Developing Trends

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Start of India's Decade

When Mr. Yashwant Sinha, India's Finance Minister, presents the Union Budget for 2000-2001, he will be faced with two choices: either be pro-active and achieve greatness, or be reactive, and have greatness thrust upon him. Either way, before the year is out, GDP growth in India should be touching 8 percent. This double issue of *Developing Trends* (DT) details the reasons why.

A major casualty of the word processing capabilities of the "new age economy" is that economic pundits can cut and paste "recommendations". After changing the country name and the currency, the "good housekeeping" (e.g. World Bank, HIID) policy recommendations run as follows: (1) Cut the fiscal deficit to around 3 % of GDP over the next five years; (2) privatize the public sector and use the proceeds to pay down the national debt; (3) cut government spending; (4) cut subsidies; (5) cut the size of the government. On the revenue side, the recommendations are equally "cut and paste" i.e. expand the revenue base, reform the tax structure, and other such "motherhood policies". Interest rate policy is almost **never** talked about by the old age economy, Keynesian pundits.

There is nothing wrong with the recommendations; if that were the case, then they would not have the "good housekeeping" seal. Further, each percentage point decrease in the fiscal deficit will probably result in an extra 0.3 percent GDP growth. So, motherhood is good. However, the "quality" of the fiscal deficit has not received the attention it deserves. The composition of the deficit is more important than its size. The deficit is a residual item, a residual yielded by the policy decisions pertaining to government expenditure and revenue.

This issue of DT, a monthly publication geared to letting you know policies before they happen (hence, *Developing Trends*) is different – and different in major part because of its concentration on interest rate policy. This study reaches four major conclusions: first, that GDP growth for 1999-2000 is expected to be 6.4 percent (compared to the official forecast of 5.9 %) ; second, that this rate excludes the contribution of the rapidly expanding software sector, estimated by Oxus to be about 1.4 percent of GDP in 1999-2000, and contributing about 0.6 percent of the GDP growth for 1999-2000; hence, the Indian rate of GDP growth is actually 7 %.

Third, the real ailment of the Indian economy is not the fiscal deficit, but its primary cause – namely, the high, and rising, real administered interest rates. Currently, real corporate borrowing rates average more than 12 percent, and interest payments account for over 75 percent of the fiscal deficit. Fourth, that the trend growth rate would increase from 7 to 9 percent if interest rates were **not** administered.

If Mr. Yashwant Sinha does not pursue interest rate reforms, the prices of the non-ICE (**I**nformation, **C**ommunication and **E**ntertainment) stocks will collapse, and interest rate reforms, and greatness, will be forced upon Mr. Sinha. Such reforms will occur, and the economy, and the non-ICE stocks will boom taking the Sensex to beyond 8000 (from present 5900 levels) by March 2001. The ICE stocks are mostly unaffected by domestic policy and dance to the tune set by NASDAQ. For a detailed look at fair values of the Indian and US stock markets, watch this space.

Some major conclusions:

- *India's GDP growth for 1999-2000 is estimated by Oxus to be 6.4% compared to the official Government (CSO) forecast of 5.9%.*

- *Oxus's estimate is an outlier with all other estimates equal to or lower than the official forecast. This difference in estimates is most likely due to an underestimation of growth rate of the service sector.*

- *Oxus's estimate is for a growth rate of 9% for the service sector against an official forecast of around 8% for 1999-2000.*

- *Other estimates for GDP growth rate (CMIE and Global Competitiveness Report) of 5.0% or less may be considered as "rogue" forecasts, without much basis in either thought or evidence.*

- *All estimates of Indian GDP growth ignore the contribution of the software sector. This sector is adding approximately 0.6 percent to GDP growth; i.e. such growth is likely to 6.5 percent or 7 percent, depending on whether CSO, or Oxus, is right..*

- *The Indian economy has been growing at a steady rate of 5.5% to 6.5% for the last twenty years - a fact ignored by most analysts. Excluding the crisis year of 1991-92, the lowest GDP growth rate observed in Indian economy has been 3.0% witnessed in 1982-83. In spite of continuous economic reforms, there has been no* ***acceleration*** *in the growth rate. This presents a key question for both analysts and policy makers.*

- *Also, for the last twenty years, macro-relationships in India are non-existent as the key variables are "constant", including the money supply growth rate and fiscal deficit as proportion of GDP.*

- *The only variable that has changed in this period is inflation, which has declined from double-digit levels of 12% in early eighties to less than 5% level in the late nineties and to less than 3% today.*

- *Openness to world markets and decline in tariff rates from above 200% in late eighties to less than 30% in the late nineties has resulted in a structural change in the Indian economy. It is this change in openness that has led to India achieving global inflation levels.*

- *Among the array of peculiarly "Hindu" constants is the nominal interest rate, which has remained fixed due to administered interest rate regime run by the Ministry of Finance, Government of India (GoI). This combined with a fall in inflation has led to a large increase in real interest rates in India, contrary to the experience worldwide where nominal interest rates have declined with inflation.*

- *The consolidated (state plus centre) fiscal deficit has stayed constant around 9-10% of GDP for the last twenty years. Abnormally high interest rates (no arbitrage with world rates possible because of a closed capital account) have resulted in higher cost of borrowings, and a higher proportion of interest payments for financing the fiscal deficit. As a share of GDP, interest payments have increased from 3 % of GDP in the early eighties to almost 8 % of GDP today; as a proportion of the fiscal deficit, the percentage is 35 % in the early eighties, and more than 75 percent today. High interest rates are a major <u>cause</u> for the high fiscal deficits in India.*

- *The large fiscal deficit (today at Rs. 180,000 crores for both centre and states) is financed by market borrowings and deposits in postal savings and provident fund accounts – these deposits have increased enormously in the last few years in response to the increase in real rates administered by the Ministry of Finance!*

- *These small savings deposits are in the nature of a Ponzi (chit fund) scheme run by GoI as they are necessary for financing state expenditures; and the state governments do not face any "accountability" pressure.*
- *The administered interest rate regime has also resulted in an increase in repayment pressure on the Government.*
- *The solution to this problem lies in a changeover from the present MoF administered interest rate policy to an interest rate targeting regime as it is in all developed and most developing countries.*
- *What will happen to GDP growth and real interest rates in the new regime? An Oxus simulation study shows that the trend rate of growth would be **9%** rather than 7%.*
- *The simulation also shows that the centre's fiscal deficit as proportion of GDP is expected to decline to more sustainable 2-3% levels in the next six years.*
- *Interdependence of other policies with the new interest rate regime would be very strong as both infrastructure and privatization efforts will receive a tremendous boost.*
- *No other policy, or combination of policies, is likely to achieve even one-quarter of the effect that a simple move towards market determination of interest rates will help bring about.*

Some policy announcements to expect from India's budget for 2000-2001:

1. Expansion of taxation of the service sector; beginning of the dismantling of the zero tax system now in place for exporters, particularly exporters of software. Likely scenario is that this corporate tax structure starts at 10 to 15 % of corporate income in 2000-2001 and approaches the prevailing corporate tax level of 35 percent in five years.
2. Single Modvat duty rate as a step towards further excise duty rationalization. This is necessary for a move towards Value Added Taxation (VAT) in the future.
3. A serious beginning towards systematic subsidy reduction; change in fertilizer policies, power sector; phased implementation of user charges.
4. A new privatization programme, creation of an "enabling environment" where privatization can succeed without artificial targets; "new" regime for the financial sector; liberalization of policies towards privatization of state held banks.
5. An effort to cut down the size of the Government; recommendation of new voluntary retirement schemes; freeze on new hiring.
6. However, the most important development in the next few months would be a concerted move towards an interest rate targeting regime on the lines similar to the ones prevailing in all developed and most developing countries. ***This may be hinted through policies such as: a further 1% cut in the interest rate on small savings, with hints of further cuts; a linking of administered rates with inflation; increase in the autonomy of the central bank, the Reserve Bank of India (RBI).***

Interest Rate Targeting or Traditional Policies to Reduce the Deficit: The Choice is Clear

This document discusses the need for a new interest rate structure in India. Such a structure will change the economy, and help reduce the double-digit levels of the consolidated fiscal deficit. While we have been lonely in this recommendation (though converts are occurring), others have advocated more "traditional" remedies for India's ailment.

