed in this presentation material are those of the author and do not necessarily represent official position of Japan International Cooperation Agency (“JICA”).

# I. What is the sovereign risk and sovereign rating?

# What is sovereign risk?

## Country Risk:

Overall risk of conducting trade and investment activities in a country.

## Sovereign Risk:

Default risk, i.e., sovereign government of country fails to meet its payment obligations by lack of willingness or capacity.



### Economic risks:

- Economic policy (e.g., fiscal, monetary and business regulations)
- Size, composition and terms of debt
- Deterioration in capacity to repay, etc.



### Political risks:

- War/internal conflict
- Expropriation/nationalization
- Currency and trade controls, etc.

Sovereign risk analysis mainly focuses on the economic risks of borrowing countries, but also considers the political factors that may affect economic risks.

# Viewpoints of sovereign risk analysis (1/3)

- **Political aspects**

- Durability, stability and legitimacy of the government
- Imminence of war/local conflicts and stability of public security
- Willingness to pay

- **Economic structure**

- Diversity of economic structure
- Productivity trends
- Resilience of the economy to shocks
- Size and efficiency of the public sector
- Quality of economic policies
- Labor market flexibility
- Effectiveness of the education system
- Income disparities

# Viewpoints of sovereign risk analysis (2/3)

- **Economic growth potential**
  - Rate and sustainability of economic growth
  - Size and composition of savings and investment
- **Fiscal flexibility**
  - Government revenue and expenditure composition
  - Revenue raising capacity and efficiency
  - Expenditure effectiveness and rigidity (including pension obligations)
  - Maturity profile, currency composition, and size of debt
  - Timeliness, coverage and transparency in reporting

# Viewpoints of sovereign risk analysis (3/3)

- **Monetary and financial sector stability**
  - Credibility and capacity of central bank
  - Effectiveness of monetary policy tools
  - Growth of money and credit
  - Exchange rate level and stability
  - Stability of financial system
  - Quality of supervision of financial system
- **External robustness**
  - Export diversification (commodities and destinations)
  - Structure of current account
  - Composition and stability of capital flows
  - International reserve adequacy

# Viewpoints of credit rating agencies

Indicators Used by the Credit Rating Agencies (By Type of Driver)

	Fitch	Moody's	Standard & Poor's
Macro/ Growth	GNP and GDP per capita Consistency of monetary and fiscal policies and credibility of policy framework Sustainability of long-term growth path Competitiveness of economy Depth of demand for local currency Capacity to implement countercyclical macro policies Composition of current account	GDP per capita Long-term volatility of nominal output Scale of economy Integration in economic and trade zones	Rate and pattern of economic growth Range and efficiency of monetary policy tool Size and composition of savings and investment Money and credit expansion Price behavior in economic cycles
Public finance	Financial assets of government Sovereign net foreign asset position Volatility of government revenue Revenue-to-GDP ratio Medium-term public debt dynamics Credibility of fiscal policy framework and institutions Financial flexibility	Government's ability to raise taxes, cut spending, sell assets, or obtain foreign currency (e.g., from official reserves)	General government revenue, expenditure, and surplus/deficit trends Compatibility of fiscal stance with monetary and external factors Revenue-raising flexibility and efficiency Expenditure effectiveness and pressures Size and health of nonfinancial public sector enterprises
Debt	Size and growth rate of public debt Composition of government debt (maturity, interest rate, and currency) Contingent liabilities of government Maturity and currency structure of foreign liabilities and assets Distribution of foreign liabilities and assets by sector Payment record	Level of debt Interest payments and revenues Structure of government debt Debt repayment burden Debt dynamics Conditional liabilities Financial depth	General government gross and net debt; gross and net external debt Share of revenue devoted to interest Debt service burden Maturity profile and currency composition Access to concessional funding Debt and breath of local capital markets
Financial sector	Macro-prudential risk indicators Quality of banking sector and supervision Contingent liabilities of banking sector Foreign ownership of banking sector	Financial sector strength Contingent liabilities of banking sector	Robustness of financial sector Effectiveness of financial sector



## Current ratings by rating agencies

	S&P	Moody's	Fitch	OECD
Lao PDR	N/A	N/A	N/A	7
Myanmar	N/A	N/A	N/A	7
Cambodia	N/A	B2 Stable	N/A	6
Bhutan	N/A	N/A	N/A	6
Vietnam	BB- Stable	B1 Positive	BB- Stable	5

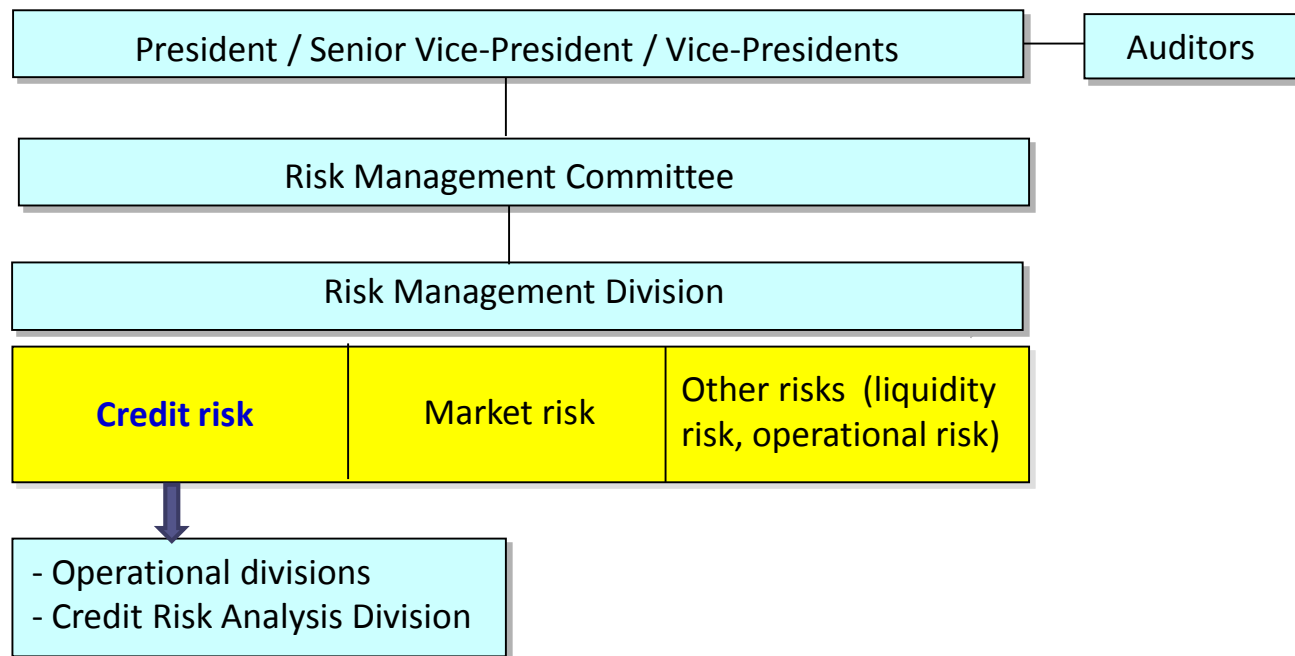
## II. How does JICA assign and monitor sovereign ratings?

## Specific features of JICA's asset portfolio

- More than 99% are sovereign credits to developing countries.
- Main clients are Asian countries: India, Indonesia, and Vietnam are the big three.
- Average maturity is 10.36 years, and average interest rate is 1.39% p.a.. They are not matched with liability side with average maturity of 6.84 years and average interest rate of 1.32% p.a.
- Offered interest rate range from fixed to fixed spread loans.
- Lower income countries get softer terms and conditions—opposite from commercial creditors.
- Other policy - based terms and conditions may apply.

