



# Public Finance and Fiscal Policy

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# Structure of presentation

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- ◆ Role of State
- ◆ Public Finance & Fiscal Policy
  - Issues related to Public Expenditure
  - Issues related to tax policy
  - Issues Related to Debt Management
- ◆ Fiscal Policy in Macroeconomic Setting
- ◆ Issues Related to Fiscal Space, revenue mobilization, spending & sustainability



# Role of State



- Fiscal tasks of the state - in its three branches (following Musgrave):
  - ☐ Allocation - provision of public goods and taking care of externalities - positive and negative
  - ☐ Redistribution
  - ☐ Stabilization

# The Expansion of the Role of State

## ◆ Three Major Factors

- Structural changes in the economy
- Democratization of society
- Concern for social justice
- Underlying Factors:
  - ◆ Structural changes - leading to urbanization and decline of self-sufficient agricultural households - and family - cultural and welfare concerns of the society also broaden in the process of civilization (Wagner's law).
  - ◆ Concerns raised by expansion of public sector - doubts about efficiency in the use of resources - also emergence of deficits in government budgets led to questions about sustainability of a large public sector - hence the cry for “downsizing”.
  - ◆ How valid are these questions and moves? What are the implications?



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## Role of government in developing economies:

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- ☐ Arguments for minimal government - such as that what government does, the private sector can do better are not always sound.
- ☐ While reliance on market is mostly beneficial, selected government actions do spur development.

## Role of government in developing economies (Contd...)

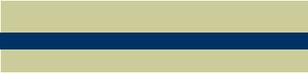
- ◆ The role of the government should be to help in establishing infrastructure in its broadest sense:

- ☐ Educational
- ☐ Technological
- ☐ Financial
- ☐ Physical
- ☐ Environmental
- ☐ Social

Fiscal policy can play a vital role in each.



# Instruments to perform the role



- ◆ - Taxation and borrowing to draw resources for providing public goods & services
- Expenditure programmes
- Quasi-fiscal intervention, - regulations etc.
- Direct involvement in economic activity



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# Taxation as an Instrument and Its Objective

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- ◆ Need to raise revenue irrespective of the forms of government
- ◆ Raise revenues equitably or fairly
- ◆ Minimize the cost of raising taxes
- ◆ Desire to encourage (discourage) particular economic activity, particular groups and regions

# Level, Structure and Need: Some Major Points

## ◆ Tax Levels

- Although around 20 per cent of GDP is collected as taxes, tax-ratio differs across countries from 10 to 40 per cent of GDP
- Broadly the tax ratios vary due to income levels, countries with higher income generally has higher tax ratios
- Countries with rich natural resources also have higher tax ratios vis-à-vis other countries with similar levels of per-capita income

## ◆ Tax Structure and revenue need differ across countries for many factors including,

- economic structure,
- Location of the country
- capacity to administer
- Public service delivery need

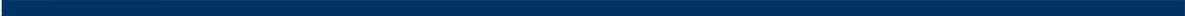


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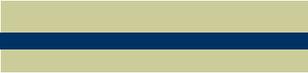
# Differing tax policy issues in Developing Countries

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- ◆ Informal economy a much larger fraction of GDP
- ◆ High fraction of revenues coming from few large firms
- ◆ Lack of information on potential tax payers for both direct and indirect taxes
- ◆ Weak domestic financial institutions.
- ◆ Use of non-traditional sources of revenue: seignorage, tariffs, fees



# Equity, Fairness and cost of collection



- ◆ As taxes impose real cost to the society, good tax policy try to minimize the cost.
- ◆ Taxes influence the before-tax distribution of income by changing economic incentives and also influence the after tax distribution of income through progressive income taxation.
- ◆ Though, equity and efficiency, primarily should guide tax policy design, administrative feasibility is another key criteria in designing a tax system.
- ◆ Another principle is that tax policy should not make frequent changes in the tax structure, because it increases
  - Enforcement and compliance cost
  - Increase the efficiency cost, as it affects production and business decisions