Pundits have been recommending a slew of policies to reduce the fiscal deficit; the table below illustrates how even if all of the policies are implemented, the saving, and effect on the economy, pales in comparison with a new interest rate policy. If interest rates decline by 300 basis points, then on just the flow of debt each year – approximately Rs. 180,000 crores for 1999-2000 – the savings is Rs. 5,400 crores.

Note also what happens to the other policies if interest rates decline. Privatization will get a significant boost as valuations will increase by at least 30 to 50 percent with a 3 percent decline in interest rates; Infrastructure investment will similarly take off with a decline in borrowing costs; growth will accelerate and thereby make it easier for the government, and public sector, to retrench. Now consider the counter-factual – interest rate regime stays the same. Instead of valuations increasing, they will decline; privatization will now be impossible even with the best of intentions; infrastructure development cannot occur despite all the pious intentions, and newly attractive user charges policies; GDP change will enter a growth recession phase of approximately 4 to 5 percent per annum.

Popular policies for deficit reduction – No Comparison

Recommended Policy	Present Value Rs. (000) crs	*Nirvana* (Best) Assumed Reduction (% per year)	Savings Today Rs. (000) crs
Downsizing government			
Sal + Pension, 1998-99 (B.E.)	33.8	10	3.4
Subsidies (1998)			
Food	9	20	1.8
Fertilizer	10	20	2.0
Electricity	27	10	2.7
Education	35	10	3.5
Interest Rate targeting (Fiscal deficit for 1999-2000)	180	3 % decline in interest rates	5.4

- *India's GDP growth for 1999-2000 is estimated by Oxus to be 6.4% compared to the official Government estimate of 5.8%.*

Table 1: Oxus Forecasts for 1999-2000 & 2000-2001

	1999-2000	2000-2001
Growth, Money Supply & Inflation *(All figs. in %)*		
Real GDP (Including Software)	7.0	9.0
Real GDP (Excluding Software)	6.4	8.4
Industrial Production	6.8	11.0
M3 Growth	17.0	17.0
Inflation, WPI	2.6	2.5
Inflation, CPI	3.5	3.0
Inflation, GDP Deflator	3.5	3.5
National Income *(All figs. in Rs. '000 Crs.)*		
Nominal GDP (Including Software)	1781	2004
Real GDP (Including Software)	1158	1262
Nominal GDP (Excluding Software)	1772	1982
Real GDP (Excluding Software)	1151	1248
Centre's Revenue & Expenditure *(All figs. in Rs. '000 Crs.)*		
Direct Taxes	42.5	50.5
Indirect Taxes	87.5	98.5
Non Tax Revenue	60	65.0
Total Expenditure	300	331.5
Fiscal Deficits *(All figs.in Rs. '000 Crs. or %)*		
Centre's Fiscal Deficit (Rs. '000 Crs)	90	94
States' Fiscal Deficit (Rs. '000 Crs)	90	87
Centre's Fiscal Deficit/GDP(%)	5.0	4.7
Financial Market		
Exchange Rate (End March)	43.6	44.0
Stock Market (Sensex end March)	6000	9000-10000

The table gives Oxus's forecast for several key variables for 1999-2000. Whereas leading market participants are forecasting a growth of around 6% or less, Oxus forecasts a growth rate which is half a percentage point above the official forecast. (Global Competitiveness Report forecast is for the next several years!)

Table 2:Forecasts of GDP by Leading Market Participants

Organization	GDP Growth Rate Forecast for 1999-2000
CSO (Official Govt. Forecast)	5.9
CMIE	5.0
NCAER	5.8
Global Competitiveness Report *(Jeffrey Sachs)*	4.5
Oxus	6.4

- *Oxus's estimate is an outlier with all other estimates equal to or lower than the official estimate. This difference in estimates is most likely due to an underestimation of growth rate of the service sector.*

Despite an official forecast (i.e. GDP growth of 5.9% for 1999-2000), Oxus is sticking to 6.4 percent, primarily because of the analysis of the service sector, which accounts for more than 50 percent of GDP. *Oxus's estimate is for a growth rate of 9% for the service sector versus an official forecast of around 8% for 1999-2000.*

Basic underestimation of the service sector growth rate arises from Trade, Hotels, Transport & Communication (THTC) which accounts for 41.6% of the Service Sector and 21.3% of the GDP.

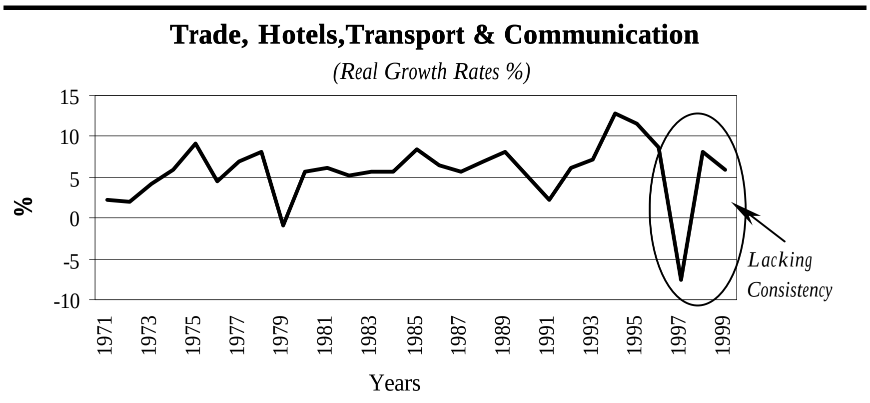
Table 3 : Service Sector Classification & Importance

	Weights	
	as % of Service Sector	**as % of GDP**
	1998-99	1998-99
Construction	9.85	5.04
Trade, Hotels etc.	41.64	21.31
Finance, Business Service etc.	23.60	12.08
Community, Social etc.	24.91	12.75

Source: CSO and Oxus Research Database

The growth pattern of THTC does not appear to be cyclical and can be broken into three distinct periods; 1971-1974-Period 1; 1975-1990 Period 2 and 1992-1996-Period 3. Excluding the outlier years of 1991, 1997 and 1998), THTC grew at a rate of 3.6% in Period 1, 6.0% in Period 2 and 9.3% in Period 3 - a consistently rising trend. However, the data after 1996 (including official forecast) lacks this consistency with the growth pattern witnessed in Period 3 *(See Chart 1*). Hence, the reason to re-estimate growth rate for THTC for 1999-2000.

