Public Finance Sessions

Dr J V M Sarma

Public Finance

Public Debt

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Importance of public debt policy

- Revenue and Expenditure policy – only part of the story
- Public debt policy is another major component
- Some plausible doubts
  - Why debt? Why can't government expenditure be limited to revenues?
  - What is the rationale for debt-financing?
  - What is debt-sustainability? How to achieve it?

Topics

- Need for public debt
- Theoretical views
- How public debt influences macro-economy
- Extent of the public debt
- Dangers of public debt
- Debt sustainability

Need for public debt

Justification

- Debt-financing smoothens the financial requirements of capital expenditure.
- Government capital expenditure
  - Lumpy in character.
  - Non-remunerative in the short run
  - Revenue flows, smooth in nature.

Justification

- Debt-financing helps realizing faster growth.
  - Growth with current revenues alone would be sub-optimal.
- Justifications same as in the private household or corporate sectors.

Theoretical views

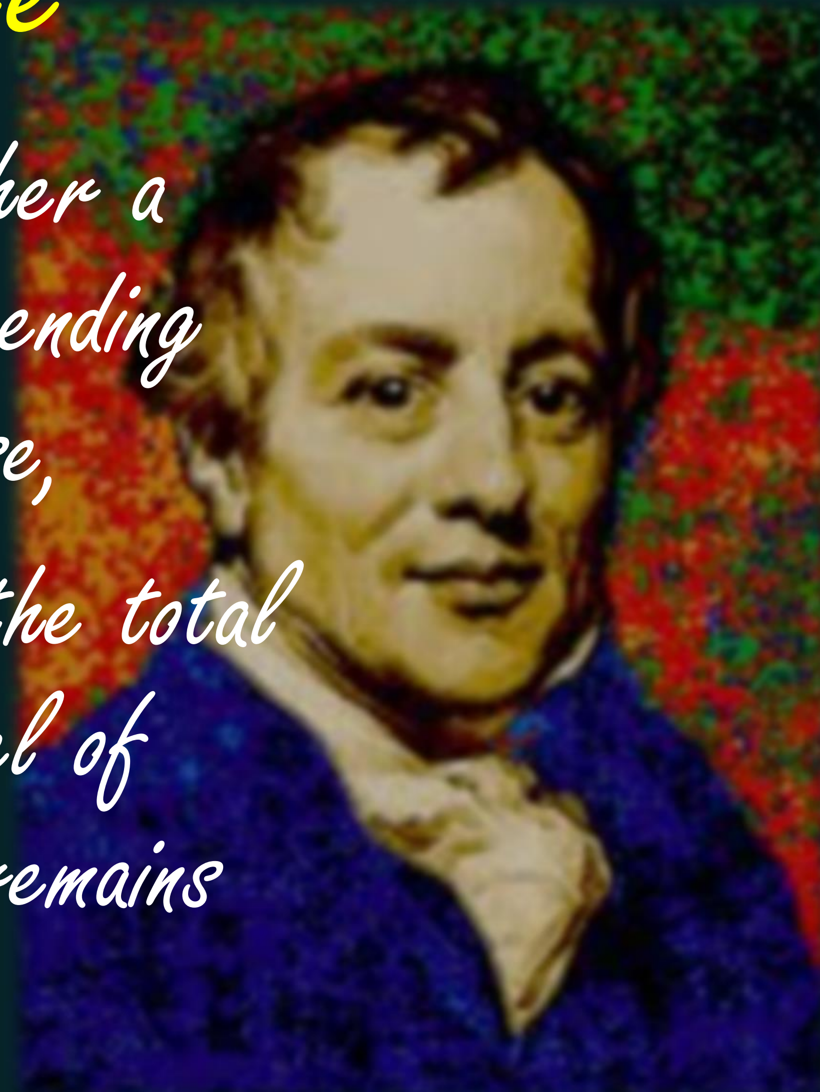
Classical views

Depended on their faith in the role of the government. (Say, Smith, Ricardo, Malthus, Bastable ...)

- Debt financing
  - withdraws funds from productive use.
  - easier and less painful than taxes; unbalanced budgets therefore invite irresponsible governmental action.
  - makes future financing more difficult by increasing the taxes to finance the interest on the debt.
  - costly; may lead to currency depreciation.

Ricardian Equivalence

- It does not matter whether a government finances its spending with debt or a tax increase,
  - because the effect on the total consumption and the level of demand in the economy remains the same.



Assumptions seriously challenged

- Financial markets must be efficient
- Agents must be rational maximizers.
- Ricardo himself doubted that this proposition had practical consequences

Keynesian 'No burden' view

- Government can tap savings through public debt, put resources to productive use and bring about an increase in national income – leading to more tax revenues to service the debt.
- At times of unemployment, public debt contributes to capital formation.
- Promotes development of institutionalized sources of savings like banks, stock markets and insurance companies.
- Helps curb consumption, encourages savings and promotes capital formation and makes it possible to improve standard of living.