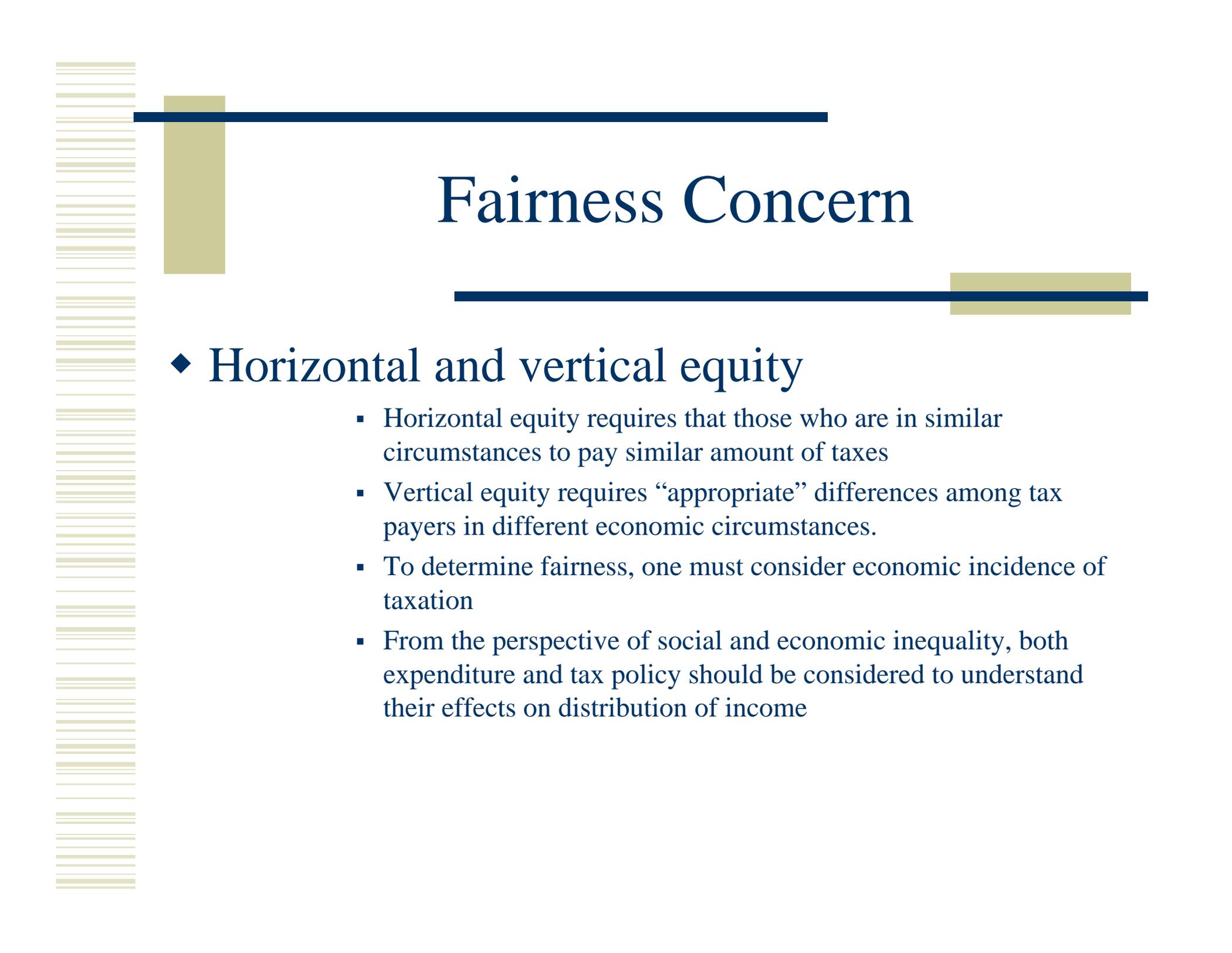
# Cost of tax

- ◆ Minimizing the deadweight loss
  - Arising out of the negative consequences of tax induced changes in behaviour
- ◆ Cost
  - Collection cost
    - Developed countries at 1 per cent of total tax
    - In developing countries at much higher rate
  - Compliance cost
    - Tax payers incur in meeting their tax obligation over and above the actual payment of taxes
    - Third party also may incur the compliance cost
    - Compliance costs are generally regressive and are typically much higher with respect to taxes collected from smaller firms