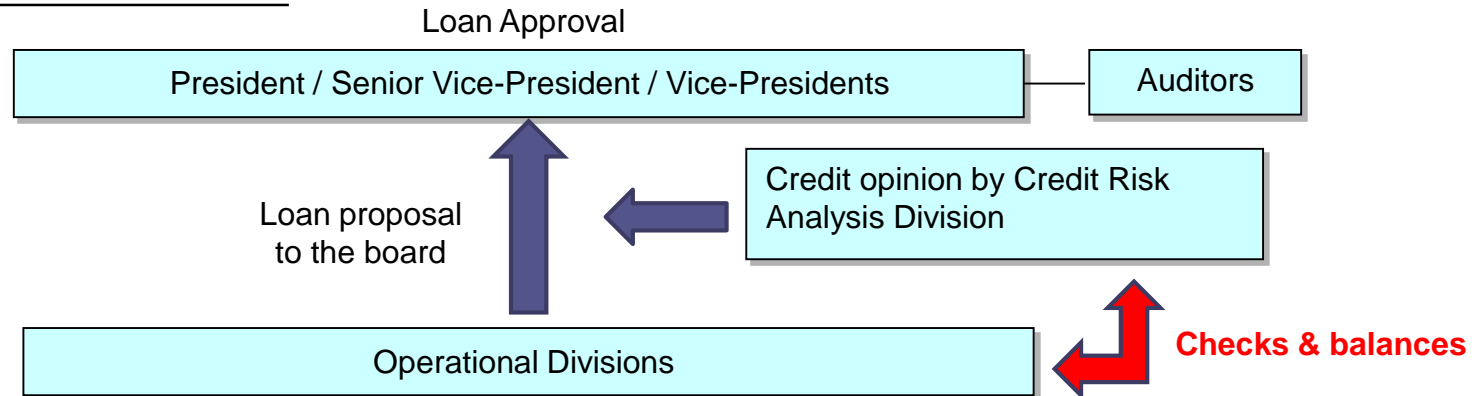
# JICA's risk management framework

- To enable the timely and accurate identification of the source, level, and relationship of various risks from operations.
- To ensure that JICA's risk exposure is commensurate with the risk appetite of stakeholders, and an appropriate balance is kept between financial and development objectives.

