Chapter – IV

Interest Rate, Savings and Investment Paradigms, Puzzles and Policies

4.1 Introduction

Financial liberalisation theorists argued that raising interest rates (to market clearing level) increases the amount people are willing to hold as financial assets by decreasing the holding of non-financial assets such as cash, gold, commodities etc. Thereby, the domestic financial system is able to extend more loans to the investors and hence the equilibrium rate of investment increases. Thus the concept known as theory of financial liberalisation opposes Keynesian approach of development. (See McKinnon, 1973; Shaw, 1973; Agrawal, 2004)

Present chapter attempts to study relevance of financial liberalisation theory for a credit constrained, low income economy like India. More specifically we will deal with the following issues: What is the pattern of interest rate movement in our country in the post liberalisation period? How much movement of interest rate is integrated with global interest rate? Does interest rate alone can motivate people to save? If not, what are the other factors that influence savings behaviour of people but ignored by liberalist? Does the concept that savings will be automatically converted into investment is defensible in Indian situation? All these issues are important because it will help us to develop "our own" financial system capable to satisfy "our own" problem.

4.2 A Study of Pattern of Movement of Interest Rates

Movement of interest rate structure of our country both in the pre and post liberalisation period reveals some interesting features, while some attest the claim of liberalisation theory, others disapprove it.