# Minimizing Cost of Taxation

## ◆ Three General Rules

- Tax base should be as broad as possible
  - It is distortion minimizing
- Setting tax rates as low as possible, given the revenue need for government operation
  - The efficiency cost of tax arises from their effect on relative prices, and size of this effect is directly related to the tax rate
- Careful attention should be given to taxes on production
  - Taxation on production affect the location of business, alter the ways in which production takes place, changes the form in which business conducted
  - Production tax is easy to administer and less expensive to collect



# Fairness Concern

## ◆ Horizontal and vertical equity

- Horizontal equity requires that those who are in similar circumstances to pay similar amount of taxes
- Vertical equity requires “appropriate” differences among tax payers in different economic circumstances.
- To determine fairness, one must consider economic incidence of taxation
- From the perspective of social and economic inequality, both expenditure and tax policy should be considered to understand their effects on distribution of income

# Economic Incidence of Taxation

- ◆ Tax burden fall on individuals as
  - Consumers
  - Producers
  - Supplier of factors of productions
  - Not on corporations and other institutions
- ◆ Liability to pay does not necessarily mean bearing of economic incidence of taxes
  - Although, VAT law requires payment of taxes in entire production and distribution chain, the real economic incidence fall on the consumer
  - Same is the case with the motor fuel tax
- ◆ There are incidence when the economic incidence is unclear
  - For example, property tax, may be the owner of the land and capital or by the user or renters of the property depending on market condition
- ◆ Market condition is critical who actually bears the tax incidence depending on the supply and demand elasticity

# Using the tax system for non-tax objectives

- ◆ The tax system can be used to encourage or discourage certain activities
  - Correct for market failure, such as positive or negative externalities, for example pollution
- ◆ Countries use tax provisions to encourage larger families, retirement savings, capital investment, home ownership, etc., which may not have market failures
- ◆ Providing tax incentive for particular activities
- ◆ Many countries have ‘tax expenditure budget’ to account for cost of provision that are used to promote non-tax objectives



# Globalization and tax base



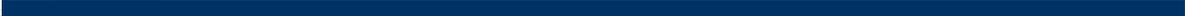
- ◆ Apart from rates, base also depends on the nature of the economy
  - Increasing global integration reduced the tax base in developing countries especially those taxes which are “easy to collect”
  - Globalization may entail a negative fiscal shock to developing countries, shrinking the tax revenue from traditional taxes.
  - Rely on alternative “*hard to collect*” sources such as Value Added Taxes (VAT), income taxes, sales taxes, etc., then from “easy to collect” taxes.
  - These “*hard to collect*” taxes, unlike tariff administered at centralized locations (seaports, airports, etc.) and implicit taxation by means of seigniorage and financial “repression”, need significant investment in tax collection infrastructure, and spending resources on monitoring and enforcement.



# Expenditure Programme

## ◆ The need

- ◆ Provisioning of Public Goods
- ◆ Public Service Delivery
- ◆ Subsidies and Transfers
- ◆ Public sector Investment
- ◆ Government as an Employer of last resort
- ◆ Public production versus provision.