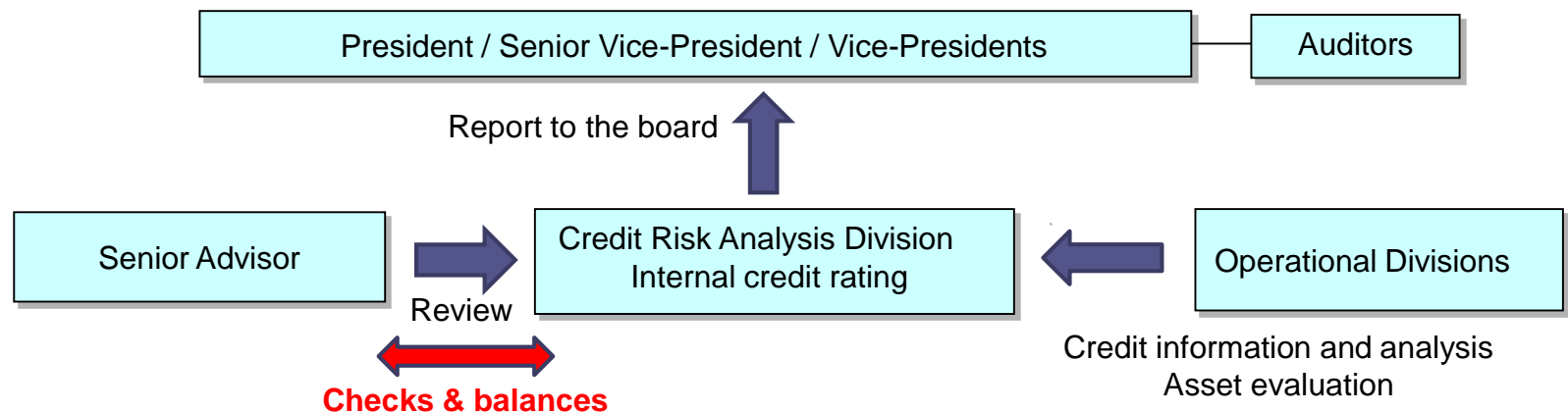


# Credit evaluation process (sovereign loans)

## Loan Approval Process



## Internal Credit Rating Process

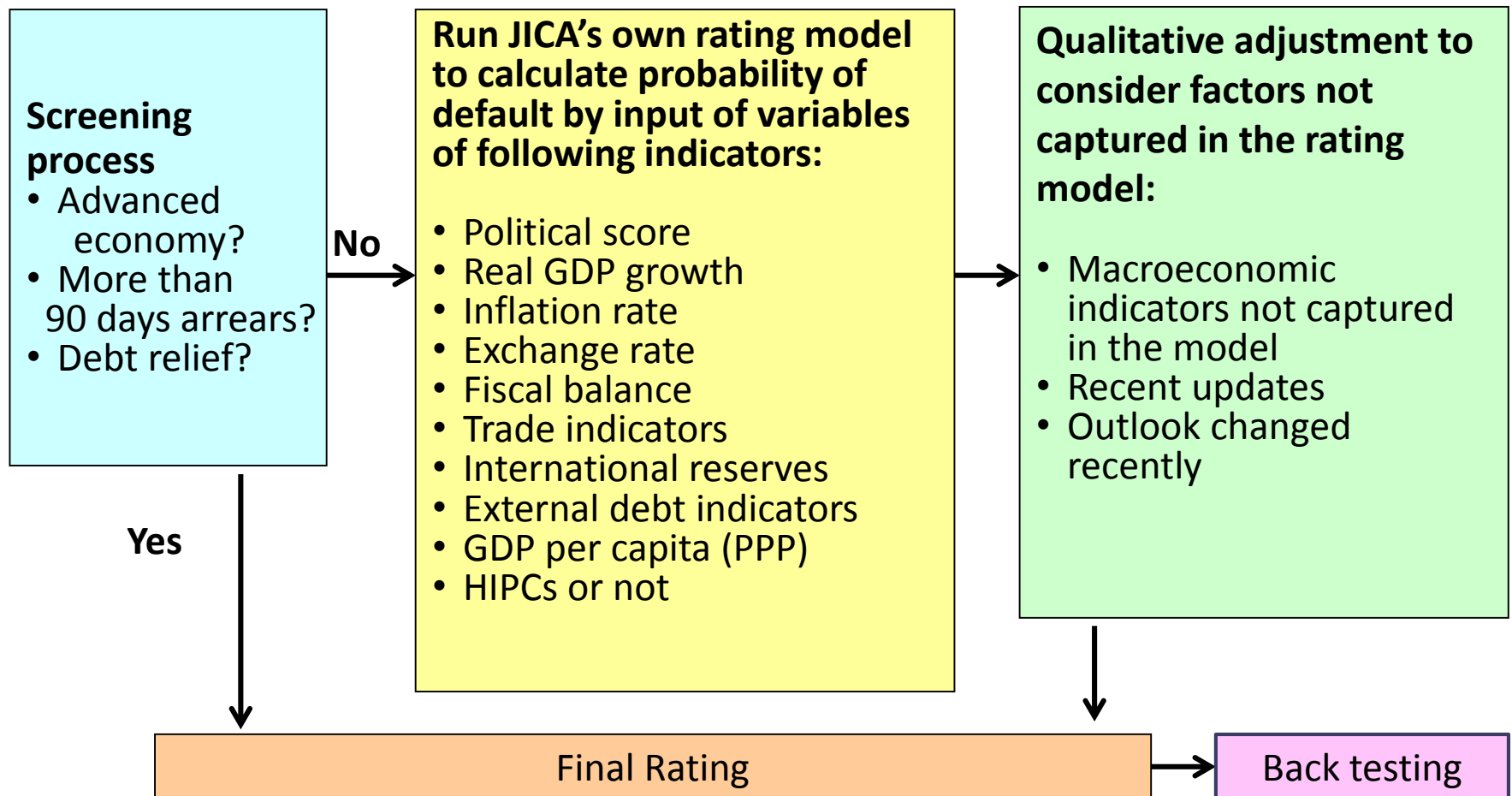


## Internal credit rating process

1. Macroeconomic assessment: structure, policy, and outlook
2. Consultation with operational divisions to capture their views on political and economic situations
3. Review the score of quantitative rating model for assessing the probability of default
4. Qualitative adjustment to arrive at the final rating
5. Internal rating committee with review by the third party (= Off-line Senior Advisor)
6. Final decision by Director General
7. Internal notice to the board members and related departments (rating is restricted information.)

Credit rating is used in loan approval, asset self-evaluation, and allowance for doubtful accounts.

# Internal sovereign credit rating framework



# Internal credit rating review process

## Semi-annual regular review

- All ratings are reviewed at desk in September every year.
- Specific criteria are set for another review at desk in March.

## Mission for review

- Macroeconomic assessment missions are dispatched to selected countries for ad-hoc in-depth rating review, on-site monitoring, or new rating.

## Bi-weekly monitoring

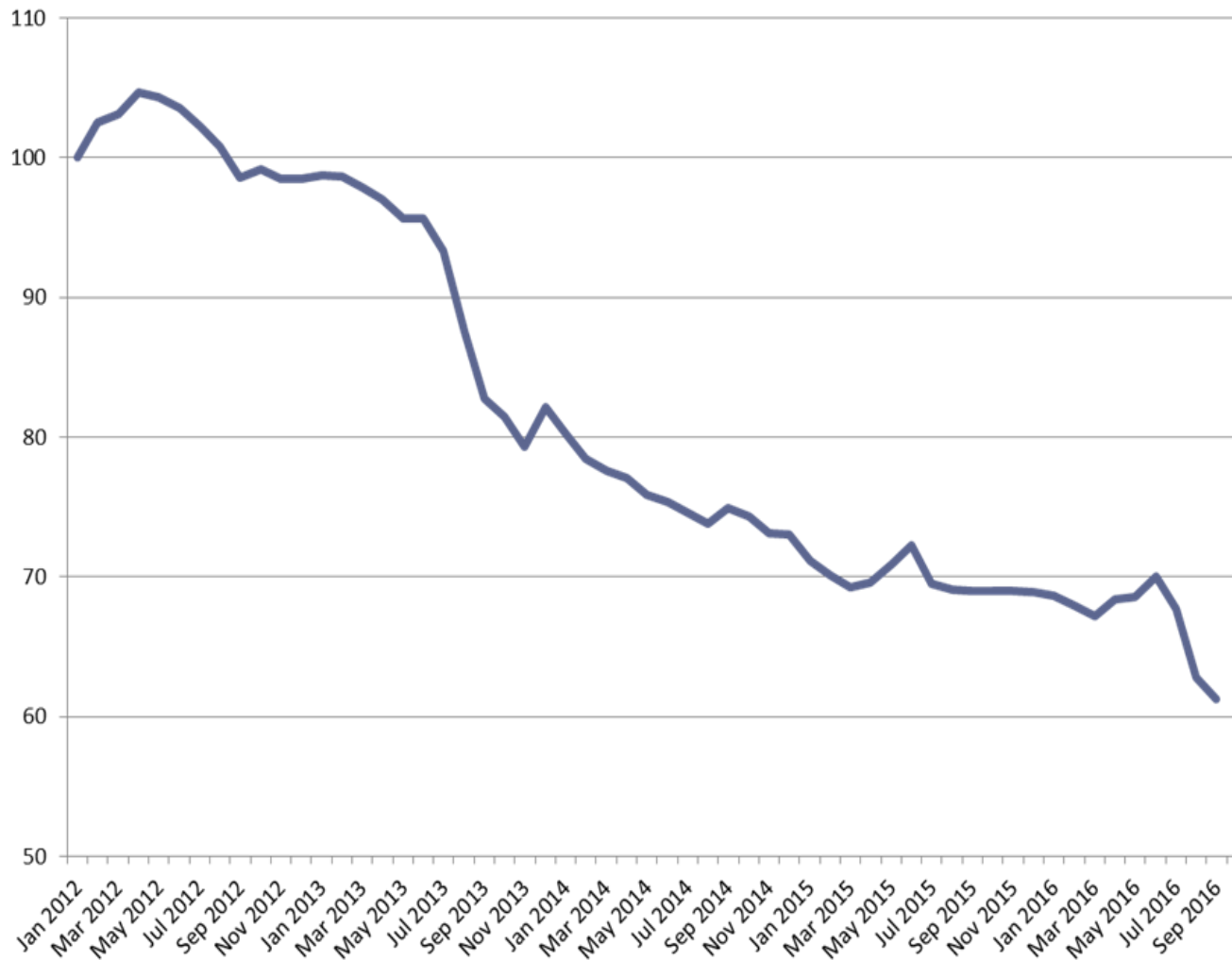
- Down grading of specific country's rating is discussed at bi-weekly monitoring committee, subject to specific criteria, arrears, debt relief and/or other credit events.