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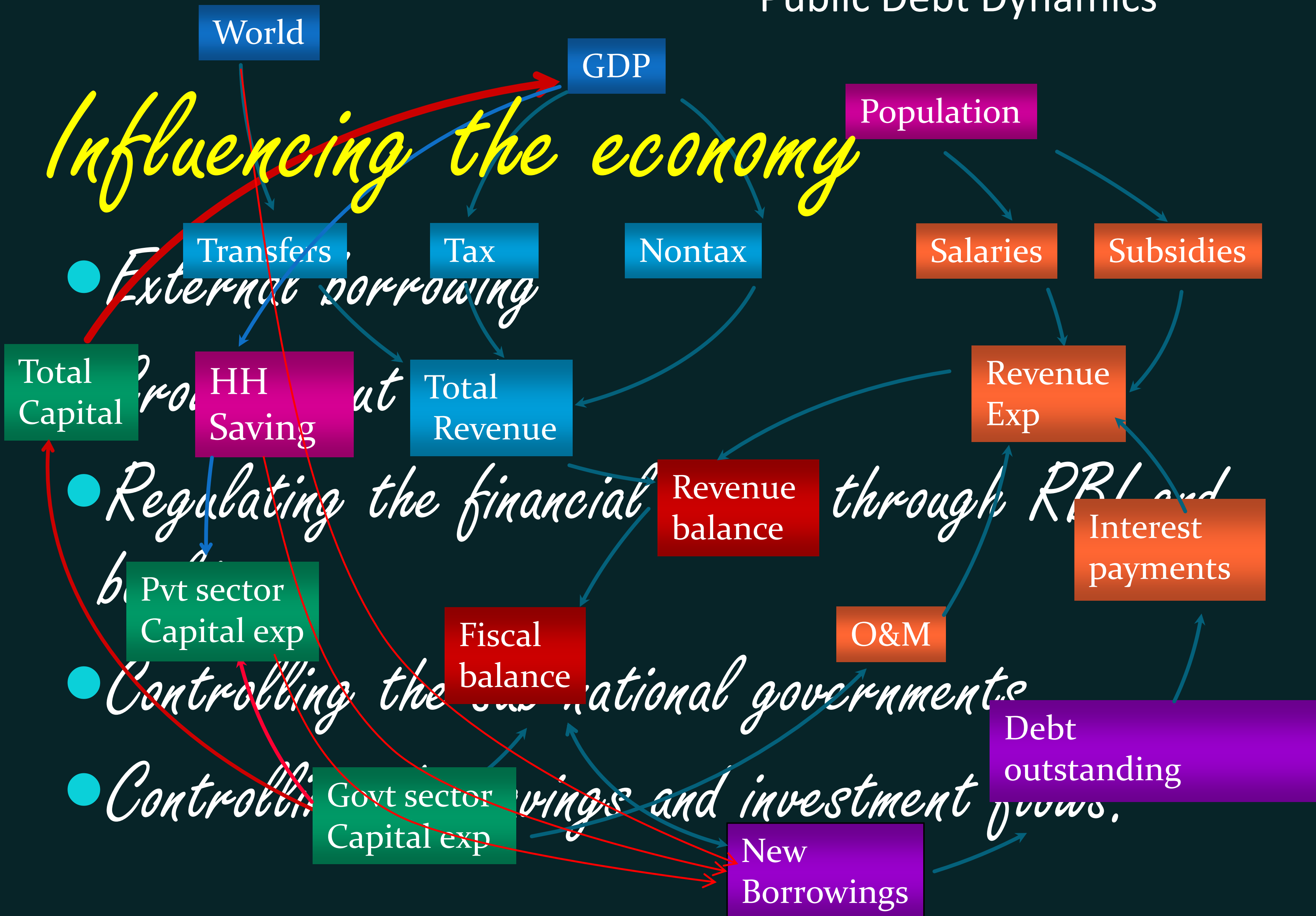
How public debt influences the economy

Public Debt Dynamics

Public Debt Dynamics

Influencing the economy

- *External borrowing*
- *[illegible]ro[illegible]ut*
- *Regulating the financial [illegible] through RBI and b[illegible]*
- *Controlling the [illegible]-national governments*
- *Controlli[illegible] [illegible]vings and investment flows.*



