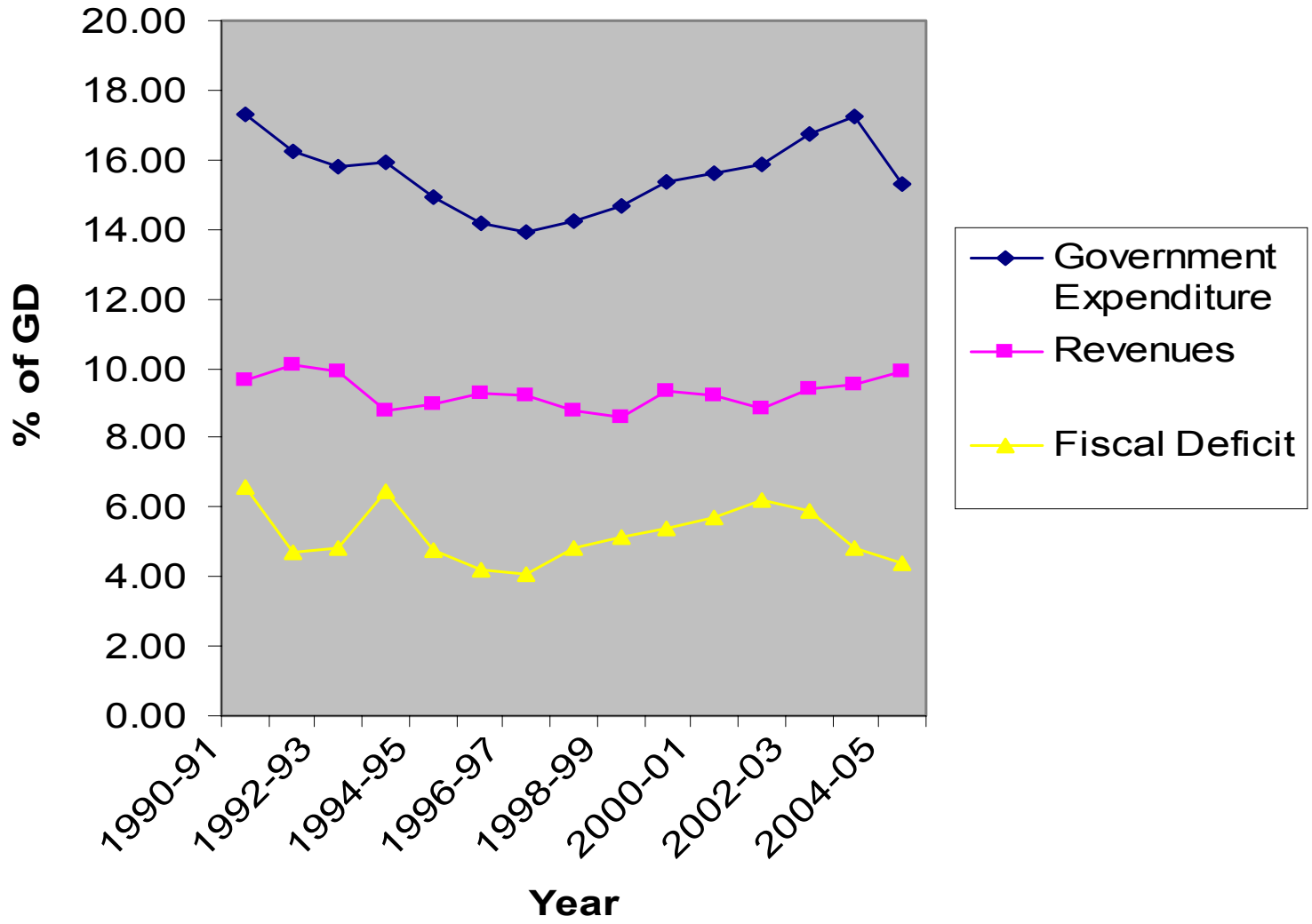
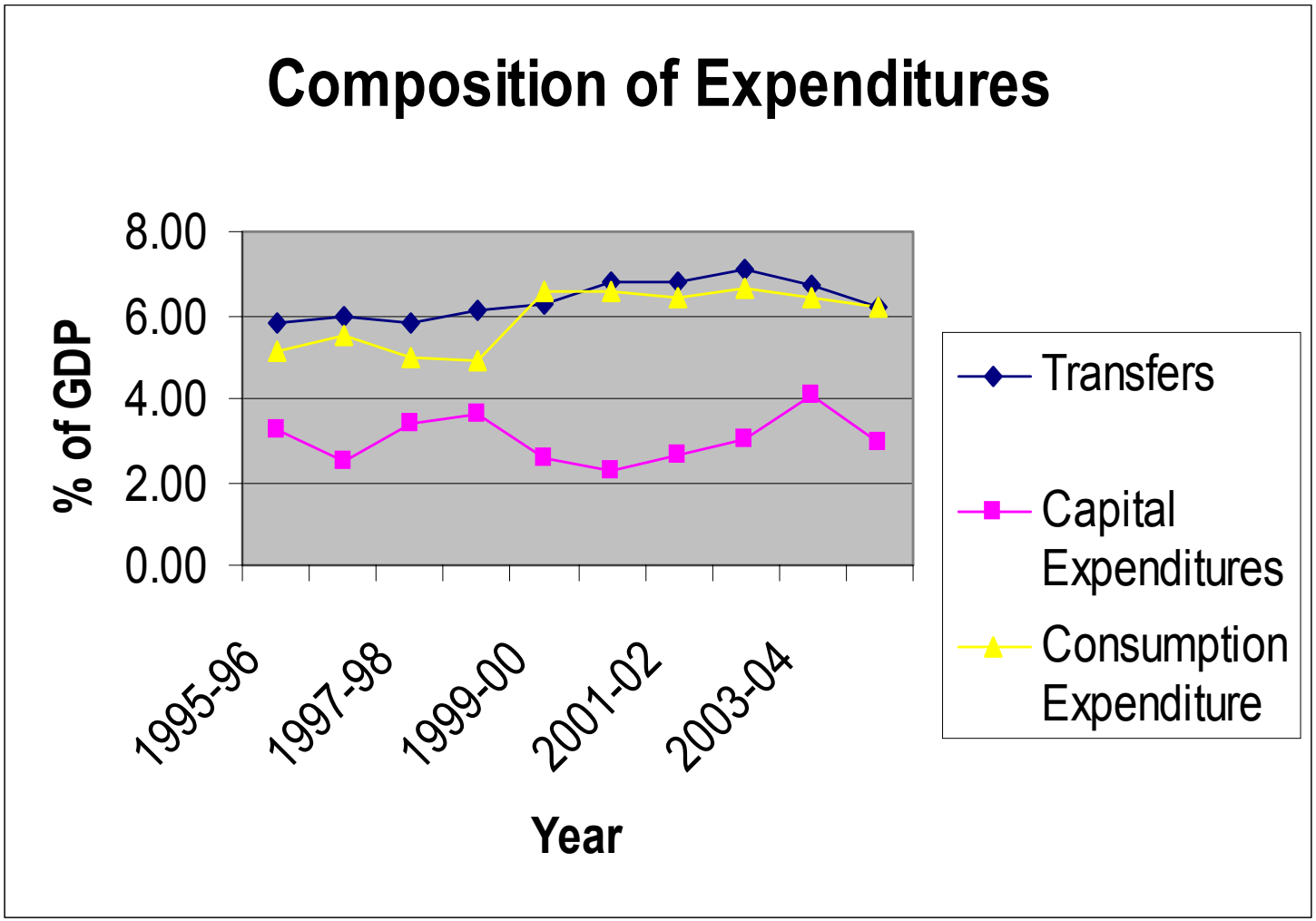
# Union Budget 2004-05