Chart 1



Source: CSO and Oxus Research Database
Note: *Growth Rate for 1999 is official forecast given by CSO.*

- *Estimation of service sector growth rate (contd...)*

Two methods are presented, to arrive at growth estimates for THTC for 1999.

Method I takes into account the trend rate of growth for the period 1992-1996; a forecast of this trend results in an estimate for *9.3* percent for 1999-2000.

Method II takes into account the dependence of THTC on Agriculture and the Industrial Sector. A simple regression equation shows the relationship between the three sectors.

$$\mathbf{dthtc} = \underset{(-0.92)}{-0.4} + \underset{(3.92)}{0.34}*\mathbf{dind} + \underset{(4.51)}{0.17}*\mathbf{dagf}$$

*Adjusted R^2 for the equation is **0.68; t**- statistics are given in parenthesis*

where
d denotes first difference of real growth rate
thtc = Trade,Hotels, Transport & Communication
ind = Industry
agf = Agriculture, Forestry, etc.

The regression is extremely robust with variables in first differences in logs (percentage changes) yielding an extremely high R2 of 0.68. Incorporation of the advance estimates for agriculture and industry for 1999, one arrives at a second estimate of 7.8% for THTC for 1999-2000.

Estimating Service Sector Growth Rate

Estimates obtained from the above two methods are used to arrive at forecast for the service sector for 1999-2000. While method I forecasts a growth rate of 9.7%, method II yields an estimate of 9.1% for the entire service sector. *(See Table 4)*

Table 4: Oxus Forecast for Service Sector
1999-2000

Service Sector Classification	**Method I % Growth**	**Method II % Growth**
Construction	9.0	9.0
Trade,Hotels etc.	**9.3**	**7.8**
Finance, Business Service etc.	10.5	10.5
Community, Social etc.	9.8	9.8
Service	**9.7**	**9.1**

Source:: CSO and Oxus Research Database

A simple average of growth rates obtained from the two methods gives us an estimate of 9.4% for service sector for 1999-2000.

- *Derivation of GDP forecast of 6.4 percent for 1999-2000*

The estimate for the growth rate of service sector –9.0% is used to determine Oxus's GDP Forecast for 1999-2000 -estimated to be **6.4**%. *(See Table 5)*

Table 5: Oxus Forecast for GDP
1999-2000

	Weight	Growth	
	1998-99	*Pessimistic*	*Realistic*
Agriculture	26.8	1.0	1.0
Manufacturing	22.0	7.0	7.0
Service	51.2	8.0	9.0
GDP	100	5.9	6.4

- *Other estimates for GDP growth rate (CMIE and Global Competitiveness Report) of 5.0% or less may be considered as "rogue" forecasts, without much basis in either thought or evidence.*

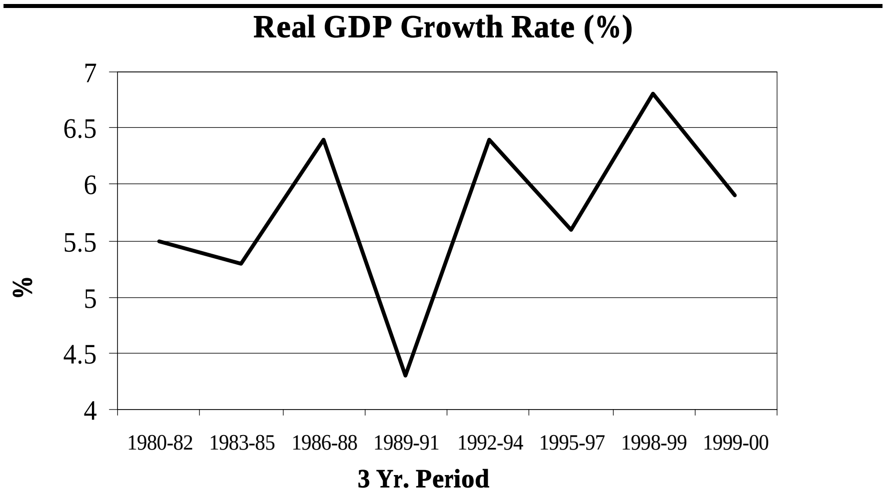
Of the four other estimates for the GDP growth rate *(See Table 2)*, NCAER's forecast is close to CSO's forecast. CMIE's estimate of 5.0% has to be studied against the backdrop of their earlier forecast for GDP growth rate of 4.8% for 1998-1999 when the actual GDP growth turned out to be 6.8% !

A cursory examination of non-overlapping 3 year growth rates from 1980 shows that there was only one period when the GDP growth rate dipped below 4.5%, which also happens to coincide with the crisis period –1989 to 1991. (*See Chart 2*). There appears to be little basis in either thought or evidence that GDP growth rate could be as low as 5.0% for 1999-2000. The CMIE model used for generating forecasts seems to converge on the wrong constant – 5 percent – rather than the "always right" 6 percent growth for the last decade or so.

The Global Competitiveness Report seems to suffer from an even deeper blindness – it is forecasting an average GDP per capita growth rate of 3.0 percent for the next decade! With population growth rate close to 1.5 %, this translates into an "expert" forecast of GDP growth rate of 4.5 percent; an average not seen for twenty years.

These "rogue" forecasts suggest that the business cycle of the Indian Economy is expected to rapidly change from one conducive to growth to one that of a hard landing. In an environment when the fixed and extremely high interest rate regime is getting dismantled, it is highly unlikely that the economy will register a growth rate of less than 5.5% to 6.0%.

Chart 2: GDP Growth Rates (1980-1999), 3 Yr. Averages



Source:: CSO and Oxus Research Database
Note: 1. *Growth Rate for 1999 represents advance estimate of CSO.*
2. Data for 1998 and 1999 represent single period growth rates.

- *All estimates of Indian GDP growth* ***ignore*** *the contribution of the software sector. If software sector is properly accounted for, then the Indian trend rate of growth is at least 0.6 percent higher - 7% according to Oxus.*

It is likely that the fast growing (above 40 percent per annum) software sector is not properly accounted for in the national accounts – a phenomenon not unique to India. Oxus estimates that the share of Software in GDP is in excess of 1 percent. *(See Table 6)*

Table 6: Estimating the Share of Software in GDP

	1997	1998	1999
Software Exports($. Bln.)	1.76	2.64	3.95
Growth Rate of Exports(%)		50	50
Exchange Rate	37.16	43	43.5
Software Exports(Rs. Bln.)	65.3	113.3	172.0
Domestic Software Market(Rs. Bln)	41.2	55.7	78.5
Growth Rate of Domestic Business(%)		35	41
Total Software Market (Rs Bln.)	***106.5***	***169.0***	***250.5***
Growth Rate of Total Business(%)		58.6	48.2
Industry -Value Added (Rs. Bln.)	2967.0	3222.0	3546.0
GDP @ Current Prices(Rs. Bln)	13844.4	16123.8	17665.9
Share of Software in GDP(%)	0.8	1.05	1.4

Source:: Nasscom and Oxus Research Database

Assuming a growth rate of 55% for the Software Industry and a share of 1.1% in GDP, the trend growth for GDP is likely to be around 7%. *(See Table 7)*