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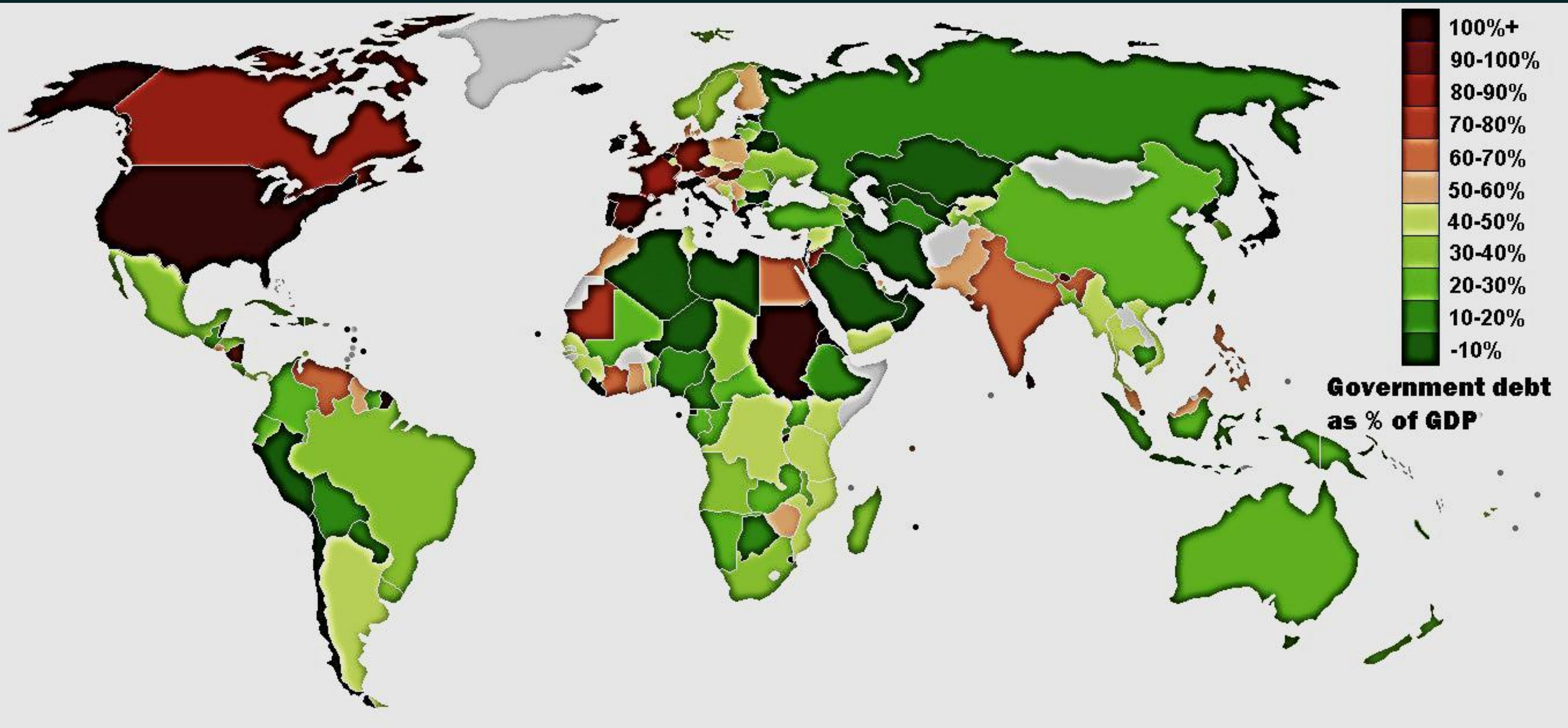
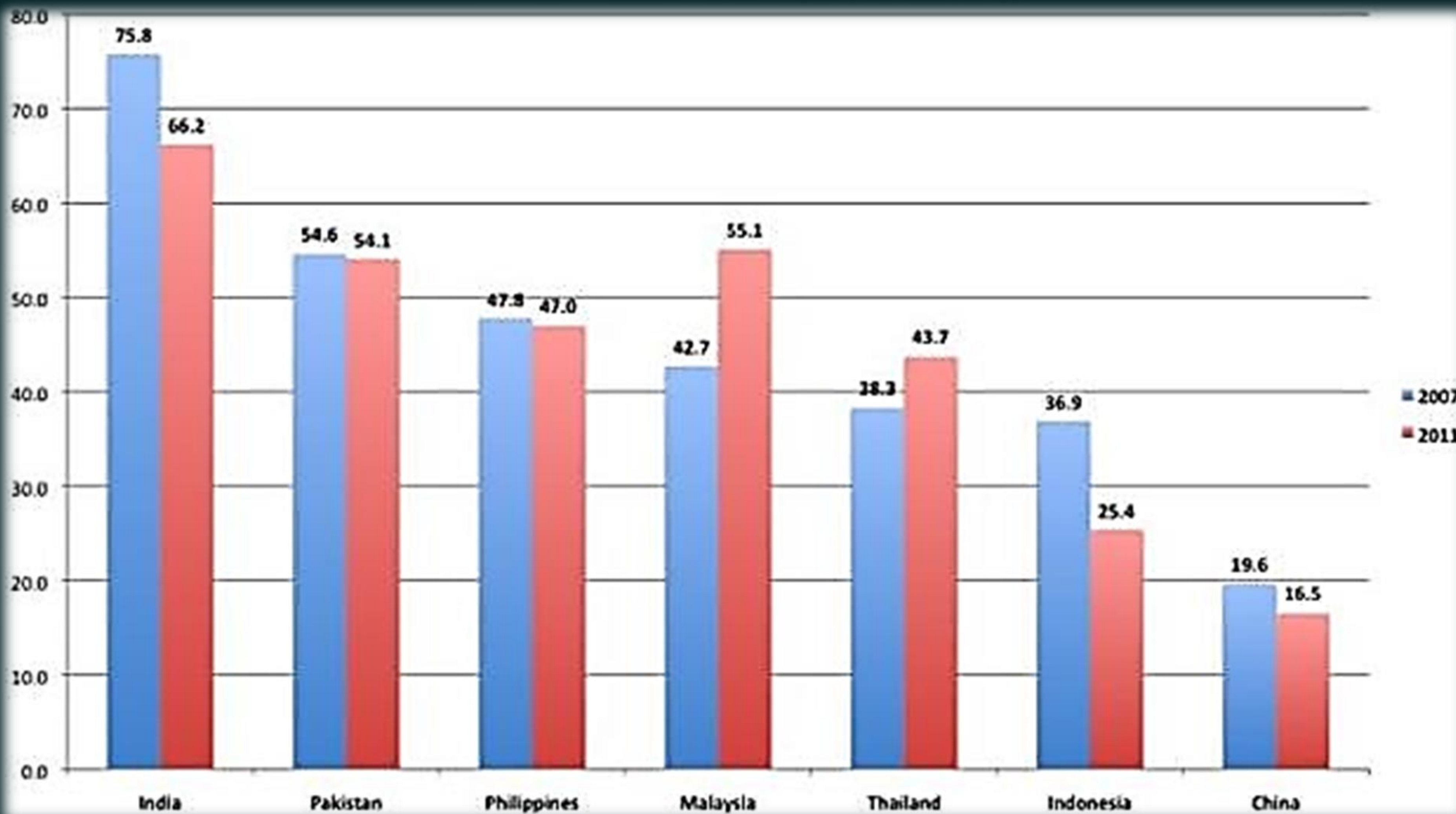
Extent of public debt