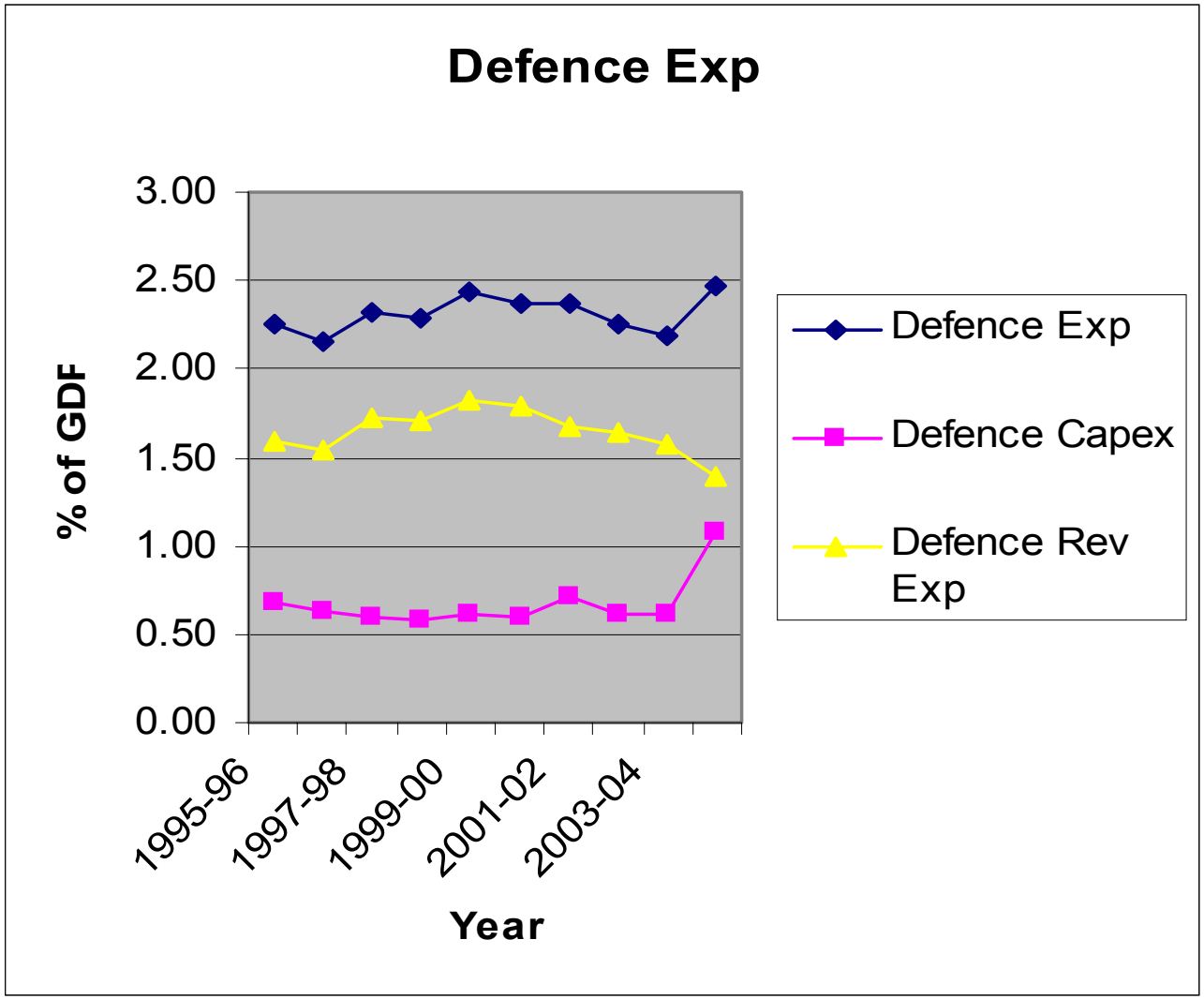
Errol D'Souza
Professor
Indian Institute of Management, Ahmedabad