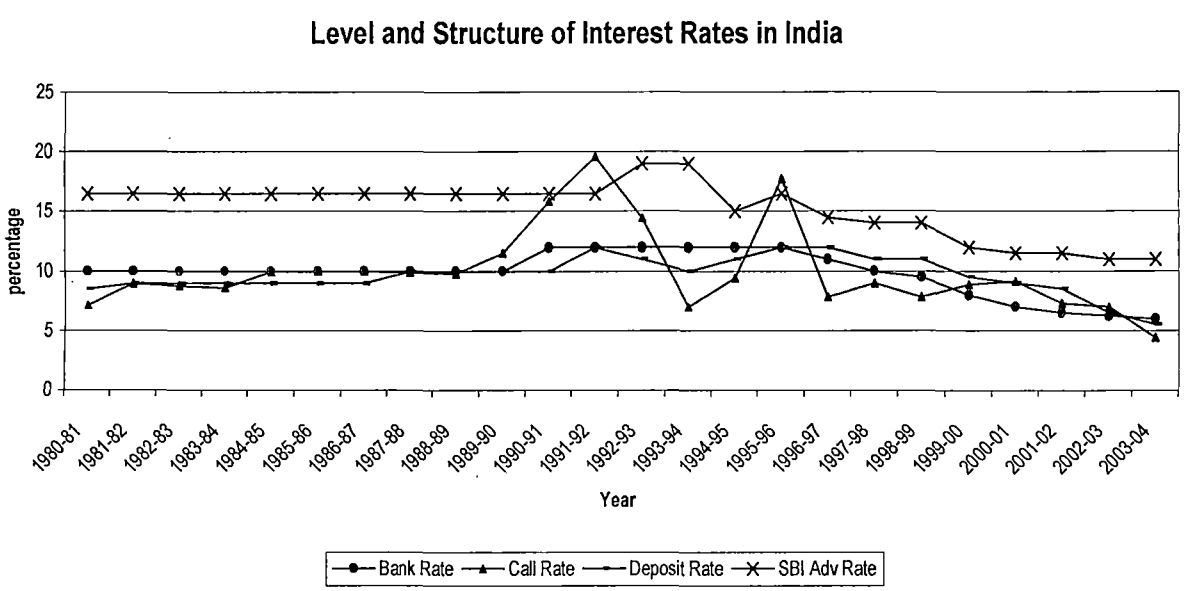

Fig 4.2.1

A close scrutiny of Fig. 4.2.1 clearly reveals that there are clearly three phases in the movement of interest rate; (1) In the control regime (1980-90) all the interest rates were in effect stagnant. (2) A period of awakening (1991-97) while liberalised interest rate particularly call rate started moving vociferously. Ignoring dictum of theorists (McKinnon, 1991; Kapur, 1976), first stabilize then liberalize, our policy makers decided to initiate the process of financial liberalisation amidst chaotic macroeconomic condition – inflation was sky rocketing, forex reserve reached its nadir, growth in industrial production was virtually nil. However, upward movement of interest rate right after liberalisation is common to all less developed economy (Clarke 1996) that results in fluctuation of investment and income too. (3) Just when initial exuberance was over, all interest rates show a downward trend (1998-2002). Most probably decline in the rate of inflation both wholesale price index and consumer price index has a positive impact on inflationary expectations that resulted fall in the interest rate.

If anything called "equilibrium interest rate" (Clarke, 1996) exists, does the present trend anywhere close to this rate? Credit like all other goods, has supply and demand. The price of credit – the interest rate at which a loan is granted – must therefore be high enough for some individuals to postponed their consumption and low enough for individuals who take out loans to be willing to repay, given their current consumption needs or investment opportunity. An idealized market ensures that deposit interest rates high enough to ensure that voluntary savings becomes increasingly significant in financing the loan portfolio. In new-classical framework markets are self equilibrating; interest rate balances savings and investment at a rate that is often

described as equilibrium interest rate. What are the experiences of India is the subject matter of our discussion that follows.

Fig 4.2.2 shows that real deposit rate over one year maturity was declining and most of the period it was zero or negative. The average real deposit rate for the period 1990-91 to 1995-96 was - 0.3 per cent where as the average rate from 1996-97 to 2001-02 it was 1.9 per cent. High deposit rates lead to higher savings; it diverts funds from non productive to productive assets, once savings is forthcoming investment is assumed to increase automatically (McKinnon, 1973, Shaw, 1973).

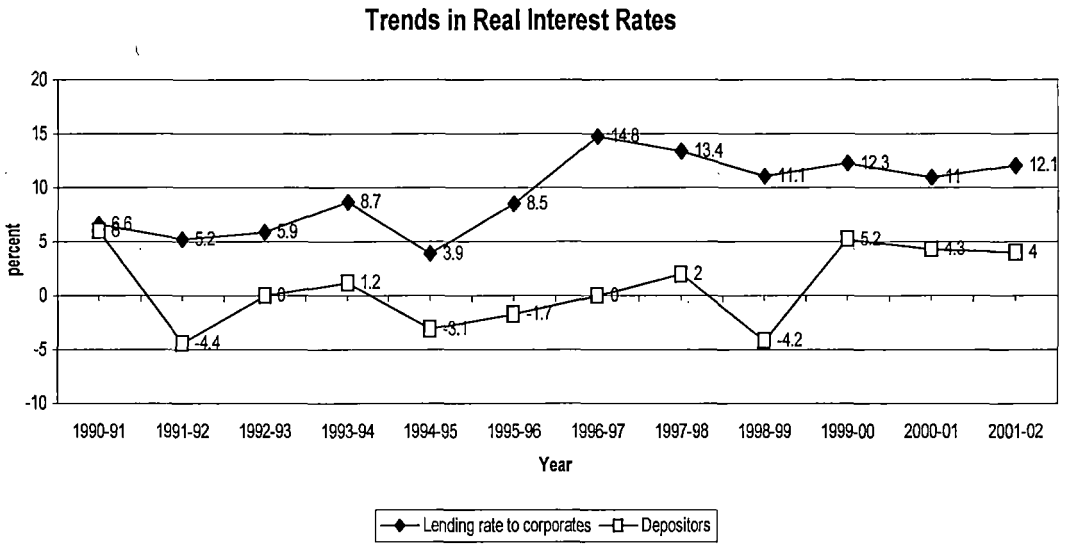

Fig 4.2.2

If all these claims of neo-classical theorists are correct then the current trend of real deposit rate is surely discouraging while risk free government securities of short maturity offers nearly 2.5 per interest in real terms the current interest on deposit is ridiculously inadequate to compensate investors for immediate postponement of consumption and inflationary expectation. Agrawal (2004) as a rule of thumb suggested that real interest rate up to 6 per cent though not absolutely safe but may be acceptable. But post liberalisation interest rate (on deposit) was no where close to 6 per cent.

