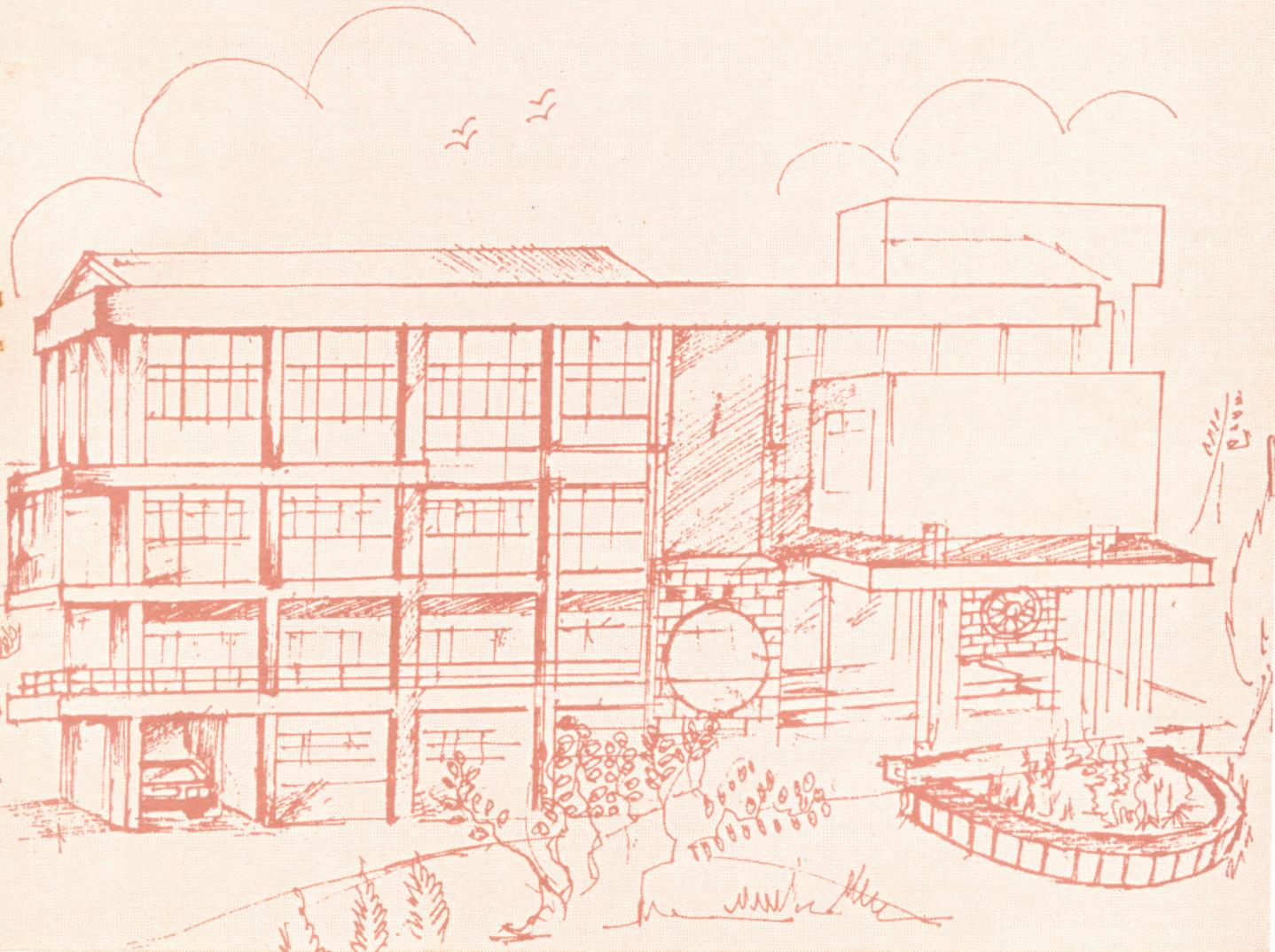




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Saving, Lending and Interest Rates: A Critique (Of The Model) Of Financial Liberalisation In India



Saving, Lending and Interest Rates: A Critique (Of The Model) Of Financial Liberalisation In India

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Abstract: The case for financial liberalisation is founded on the neoclassical proposition that savings causes investment and that the interest rate tends to move to equate the two. We find little support for this thesis from the experience of India. Alternatively, we suggest that the Post Keynesian approach that includes the liquidity preferences of banks might be a fruitful way to examine the dynamics of an economy in transition.