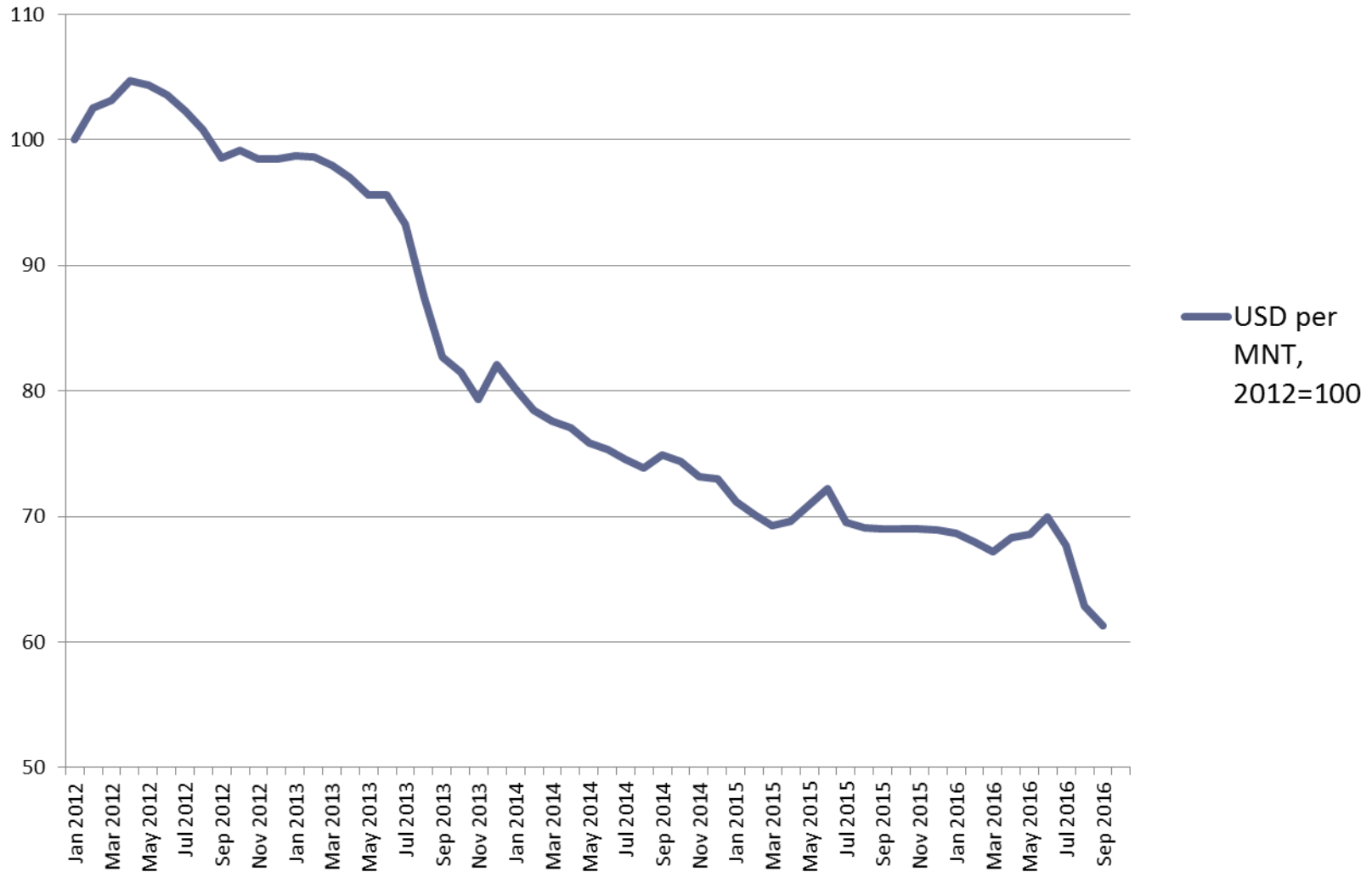
# Major monitoring items at regular review

- Debt servicing records
- Discussions at Paris Club Creditors meeting
- Overall macroeconomic indicators: Real economy, fiscal sector, monetary and financial sector, and external sector
- Frequently available data such as emerging bond index, exchange rate, stock price, international reserves, commodity prices, external credit rating companies' evaluation
- Political and economic events

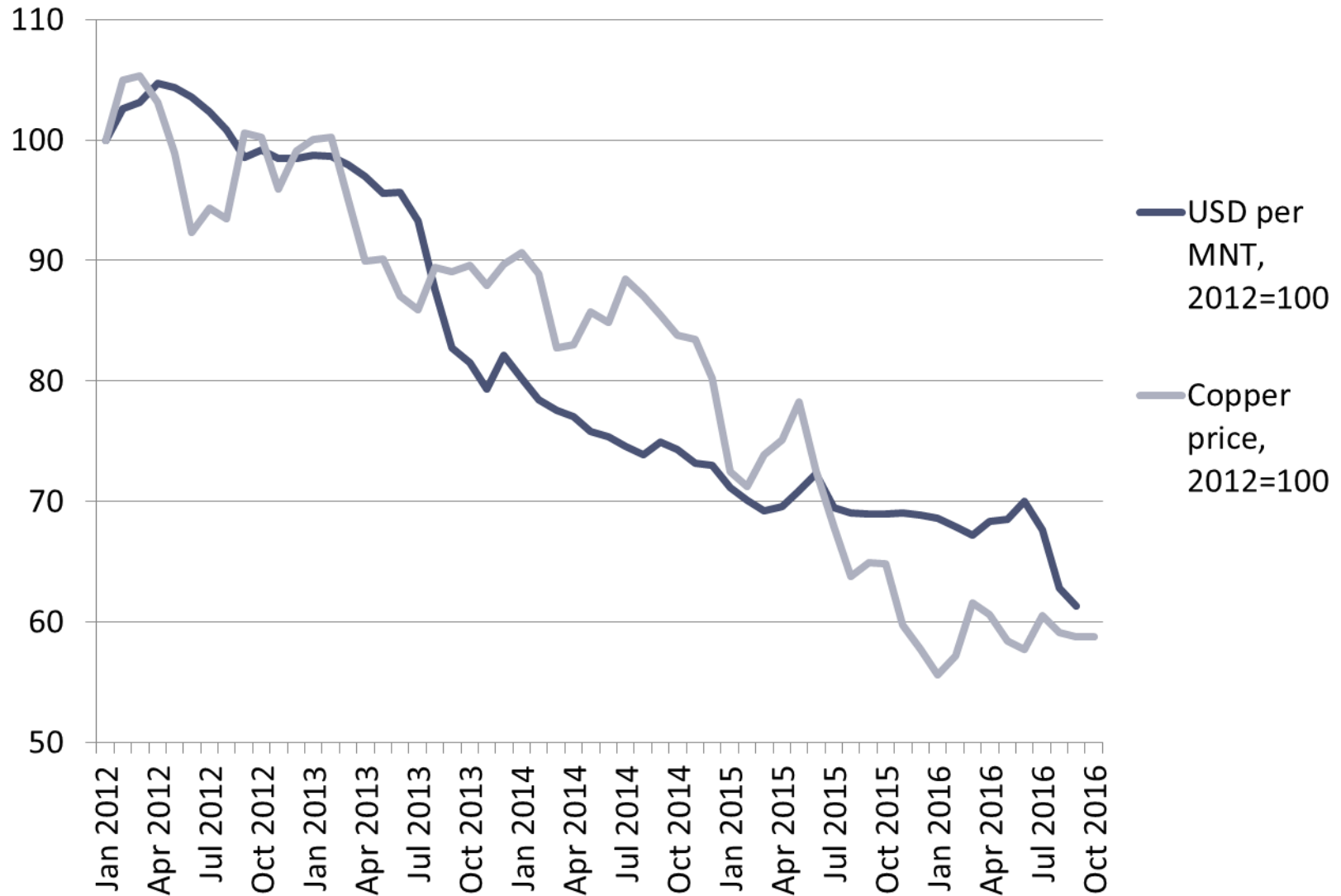
# A Quiz: What Graph is This?



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## A Quiz: What Graph is This?