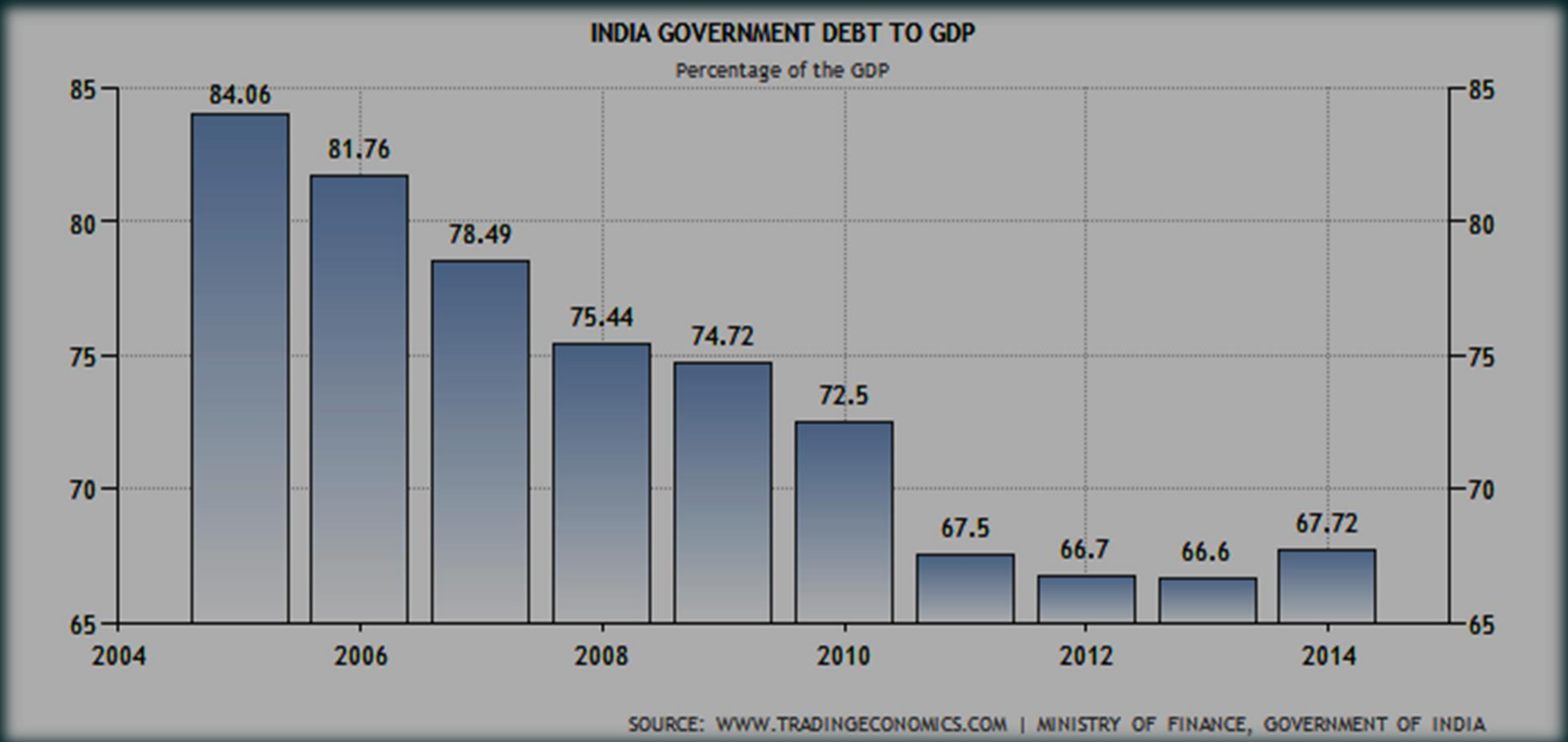
Government debt as % GDP by IMF



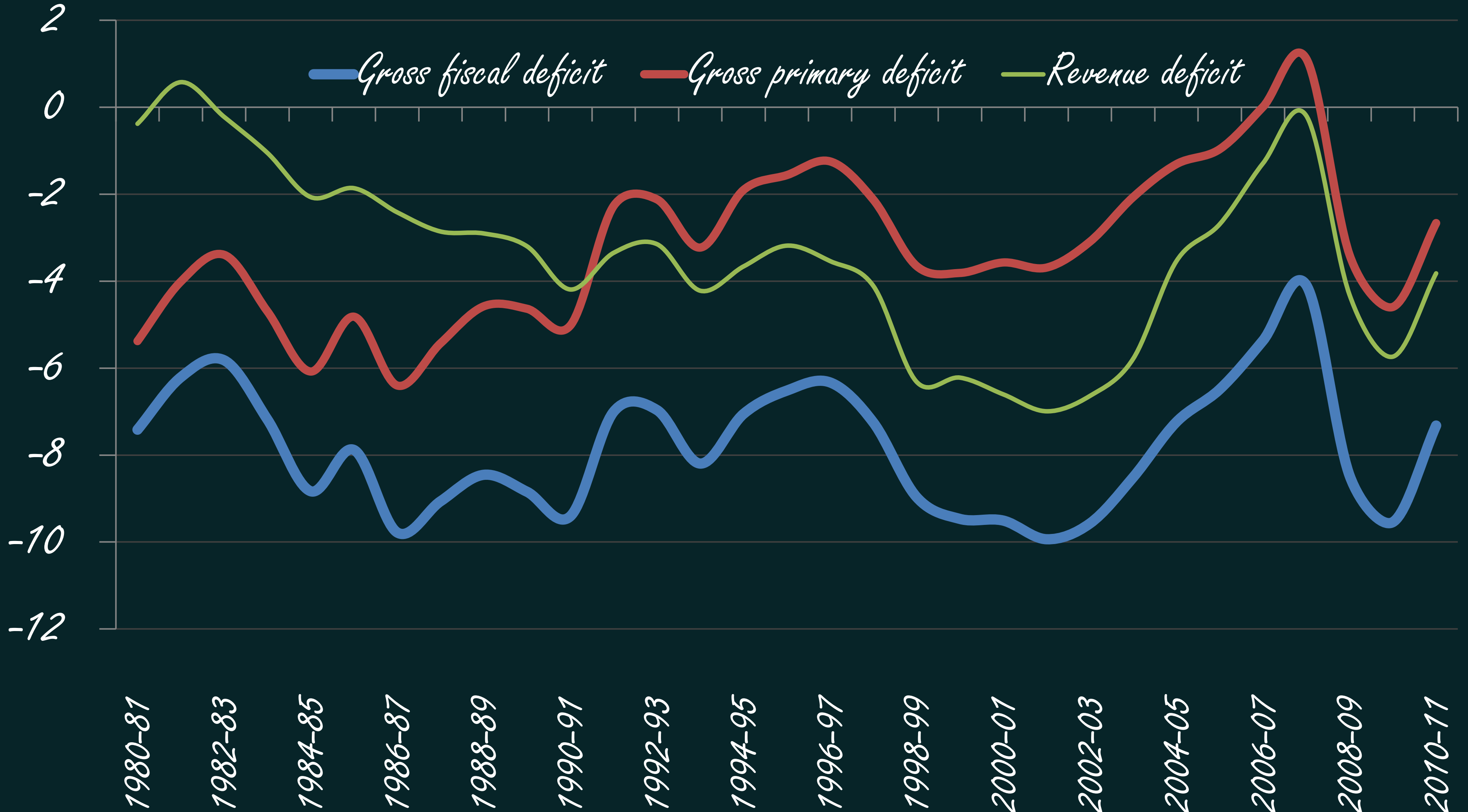
Gross Public Debt in Asia (% GDP)