Table 7: Oxus Forecast for GDP (*With Software*)
1999-2000

	Weight	Growth
	1998-99	
Agriculture	26.5	1.0
Manufacturing	21.8	7.0
Services	51.7	10.3
-Non Software	50.6	9.0
-Software	1.1	55.0
GDP	100	7.0

- *The Indian economy has been growing at a steady rate of 5.5% to 6.5% for the last twenty years - a fact ignored by most analysts. Excluding the crisis year of 1991-92, the lowest GDP growth rate observed in Indian economy has been 3.0% witnessed in 1982-83. In spite of continuous economic reforms, there has been no* ***acceleration*** *in the growth rate. This presents a key question for both analysts and policy makers.*

Table 8: Indian Economy – Several Hindu Constants

3-Year Period	GDP Growth	Industrial Production	M3 Growth	Centre+State FD/GDP	Inflation		Real Interest Rates	
					WPI	CPI	Overnight	Prime
1980-82	5.5	4.6	16.1	8.7	11.7	10.8	-4.0	4.8
1983-85	5.3	8	17.8	10.7	7.4	8.6	2.0	9.1
1986-88	6.4	8.5	18.2	11.8	6.3	9.0	3.6	10.2
1989-91	4.3	5.6	16.5	10.4	9.6	9.7	5.8	8.1
1992-94	6.4	5.8	18.0	9.2	10.0	9.5	0.4	6.0
1995-97	5.6	9.9	16.2	8.3	7.0	9.5	3.5	8.4
1998-99	6.8	3.3	19.0	9.9	6.9	13.0	1.2	6.1
1999-00	6.4*	6.8	17.0	10.0	2.6	3.5	5.4	9.6
2000-01	8.4*	11.0	17.0	9.0	2.5	3.0	3.5	7.5

Source: RBI, GoI Documents and Oxus Research Database

Note:
*Figures for 1999-2000 and 2000-2001are Oxus's forecasts; * indicates forecasts for GDP growth excluding Software*

Data for non-overlapping three year periods are presented (this takes out the “noise”) for the last two decades. Table 8 shows that the key variables like GDP growth rate and M3 growth rate have varied in a very narrow range. As reported in an earlier issue of *Developing Trends* (Vol 3 No.2&3), money supply growth (M3) has ranged between 16.2% and 19% for all of these 20 years – a volatility which is the lowest (by a factor of two) for more than 150 countries for the time-period 1980 to the present! In other words, for two decades M3 growth has remained a constant *(See Chart3*). In a simple regression model with GDP growth rate as the dependent variable and M3 growth rate as the independent variable, the adjusted R^2 was found to be 0.04.*(See Table 9)*

The fiscal deficit in India has also varied in a narrow range of 8.5 to 11.5 percent in the last twenty years with most years centered in the 9 to 10 percent range i.e. a virtual constant. Nominal interest rates have also remained constant for twenty years. However, real interest rates have varied enormously through this period, and ranged between 5 and 10 percent; today, such rates are close to 9.5 percent i.e. at twenty-year highs. No amount of econometric pyrotechnics can yield a relationship between a constant and a variable.

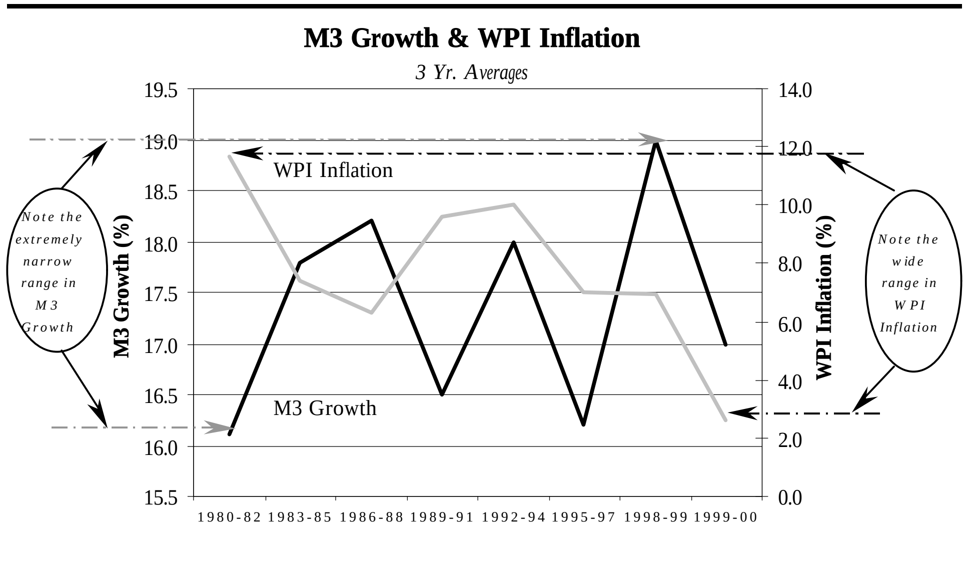
- *For the last twenty years, macro-relationships in India are non-existent as the key variables are “constant”, including the money supply growth rate and fiscal deficit as proportion of GDP.*

Table 9: Macro-Relationships in India – Do they exist?

Dependent Variable	**Independent Variable**	**Constant**	**Independent Variable Coefficient**	**t-statistic**	**Adjusted R^2**
GDP Growth	*M3 Growth*	-0.9	0.38	1.29	0.04
	Fiscal Deficit/GDP	5.5	0.03	0.08	-0.06
	WPI	5.8	-0.14	-0.15	-0.06
	CPI	8.3	-0.28	-1.89	0.13
	Real Overnight Rate	5.9	-0.10	-1.05	0.01
	Real Prime Rate	15.2	-0.59	-1.92	0.13
WPI	*M3 Growth*	4.3	0.27	0.35	-0.05
	Fiscal Deficit/GDP	17.6	-1.25	-1.43	0.05
CPI	*M3 Growth*	7.6	0.11	0.23	-0.06
	Fiscal Deficit/GDP	17.9	-1.23	-2.60	0.24
Nominal Interest Rate (Overnight Money)	*M3 Growth*	19.3	-0.52	-0.91	-0.01
Nominal Interest Rate (Prime Lending)	*M3 Growth*	18.7	-0.14	-0.65	-0.03
Fiscal Deficit	*M3 Growth*	3.4	0.20	1.00	0.00