### **III. What is the public debt management? —especially what practices are regarded as sound debt management by creditors?**

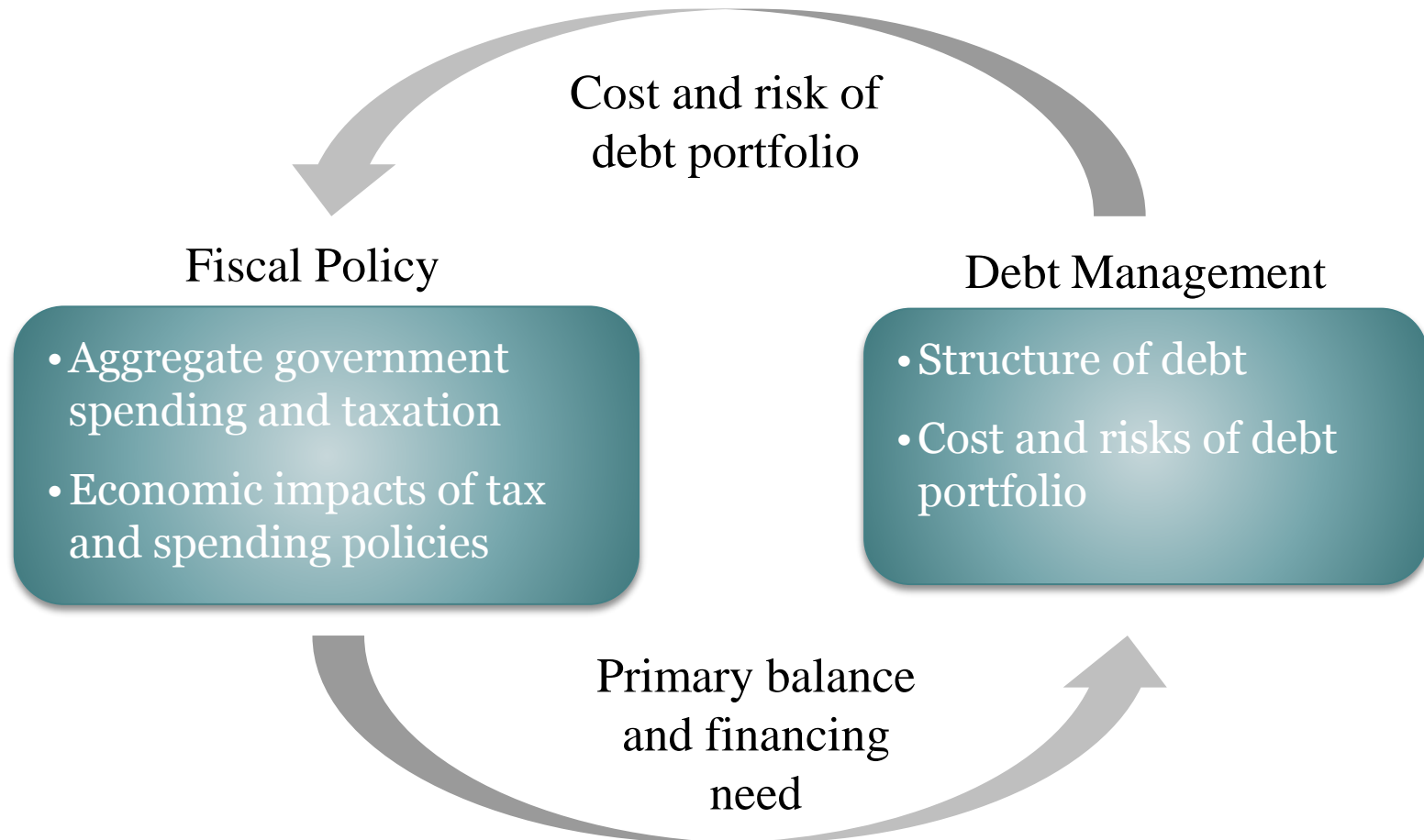
# What is the public debt management?

It is a process to establish and conduct a strategy for managing the government debt;

- to raise the required amount of funding;
- to achieve its **risk** and **cost** objectives; and
- to meet any other sovereign debt management goals of the government, such as developing and maintaining an efficient market for government securities (if any).

(Ref. Guidelines for Public Debt Management by IMF/WB)

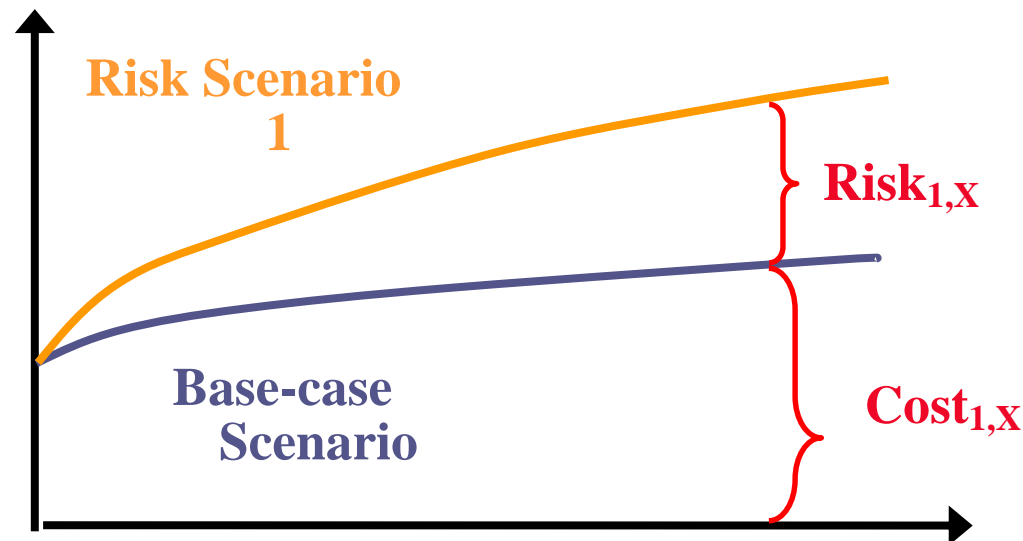
# Fiscal policy and debt management



# Role of public debt manager

An important role of the debt manager is;

- to identify the risks;
- to assess their magnitude (exposure); and
- to develop a strategy for managing the tradeoffs between expected cost and risk.





# Some Examples of Risks

RISK SOURCE	IMPACT ON	DEBT-RELATED RISK
GDP decline	Taxes and revenues	Weak debt repayment capacity
Deterioration fiscal position	Primary balance	High financing needs
Current Account Deficit & FDI reduction	Balance of Payments	Need for external financing (private / public)
Inflation and credit rating	DX interest rates	High DX debt service
Currency depreciation	Exchange rate	High FX debt service
Sudden stops of flows (reversal)	Balance of Payments Exchange rate	Limits the choice of financing sources High FX debt service
Terms of Trade	Commodities prices Exchange rate	High FX debt service

## Role of public debt manager (2)

- Creditors assess sovereign risk by balanced assessment of the risks of debt structure and the debt management capacity of the borrower.
  - Two countries with exactly same debt profile may have different ratings depending on their debt management capacity.

## Communication with creditors

- The public debt managers should not only fulfill these responsibilities, but also *should communicate better with the creditors*.
- Effective debt management can improve **the investor's confidence**, and hence, creditworthiness of the government, through which you can:
  - raise adequate level of financing not in a distortive way, i.e., through market-based non-inflationary sources;
  - minimize debt service costs by using various instruments and maturities, and diversifying the debt portfolio to tap both domestic and foreign markets; and
  - reduce the vulnerability by lengthening maturity profile & smoothening debt servicing profile.

## Mid-term analysis of public debt (1)

1. Identify and analyze the cost and risks of existing debt.
2. Build the future financing scenario consistent with macroeconomic projection or scenarios (fiscal, monetary, external and market).
  - Macroeconomic assumptions (from M/o Planning etc.)
  - Relevant non-fiscal variables (commodity prices, etc.)
  - Future revenue and expenditure plan (from M/o Finance)
  - New financing requirements (borrowing needs)
  - Assumptions for interest rates, maturity and exchange rates of future financing
3. Project expected future debt stock and debt servicing cost over the mid to long term based on the above assumptions.
4. Generate a **baseline** “debt profile,” consisting of key indicators of the existing and projected debt portfolio over the projection horizon.