Extent of government debt in India



Fiscal balances (% GDP)



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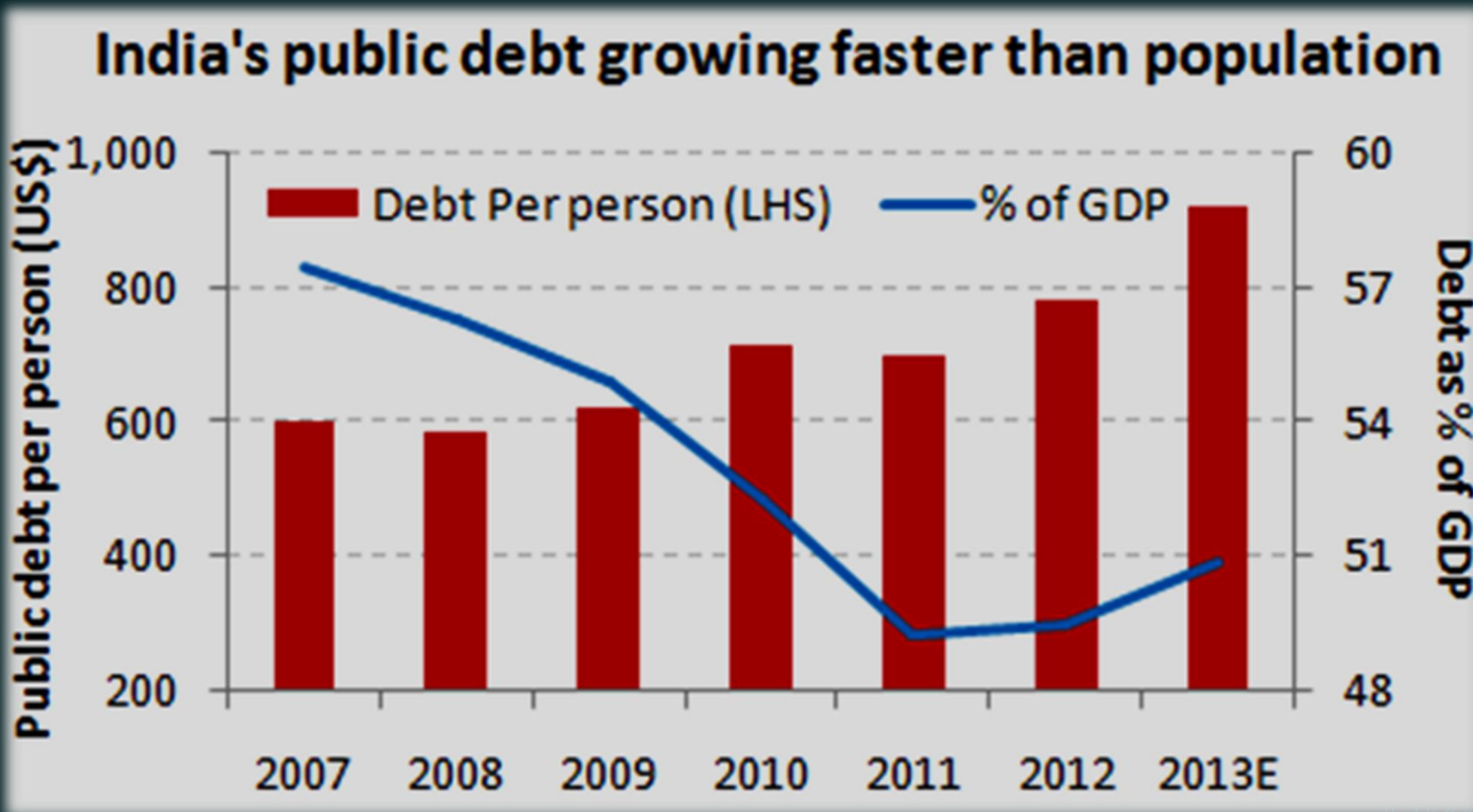
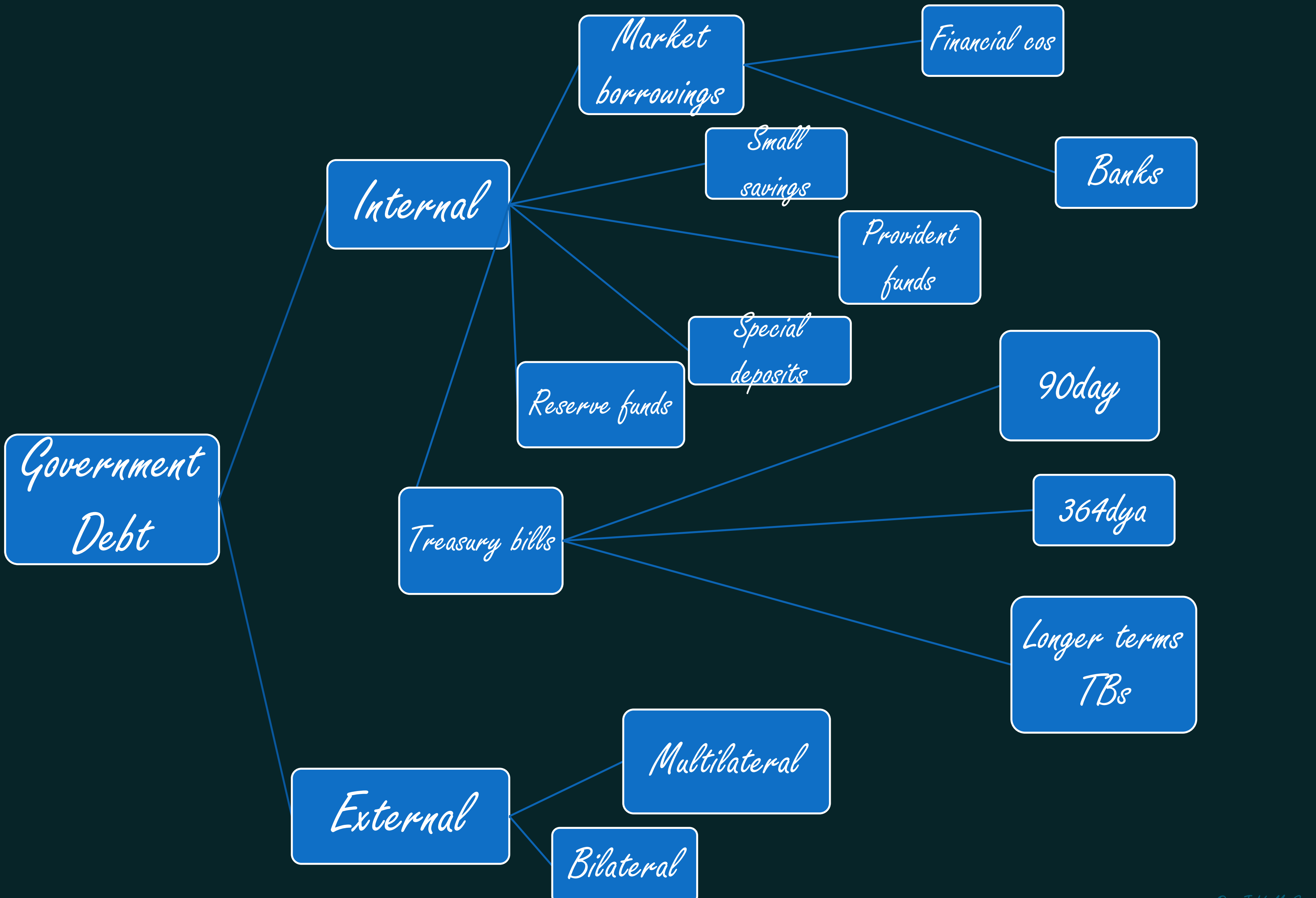
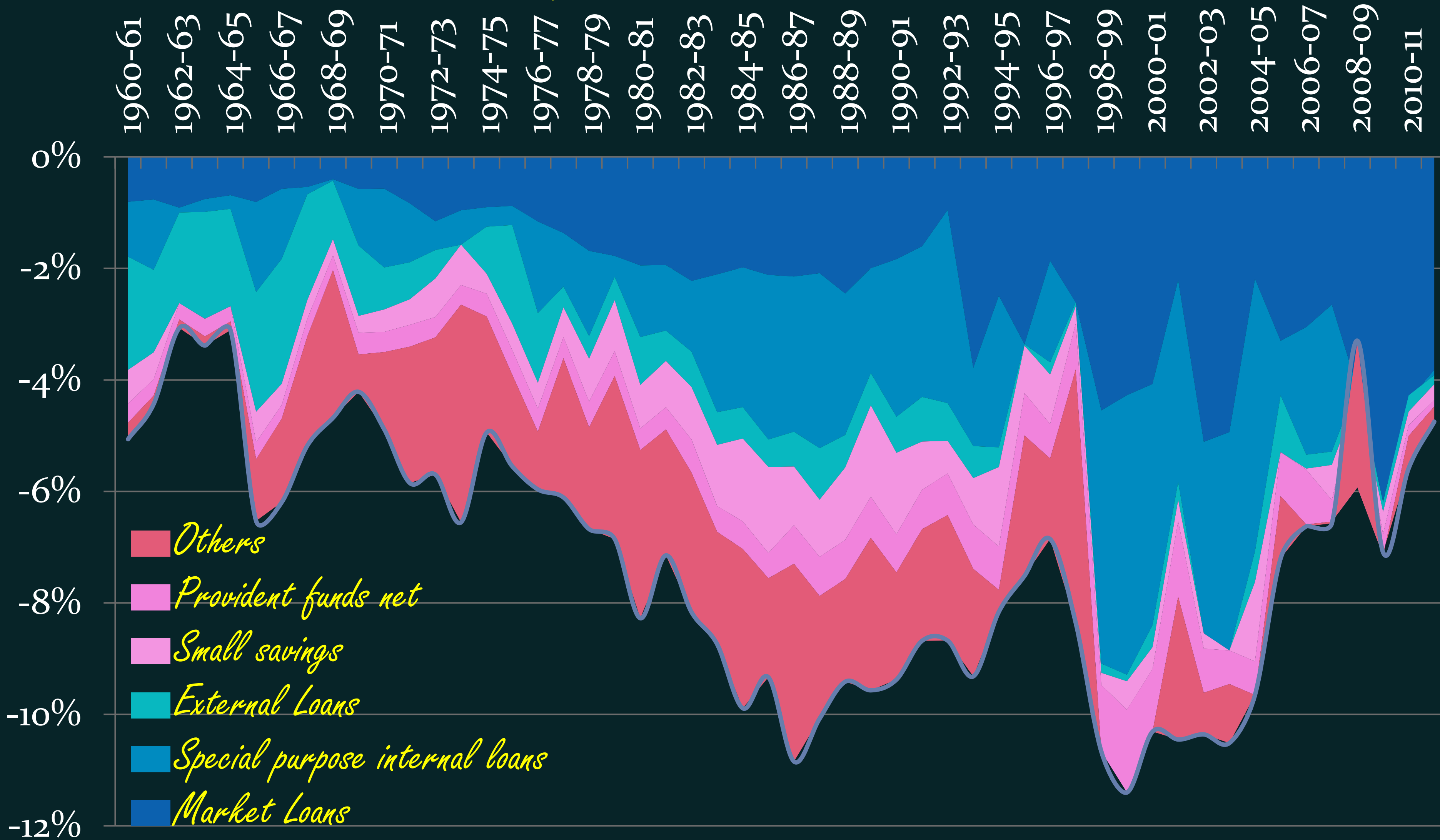
Percapita Public Debt