We are not attempting to undermine the need for imposing ceiling on deposit rate, policy which is currently followed by the government. In absence of which, banks with little capital would bid up deposit rates to attract depositors as a way to fund loans to risky borrowers at the expense of worthier, safer ventures. Such practices would eventually lead to bankruptcy and a

collapse of the banking system. Admitting all these relevant arguments, still we believe interest on deposit even after liberalisation is repressed.

However, Warman and Thirlwall (1994) argued in another context, a fall in deposit rate will simply induce people to invest in substitute financial assets, so long effect of this switching process offset one another; the effect on total savings will be negligible.

Some authors (Clarke, 1996) argued that there is a strong case for maintaining slightly positive real deposit rates and sufficient regulation of the banking system to ensure portfolio diversity and lending rates consistent with those deposit rates and a normal rate of profit for banking sector.

Curiously, lending rate belying the hopes of liberalisation theorists gradually increased instead of declining so as to equate supply and demand for loanable fund. Average spread between real lending and deposit rate was 6.8 percent (1990-91 to 1995-96) that further increased to 10.6 percent during 1996-97 to 2001-02. This high spread is not in consonance with claims of neo-liberalist that regime shift leads to reduction of cost of funds. (Fry, 1978).

Such a wide spread, further implies that loan market is not efficient in the standard economic sense of pareto-efficiency. It refers to a situation where both borrower and lender must be at least equally well off with the trade that would inspire them to participate in the market voluntarily (Besley, 1994). It is a radical proposition. Applicability of the essence of pareto-optimum distribution in financial market is neither possible nor desirable. Both Clarke (1996) and Agrawal (2004) maintained that banks to be allowed to enjoy some 'normal profit' so that it can even sustain in a competitive environment. Though concept of 'normal profit' suggested by authors is not clear but roughly 8 per cent spread by any definition can not be treated as 'normal'. 'Repressed deposit rate' and specifically nearly "unchained lending rate" has some major policy implications. Can this present trend be described in the framework of 'spill over' effect of 'nasty' earlier regime that produced 'no yielding high bad loans' : high cost of bank borrowing of earlier period with rising inflation that increased average cost of bank borrowing. All these arguments have some merit and it may be reasonably assumed that with the passage of time, some of these adverse effects will gradually vanish. But it is equally true, scope of earning monopoly profit (See Appendix-I) still exists even in the present 'competitive' economy[1] and our banks are not that much efficient as it is often acclaimed. Still it requires some protection in any form to show profit. (See Appendix-II)

[1] Share of five largest banks in terms of deposits and assets are 41 and 44 percent respectively, which is very high in comparison with developed economy like U.K. and USA. However, in some developed and developing economy such as France, Japan, Brazil and Chile concentration ratio is much higher than India.

There are enormous implications of high spread (between borrowing and lending rates). It is contributing in high firms cost, given mark up pricing, this leads to a rise in prices. The rise in prices reduce real wages, aggregate demand and hence capacity utilization. Since demand for industry loan declines, banks channel the fund for consumption and speculative investment which increases the risk of bank portfolio. (See Report on Trend and Progress of Indian Banking 2003-04)

Integration of various segments of financial market is reflected in the movement of the term structure of the interest rate, forward premia and behaviour of asset prices. Financial market integration gets momentum when funds can move freely from one market to another wiping out arbitrage opportunities. The basic line of argument is, interest rate of important money market instruments should move together with a reference rate. Correlation is a simple technique that may be used to measure the nature of relationship that exists among different interest rates (Cole *et. al.* 1995).