## Mid-term analysis of public debt (2)

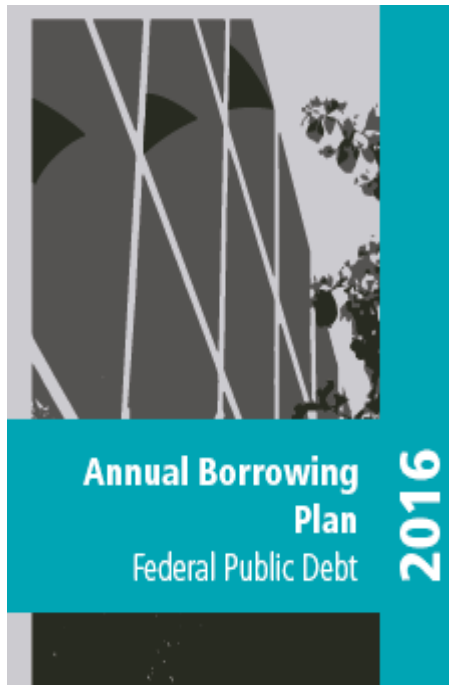
5. Calculate cost and risks of **alternative** portfolios under various assumptions, such as:
  - potential increase in debt servicing costs due to changes in interest or exchange rates relative to the expected costs;
  - potential mismatches between debt portfolio and revenue characteristics.
6. Identify the cost-risk tradeoffs, and rank alternative strategies.
7. Review implications of strategies with fiscal and monetary policy authorities, and for market conditions.
8. Summarize the costs and risks of alternative strategies for the debt portfolio management.
  - mitigate risks by modifying the debt structure
  - use hedging instruments when they are available.
9. Submit and secure agreement on the mid-term debt strategy or the debt management report.

# Examples of Reports (Hungary)



- The share of FX debt should be below 35%, and declining
- FX exposure after swaps should be 100% EUR, - 5%
- Interest rate re-fixing for domestic debt should be 17-39%
- For FX debt, 66% should be fixed interest rate, +/-5%
- Macaulay duration of the HUF debt portfolio is targeted at 3 years +/- 0.5 years

## Examples of Reports (Brazil)



	2015 (Current)	2016 target	
<b>Composition</b>		<b>Min</b>	<b>Max</b>
Fixed Rate	39.4	31.0	35.0
Inflation Linked	32.5	29.0	33.0
Floating Rate	22.8	30.0	34.0
Foreign Currency	5.3	3.0	7.0
<b>Maturity Profile</b>			
% Maturing in 12m	21.6	16.0	19.0
ATM (yrs)	4.6	4.5	4.7

<http://www.tesouro.fazenda.gov.br/en/annual-borrowing-plan>

# Transparency and accountability

- Transparency in debt management operations can help identify fiscal vulnerabilities; analysis of key debt indicators can highlight where potential problems are emerging.
- Timely and accurate recording, reporting and analysis of debt portfolio are important elements in identifying possible risks to the fiscal position; Misreporting or lack of timeliness or coverage may understate the extent of government obligations.
- Transparency enhances good governance through greater accountability of public institutions involved with debt management.



## Why debt structure matter

- Crisis may be caused not by risky debt structure, but mainly by the result of poor economic policies.
  - Investors demand higher risk premiums when inappropriate fiscal, monetary, and exchange rate policies generate uncertainty in the financial markets.
- But there is a potential feedback from public debt management to macroeconomic policies.
  - Spillovers from public debt interest to private debts, exchange rate etc.
  - Consider that government debt is usually the largest financial portfolio in the country.
- Good coordination among macro policy makers is essential in good debt management.

# Why debt structures matter: examples

- Mexico 1994/5
  - Twin deficit leading to capital flight and a drawdown on reserves. The exchange rate which was pegged around a narrow band, became overvalued, and intervention policy could not be sustained. Government had issued a large stock of *short-term dollar linked debt, and fx demands to repay these debt were heightened as investors refused to roll over these debt, leading to further pressures on reserves*. =>large devaluation, severe recession and hyper-inflation, bailout program
- Brazil 1999/2000:
  - Twin deficit under fixed exchange rate regime. *Domestic debt was short term, dollar linked, inflation linked or linked to overnight rates*. Contagion from Russian crisis, could not rollover debt and sustain the exchange rate peg.
- Argentina 2001/2:
  - External current account deficit (5% of GDP) high in terms of exports (100%) and currency peg meant overvaluation of the peso. *Practically all debt was denominated in foreign currency*=>200% depreciation/debt restructuring.

# Debt dynamics formula

- Consider the budget constraint, i.e., budget deficit should be financed by net accumulation of debt.

$$\begin{aligned} \text{Overall deficit} &= PD_t + i_t \cdot D_t = D_{t+1} - D_t \\ \Leftrightarrow D_{t+1} &= (1 + i_t) \cdot D_t + PD_t \end{aligned}$$

where PD: primary deficit, D: debt stock, and i: interest rate.

- Dividing both sides by GDP (Y),

$$\begin{aligned} \frac{D_{t+1}}{Y_t} &= (1 + i_t) \cdot \frac{D_t}{Y_t} + \frac{PD_t}{Y_t} \\ \Leftrightarrow \frac{D_{t+1}}{Y_{t+1}} \cdot \frac{Y_{t+1}}{Y_t} &= (1 + i_t) \cdot \frac{D_t}{Y_t} + \frac{PD_t}{Y_t} \end{aligned}$$

- Denoting the ratio to GDP by lower case letters, and letting  $g$  the nominal GDP growth rate,

$$d_{t+1} = \frac{1 + i_t}{1 + g_t} \cdot d_t + pd_t \approx (1 + i_t - g_t) \cdot d_t + pd_t$$

# Implication of debt dynamics formula

- If interest rate equals growth rate, i.e.,  $i_t = g_t$ , then  $d_{t+1} = d_t + pd_t$ .
  - Primary balance ( $pd = 0$ )  $\rightarrow$  debt-to-GDP ratio remains constant.
  - Primary deficit ( $pd > 0$ )  $\rightarrow$  debt-to-GDP ratio increases.
  - Primary surplus ( $pd < 0$ )  $\rightarrow$  debt-to-GDP ratio decreases.
- Any debt stabilization program should aim at containing primary deficit at least at balance—unless you have a strong belief that the nominal growth rate continues to stay above nominal interest rate.
- This algebra is used in various debt studies, including stress tests of debt sustainability analysis.