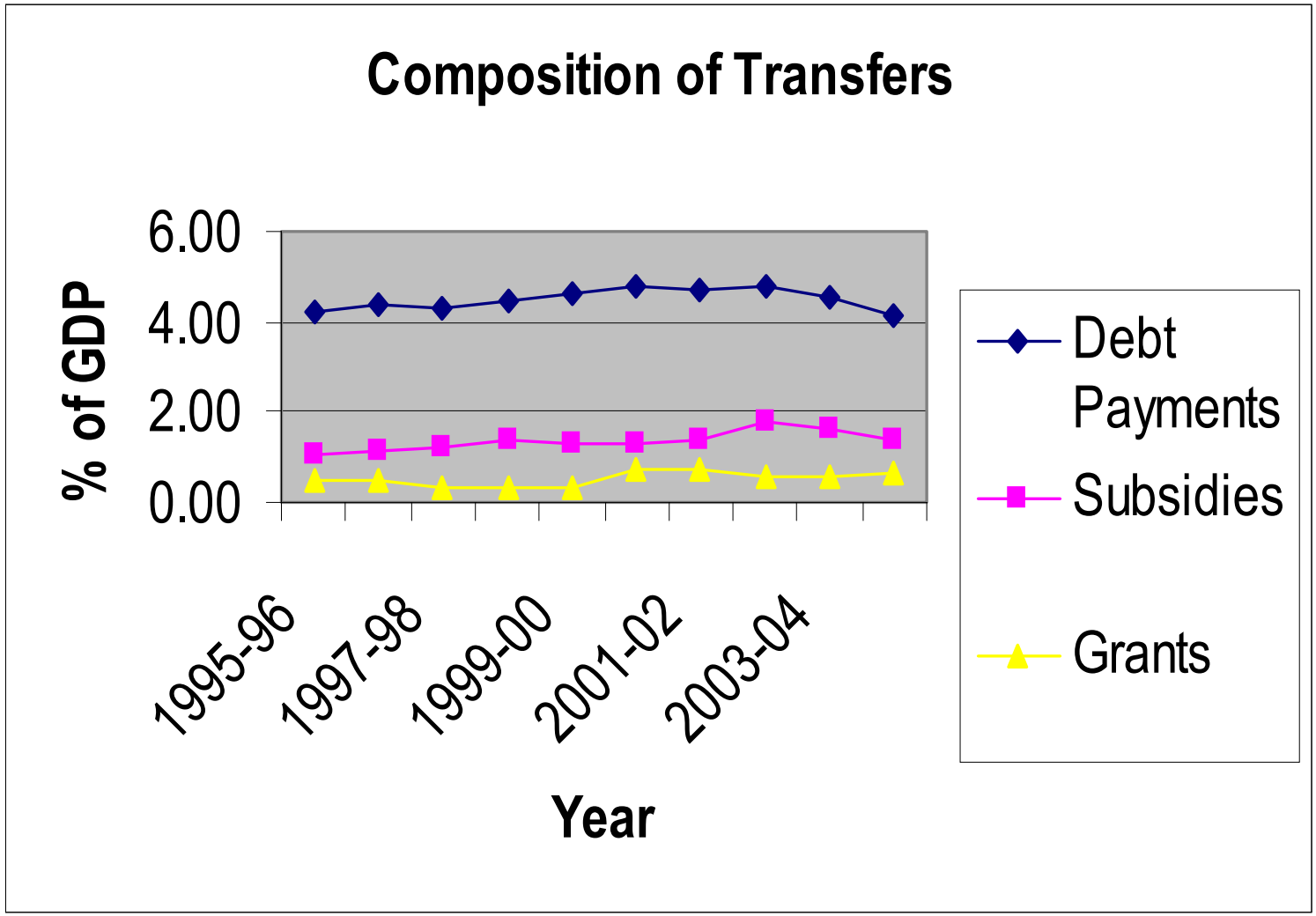

Email: errol@iimahd.ernet.in

# Trends in Expenditures & Revenues

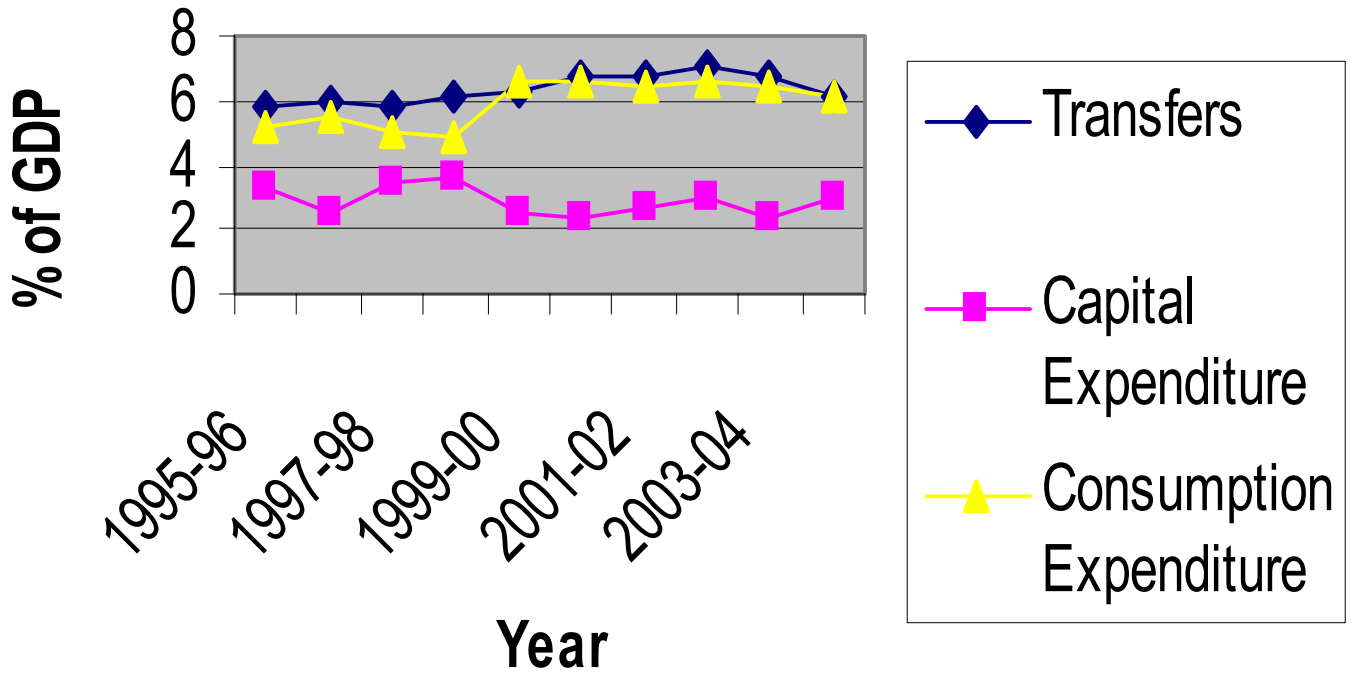



Composition of Expenditures
8.00
6.00
4.00
2.00
0.00
% of GDP
1995-96
1997-98
1999-00
2001-02
2003-04
Year
Transfers
Capital Expenditures
Consumption Expenditure

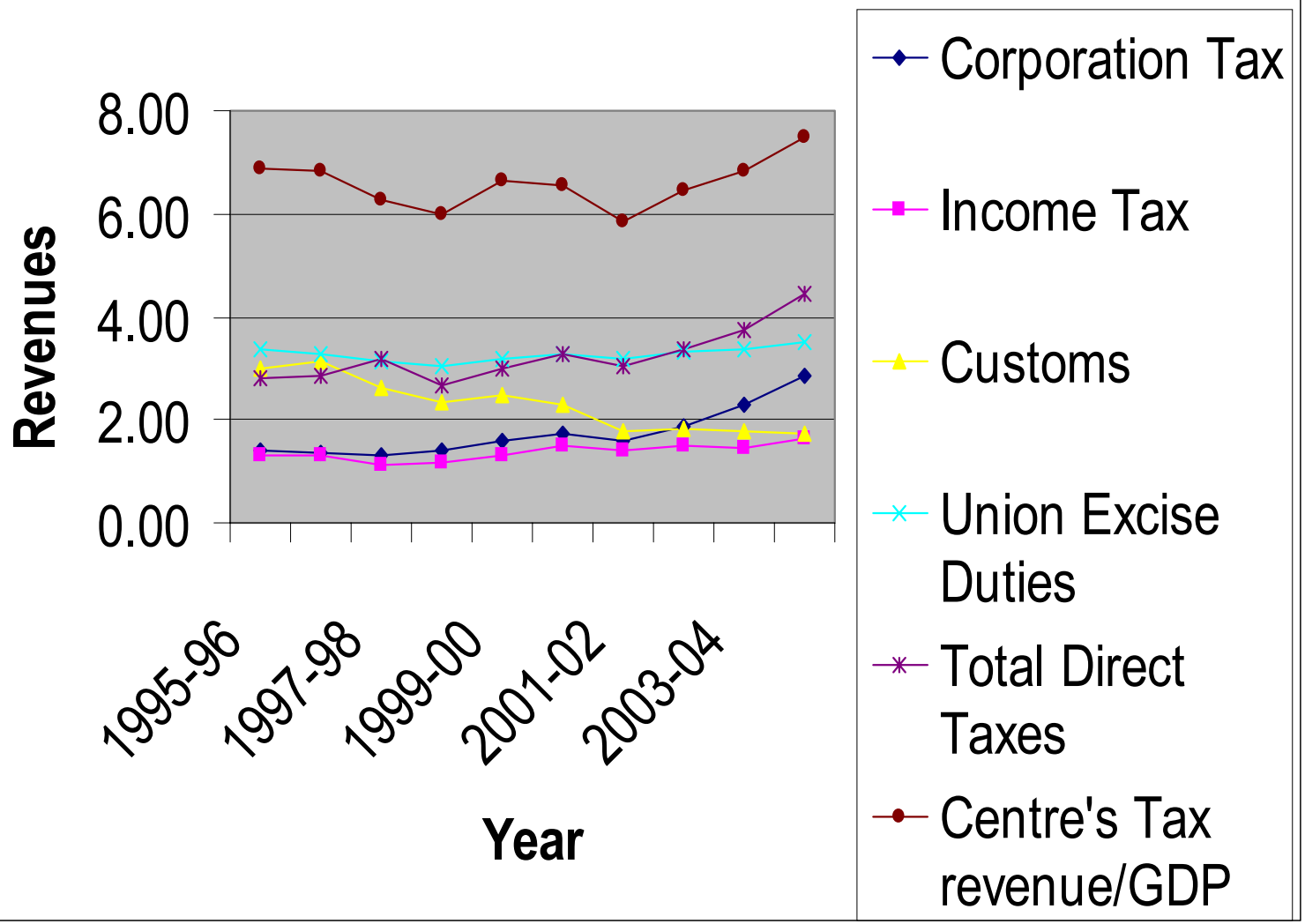

Defence Exp
3.00
2.50
2.00
1.50
1.00
0.50
0.00
% of GDF
1995-96
1997-98
1999-00
2001-02
2003-04
Year
Defence Exp
Defence Capex
Defence Rev Exp


Composition of Transfers
% of GDP
6.00
4.00
2.00
0.00
1995-96
1997-98
1999-00
2001-02
2003-04
Year
Debt Payments
Subsidies
Grants

# Composition of Exp II (2003-04)



# Revenues of Centre (% of GDP)



# Coalition Budgetary Policy

Each interest group attempts to influence fiscal authorities to set transfers to items targeted by group at some desired level.