Table 4.2.1: Cross Correlation among Interest Rates (1993-2004)

	CMR	TB91	TB364	CDS	CPS	DRT	LRT	FR3
CMR	1.00							
TB91	0.85	1.00						
TB364	0.69	0.94	1.00					
CDS	0.64	0.78	0.79	1.00				
CPS	0.74	0.89	0.89	0.95	1.00			
DRT	0.63	0.82	0.90	0.92	0.94	1.00		
LRT	0.73	0.82	0.87	0.84	0.90	0.91	1.00	
FRP3	0.61	0.74	0.68	0.85	0.86	0.75	0.72	1.00

DRT = Deposit rates, LRT = Lending rates, FR3 = 3 month forward premier, CMR = Call money rate, TB = Treasury Bill, CP = Commercial Paper, CD = Certificate of Deposit.

Table 4.2.1 is self explanatory. It clearly reveals, Indian money market, as assumed by theorists is now more integrated. Yield on T-bill (91 and 364 day) and that of other interest rates are significantly correlated. Bank deposit rate as expected is highly correlated with CP and CD rate. This is welcome development, in the sense that interest rate structure of Indian money market is gradually integrating which is an indication of market maturity

In an open economy, it may be reasonably assumed that domestic interest rate would be influenced by both country specific and world related factors. But the relative importance of this

two may vary depending on country related situation (Jamil Tahir 1997). Trend of global interest rates of last decades reveal some fascinating features that are worthy for further studies. The average inflation rate declined significantly in several countries during the second half of the decade. The average money market rate and the government securities yield also dropped in real terms in most countries. But prime lending rate of the countries behaved differently which is a unique feature of global money market. (See Rakesh Mohan 2004) An excellent theoretical framework developed by Gibson and Tsakalotos (1994) offers some insight explaining the mechanism contributing in convergence of world equilibrium interest rate. To what extent Indian money market has integrated with the rest of the world? Has the pace of integration quickened since the beginning of economic reforms in the early 1990's?

Table 4.2.2: Real and Exchange Rate Adjusted Interest Rates (percent per annum)

Year	RDR	RLR	Exchange rate adjusted		Spread
			RDR	RLR	
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(5-4)*
1980-81	- 7.0	- 1.5	12.6	19.3	6.7
1981-82	0.6	6.6	- 3.0	2.7	5.7
1982-83	5.8	11.1	3.0	8.1	5.1
1983-84	3.2	8.3	3.8	8.9	5.1
1984-85	4.3	9.4	- 3.5	1.3	4.8
1985-86	6.3	11.6	7.9	13.2	5.3
1986-87	4.9	10.1	6.3	11.5	5.2
1987-88	1.7	7.7	8.4	14.8	6.4
1988-89	2.4	8.4	- 1.5	4.3	5.8
1989-90	2.4	8.4	- 4.3	1.3	5.6
1990-91	0.7	5.7	3.0	8.1	5.1
1991-92	- 0.6	2.4	- 17.2	- 14.6	- 2.6
1992-93	0.9	8.1	- 11.4	- 5.0	- 6.4
1993-94	1.5	9.8	7.5	16.3	8.8
1994-95	- 1.3	2.2	10.9	14.9	4.0
1995-96	4.5	7.8	6.1	9.4	3.3
1996-97	7.8	9.5	6.2	7.9	1.7
1997-98	7.0	9.2	6.7	8.9	2.2
1998-99	4.8	6.7	- 1.9	- 0.2	- 1.7
1999-00	6.8	8.5	7.0	8.7	1.7
2000-01	2.4	4.1	4.5	5.8	1.3
2001-02	4.9	7.6	4.1	6.8	2.7

Source: Report on currency and finance, RBI, 2002.
[RDR = Real Deposit Rate, RLR = Real Lending Rate, adjusted with international benchmark rates LIBOR (London interbank offer rate) – 1 year]

Real interest rate adjusted with international benchmark rates (LIBOR 1 year) of our country also to an extent support the hypothesis of gradual integration. Decline in the spread, after regime shift posits greater integration (See Table 4.2.2) of our market with the rest of the world.

Gradual integration of interest rates among the nation will finally help to achieve "global equilibrium interest rate" as acclaimed by globalists but vigorously challenged by others.