Government debt composition - India



Public debt composition



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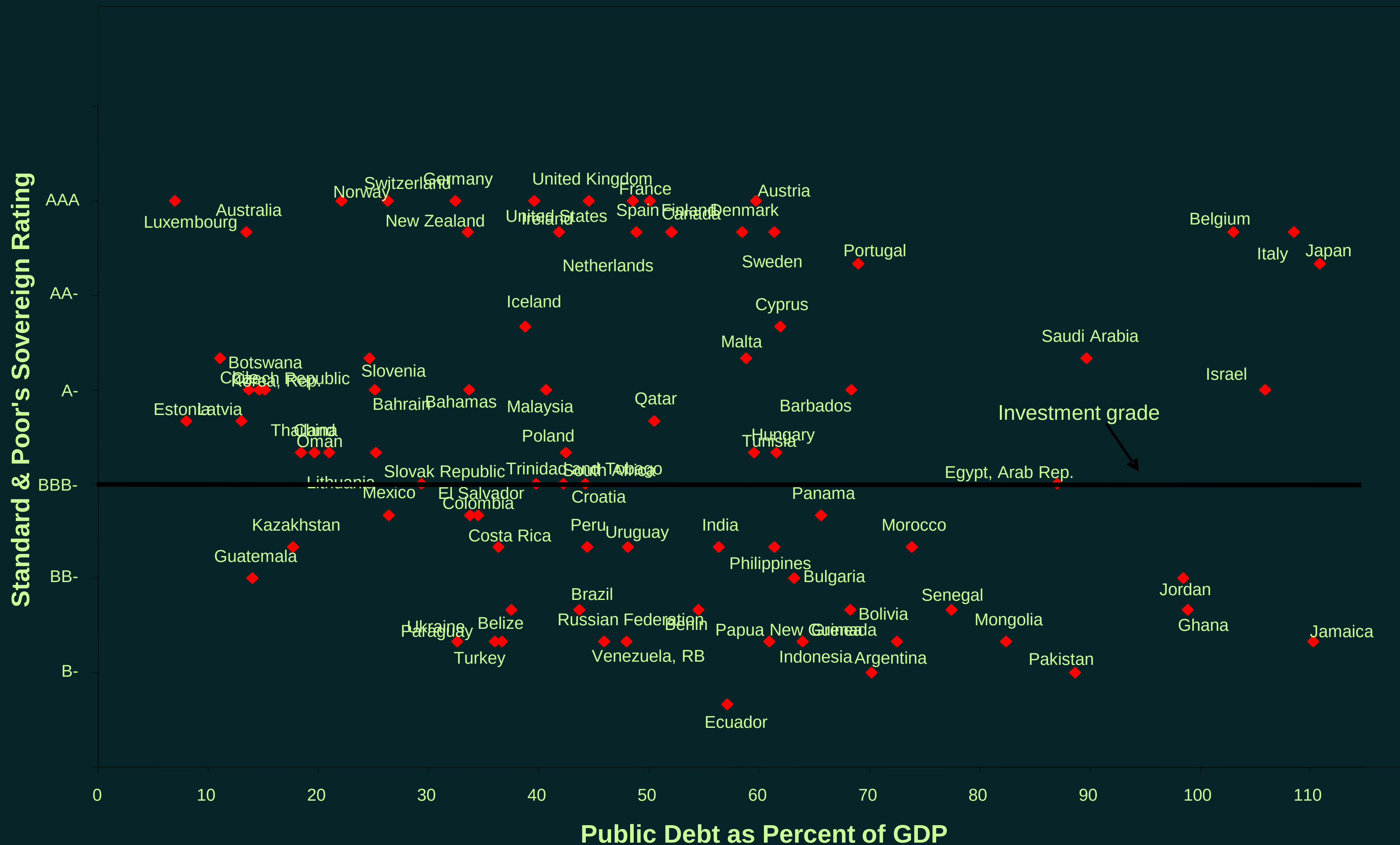
Hidden debt

- Contingent liabilities (22.4 trillion)
  - Guarantees
  - Indemnities
- Technical Committee on State Government Guarantees (1999)
  - selectivity in the provision of guarantees,
  - institution of ceiling,
  - setting up of guarantee redemption funds
- Pension funds (unfunded)
- Implied debt due to Banks (underwriting)

Dangers of large public debt

- Crowding out
- Increases tax burden of future generations
- Can lead to raise in interest rate, makes private investment costlier
- Interest payments of government cuts into welfare expenditure allocations
- Low credit-rating of the country.

Sovereign rating (1995-2000)



Source **: Jaimovich and Panizza (2006) and Standard and Poor's**

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It is like this

Public debt sustainability

Debt-Sustainability

- Role of Seignorage
  - Non-inflationary money creation
- Primary deficit
  - If primary deficit less seignorage is zero, then, the debt will grow with the interest paid
  - because the government is simply borrowing to pay the interest.