# Issues Related to Borrowing and Debt Management

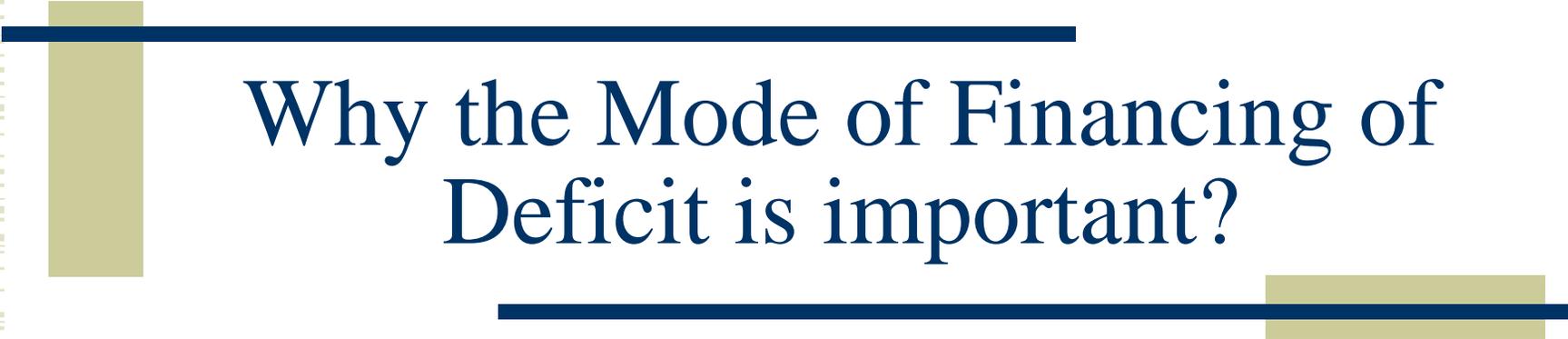


- ◆ Deficit and its macroeconomic implications
- ◆ The objective of debt management
- ◆ Debt management under alternative interest rate policy
- ◆ Issues related to debt sustainability
- ◆ Debt Restructuring Plan and Rule Based Fiscal Control



# Financing pattern

- ◆ Three Sources of financing of deficit:
  - Internal market borrowing
  - Borrowing from the central bank (Monetization)
  - External borrowing



# Why the Mode of Financing of Deficit is important?

- ◆ Each Financing mode has its own macroeconomic impact.
  - Bond Financing may lead to credit squeeze via higher interest rate
  - Seigniorage Financing may lead to an increase in money supply and thereby inflation
  - External Financing may widen the current account deficits and exchange rate management difficult



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# Why emphasis on bond financing?

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- ◆ To reduce monetisation and thus creation of reserve money into the system
- ◆ Greater autonomy to central bank to pursue independent monetary policy
- ◆ Activation of internal debt market by widening investors base for government securities
- ◆ Reduce dependence on captive market for government securities
- ◆ Increase profitability of banks
- ◆ Increase the share of financial savings in the economy to promote growth

# The outcome of bond financing

- ◆ Reserve money into the system has not declined due to high inflow of forex reserve
- ◆ Banks are still the dominating players in the government securities market
- ◆ Banks are investing over and above their requirement in government securities, thus holding excess reserves
- ◆ Banks earning has increased from its investment vis-a-vis lending operation
- ◆ Share of financial savings in total savings has been increasing historically (reasoning of financial deregulation unclear)



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# The Objective of Debt Management

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- ◆ Minimizing the cost of debt servicing,
- ◆ Coordination between monetary and fiscal policy objectives.
- ◆ Most importantly, maintaining the monetary stability

# Inflationary Financing and Coordination between monetary and fiscal policy

- ◆ Inflationary financing is an implicit tax levied by government.
- ◆ It consists of the amount of real resources appropriated by the government by means of base money creation
- ◆ In the context of developing countries (especially in the absence of well developed capital markets and external borrowing), inflationary financing might be followed in pursuit of growth through capital formation.
- ◆ However, inflationary financing may increase the general price level and thus reduces the real value of monetary unit.



## Continued.....



- ◆ In developing countries in the absence of matured financial market monetary policy accommodates fiscal policy, by supporting government borrowing programme.
- ◆ Monetary policy objective of controlling of money supply gets compromised.
- ◆ Central bank autonomy and delinking of monetary and fiscal policy is the important aspect of reform in debt management practices.