4.3 Interest, Savings and Investment Dilemma

Econometric analysis dealing with interest rate-savings dilemma often yielded conflicting results thus instead of solving problem contributed in further confusion among researchers and policy makers. (Agrawal 2004, 2000, World bank 1989, Diaz – Alejandro 1985). Permanent income model, Life Cycle theory, Multigenerational model and numerous other theories developed by economists to study the savings behaviour of people. All these models primarily emphasize on the issue: why do poor household in low income countries save? How the savings motives differ between people of poor and rich nations? (See Birdsall *et. al.,* 1999). Deaton (1990, 1992) developed a model of the precautionary savings behaviour of credit constraints, low income, and multi-generation households. In consonance with the model of Deaton, Birdsall *et.al* emphasized that growth with equity can results in higher savings rate and faster growth.

All these studies are important and deserve serious attention of researchers in the area; while some of saving motives have a direct relation with the interest rate in case of others the relationship is remote. But the findings of these studies will help us to assess the role of interest rates on savings so as to test the hypothesis of liberalisation theory.

Before proceeding further it becomes imperative to make some distinction between financial saving and total saving – the difference as it appears escaped attention of researchers. Often the two are treated as synonymous, but this is clearly wrong. Financial saving is only one type of saving, and as interest rates are raised, there may simply be a substitution between financial assets and other assets leaving total saving unchanged. Also it is well known that any price change has income effects as well as substitution effects, and if the one offsets the other the effect on total saving will be negligible (Warman and Thirlwall 1994). The argument of Warman and Thirlwall though otherwise appealing but it demands some scrutiny in the perspective of economic growth. Where savings in financial assets stimulate growth, physical assets do not.

Table 4.3.3: Growth Rates of Household Income, Savings and Growth Rate of Banking Deposits.

Period	Household sector (at current price)		SCBs
	Savings in financial asset (%)	Savings in physical asset (%)	Deposits (%)
1991-92	20.06	- 23.90	17.10
1992-93	5.00	20.98	13.90
1993-94	31.00	- 3.36	15.50
1994-95	21.53	19.15	16.30
1995-96	- 14.20	28.80	12.70
1996-97	25.37	- 20.55	17.50
1997-98	3.50	24.71	19.80
1998-99	18.74	16.93	19.70
1999-00	11.33	26.27	16.30
2000-01	6.50	15.75	17.70
2001-02	15.12	8.92	14.30
2002-03	0.04*	13.15	12.40
2003-04	NA	NA	17.50

**Revised estimate*
NA Not Available
Source: Calculated from Handbook of Statistics, RBI.

Our simple descriptive analysis of Table 4.3.3 grossly shows:

(i) After regime shift there is a decline in growth of savings of the household sector in the financial assets.

(ii) It appears that growth of financial savings and savings in physical assets are inversely related.

(iii) Though growth of bank deposits fluctuated during the time period still it constitutes a formidable part of savings in financial assets.

Decline in the growth of savings in financial assets does not satisfy the basic objective of the theory of liberalisation. Precautionary motive inspire people to save in physical assets which are mostly non-productive in nature. Theorists presume that an efficient financial system will continually divert funds from non-productive to productive assets and the post-reform trend so far does not satisfy this claim.

Interestingly, substitution effect has little relevance for bank deposits. Despite negligible real interest rate particularly from the second half of 1990's still bank deposit enjoys maximum confidence of household sectors. In a developing economy, characterized by high inequality of income, insignificant social security, where poor are credit constrained, people at large with small savings capacity overweight risk involved in investment about which Birdsall *et.al.* (1999), theorized. Bank deposit, which these people perceive as less risky appears to them as automatic

choice along with provident fund, pension fund and insurance that would help to immune them from income shocks and unforeseen contingencies.