Source: RBI, GoI Documents and Oxus Research Database

Chart 3

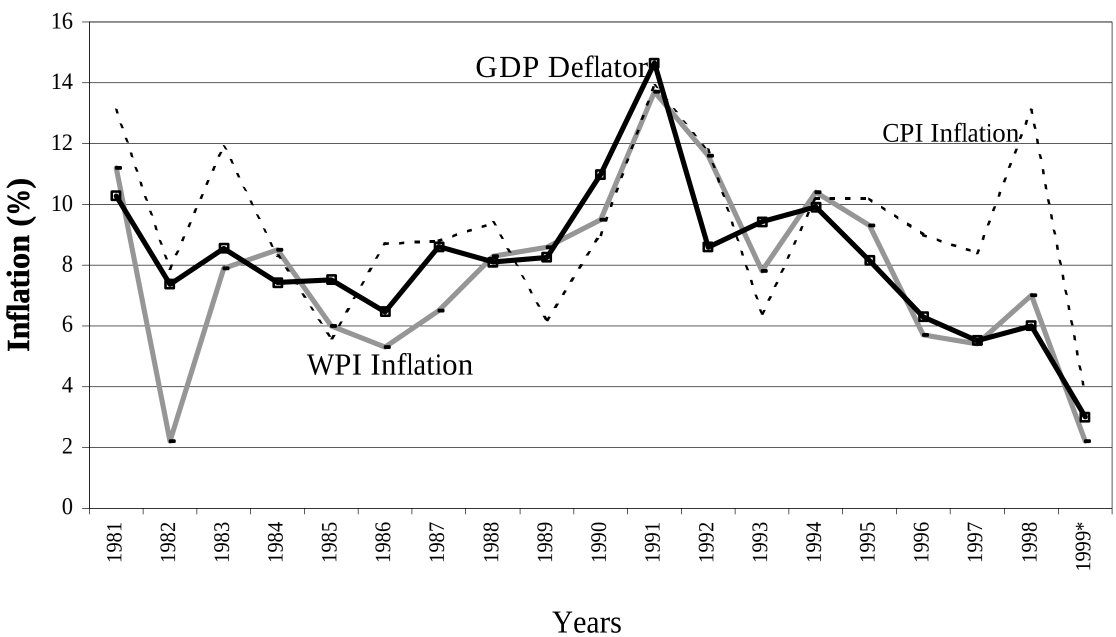


Source:RBI and Oxus Research Datatbase

- *The only variable that has changed in the last twenty years is inflation, which has declined from double-digit levels of 12% in early eighties to less than 5% level in the late nineties and to less than 3% today.*

Chart 4

Different Measures of Inflation

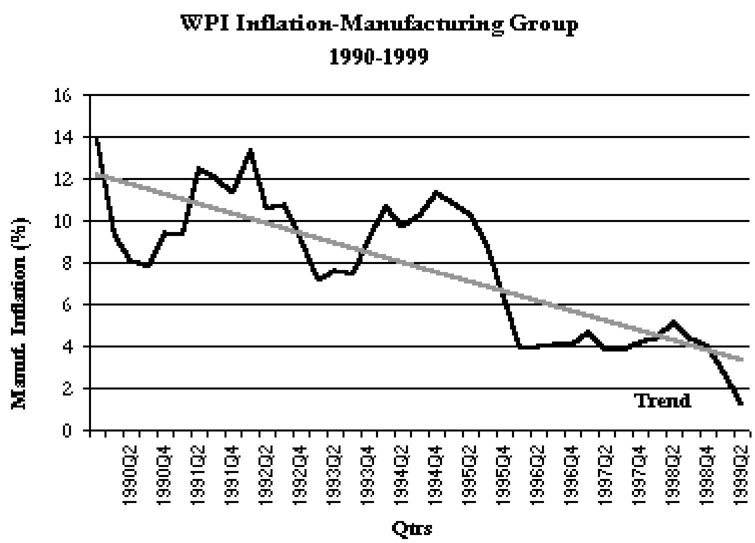


Source: Oxus Research Database
Note: The inflation figures for 1999 are till end Dec 1999.

Inflation in India can be measured in terms of the Wholesale price index (WPI), the Consumer price index (CPI) and the implicit National Income deflator (NID), which is the ratio of GDP at current prices to GDP at constant prices. The divergence between WPI and CPI measures were documented in an earlier issue of DT (Vol 3, No.2&3). Now we include the deflator also in our analysis. Inflation level in India has steadily declined from 1990s *(See Chart 4).* The only noteable change in Table 2 of constants seems to be inflation.

- *Openness to world markets and decline in tariff rates from above 200% in late eighties to less than 30% in the late nineties has resulted in a structural change in the Indian economy. It is this change in openness that has led to India achieving global inflation levels.*

Chart 5



Year	Tariff (%)
1990	127.7
1991	127.6
1992	94.0
1993	71.0
1994	55.0
1995	41.0
1996	38.6
1997	34.2

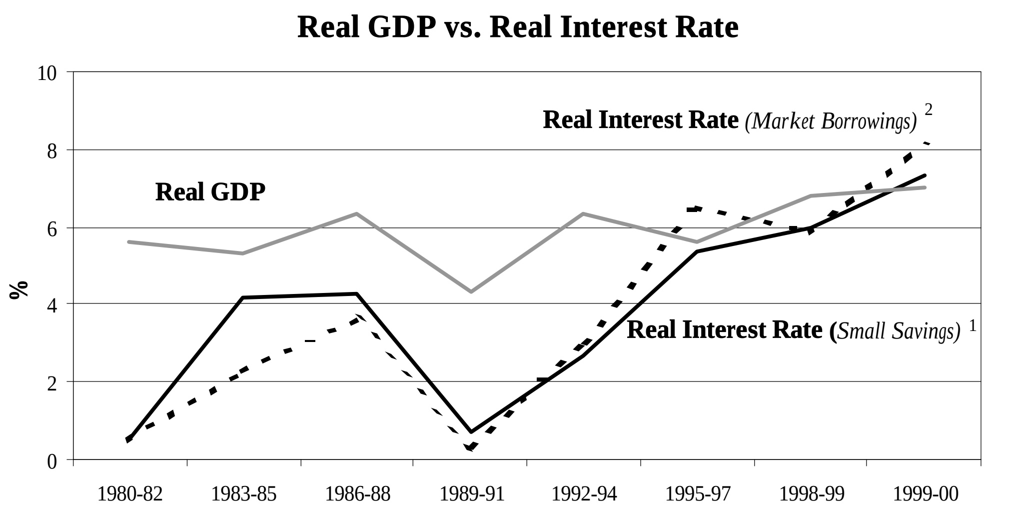
Source: RBI, GoI Documents and Oxus Research Database

Note:
1. *WPI –Man stands for Manufactured Products in the WPI basket and has a weight of 57.042 per cent in the same.*

Most policy makers look at core inflation i.e. inflation in non-food, non-fuel for devising policies. Examination of core-inflation is possible via a look at inflation in prices of manufacturing goods. This series shows a strong declining trend in the nineties.(See Chart 5). Inflation in manufacturing (57 % of the WPI) has been less than 4 percent in each of the last four years and is now averaging 1.6%. This may be attributed to the structural change the economy has undergone since liberalization. Core-inflation has fallen from the highs of around 14 percent in 1990 to 4 percent levels in 1997, which coincided, with a fall in tariff levels from 127 percent in 1990 to around 30 percent levels in 1997.

- *Among the array of "Hindu" constants is the nominal interest rate, which has remained fixed due to administered interest rate regime run by the Ministry of Finance, Government of India (GoI). This "non-policy", combined with a structural fall in inflation, has led to a large "structural" increase in real interest rates..*

Chart 6



Source: RBI, GoI Documents and Oxus Research Database

Note:
1. *Real Interest Rate (small savings) has been has been computed as nominal interest rate on small savings which was 12% till 1998 and 11.0% in 1999 minus the inflation rate as calculated by GDP Deflator.*
2. *Real Interest Rate (market borrowings) has been computed as the weighted average interest rate on GoI Dated Securities minus the inflation rate as calculated by GDP Deflator.*

Real interest rates have risen at a faster pace than the real GDP during the nineties – a sure recipe for generating a successful internal debt trap! *(See Chart 6)*. It would only be logical to conclude that if one is spending (read real interest rate) more than one is earning (read real GDP growth) then one needs to *borrow more* to meet the deficit thereby resulting in an increase in an interest payments bill. The excess borrowing required to fund the deficit, also results in a crowding out of private sector in the financial markets.