## **IV. What are the potential cost-risk tradeoffs of different financing options?**

# Sustainable debt in theory and in practice

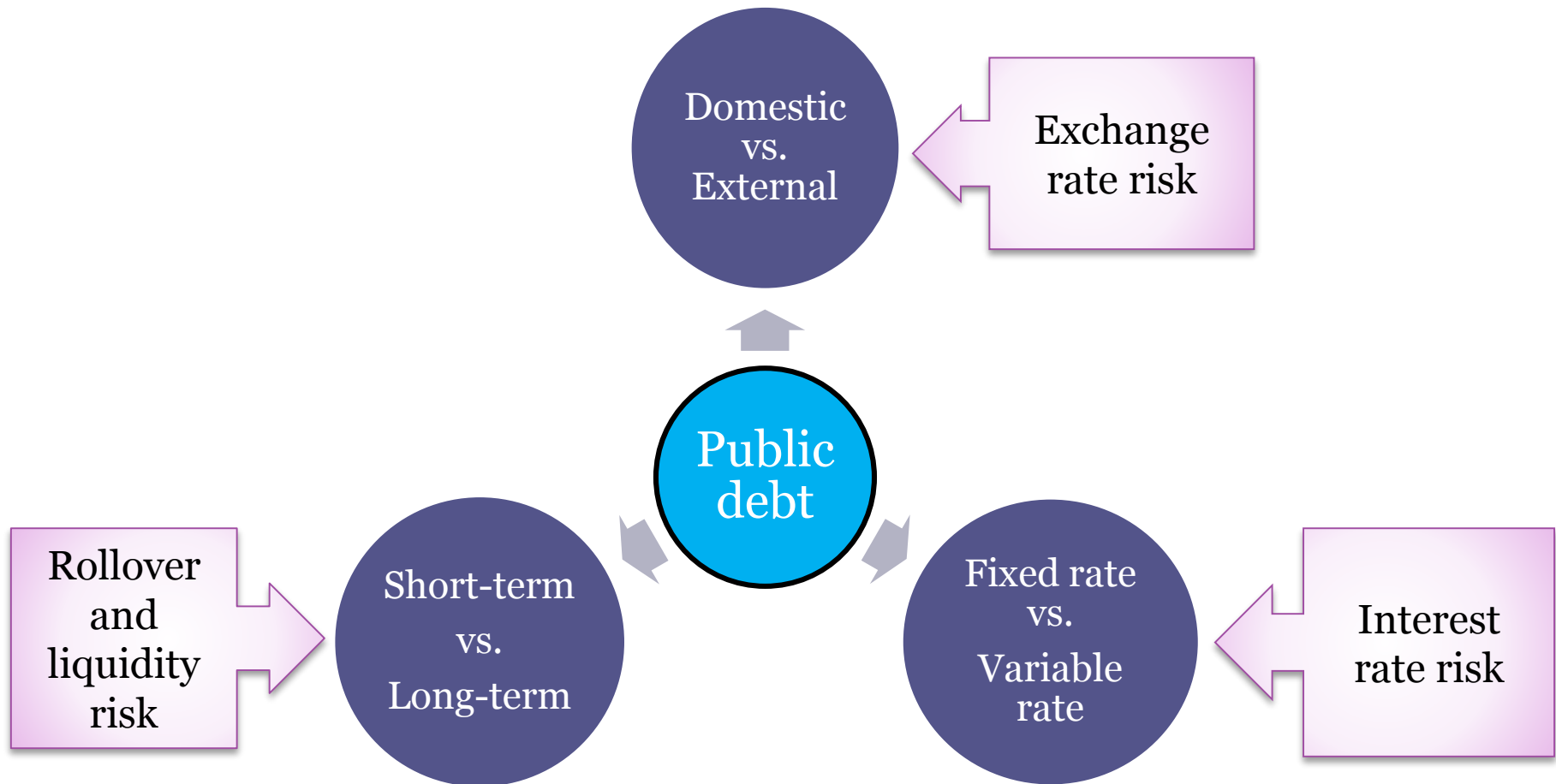
- *In theory*, debt sustainability is defined as *No-Ponzi game condition*, i.e., debt must be fully repaid in infinite future.
- *In practice*, public debt is regarded sustainable if debt indicators (e.g., debt-GDP ratio) do not explode.
- Debt burden can be assessed based on two aspects.
  - **Flow**: debt service = interest payment + amortization  
→ **Liquidity** burden
  - **Stock**: outstanding debt or *net present value* of future debt service  
→ **Solvency** burden
- Even if solvency condition is satisfied, the government can default due to liquidity shortage.
  - Good cash management and matching with revenue and payment is indispensable element for good debt management.

# Common debt indicators

- Debt burdens are measured relative to repayment capacity such as:
  - GDP: overall resources
  - Revenues: ability to generate fiscal resources
  - Exports: availability of foreign exchange (flow)
  - Foreign reserves: availability of foreign exchange (stock)
- Other characteristics of debt portfolio
  - Proportion of external debt in total public debt
  - Ratio of short-term external debt to international reserves
  - Average maturity
  - Average interest rate
  - Currency composition
- Contingent liabilities
  - In many countries, banking sector is explicitly or implicitly guaranteed by the government. PPP may also pose, sometimes significant, fiscal risks.

# Financing options and risks

Debts are contracted in various terms (source, maturity etc.) with different risks implications...





## Classification of major risks

Risk Types	
Market risk (Interest rate risk)	Impact of significant changes in interest rates (domestic and foreign) on debt servicing.
Market risk (Currency exchange risk)	Impact of significant changes in exchange rate on debt servicing.
Rollover risk	Risk that the existing debt needs to be rolled over at significantly higher interest, or debt cannot be rolled over at any interest rate.
Liquidity risk	Situation where the volume of liquid assets diminishes under unanticipated cash flow obligations and/or difficulty in raising cash through borrowing in a short period of time.
Settlement risk	Potential loss as a result of failure to settle for whatever reason other than default.
Operational risk	Transaction errors in the various stages of executing and recording transactions due to inadequate internal controls.

## Market risk

- Changes in interest rates affect debt servicing costs. Not only in the case of floating rate but also when refinancing the debt.
- Foreign debt also adds volatility to debt servicing costs due to exchange rate movements.

## Rollover risk

- The inability to roll over can lead to or worsen debt crisis. The market assessment on the sovereign risk may change in the future: the same terms and conditions of financing are not guaranteed.
- Same applies in the case of refinancing at exceptionally high funding costs.
- Managing this risk is particularly important for emerging market countries.
- Rollover risk can be reduced by adopting a duration target and active management (swaps).

## Relative weight on market risk vs. rollover risk

- Smaller developing countries have greater vulnerability because of;
  - less diversified economic structure,
  - small base of domestic financial savings,
  - less developed financial systems, and
  - vulnerable to financial contagion through the relative magnitudes of capital flows.
- Countries with deep and liquid government debt markets should focus primarily on **market risk**.
- Countries with limited access to foreign capital markets and also relatively under-developed domestic debt markets should give higher priority to **rollover risk**.

# Tradeoff: interest and rollover

- Fixed vs. floating rate → interest rate risk
  - Investors may prefer floating rate bond under volatile inflationary environment, including its effect on their balance sheets.
  - Risks of volatile and possibly increasing debt service costs if interest rate rises.
  - It may also constrain the central bank's monetary policy.
    - Cannot raise interest rates to curb inflation or support the exchange rate because of concerns on the fiscal impact.
- Short-term vs. long-term → rollover risk
  - Default risk if short-term debt cannot be rolled over at any cost, while long-term debt incurs higher interest.
  - Cost-risk tradeoffs typically depend on the level of debt, maturity profile, and shape of yield curve.