All interest groups share same budget constraint and so costs are spread across the interest groups

Benefits, however, accrue only to each group

**Spending bias** as each group does not take into account external effects it has on the other.

Without strategic dominance of Finance Minister debt and deficits are inevitable

Pressure of Coalition Politics

Railway Minister is assured by PM he will get funds

Finance Minister sees resources coming from Planning Commission which will "bring some order into the tangled web of schemes"

Education Cess - From General Fund financing to Earmarking

Ensures a certain level of public services from this budgetary item

Avoids general fund financing problem that problems in one budgetary item are spread to other budgetary items which affects services provided

In a coalition government resources intended for one budgetary item can get diverted

Earmarking is a precautionary device against this.

Delinks a priority item of expenditure from politics of coalition

Is earmarking good for education?

Roads
- Capital Exp is large
- Subsequent maintenance expenditures small

Education
- Major expenditure is salaries of teachers and costs of books which recurs each year

Difficult to allow a cess to be charged indefinitely and once withdrawn where are resources going to come from?

Cess may be **non-sustainable**

# Fiscal Reform

Whilst being **sustainable** budget may not be **solvent**

A government is solvent if the present value of its net worth is non-negative, or,

Current value of debt ≤ Present value (Future Primary Surpluses)

$$\Delta B = B_t - B_{t-1} = rB_{t-1} + (G - T)$$

(Primary Deficit)

Or, $$B_t = (1+r)B_{t-1} + D_t$$

Dividing throughout by GDP, $Y_t$ ,

$$\frac{B_t}{Y_t} = (1+r)\frac{B_{t-1}}{Y_{t-1}}\frac{Y_{t-1}}{Y_t} + \frac{D_t}{Y_t}$$

Write

$$b_t = \frac{B_t}{Y_t} \qquad d_t = \frac{D_t}{Y_t} \quad \text{and} \quad g = \frac{Y_t - Y_{t-1}}{Y_{t-1}} = \frac{Y_t}{Y_{t-1}} - 1 \implies 1 + g = \frac{Y_t}{Y_{t-1}}$$

$$b_t = \frac{1+r}{1+g} b_{t-1} + d_t$$

Debt/GDP ratio $b_t$ grows for two reasons

(1) Government issues debt to cover a primary deficit - $d_t$

(2) Government must pay interest on existing debt - $\frac{1+r}{1+g}$

(1) Draw a graph of the above equation with $b_t$ as function of $b_{t-1}$

(2) Find steady state solution of equation $b_t = b_{t-1} = \bar{b}$

$$\bar{b} = \frac{1+r}{1+g}\bar{b} + d \quad \text{or,} \quad \bar{b}\left(\frac{g-r}{1+g}\right) = d \quad \text{or,} \quad \bar{b} = \frac{1+g}{g-r} d$$