Flow of household sector's saving to bank hover around 44 to 45 percent, whereas, flows in shares and debentures were 11.9% in 1994-95 that dramatically reached to 1.6% in 2002-03 (See Table 4.3.4). "Switching off" syndrome is much more prominent in shares and debentures. In and outflow of funds from capital market is highly influenced by movement of index – behavioural finance theorists love to describe this sort of behaviour in the framework of 'greed fear phenomenon' (See Olsen, 1996). Every time loss of popularity in shares and debenture was a source of additional gain of provident and pension fund, small saving (claims against government) insurance fund etc.[2]

Table 4.3.4: Household Saving Choices
(As percentage of financial asset)

Percentage distribution over	2002-03	2001-02	1994-95
Deposits	41.5	44.3	45.5
Shares and Debentures	1.6	2.7	11.9
Small Savings (claims on government)	18.6	11.6	9.0
Contractual Saving	29.8	33.5	22.5
B.S.E. Sensex (% change over past year)	- 38	- 22	37.13

Source: R.B.I., Annual Report various years

At the bottom, the question still remains unanswered, why there is a fall in household sectors savings even in a 'free' interest rate regime? Does it imply, though interest rate matter but it cannot solely explain savings behaviour of people? Next section primarily devotes to address all these queries.

4.4 Determinants of Financial Savings by Household Sector

Household sector savings is clearly the mainstay of the saving in India. Currently it accounts for as much as four fifth of the aggregate GDS and a fifth of the GDP. Household savings comprises of saving in the form of financial assets (that is calculated net of accretion to their liabilities) and in the form of physical assets that may take the form of construction, machinery equipment and changes in stocks.

[2] In 2003-04 and till date index moved vertically and again there is an euphoria among investors for shares and debentures. Logically it can be assumed again that there is a shift in the preference of household sector.

The following exercise is a crude first hand approximation of the relationship between interest rate and saving. A full-blown econometric study does require the satisfaction of a few time series properties. Nevertheless, it helps to look at the simple regression. We propose to estimate statistically, the significance of interest rate on household sector savings – to test the hypothesis of McKinnon and Shaw that assumes: growth in the financially repressed economy is constrained by saving; investment opportunities are abound. In a sense, it is a dispassionate attempt to study, how our financial system is functioning after we embodied this theoretical proposition in our policy prescription.

A number of scholars (see Giovannini 1983, 1985 Gupta 1987) used cross section and time series data to study the factors that influence national saving rate, ignoring importance of financial savings. The present study relies on household sectors saving in financial assets as it is the most important sources of fund for the growth of investment. We assume that saving is determined by the rate of return on financial assets. Ideally, a weighted average of the time deposit with different maturity period to be considered (See Laumas 1990). We prefer a rate of interest on time deposit of 12 months simply because information about weighted average not readily available. To derive real rate of interest rate, the current rate of inflation (CPI) is deducted from the nominal interest rate. It has been almost taken as axiomatic that a high positive real interest rate provides incentive to save more by making present consumption more costly than future consumption. However, whether or not savings respond to changes in the rate of interest depends on the relative strength of income and substitution effect. If between the two, the income effect is stronger, an upward movement in interest rates would tend to lower the saving rate rather than raise it. This means that it is necessary to determine empirically whether the substitution effect or the income effect dominates in order to know whether the interest rate would necessarily have a positive impact on the volume of saving.

We considered the yield on Treasury bill as a proxy of base rate that influences all the short term interest rate but not as alternative financial assets that are available for investment of household sectors.

The inflation rate largely influences the demand for money of individuals. Theoretically, it is conveniently assumed that there is an inverse relationship between inflation and household saving. Higher levels of inflation induce economic agent to increase the demand for money in order to maintain their standard of living. Such inflationary environment discourages savings. However the issue is much more complicated than it appears. Thus it drew attention of a large number of researchers. All these studies centre around whether current or expected rate, trend or volatility of inflation influences the saving rate (Laumas 1990). We prefer to ignore above debate, as we considered ex-post real interest rate.

The exchange rate is another determinant of the level of national saving. Theories of open economies suggest that favourable exchange rates lead to capital outflows and thus, a reduction in national savings in a country. In other words, the higher the price of the local currency in relation to the foreign currency, the more economic agent saves and invests locally (Ziorklui 2001).