- *Since the consolidated fiscal deficit has stayed steady around 9-10% of GDP, higher interest rates have resulted in higher cost of borrowings, and a higher proportion of interest payments for financing the fiscal deficit. The proportion of such payments has increased from 35% to nearly 90% in 1999-2000. High interest rates are a major cause of high fiscal deficits in India.*

Table 10 : Interest payments and Fiscal Deficits

3 Yr. Averages

(All figs are in Rs. '000 Crs unless otherwise stated)

	1980-82	1983-85	1986-88	1989-91	1992-94	1995-97	1998-99	1999-2000
GDP *(Current Market Prices)*	157.9	233.7	340.6	570.2	894.3	1397	1612	1781
Consolidated								
Total Revenue	36.6	56.2	86.8	131.3	195.7	286.7	361.6	413.9
Tot. Expenditure	51.9	83.8	131.6	196.2	284.8	413.4	561.2	620.2
Interest Payment	4.7	8.6	16.6	30.9	53.4	84.9	114.2	135.9
Fiscal Deficit	13.5	24.8	38.8	56.6	75.8	110.7	179	180
Interest Payment as % of Fiscal Deficit	34.8	34.7	42.8	54.6	70.4	76.7	63.8	75.5
Centre								
Total Revenue	15	24.1	37.9	57	80.2	124.9	157.6	190
Tot. Expenditure	26.1	44.3	71.9	104.3	146.2	210.6	281.9	300
Fiscal Deficit	9.2	17.4	28.1	38.9	52.7	71.1	103.7	90
Interest Payment	3.3	6.1	11.6	22	37.3	58.4	77.3	88
Interest Payment as % of Fiscal Deficit	35.9	35.1	41.3	56.6	70.8	82.1	74.5	97.8

Source: RBI, GoI Documents and Oxus Research Database

Interest payments constituted only a third of the high fiscal deficit in the early eighties; today, they constitute more than 75 percent while the fiscal deficit as proportion of GDP has stayed constant at around 9 % of GDP.

The causation normally runs from high Fiscal Deficits to high interest rates – except in India. Here, the control, policy, non-market variable is the interest rate on postal deposits and provident funds – 12 percent tax-free a year, but recently reduced to 11 percent. These Ponzi (chit-fund) deposit schemes set a floor to the interest rates in the economy, a floor unchanged by any monetary policy that can be pursued by the central bank, RBI. In most economies, there is a 2 % gap between deposit and lending rates; in inefficient India, the gap is 3 percent. Which means that the minimum borrowing rate for most firms is upwards of 14 percent, which is an 11 percent real borrowing rate – which is unheard of in any part of the civilized world.

- *Financing of these ever increasing magnitudes of the fiscal deficit (Rs. 180,000 crores today for both centre and states) has resulted in a runaway growth in small saving liabilities.*

Table 11: The Importance of Small Savings & Provident Fund Contributions (SS+)

(All figs are in Rs. '000 Crs)

	1995-96	1998-99
Small Savings Contributions etc. (SS+)	15	34
Stock of SS+	121	202
SS+ as % of Change in Time-Deposits	35	36
SS+ as % Change in Market Borrowings	37	36
SS+ as % of Household Savings in Financial Assets	15	19
SS+ as % of Change in Bank Credit	36	76
Stock of SS+ as % of Internal Liabilities	22	25
Stock of SS+ as % of External Liabilities	236	360
Stock of SS+ as % of GDP	11	13

Source: RBI, GoI Documents and Oxus Research Database

The **political economy** of the existing interest rate policy is that small savings collections constitute an important, even critical, component of expenditures, and deficit finance of the states. The quantum of SS+ has also doubled in the last 4 years with the households savings increasingly going towards these assets which are offering attractive pre-tax yields of 17% or thereabouts *(See Table 11).*

The risk free return of 17% (11 percent plus tax-benefits) shifts the yield curve upwards for both sovereign and non-sovereign borrowers. In 1999-2000, SS+ is estimated by Oxus Research to be close to Rs. 45,000 crores of which the state share will be 75 % or approximately Rs. 34,000 crores. The budgeted estimate was Rs. 25,000 crores. Oxus forecasts the state deficit to be equal to the center at Rs. 90,000 crores or equal to 5 % of GDP. Given that SS+ will constitute more than a third of the deficit finance of the states in 1999-2000, there is no denying that they are important, politically and otherwise.

- *The volume of small savings has significantly increased during a period when inflation has declined.*

Small savings are necessary for financing state expenditures: This argument is more in the nature of tautology. By definition, a deficit can only be financed by borrowing, and SS+ schemes are borrowing, albeit more in the Ponzi nature scheme of things. One aspect of SS+ financing that is not mentioned is that the **opportunity cost of these funds for the state politicians is close to zero**. Given the highly non-transparent nature of this market "borrowing", a form which even leaves many economists bamboozled, the politician does not have to face the electorate, or the press, with answers to the question "What have you done with all the borrowings" lately ? Thus, there are no "checks and balances" to the politicians behavior, an additional pernicious effect of an already unsound policy.

The correct answer to deficit financing is market borrowings – a solution known to all the 150 governments in the world – except India. Obviously, the state politician will prefer to borrow at a zero rate of interest – so would the ordinary citizen. But claiming that that is the reality is not to offer an insight into the political economy.

SS+ schemes are a pyramid scheme meant to finance the expenditure policies of state governments. Like all defunct chit fund schemes, the operation of deposit schemes works as follows: the deposits are collected, and immediately transferred for financing the state deficit. Next year, new deposits are collected, and new expenditures made. *(See Table 12).*

Table 12: Small Savings and Provident Fund (SS+) Collections and State Finances

(All figs. are in '000 Crs)

Year	Expenditure	Receipts	Deficit	Change in SS+ Liabilities	State's Share in SS+	SS+ as % of		
						State Expn	*State Revenue*	*State Deficit*
1985	40.9	33.4	7.5	4.8	0.75	1.8	2.3	10.0
1986	47.5	38.2	9.3	4.2	3.36	7.1	8.8	36.2
1987	55.2	44.0	11.2	4.8	3.86	7.0	8.8	34.4
1988	62.1	50.4	11.7	6.8	3.88	6.2	7.7	33.2
1989	72.0	56.5	15.4	9.7	5.21	7.2	9.2	33.8
1990	85.3	66.5	18.8	10.3	6.25	7.3	9.4	33.3
1991	99.4	80.5	18.9	7.9	6.22	6.3	7.7	32.9
1992	112.0	91.1	20.9	7.3	8.47	7.6	9.3	40.5
1993	126.2	105.6	20.6	10.9	7.44	5.9	7.0	36.1
1994	150.0	122.3	27.7	18.6	8.86	5.9	7.2	32.0
1995	168.2	136.8	31.4	15.0	10.73	6.4	7.8	34.2
1996	190.3	153.0	37.3	17.5	13.18	6.9	8.6	35.4
1997	214.5	170.3	44.2	28.8	13.24	6.2	7.8	30.0
1998	264.8	189.6	75.2	34.3	31.80	12.0	16.8	42.3
1999	310.5	220.5	90	39.0	29.00	9.3	13.2	32.2