(3) Check for stability

Figure I

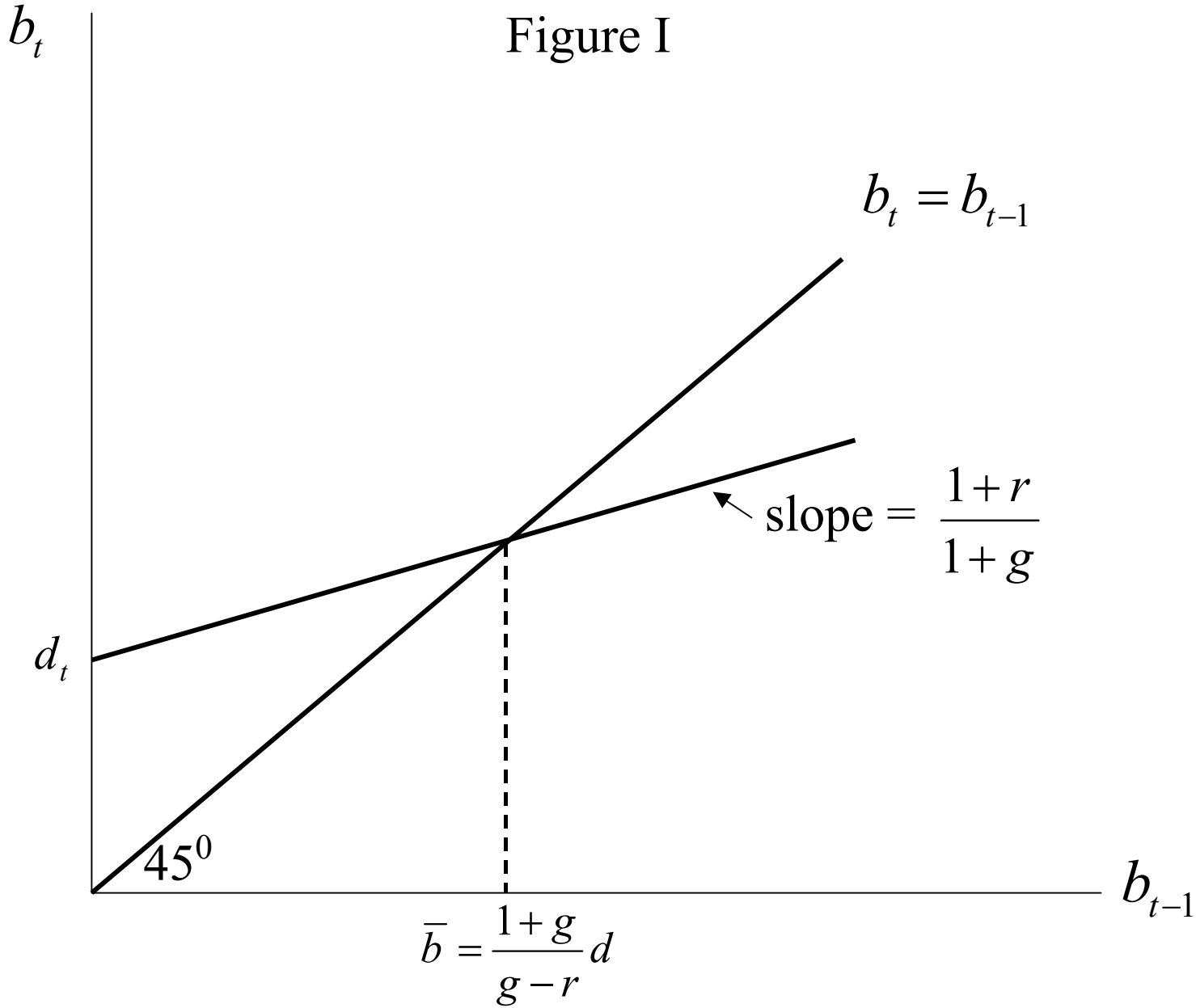
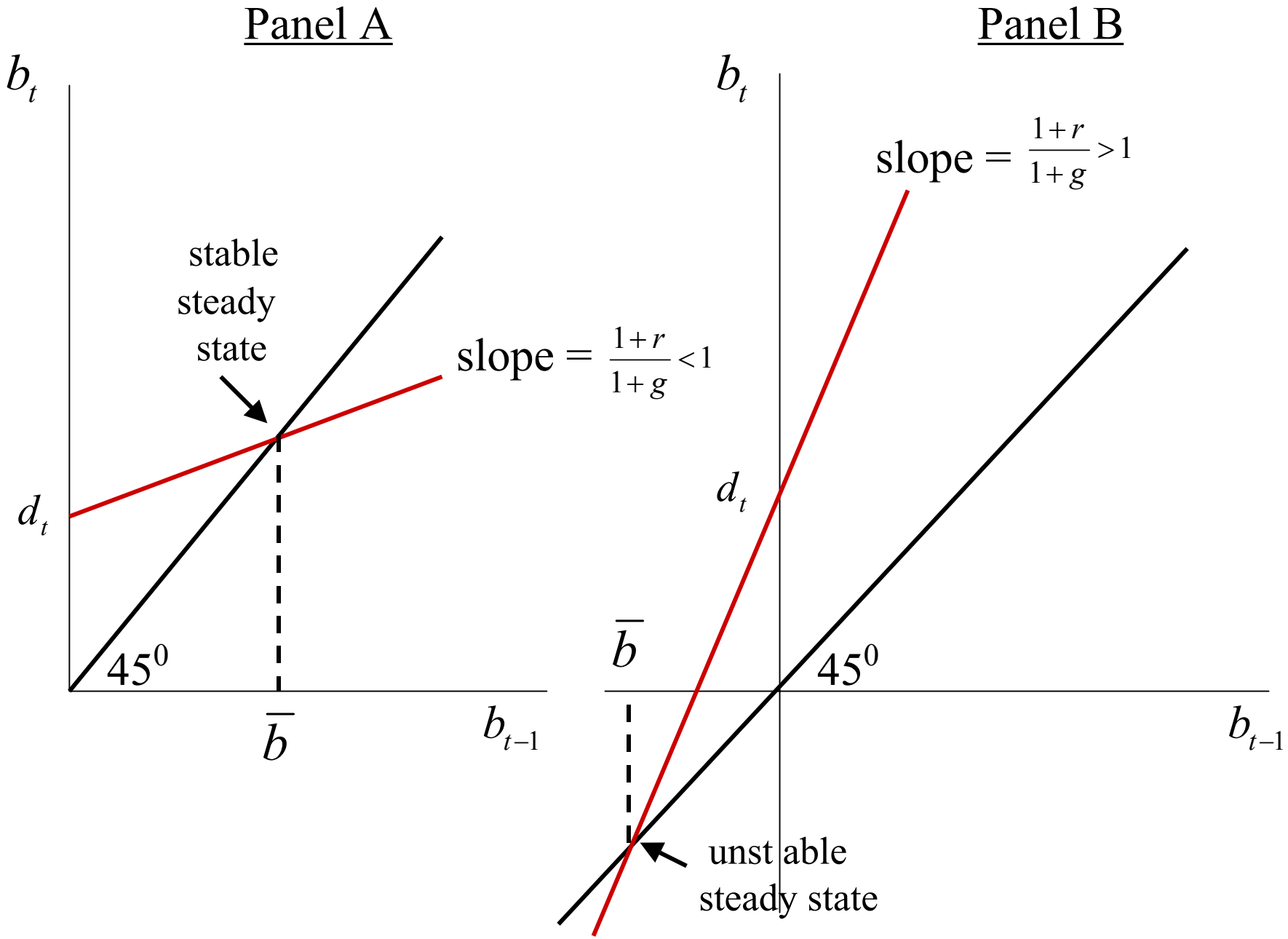


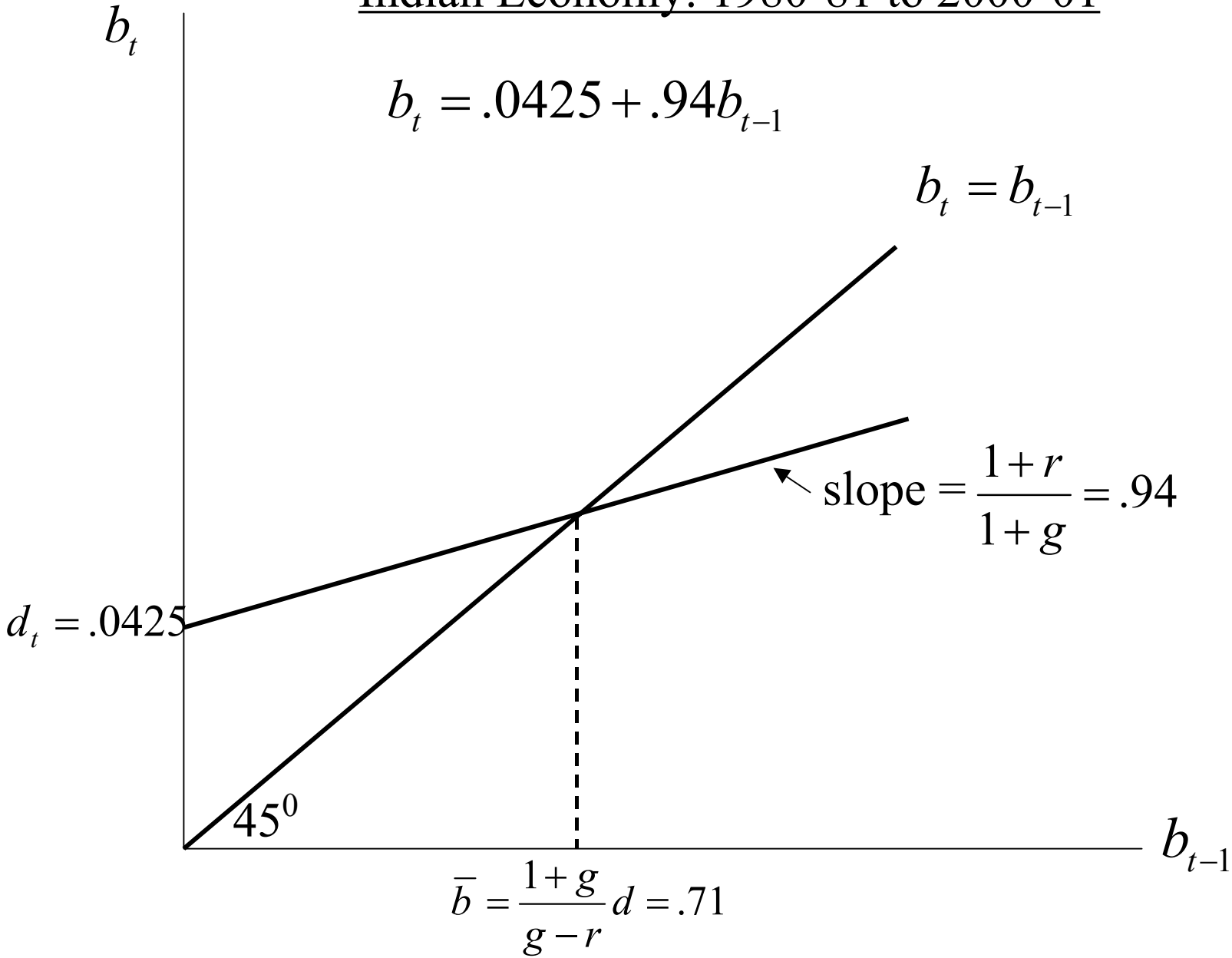
Figure II


Panel A
$b_t$
stable
steady
state
slope = $\frac{1+r}{1+g} < 1$
$d_t$
$45^0$
$\bar{b}$
$b_{t-1}$
Panel B
$b_t$
slope = $\frac{1+r}{1+g} > 1$
$d_t$
$\bar{b}$
$45^0$
$b_{t-1}$
unst able
steady state