## Tradeoff: currency of debts

	Foreign debt	Domestic debt
Advantages	<ul style="list-style-type: none"> <li>(1) Comparatively low interest rates.</li> <li>(2) Little risk of crowding out due to large international markets.</li> <li>(3) Chance of gaining international experience, usually being accompanied with a transfer of technical know-how from the lender.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Absence of exchange rate risk.</li> <li>(2) Ability to use tax measures to attract local investors (or alternatively, to use legal means to force them to invest in government securities).</li> <li>(3) Development of the domestic capital market and financial sector.</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>(1) May turn out to be very expensive in case of exchange rate depreciation.</li> <li>(2) Difficulties in calculating exchange rate risk and hedging against over a long period.</li> </ul>	<ul style="list-style-type: none"> <li>(1) Small market base and the risk of crowding out.</li> <li>(2) Interest rates may be very high.</li> <li>(3) Difficulty in raising long-term funds due to the lack of confidence in inflation control.</li> </ul>

# FYI) Examples of - Debut FX Bond Spreads

Region	Country	Date	Year	Yield at issue	Size (\$ mn.)	Tenor (years)	Currency	Governing Laws
Africa	Senegal	15-Dec-09	2009	9.5	200	5	USD	England
Eastern Europe	Belarus	26-Jul-10	2010	9.2	600	5	USD	England
Eastern Europe	Montenegro	7-Sep-10	2010	8.0	254	5	EUR	England
Eastern Europe	Albania	28-Oct-10	2010	7.6	407	5	EUR	England
Middle-East	Jordan	8-Nov-10	2010	4.2	750	5	USD	England
Africa	Nigeria	21-Jan-11	2011	7.1	500	10	USD	England
Africa	Namibia	27-Oct-11	2011	5.8	500	10	USD	England
Africa	Zambia	13-Sep-12	2012	5.6	750	10	USD	England
Latin America	Bolivia	22-Oct-12	2012	4.9	500	10	USD	New York
Asia	Mongolia	29-Nov-12	2012	5.2	1,000	10	USD	New York
Asia	Mongolia	29-Nov-12	2012	4.2	500	6	USD	New York
Latin America	Paraguay	17-Jan-13	2013	4.6	500	10	USD	New York
Latin America	Honduras	12-Mar-13	2013	7.5	500	10	USD	New York
Africa	Tanzania	27-Feb-13	2013	6.5	600	5	USD	England
Africa	Rwanda	25-Apr-13	2013	7.0	400	10	USD	England
Eastern Europe	Armenia	20-Sep-13	2013	6.3	700	7	USD	England
Asia	Azerbaijan	10-Mar-14	2014	5.0	1,250	10	USD	England
Africa	Kenya	24-Jun-14	2014	6.9	1,500	10	USD	England
Africa	Kenya	24-Jun-14	2014	5.9	500	5	USD	England
Asia	Kazakhstan	14-Oct-14	2014	4.1	1,500	10	USD	England
Asia	Kazakhstan	14-Oct-14	2014	5.1	1,000	30	USD	England
Africa	Ethiopia	4-Dec-14	2014	6.7	1,000	10	USD	England
Africa	Angola	4-Nov-15	2015	9.4	1,500	10	USD	England
Africa	Cameroon	13-Nov-15	2015	10.2	750	10	USD	England

Source: Dealogic

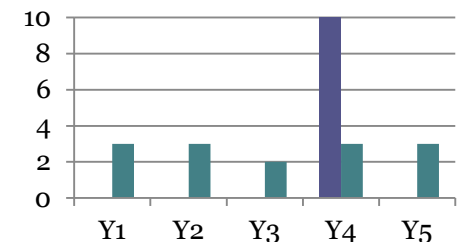
# Duration target and debt redemption

You may wish to set average maturity target. Which is riskier, a single serial bond with maturity of 4 years or a combination of bonds spreading over years?

- The former is riskier. The smoother the redemption profile, the lower the risk.
- Targeting duration plus keeping the yearly debt redemption as smooth as possible is advisable.

(Example)

- Average maturity: longer than 5 years
- Annual redemption to the total debt: less than 20% or 25%;





# Contingent liabilities

- The debt managers should examine the impact of contingent liabilities too—not only direct government debt.
  - Contingent liabilities: *potential* claims which have not yet but could be materialized under certain circumstances
  - There are both explicit and implicit contingent liabilities.
  - For implicit contingent liabilities, the government does not have a contractual obligation. However, the government (ex-post) may be required to extend financial assistance because the cost of denying assistance is unacceptably high in the case of bailouts of the financial sector, state-owned enterprises, or subnational governments.

# Matrix of government liability definition

Liabilities	Direct (obligation in any event)	Contingent (obligation if a particular event occurs)
<b><i>Explicit</i></b> Government liability recognized by a law or contract	<ul style="list-style-type: none"> <li>foreign and domestic sovereign borrowing (loans contracted by central government)</li> <li>budgetary expenditures legally binding in the long term (civil servants' salaries and pensions)</li> </ul>	<ul style="list-style-type: none"> <li>state guarantees for non-sovereign borrowing, e.g., subnational governments and public and private sector entities (development banks)</li> <li>umbrella state guarantees for various loans (e.g., mortgage loans, small business loans)</li> <li>trade and exchange rate guarantees</li> <li>state guarantees on private investments</li> <li>state insurance schemes (deposit insurance, crop insurance, flood insurance etc.)</li> </ul>
<b><i>Implicit</i></b> A de facto obligation of government driven by public and interest-group pressures	<ul style="list-style-type: none"> <li><b>future</b> public pensions (as opposed to civil service pensions), if <b>not</b> required by law</li> <li>social security schemes, if <b>not</b> required by law</li> <li><b>future</b> health care financing, if <b>not</b> required by law</li> <li><b>future</b> recurrent costs of public investments</li> </ul>	<ul style="list-style-type: none"> <li>defaults of subnational government or SOEs</li> <li>cleanup of liabilities of privatized SOEs</li> <li>banking failure (beyond deposit insurance)</li> <li>failure of a nonguaranteed pension fund, employment fund or social security fund</li> <li>default of central bank on its obligations (foreign exchange contracts, currency defense, balance of payments stability)</li> <li>bailouts following private capital outflows</li> <li>environmental recovery, disaster relief, military financing</li> </ul>

# Management of contingent liabilities

- Contingent liabilities involve **a high degree of uncertainty**.
  - Can be very large, particularly when involving recapitalization of banking system or poorly designed privatization.
- Government should reduce the risks by;
  - strengthening prudential supervision and regulation,
  - introducing sufficient deposit insurance schemes,
  - undertaking sound governance reforms of public sector enterprises, and
  - improving the quality of macroeconomic management and regulatory policies.
- Government should ensure those risks are well informed, and monitor their risk exposures.
- Government should also be conscious of the conditions that could trigger implicit contingent liabilities.

# Contingent liability for PPP guarantee

- Public-Private Partnership (PPP) model has been used in many countries to attract investments to provide public infrastructure assets and services.
- However, PPP contracts also pose fiscal risks for governments, for example, in the form of government guarantee.
- PPP projects which are financially profitable in the baseline scenario may face significant risk of loss, including demand risk, exchange rate depreciation, and interest rate rise.
- Typically, the financial risk of PPP projects should be assessed by applying numerous simulations of various risk factors, e.g., Monte Carlo simulation.

## Key points

### (Strategy)

- With the good debt management, the emerging economy government can mobilize fund at reasonable cost and mitigate severe damage to the economy under the financial stress.
- Debt management strategy clearly placed in the overall macroeconomic framework needs to be worked out and regularly updated.
- Clear separation of debt management from political influence and monetary policy responsibilities is important.
- Cost and risk analysis of the existing debt is the first step, and preferably these data and analysis should be published for transparency.

## (Continued)

- It is necessary to develop a framework to identify and manage the tradeoff between cost and risks from viewpoint of risk tolerance.
- Consider risks in addition to costs: select maturities, currencies and interest rate in order to match the objective of risk management. Try to maximize concessional debts.
- Countries with limited access to capital markets may realistically have the only option of placing limits on fiscal deficit.

## (Continued)

### (Bond Issuance)

- Rely primarily on market-determined instruments in bond issuance with sufficient transparency and predictability including publication of annual issue calendar.
- Maintain continuous dialogue with domestic and international investors.
- Promote liquid and efficient secondary market.
- Discontinue distortive arrangements to void fiscal discipline, to distort flow of investment funds, and to inhibit secondary market development. These will be costly and inefficient in the end.

Thank you very much!