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# Debt Management Under Alternative Policy Regime

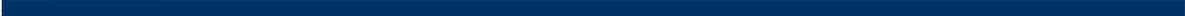
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- ◆ Under administered interest rate regime
  - Interest rate is fixed (much lower than the market rate)
  - Captive investment is the main sources of mopping up of resources
  - GS remains to be an unattractive instrument of investment

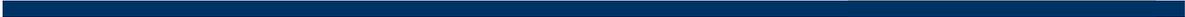


# Debt Management Under Alternative Policy Regime

- ◆ Under deregulated interest rate regime
  - ◆ Interest rate is market determined
  - ◆ Market rates of interest on GS should widen investors base for GS
  - ◆ Reduce monetisation of deficit
  - ◆ Increase financialisation of savings



# Issues Related to Debt Sustainability and State Debt



# Issues Related to Sustainability/ Unsustainability

- ◆ Theory does not provide any precise level of public debt which is sustainable / unsustainable.
- ◆ High debt to GDP ratio may not be a matter of concern provided it remains constant. If debt to GDP ratio remains constant that provides a country the scope for debt financing of deficits without incurring the risk of high inflation (Congdon: 1987).
- ◆ If the debt keeps growing, a country can still run high fiscal deficit a country can still run high fiscal deficits without debt to GDP ratio reaching an explosive stage.
- ◆ Initial condition of deficit and debt is important.

# Broad Definition of Sustainability/ Unsustainability

- ◆ The Movement of Debt to GDP Ratio is the Key
- ◆ In a general term debt to GDP Ratio  $>1$ : Unsustainable
- ◆ Debt may become unsustainable even before debt to GDP Ratio becomes  $>1$ , if the country runs large primary deficits.

# Defining Sustainability Condition

- If the real rate of growth of the economy is more than the real rates of interest debt is sustainable (with a primary budget balance).
- Debt sustainability Condition proposed by Domar (1944) says problem of debt sustainability is associated with the rates of growth of national income:
- Domar Sustainability Condition:

$$t = \left( \alpha / r \right) * i$$

Where  $t$ =tax rate,  $\alpha$ = rate of borrowing

$r$ = rate of growth of the economy

$i$ = rate of interest on government borrowing

# Deriving debt Sustainability Condition:

$$d_t = g_t - t_t$$

$$d_t = g_t^p + i_t * b_{t-1} - t_t$$

$$d_t + b_{t-1} = g_t^p + i_t * b_{t-1} + b_{t-1} - t_t$$

$$b_t = g_t^p + i_t * b_{t-1} + b_{t-1} - t_t$$

$$b_t = b_{t-1} + i_t * b_{t-1} + g_t^p - t_t$$

## Debt Sustainability Condition Continued

$$\frac{b_t}{y_t} = \frac{b_{t-1}}{y_t} + \frac{i_t * b_{t-1}}{y_t} + \frac{g_t^p}{y_t} - \frac{t_t}{y_t}$$

$$y_t = (1+k)y_{t-1}$$

$$\frac{b_t}{y_t} = \frac{b_{t-1}}{y_t} + \frac{i_t * b_{t-1}}{(1+k)y_{t-1}} + \frac{g_t^p}{y_t} - \frac{t_t}{y_t}$$

if  $k > i$  debt is sustainable.

# Debt Sustainability Condition

## Continued:

1. Where  $k$  is the real rates of growth of the economy and “ $i$ ” is the real rates of interest.
2. Even if the sustainability condition is maintained, debt could become unsustainable if a country runs an increasing primary deficit. A stable debt-GDP ratio requires a declining primary deficit, ideally a primary surplus.
3. Unsustainability arises when the real rates of interest exceeds the real rates of economic growth and the primary balance is in deficit or a surplus not large enough to cover the excess of real interest rate over the growth rates.



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# How to Achieve Sustainability:

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- ◆ **By increasing the real rate of growth:** In a neoclassical growth model, economy grows at a natural rate, it is difficult to alter / enhance the rate in the short run either by fiscal or monetary policy
- ◆ **By Reducing the real rate of interest:** Interest rate is also a natural rate not exclusively under the control of the fiscal authority.
- ◆ **By achieving primary surplus:** Achieving primary balance depends on the fiscal authority and much easier to achieve compared to growth rate or interest rate alteration.