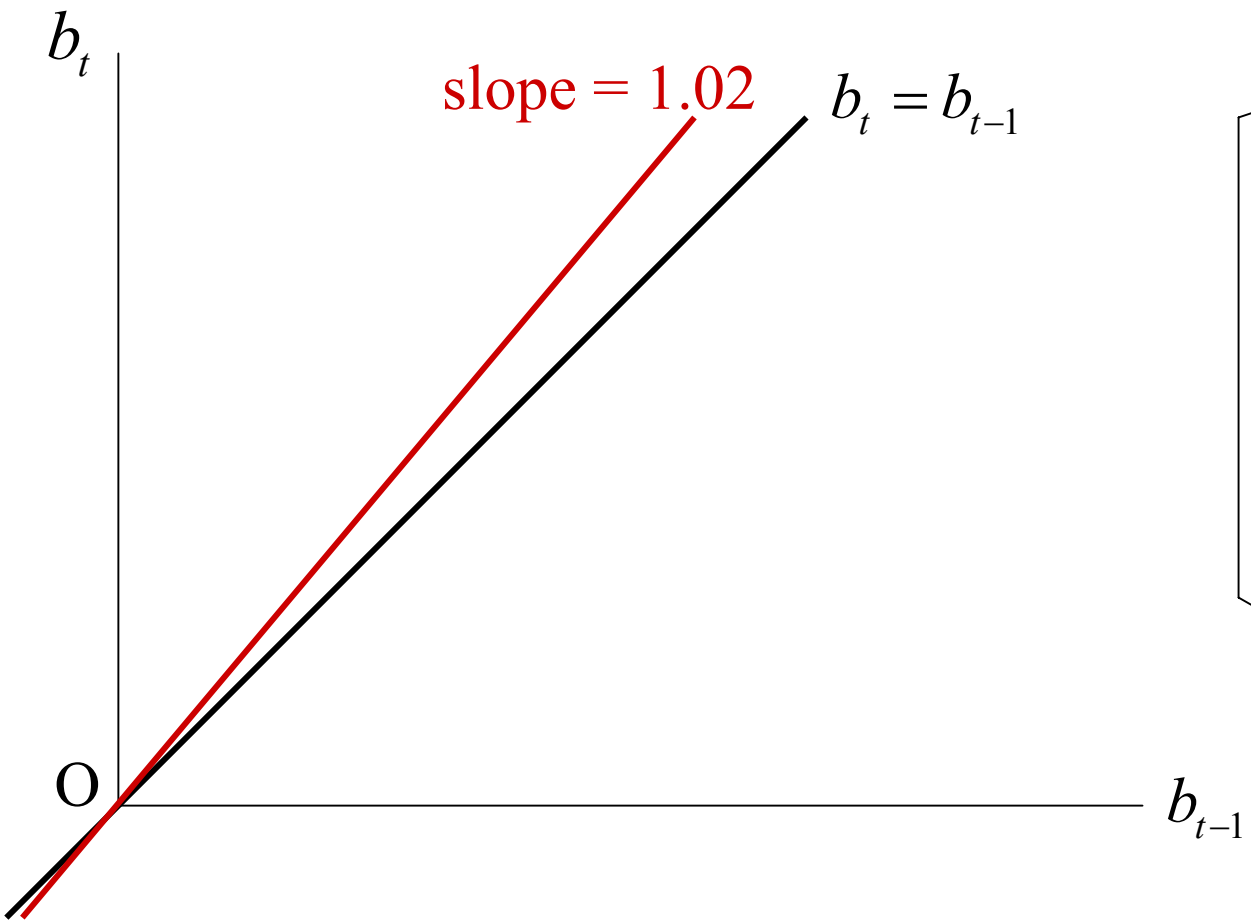
| Year | Debt Liabilities of Government as ratio of GDP | Actual Primary Deficit as % of GDP | Growth rates of GDP (factor cost) | Real interest rates on Government Securities |
|---|---|---|---|---|
| 1989-90 | 0.68 | 5.16 | 6.7 | 3.2 |
| 1990-91 | 0.69 | 5.59 | 5.6 | 1.0 |
| 1991-92 | 0.68 | 2.52 | 1.3 | -2.0 |
| 1992-93 | 0.67 | 2.37 | 5.1 | 3.8 |
| 1993-94 | 0.69 | 3.58 | 5.9 | 2.9 |
| 1994-95 | 0.66 | 2.11 | 7.3 | 2.4 |
| 1995-96 | 0.64 | 1.73 | 7.3 | 4.8 |
| 1996-97 | 0.62 | 1.38 | 7.8 | 6.4 |
| 1997-98 | 0.64 | 2.34 | 4.8 | 5.4 |
| 1998-99 | 0.65 | 4.00 | 6.5 | 3.9 |
| 1999-00 | 0.68 | 4.22 | 6.1 | 7.9 |
| 2000-01 | 0.73 | 3.93 | 4.4 | 6.7 |

N.B.: The interest rates on government securities is the weighted average of interest rates on Central and state government securities less the inflation rate as measured by the GNP (factor cost) deflator.

# Indian Economy: 1980-81 to 2000-01



Not only is debt/GDP ratio rising but interest rates on government securities have also been rising which requires that the primary deficit be converted to a surplus. Even if we set primary deficit/GDP to be zero, the estimated equation for debt is explosive.