It is assumed that income has a more decisive influence then the level of interest rate on saving. With the increase in income, the propensity of savers to hold more financial assets increases. However, following Birdsall *et al* (1999), it may be argued that not level of per capita income but income boom of poor with proper distribution only can help to further saving, investment and growth of the economy. Central theme of the advocacies of this theory is not per capita income but distribution of income is more important that influences saving function. Due to non availability of time series data relating to distribution of income, we ignored this variable though importance of this parameter can hardly be ignored for proper analysis of savings function.

With this discussion, we attempt to study: what is the impact of interest rate on financial saving of household sector? Does it support the monetarist view? If not, what other factors contributing in the puzzle? Whether Keynesian approach is more appropriate for a typical less developing economy like us, if yes, whether the monetary adjustment process pursued during the liberalized regime can deliver what it promised?

Thus the regression model is :

$$HHSSFA = \alpha + \beta_1 RDR + \beta_2 TBR - \beta_3 XR - \beta_4 P + \beta_5 GNPTA + \beta_6 D$$

Where HHSSFA = Household sector savings in financial assets.

α	=	Constant term
RDR	=	Real deposit rate
TBR	=	Treasury Bill rate
XR	=	Exchange rate
P	=	Price (inflation rate measured in terms of changes in CPI)
GNPTA	=	Growth in per capita income
D	=	Period dummy, before reform D = O, after reform D = 1

(All the rates are measured in real term)

The study tested a number of hypothesis and research questions that have been raised in the previous sections. Household sector saving in financial assets may be defined as total savings of household sector off physical assets. We use per capita growth of GNP to measure the level of

national income. Inflation rate has been defined or the rate of change in the level of consumer price index over the study period. The deposit rate is the rate offered to resident customers for demand, time or saving deposit of 12 months. The exchange rate is the unit of national currency per dollar. All the data for this study is from 1980 to 2002. Table below shows the regression results of the savings function, the F – statistics reveal the model's good fit at the 5 per cent level of significance.

Table 4.4.5: Regression (OLS) result, period (1980-2002)

Dependent variable HHSSFA

Equation no.	Constant	RDR	TRB	P	XR	GNPTA	Period Dummy	R^2	$\overline{R}^2$	DW	F
1	- 27.64 (1.98)	+ 0.088 (0.99)	+ 0.052 (1.19)	+ 0.15 (2.47)	- 0.038 (1.25)	+ 8.121 (2.150)*	-	78	72	1.63	11.89
2	- 51.97 (2.21)	- 0.258 (0.39)	+ 0.059 (1.36)	+ 0.01 (0.15)	- 0.11 (1.70)	+ 15.05 (2.29)*	+ 0.98 (1.27)	81	73	1.65	10.57
3	- 44.69 (3.16)*		+ 0.051 (1.37)	+ 0.06 (1.33)	- 0.09 (2.45)*	+ 12.96 (3.40)*	+ 0.78 (1.59)	81	75	1.68	13.36
4	- 33.10 (2.61)*		+ 0.076 (2.14)*	+ 0.10 (2.74)*	- 0.05 (1.81)	+ 9.72 (2.89)*		77	72	1.48	14.74
5	- 44.62 (3.20)*				- 0.09 (2.73)*	+ 13.05 (3.49)*	+ 1.08 (2.96)	78	74	1.90	21.61
6	- 8.54 (1.66)					+3.32 (2.48)*	+ 0.28 (1.12)	69	66	1.37	21.30
7	- 13.38 (4.75)*					+ 4.59 (6.39)*		67	65	1.27	40.95

Note: The number shown without parentheses are regression co-efficient, while the numbers in parenthesis are t *statistics. Asterisks suggest the co-efficient are statistically significant at the 5 per cent level of significance.*

Values of R^2, though not very high at all the occasions, but it reasonably explains a moderate percentage of variations in savings in financial assets by household sectors. The regression results based on the co-efficient with several alternative independent variables show poor estimates for the entire period of the study. In equation (1), all the exogenous variables exhibit the correct signs as predicted by theory except inflation rate. In equation (2) and (3), we impose period dummy and drop the deposit rate in equation (3) due to its wrong sign, but even then there is no improvement in the result. While, equation (4) and (5), exhibit greater improvement by parsimony, where estimates are poor but statistically significant at the 5% level of significance. In equation (6) and (7), we report the statistically significant variables of financial savings of household sectors.