Key Words: Lending, Interest Rate, Liquidity Preference and Post Keynesian

1. Introduction

The rationale for financial liberalisation among practical men might be regarded as originating, echoing Keynes, in the view that 'saving determines investment'. Higher saving rates provide a higher supply of loanable funds at relatively low interest rates and thereby encourage investment. Alternatively, low rates of saving that reflect a scarcity of loanable funds act as a constraint on credit and hence on financing investment activities. The interest rate is the variable that restores equilibrium between saving and investment. The policy conclusion, then, is that since investment adjusts to savings, measures that encourage domestic saving will yield the appropriate level of investment (Schmidt, 2001). Towards that end, interest rates must be free to move, uncontrolled by government regulation. Recent history has been a string of counterexamples to the neoclassical prognosis. We explore the foundations of a non-neoclassical orientation in the next section. Section 3 provides the backdrop to an empirical study of the Indian liberalisation experience. The neoclassical theorem is tested thereafter and is founded to have limited appeal. A Post Keynesian discussion of the results is found to be more meaningful. A final section concludes.

2. The Post Keynesian Approach

The heterodox approach to monetary macroeconomics originates in the specific characteristics of capitalist economies. The origin dates back to at least Thomas Tooke's "credit theory of money" in the 1840s where the foundation for an institutional analysis of the subject was laid with an emphasis on the importance of the array of monetary and financial instruments. The amount of borrowing and lending, rather than narrow monetary

aggregates, are the fundamental financial variables determining the behaviour of the financial markets and the economy. The alternative approach includes Marxian analysis of financial and non-financial sources of instability and crises, Wicksell's discussion of institutional forces determining velocity change and Schumpeter's emphasis on finance for entrepreneurial development (Dymski and Pollin, 1994). Closer to our times, both Keynes and Kalecki, rejecting the classical conception of saving determining investment, tried to establish the independence of investment from saving. As Keynes famously put it "prior saving has no more tendency to release funds available for investment than prior spending has". More recently, new Keynesians, recognising the importance of imperfect information and the Post Keynesians, applying Keynes' postulate of fundamental uncertainty in any market, underscore both the quality and quantity of credit as important determinants of the pace of investment (Dymski, 1994).

Savings per se does not act as a constraint on capital accumulation provided that the problems of liquidity can be surmounted by appropriate non-market intervention (Asimakopulos, 1986). The equilibrating mechanism between investment demand and the willingness to save is the level of aggregate income. Consequently, equilibrium may not necessarily correspond to full employment. Keynes (1936) argued that liquidity preference pushes the real interest rate above its full employment equilibrium level due to which income falls to equilibrate saving and investment. Hence, he made a case for real interest rate reduction by financial repression policy measures such as administered interest rate ceilings together with some forms of a tax on money. High interest rates may stifle investment and hence growth. Further, in an open economy domestic saving may neither be a constraint nor does it necessarily have to match with the level of investment since the investment-saving gap or the current account deficit could be financed with matching international capital flows. Moreover, if saving is unresponsive to the real interest rate coupled with saving-unconstrained investment, the prescription of the standard model may not work. The Post Keynesian interpretation is that high interest rates may discourage total saving by discouraging investment. In essence it could be finance, not saving, that acts as a constraint on investment (Asimakopulos, 1986).