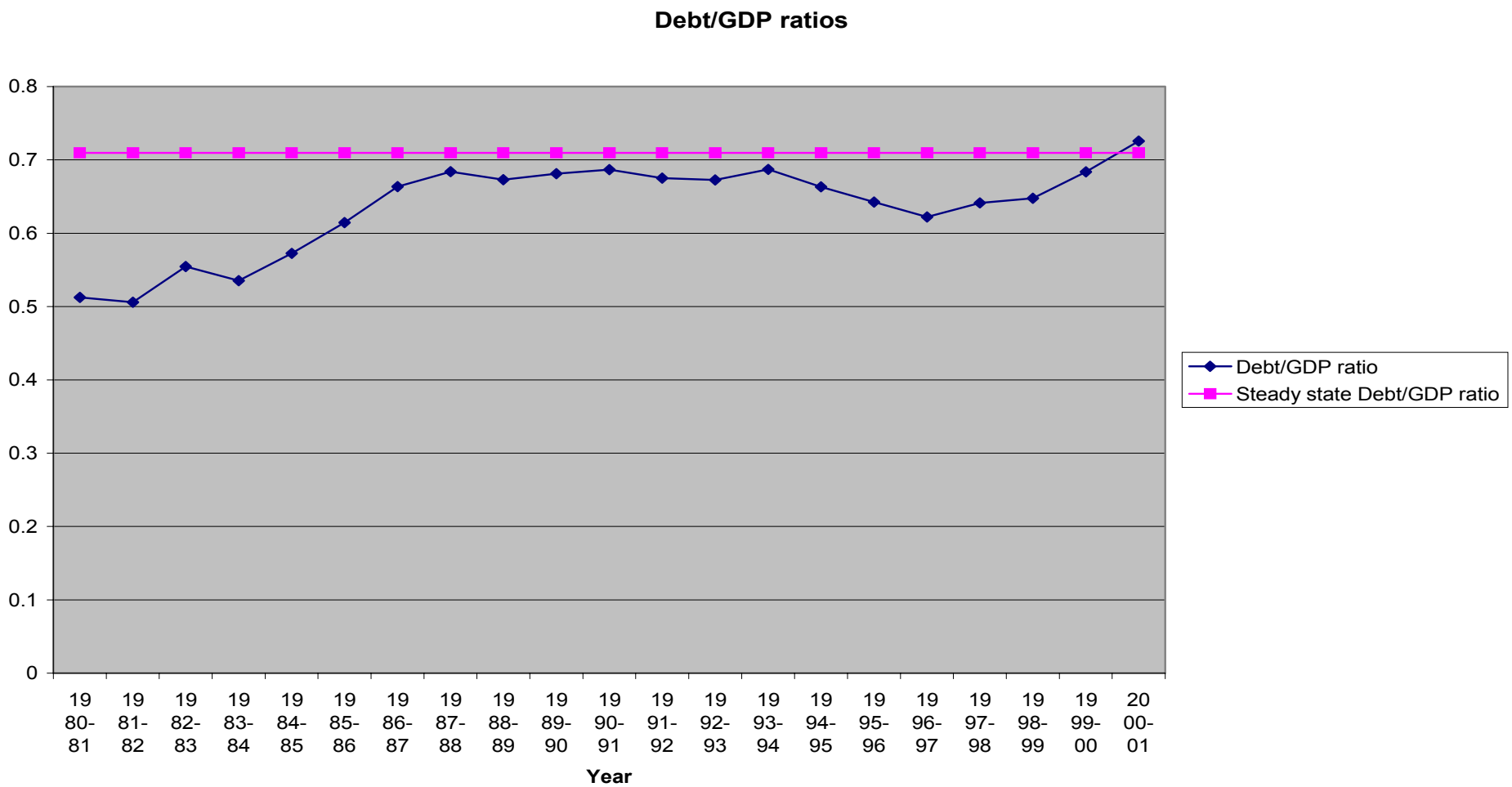



Estimate for 1980-81 to 2000-01 when $d_t = 0$

$$b_t = 1.02 b_{t-1}$$

As debt/GDP is slowly exploding corrective action is required.

The actual debt/GDP ratio has overtaken the steady state debt/GDP ratio of $\bar{b} = .71$



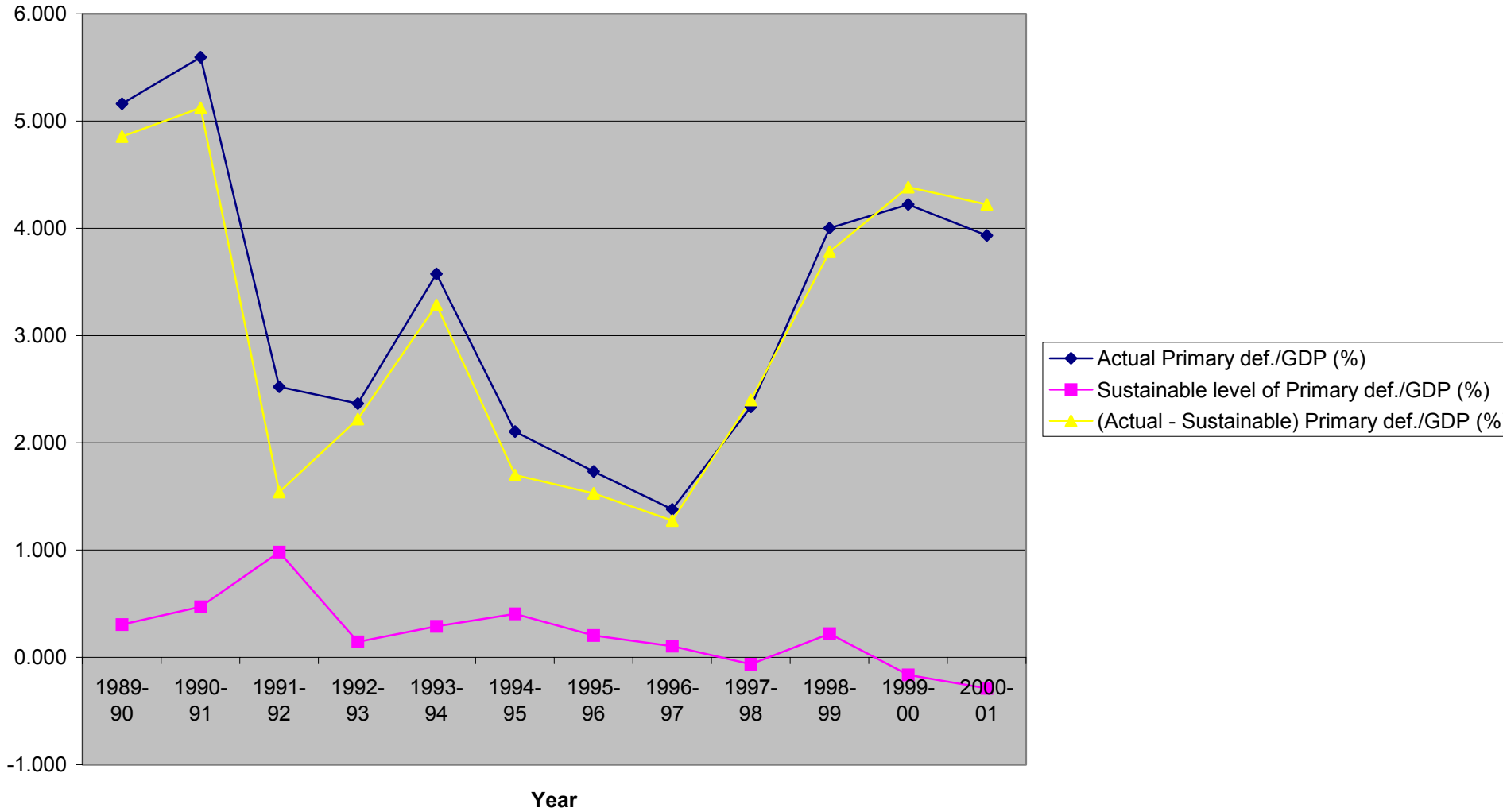
Alternative query: If the current debt is to be continued at a constant level forever, then, if there is no change in interest rates and the growth rate of GDP, what level of primary deficit can sustain this situation?

$$b_t = d_t + \frac{1+r}{1+g} b_{t-1}$$

or, $$\left[1 - \frac{1+r}{1+g}\right] b_{t-1} = d_t$$ when $b_t = b_{t-1}$

or, $$d_t = \frac{g-r}{1+g} b_{t-1}$$

## Actual and Sustainable Primary Deficits (% of GDP)



# AGRICULTURE

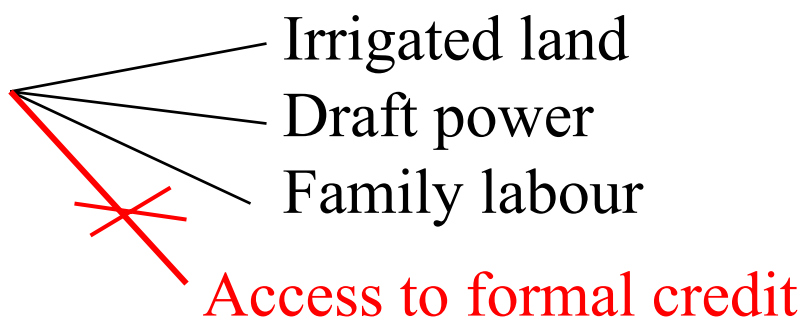
Does credit constrain agricultural production?