Policy implications of these results show that there is no such direct relationship between financial savings by household sector and real interest rate. If something is there, negative or positive, it is very insignificant. In most of the equation inflation rate shows a positive with

insignificant co-efficient value. It may happen if someone more concern to maintain a buffer against further decrease in income in future due to inflationary pressure. So far exchange rate, in most cases result exhibit the correct sign but with a poor value of co-efficient and in a few cases it is statistically significant. Same is the case for period dummy. We introduced the period dummy to explain the impact of reform measures in the financial savings by the household sector. Interestingly, equation (5) shows statistically significant positive impact of reform after 1991 that is reform measures contributed positively towards household sectors savings in financial assets. While in all the cases, we find that an increase in economic growth contribute meaningfully to increase in financial saving. All the equation shows the high value of per capita income co-efficient with statistically significant at 5% level of significance. So far the overall explanation of result is concerned it generally follows the Keynesian approach of development. It is not only a unique case in India, but in most of developing countries characteristics reveal the similar nature of responsiveness of savings (De Melo and Tybout 1985-86, Gongalez Arrieta 1988, Nissanke 1990).

Conclusion

1. After liberalisation, initially family of interest rates moved chaotically, and then it gradually stabilizes after 1998. All interest rates started declining along with the rate of inflation. This fall in rates started before the global interest rates began to decline. However, there is sign of gradual integration of our interest rate with global rates. Still the real interest of our country is comparatively higher than the global rate.
2. High spread between borrowing and lending rates suggest, we failed to achieve the targets of free market economy in terms of "competitiveness", "efficiency", "cost of capital" etc.
3. Interest responsiveness of saving, especially in financial assets are ambiguous. If the similar relationship exists with the investment then the prescription of reformists may not help the process of development or growth through the interest rate mechanism to equilibrate savings and investment.

So with the reform measures, individual countries policies are to be tuned in such a way, which can reduce the inequality of income, increase the purchasing power of the people, and increase the demand of the product leading to fuller capacity utilization, employment as well as reduction in cost of production. This ultimately led to a less developing country towards growth, reducing the mismatch of saving and investment.

Appendix – I. Share of Five Largest Banks

(Per cent to total)

Countries	Deposits	Assets
Brazil	63	54
Chile	62	61
France	70	60
Germany	21	20
India	**41**	**44**
Japan	46	46
Malaysia	57	56
Mexico	80	80
Philippines	46	43
United Kingdom	24	23
United States	29	30

Source: World Bank Database on Regulation and supervision 2003

Appendix – II Important Parameters for Indian Banking Sector

(Percent)

Bank Group	1996-97	2001-02	2002-03
Operating Expenses/Total Assets			
Scheduled Commercial Banks	2.9	2.2	2.2
Public Sector Banks	2.9	2.3	2.3
Old Private Sector Banks	2.5	2.1	2.0
New Private Sector Banks	1.9	1.1	2.0
Foreign Banks	3.0	3.0	2.8
Spread / Total Assets			
Scheduled Commercial Banks	3.2	2.6	2.8
Public Sector Banks	3.2	2.7	2.9
Old Private Sector Banks	2.9	2.4	2.5
New Private Sector Banks	2.9	1.2	1.7
Foreign Banks	4.1	3.2	3.4
Net Profit / Total Assets			
Scheduled Commercial Banks	0.7	0.8	1.0
Public Sector Banks	0.6	0.7	1.0
Old Private Sector Banks	0.9	1.1	1.2
New Private Sector Banks	1.7	0.4	0.9
Foreign Banks	1.2	1.3	1.6

Note: Spread = Interest Income – Interest Expenditure

Source: Reserve Bank of India, various issues

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