An increase in investment spending activates economic growth through the usual investment multiplier raising the level of income and hence, given the marginal

propensity to consume, the level of saving. Before establishing the independence of investment from saving the question to be addressed is how an increase in investment during the interregnum, that is, prior to the effective completion of the multiplier is to be financed if not by a prior increase in saving (Pollin and Justice, 1994). This is a bone of contention within the Post Keynesian camp dropped by Asimakopulos (1983). In the intervening period financial institutions, especially the private banking system as well as the central bank, are capable of financing the growth in investment demand regardless of the preceding pattern of saving flows. Therefore, the Keynes-Kalecki approach to establishing the independence of investment from saving warrants an understanding of the institutional relationship between the financial and non-financial sectors. Minsky (1982) has shown how financial institutions may lead “the transition from a lower to a higher scale of activity” independent of household saving decisions and even, to a significant extent, of central banks' strategic intervention. Of course, all else being equal an initial increase in investment will exert upward pressure on the interest rate. However, what is contested here is the existence of a quantum of prior saving flows that can counteract this upward interest rate pressure. Therefore, in contrast to the standard money multiplier approach in which money supply grows through central bank initiative, the “pure loan demand approach” and “mixed portfolio-loan demand approach”, otherwise known as accommodative (Moore, 1979) and structuralist (Wray, 1992; Pollin, 1991) represents an endogenous monetary framework. Though both approaches differ on the question of private initiatives on the part of banks in accommodating loan demand, they agree that banks create deposits when they extend credit and look for reserves later. Therefore, in an endogenous supply of loans framework where it is the quantum of loans that determine deposits and not the amount of deposits that determine loans, banks are able to meet any reasonable demand for loans (Chick, 1988). Another famous Keynes remark is worth recalling here: “the investment market can become congested through a shortage of cash. It can never become congested through a shortage of saving” (Keynes, 1973).

3. The Indian Present As History

In India there was a widespread consensus that despite formidable progress in the banking system in the 1950s and the 1960s, the nexus between banks and large commercial houses was unhealthy resulting in the deprivation of agriculture and industry from credit.

Consequently, the government introduced a bill in Parliament in December 1967 for extensive social control over banks. The National Credit Council was established in February 1968 with the objective of prioritising credit. The priority sectors were agriculture and allied activities, public sector enterprises, small-scale enterprises, export-oriented industries and backward regions. The nationalisation of 19 commercial banks in July 1969 was intended to make banks active instruments of growth and vehicles to meet the social objective of lessening income inequalities. Since the early seventies, the financial system has been widening and deepening significantly, the late 1980s witnessed a period of considerable deregulation, growth and development of the short-term segment of the money market with the introduction of new instruments and services. Though state-led financial development ensured the creation of a financial infrastructure and subsequent resource mobilisation, the efficacy of such a financial system began increasingly to be questioned on grounds of allocative efficiency (Government of India, 1991). The popularly called Narasimham Committee Report (1991) instituted comprehensive financial sector reform measures as a part of a macroeconomic stabilisation cum structural adjustment programme. The main planks of financial sector reforms are the relaxation of quantity (progressive reduction of statutory liquidity ratios (SLR) and cash reserve ratios (CRR) and easing of directed credit) and price (deregulation of interest rates) controls.

We have employed the circuit approach elsewhere to evaluate the logic of financial sector reform in India (Correa, 2003). Banks are unique here in that they and only they can lend out claims on their own debt. Bank deposits are created when loans are credited on the borrower's account. The loans provide borrowers access to new purchasing power in the form of deposits that can be used to make payments. The circuit consists of three moments. The first is the creation of money. Firms produce and deposits are transferred from the firms' bank accounts to the accounts of wage earners. In the second moment, households spend their incomes or save with banks. Money is destroyed in the last moment when firms use their revenues from the sales of output to repay their debts to the banks. Clearly, households in the second moment can place their unspent income with financial intermediaries in the capital markets. We call this the financial circulation. In India, the policy stance is not one of mere *laissez-faire*. Rather, a conscious attempt is being made to push the banking system towards investments in the financial circulation.