Kochar (1997) – Access to credit binding if

Imputed value of capital on farm > Cost of credit

Farmers' decision: Choose size of operational holdings to optimally use fixed inputs such as land & draft power

Important factors behind decision to rent land



Sudden changes in prices of crops
Weather fluctuations

} Households slip temporarily in and out of poverty

Worry of peasants

- Variations in income
- Realized income may be so low as to endanger survival

Difficult to repay debt in such an eventuality

Bankruptcy risk makes producers reluctant to purchase inputs on credit

Mechanism that provides credit + eliminates risk of bankruptcy

Credit cum insurance contracts

- Sharecropping
- Marketing Boards
- Contract farming

Payment at harvest and no payment in case of crop failure

## Equity Issues

Redistribution through Antyodaya Anna Yojana, Food for Work Programme, etc.

Redistribution at substantial cost in terms of misallocated resources & aggregate income losses difficult to sustain economically as well as politically.

Credit that seeks to place income generating assets in hands of poor

e.g. IRDP – transfer to nonpoor as poor were unable to

1. Pay large bribes
2. Influence the village headman
3. Find 'surety guarantors'

Dreze,1990

Also, lengthy processing times and transportation costs make it difficult for poor to avail of subsidized credit

Subsidized loans often tied to purchase of income generating asset (dairy animal in IRDP) that is assumed to create lasting self employment opportunities for beneficiary

Irregular fodder
Undeveloped markets for milk
Uncertain lifespan of animal

} High variability of returns to the asset

**Important to look at correlative factors that make credit availability growth enhancing**

Other Safety Net for Poor – Food for Work Programme

Transfer Benefits

Wage – Cost of participation
– Foregone earnings

Stabilization Benefits

Off peak season when demand for labour is low

**5 days of employment per family per month in JRY**

# Agriculture Strategy

Only thrust areas mentioned – promoting agri-business, water harvesting, watershed development, irrigation schemes, etc.

What direction is agriculture sought to be steered towards?

From *subsistence* towards increasing *commercialization*?

1. Greater market orientation of farm production

2. Progressive substitution from nontraded to traded inputs

3. Gradual decline in integrated farming and emergence of specialized enterprises for crop, livestock, and poultry

Examples -

# Emergence of fodder markets

Integrated enterprise

↓

Crop + Livestock activity due to availability of cheap fodder from crop residues

Purchased fodder that is grain or oilseed based

↓

Stall feeding economical

↓

Deepen poultry & cattle markets & increase demand for livestock products

Plus improved transport and market infrastructure will help viability of specialized production and encourage shift of diets towards higher valued foods – milk, meat, fruits

## Reduced non-traded inputs

### Power sources

| | |
|---|---|
| Land preparation<br>transport, milling, grinding, threshing | Weeding, sifting, winnowing |
| Animal power ↓ | Manpower ↓ |
| Motor powered technologies | Mechanical/chemical technologies |

### Replenishment of soil nutrients

Traditional farming ↓ Farmyard manure

Commercial farming ↓ Chemical fertilizers

Objective of agricultural policy

~~Generating food surpluses~~
~~Self sufficiency~~

✓ Maximize farm household incomes

Sustained Investments in

1. Rural markets
2. Transportation
3. Communications infrastructure
4. Crop improvement research
5. Crop management & extension

Is there a vision about this in the budget?

# Financial Transactions Tax

Troika

Abolition of long term capital gains tax
Short term capital gains tax reduced to 10%
0.15% transactions tax on securities

Idea of Mumbai's FII's and brokers

Tobin Tax: 0.2% on financial transactions to calm euphoric markets and raise revenues

Trade

Limit capital gains relief to long-lived investments

Raise taxes on what is considered to be financial speculation

**Pragmatic** case for reducing Capital Gains Tax

Make markets more exuberant - Greenspan

**Principled** Case

Confusing the fruit and the tree - Irving Fisher

Issues -

Does the stock market require a stimulus? Danger in the stock market is further euphoria, not insufficient reward for investors

Wealth more concentrated than income - Inequity of giving more relief to well off citizen

Relief in capital gains widens deficit and puts pressure on interest rates or expenditures for the needy

Transactions tax a Cash Cow to reduce blow of inequity from reduced capital gains and reduced revenues

Could it have support from the Left Front?

E.g. Mahbub ul Haq and Sweden

Dramatic growth of financial sector in early 1980s aroused envy of country's labour

Financial sector's economic and social contributions did not justify the resources it absorbed

Representatives of labour got a bill passed in Parliament of a round trip tax of 1% of value of exchanged securities

Results for Sweden:-

1. Volatility did not decline

2. Index levels fell dramatically

3. Weekly to daily returns variance ratios declined
   suggests greater negative autocorrelation in returns

4. 60% of trading volume of 11 most actively traded shares migrated to London. Volatility of London traded shares fell compared to Stockholm traded shares. - Transactions taxes increase volatility.

5. Trading in Swedish government debt affected severely
   - taxes on bond trading eventually removed.

Tax is not uniform on all financial instruments worldwide -

Typical tax rates:-

| | | |
|---|---|---|
| Stocks | .15% | |
| Government Bonds | .03% | Bonds at 1/5 rate |
| Corporate Bonds | .03% | |
| Futures Contracts | .006% | Futures & swaps at 1/25 rate |
| Swaps | .006% | |
| Options | .003% | Options at 1/50 rate |

Reasons apart from historical and design ones -

1. Create a disincentive to trade assets and can induce investors to hold a less desired portfolio & potentially reduce stabilizing arbitrage.

2. Assumed that tax is shifted forward to consumer and will not affect return to the activity.
   Reality: Tend to cascade - Effective Tax > Nominal tax

3. In most countries aim of transactions tax is to curb volatility

Why is it that free trade in goods is a good idea but free trade in financial assets is destabilizing?

Presumption that financial markets are not efficient

**Stiglitz** argues that discounted future stream of net quasirents costly to obtain creating incentives for agents to outrace others

Agents in the market

**Rational long term** traders on the basis of fundamentals and willing to wait a long time to realize return

**Short term** traders

**Noise** traders

**Others** who live off noise traders

Noise Traders: Speculators who mistakenly believe they know how market works.

Mistaken belief that they can do better than market by ignoring fundamentals is basis of speculative volatility

Rational traders feed on foolish noise traders and sometimes return market to its fundamental value

Tax on speculative activity according to Stiglitz

1. Make it costly for foolish speculators to engage in financial market activity and save them from their own mistakes.
2. Improve the efficiency of the financial markets.

Missing explanation: Why agents making persistent errors do not become extinct or why they may survive by learning how not to make persistent mistakes

Can mistaken noise traders continue to be prevalent in a market where rational traders can grab bites off them?

Makes better sense to assume markets are efficient and base policy on that assumption

Manage volatility by other means -

Circuit breakers

Margin requirements

Encourage substantial number of market participants to hold continuously different expectations about the future so that significant upturns and downturns bring about bearish and bullish reactions respectively.