Limits of Debt-GDP ratio

- The budget identity for the non-financial public sector can be

$$X + iB = \Delta S + \Delta B$$

where

X = primary deficit,

iB = the sum of interest payments on the existing debt, B,

ΔS is the 'seignorage', and

ΔB is the increase in the interest-bearing debt.

Limits of Debt-GDP ratio

Using lower case letters for proportion of GDP

and writing GDP = PY

(real × price level),

$x+ib = \Delta s + \Delta B/PY$ - (1).

Since $B = bPY$, and writing $P' = \Delta P/P$, and $Y' = \Delta Y/Y$, it follows that

$\Delta B = PY.\ \Delta b + bPY\ (P'+Y')$, or

$\Delta\ B/PY = \Delta b + b\ (P'+Y')$.

Limits of Debt-GDP ratio

Thus, eqn (1) becomes

$$x + ib = s + \Delta b + b\,(P' + q'),\ \text{or}$$

$$\Delta b = x + ib - s - b\,(P' + q').$$

Limits of Debt-GDP ratio

Further, defining the real interst rate as $r = i - P'$, we have

$\Delta b = x + b\,(r + P') - s - b\,(P' + Y')$

$\Delta b = x - s + b\,(r + P') - b\,(P' + Y')$

$\Delta b = x - s + b\,(r - Y')$ — (2).

Thus b may reach a limit when $\Delta b = 0$, and the limit will be

$b = (x - s) / (Y' - r)$ — (3).

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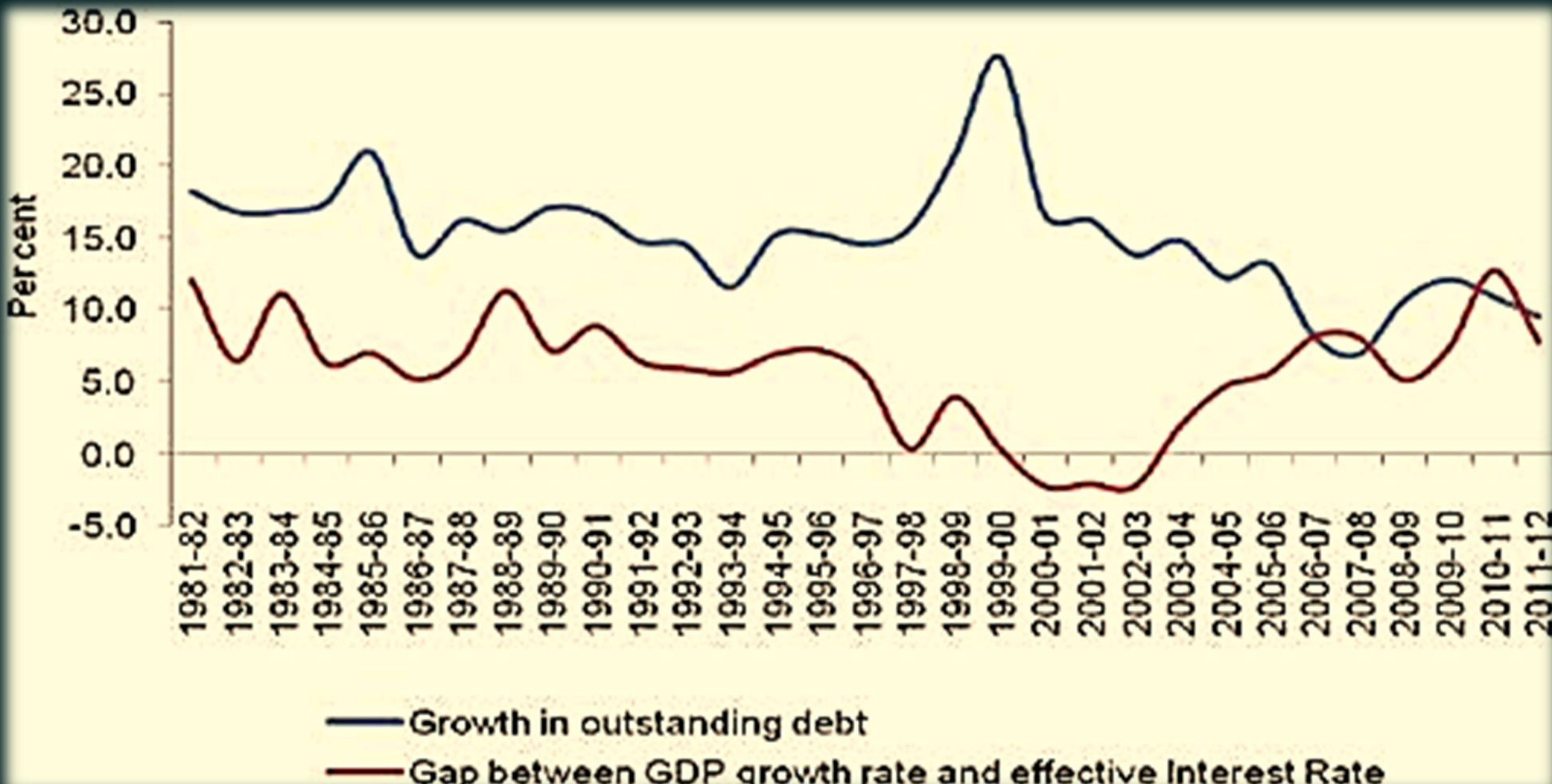
Condition for debt-sustainability

- Thus, if the rate of interest > the rate of growth of GDP, then debt-GDP ratio will grow.
  - New debt is sustainable still, if the return on new investment exceeds the interest rate,
  - provided that the debt-GDP ratio is not dangerously high.
- Interest rate=GDP growth, debt/GDP stationary
- Interest rate<GDP growth, debt is sustainable.

Debt Sustainability - India



Concluding

We covered

- Need for public debt
- How public debt influences macro-economy
- Extent of the public debt in India
- Dangers of public debt
- Debt sustainability


Thank you!
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