Source: RBI, GoI Documents and Oxus Research Database

- *The administered interest rate regime has also resulted in an increase in repayment pressure on the Government.*

Table 13: Maturity Structure of Central Government Outstanding Dated Securities

(All figs in %)

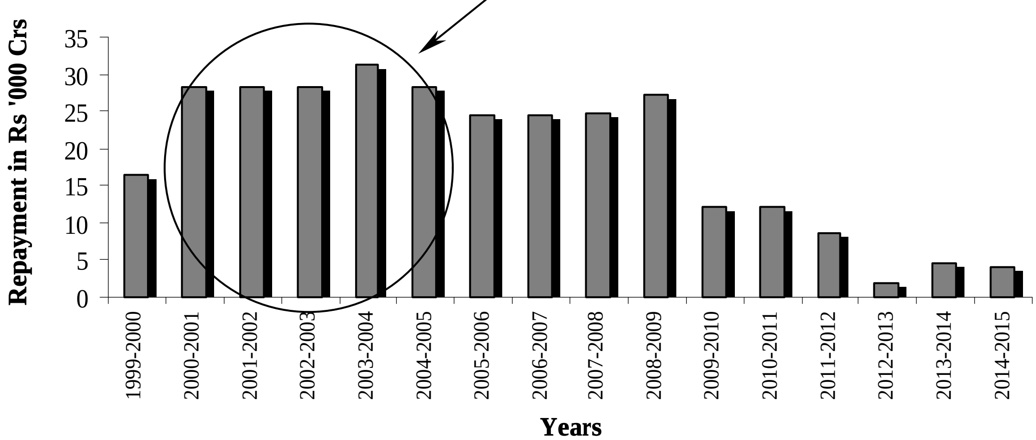
End of March	Below 5 Years	5 to 10 Years	Over 10 Years
1981	11.9	16.5	70.0
1986	10.2	15.5	73.6
1991	8.6	5.6	85.8
1992	7.4	16.8	75.8
1993	8.1	14.2	77.8
1994	**21.4**	22.3	56.3
1995	**25.3**	27.4	47.3
1996	**38.4**	30.3	31.3
1997	**45.2**	29.0	25.8
1998	**41.0**	40.8	18.2

Maturity pattern shifts from the long end to the short end as real interest rates increase which results in bunching up of repayments.

Source: RBI and Oxus Research Database

Chart 7

Repayment Schedule for Market Loans of the Central Govt.



Source: RBI and Oxus Research Database

The argument that deficits drive up interest payments is put into perspective by the repayment schedule of GOI's market borrowings. As the real interest rates increased *(*as documented in Chart 6), the maturity debt profile changed from the longer end to the shorter end so as to avoid locking in at higher interest rates *(See Table 13)*. This has resulted in a bunching up of repayments of these bonds. Chart 6 shows that there is hump in repayment of Market Loans in 2004. The repayment pressure again decreases from 2005 onwards and is the lowest in 2014. In order to escape the repayment pressure, the central bank has now started issuing long term papers (6 to 20 years).

However, since the floor for the long term rate has been set at 11%, the Government has to offer 11% or more on it's bonds to attract genuine interest - thereby axes it's own feet.

- *The solution is in a changeover from the present MoF administered interest rate policy to an interest rate targeting regime, run by an independent Central Bank, as it is in all developed and most developing countries.*

The new interest rate policy is straightforward – the Central Bank sets the overnight interest rate and savers and investors determine the yield curve. Period. The institutions that are not there will endogenously arrive. Liquidity will automatically develop in the government securities market. A significant advance for the Indian economy would mean an arrival to where most economies have been advancing from for at least the last decade.

Growth, Inflation and Real Interest Rates in the New Economy (*See Table 14*)

Real interest rates: In the new regime, what will be the "equilibrium" real interest rate on overnight funds and 10 year paper? Research on other economies and the U.S. (see Bhalla(1995)) suggests the following: in the nineties, real overnight rates in the US have varied between 0 and 3 percent, and real 10 year government yields have varied between 2 and 4.5 percent. (The end points are the 10th and 90th percentiles, and real rates are calculated using CPI inflation). The median real overnight rate was 1.21 percent for overnight money and 3.7 for 10 year paper.

Developing countries typically register a 1 to 3 percent higher rate on government paper though with increasing capital account convertibility (KAC) this level is unlikely to exceed 2 percent, with 1 % being the expected "premium". Thus developing country yields on overnight paper are likely to be close to 2.5 percent and 5 percent for 10 year paper. For India, therefore, real interest rates on dated government securities are unlikely to exceed six percent. If 5 percent real is the expected average, then an inflation level of 3 percent yields nominal interest rates on 10 year government paper close to 8 percent.

Inflation: Inflation in India has been trending down for the last five years. In particular, manufacturing inflation has ranged between 2.5 and 4.5 percent in each of the last four years. This decline in inflation has very little to do with either the existing monetary policy or existing fiscal policy . Rather, India's decline in inflation is part of a global openness phenomena and therefore the real sector reforms (low tariffs, less controls, more openness) ushered in by Dr. Manmohan Singh should be properly credited. A reasonable forecast of inflation in India is that it is unlikely to exceed 4 percent. The big surprise on inflation is that it is going to trend downwards to around 2 percent in the next few years.

Growth: It is likely that each 1 percentage point decline in interest rates will lead to at least a half-point increase in the GDP growth. The first study to outline the important role of both political and (at that time a phenomenon only known to Hayekians) economic freedom, Bhalla(1992) offered evidence of the large impact of removal of foreign exchange controls on an economy's growth rate. Bhalla(1999d) estimates *ceteris paribus*, the impact on growth of different levels of real interest rates. The effect on growth of both very high , and very low, real interest rates is assumed to be symmetric i.e. financial repression is both of the negative real interest rate kind, and of the extremely high real interest rate variety as observed in India. This index of real interest rates has a coefficient of approximately 0.35. The index is 10 when real deposit rates are close to 1 percent, and the value is close to zero with both very high, and very low, real interest rates. Thus, a decline of real interest rates from about 9 percent to 2 percent results in a change in the index from 2 to 8; i.e. 6 index points, or an increase in GDP growth of 2 % per annum. The relationship is non-linear, but the conclusion is robust: each 100 basis point decline in real interest rates results in an increase of 0.5

percent in the GDP growth rate; this effect is enhanced by the decline in the fiscal deficit which will automatically follow any decline in borrowing rates.

For India, movement towards interest rate targeting should mean a decline in deposit rates from about 12 percent to 6.5 percent nominal, or 3 percent real. With 1 year deposits around 6.5 percent, the yields on 10 year paper is unlikely to exceed 8 percent, especially in a falling inflation environment. Thus, our basic assumption of an 8 percent borrowing rate for government paper, and a 2 percent increase in GDP growth is consistent with international experience and available data on emerging economies. Thus, **one arrives at the conservative conclusion that the growth rate in the new regime would be at least upwards of 9 percent, or an increase of 2 percent over current levels of 7 percent. Note that because of the software industry, the trend rate of Indian growth has gone up from about 6.3 percent a few years earlier to about 7 percent today**.

The question for policy makers, and analysts, is to assess the costs and benefits of this new interest rate scenario relative to the present Ponzi scheme. Stated differently, what is the ransom that is presently being extracted by the Indian states? The simulations are conducted for the next six-years and are reported in Bhalla(2000). An interesting side result is that it will be easy now to remember Indian macro-data for years to come. The population is 1 billion, and nominal GDP is forecast to be Rs. 2000 crores in the year 2000. (1 crore is 10 million).

The fiscal deficit (Centre + States) is estimated to be Rs. 184,000 crores in 1999-2000, with both the centre and the state having approximately equal deficits. In the base case, it is business as usual, and the liberal assumption is made that because of new age economy considerations GDP will continue to grow at 7 percent per year with inflation at 3.5 percent. Expenditures are also assumed to grow at the same rate as nominal GDP, 10.5 percent per year.

The total effect of a cut in the interest rate can be broken up into a *direct effect* – which results from savings on interest expenditure at a lower borrowing rate, and an *indirect effect* – which operates from the revenue side via increased tax collections emanating from higher GDP growth. Note that there are two components to the direct effect – a *direct-direct* effect which is simply the difference in the interest payments which result from the different deficits in the different years, and a direct-indirect effect which results from the fact that financing of the deficit is done by market borrowings with an average 6 year maturity i.e. a higher fiscal deficit today means higher borrowings today and higher interest payments for the next six years. The savings due to the direct-direct effect is estimated to be close to Rs. 9,000 crores in the first “forecast” year, 2000-2001, and Rs. 20,000 crores in 2005-2006.

Note the large effects that an interest cut of 4 percent will have, *independent of any growth effects*. A decline of 4 percent in borrowing costs results in an immediate saving of .04*180,000 or Rs. 7,200 crores. This compares healthily with most attempts to cut subsidies, or size of government, or even privatization, or user charges, or the numerous other good ideas for cutting the deficit. But the story does not end there.

Fiscal Deficits Old and New:
The reduction in real interest rates leads to higher GDP growth; higher growth alone results in a reduction of the consolidated fiscal deficit from 11 percent in 2005-2006 to 8 percent – or the central deficit at 4 percent which is close to Maastricht levels. Note that these figures are due to the indirect effect only i.e. higher growth and higher tax payments in the new India regime. In the year 2005, the government will be borrowing about Rs. 20,000 crore less each year; the compound effect of less debt, and less interest, will be large after the first few years – an effect *not* included in the calculations.

In the absence of new policy, the consolidated deficit would continuously have been at double-digit levels for the foreseeable future – clearly an untenable, and explosive situation. (Which is why the base case scenario will not happen and reforms likely to be introduced!). The new economy results reported do not include *any* benefits from privatization to the value of government assets, and how their proceeds will help reduce India's debt. Obviously, the stock market will double in a hurry to 10,000 (Sensex which ended 1999 at 5000) in the next two years if serious interest rate reforms are undertaken.

Realistic real interest rate levels would mean that valuations, and collections, from sale of public sector enterprises will more than double, and thus additional revenue of Rs. 75,000-100,000 crores over five years, or Rs. 20,000 a year is easily achievable. This would mean that fiscal balance at the central level can be a reality by 2005-2006. All this points to a win-win scenario.

Time, therefore, to reform the manner in which the Ministry of Finance conducts interest rate operations in India. Time for the Ministry to concentrate on other tasks and leave interest rate setting to the Reserve Bank of India; and time to make that institution independent of politicians and political parties.

By Surjit S. Bhalla , Rohit Chawdhry and Arindom Mookerjee
Oxus Research and Investments

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Table 14: MoF Administered Rates vs. Interest Rate Targeting by RBI- The Choice is Clear

POLICY

MoF Adminstered Rates

Assumptions

Real GDP Growth (%)	7.0
Deflator Inflation (%)	3.5
Expenditure Growth (%) *(Centre+States)*	10.5
Elasticity of Indirect Tax with GDP	1.0
Elasticity of Direct Tax with GDP	1.5
Government Borrowing Rate (%)	12.0

Interest Rate Targeting by RBI

Assumptions

Real GDP Growth (%)	9.0
Deflator Inflation (%)	3.5
Expenditure Growth (%) *(Centre+States)*	10.5
Elasticity of Indirect Tax with GDP	1.0
Elasticity of Direct Tax with GDP	1.5
Government Borrowing Rate (%)	8.0

Forecasts

(All figs. are in Rs. '000 Crs.)

	MoF Administered Rates				**With Interest Rate Targeting by RBI**			
Year	Nominal GDP	Consolidated Fiscal Deficit	Consolidated Fisc.Def/GDP (%)	Interest Payments	Nominal GDP	Consolidated Fiscal Deficit	Consolidated Fisc.Def/GDP (%)	Interest Payments
1999	1790	184	10.3		1790	184	10.2	
2000	1978	211	10.7	25	2014	205	10.2	16
2001	2186	235	10.8	28	2265	221	9.8	18
2002	2415	262	10.8	31	2549	238	9.2	19
2003	2669	291	10.9	35	2867	255	8.8	20
2004	2949	324	11.0	39	3226	272	8.4	22
2005	3259	359	11.0	43	3629	289	8.0	23

Source: RBI, GoI Documents and Oxus Research Database

Developing Trends

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The most recent four issues of ***Developing Trends*** had the following recommendations:

***Developing Trends* Vol3., Nos.6&7, India Elections'99 – Voting with the Economy**
Dated August 31, 1999

- On India's **politics**: A model was developed to explain the voting behaviour in the Indian economy. Economic factors alone can explain over 70 percent of the variation in Congress's share of the votes from 1977 to 1999. The model predicted 116 seats for the Congress party with a vote share of 27.2 per cent against 114 seats actually obtained by them when the next lowest forecast put out was in the 140-150 range.

***Developing Trends* Vol3., Nos.4&5, In Defence of the IMF**
Dated May 21, 1999

- On the **global economy *:* "** The Asian crisis has been much shallower than the other crisis considered….Asia is like the Mexico of 1994 in its V-shaped recovery…the world economy would grow at a robust 2.7% pace in 1999, rather than the below 2% growth forecast by the critics."

***Developing Trends* Vol3., Nos.2&3, Italian Wine – Indian Spirit**
Dated April 7, 1999

- DT was the very first to predict the boom in prices of Indian software companies when it stated , as early as may 1997, that "…considerations of catch-up and differential productivity levels dictate that service industries – e.g., advertising, software, banking, will do relatively well in India." (*DT, Vol. 1, Issue 3, May 26, 1997)*…Later, in Aug. 1999, we caught the next leg in the boom by stating "with real interest rates at unjustified levels and a reduction in nominal long-term rates imminent – the banking sector is finally set to take off. Oxus remains overweight in the software and banking sectors. *(April 7,1999)*…"Interest rates will come down, inflation will remain low (below 4 percent as measured by the WPI), the Sensex will continue to boom, perhaps reaching 6000 by March 2000…" *(Economic Times, This Time India Is Different -Aug. 17, 1999)*

***Developing Trends* Vol.3, No.1, The Times they are A'Changin'**
Dated Feb. 24, 1999

- On Indian **economic reforms**: "What are the prospects for the BJP to implement even half of the reforms outlined above? Quite high – if only because the BJP today, due to its own mistakes, finds itself with its back to the wall – and economic reform is the only bullet left. A **necessary** condition for the BJP to survive politically is for it to implement economic reforms."