Thus, the cause of universal banking is being vigorously championed. The notion is to conform to the wave of mergers and amalgamations that have characterised financial systems worldwide. Relatedly, there has been a continuous dilution of the definition of the priority sector. It now includes finance to agriculture by non-banking financial intermediaries and loans to the software industry. The encouragement of new financial instruments like derivatives, swaps and options is about maximising the returns of households on their financial instruments and minimising the costs of firms that can access financial markets. The fundamental insight of circuit theory remains. Financial intermediaries can do no more than aggregate existing savings and allocate them to users. Their liabilities are not accepted as money and are not used in payments transactions.

4. Saving, Lending And Interest Rates

It has already been stated that the Indian financial sector has been subjected to considerable liberalisation since the late eighties, encompassing the short-term money market, debt market, capital market and foreign exchange market with the introduction of new financial instruments and institutions. We therefore conduct our empirical test on the observable relationship between saving, lending and the interest rate for the period April 1993 to March 2001. Since it is too short a period to conduct time series analysis using annual data we resort to high frequency monthly data. Since the issue is one of studying the observable relationship between the saving and lending behaviour of private domestic units and their influence on interest rate levels, the variables of interest would be private savings, private lending and the interest rate. We consider gross private saving (*gps*) as an aggregate measure of savings. The *gps* includes economic depreciation allowances. As Pollin and Justice (1994) point out, this inclusion is important since depreciation allowances are a substantial source of funds, mainly short-term deposits for intermediaries, contributing to their lending capacity. Moreover, depreciation allowances service wear and tear costs as well as finance the capital stock. Due to the paucity of high frequency data on *gps* we have to settle on a proxy. We derive two alternative financial forms of savings that measure the total saving channelled via financial assets. Saving as a flow is measured by the change in the stock of monetary assets, where monetary assets include short term banking instruments such as treasury bills and other government bonds and commercial paper and deposits, long-term banking instruments and government bonds. It also includes currency with the banks and public and demand deposits. For

empirical purposes, we derive a financial saving (fs) measure using a new aggregate liquidity measure L_2 instead of the traditional M_3 money stock, which is more comprehensive in capturing financial flows. However, following Warman and Thirlwall (1994), we net out currency with the public and demand deposits since it is neither expected that these add to the ability to create credit nor is it that the demand for non-interest bearing assets is sensitive to the rate of interest. The second financial saving measure is the monthly accretion-(variation) to the banks' aggregated deposits (bd). In the absence of any good measure for lending flows, we choose monthly variation in bank credit (bc) as our measure of lending flows. The data on the concerned variables is sourced from the Handbook of Statistics on the Indian Economy, Reserve Bank of India.

Even assuming that deviations of lending from saving flows will affect interest rates, in order to derive more robust relationships it is necessary to embed this hypothesis within a framework that takes into account the changes in the macroeconomic environment, phases of the business cycle, inflationary expectations and structural changes, if any. Generally, interest rates are viewed as pro-cyclical. With the expansion in economic activity, for any rise in income during the upward phase of the business cycle firms expect a rise in aggregate demand and therefore the demand for credit goes up. At the cyclical peaks, in response to the expectations-driven investment boom the monetary authority may take recourse to tight monetary policy, it being transmitted through the credit/interest rate channel. Conjointly, the interest rate is pushed up. Despite these policy interventions, lending may deviate from saving flows, as outlined earlier, as financial markets try to accommodate the rise in credit demand during the upturns. Therefore, it is important to disentangle the effects of business cycle fluctuations in order to see the independent effect of the lending-saving ratio ls on the interest rate levels.

5. Econometric Methodology

With these simple observations we proceed to investigate the casual linkage between lending and saving flows, and their influence on interest rate employing time series techniques.

5.1 Unit Root Tests

We conduct the PP unit roots test for checking the order of integration of the data series in Table 1. Since we are working with monthly data we check for unit roots with seasonal adjustment as well.

Table 1: PP-Unit Root Tests (Monthly Series for 1993:04 to 2001:03)

Variable	Equation Specification and Phillips-Perron		Statistical Inference
	t-statistics		
Annual Flows	Constant but no trend	Constant and trend	
<i>F_s</i>			
• Levels	-8.7172	-10.5329	Stationary => I(0)
• Seasonally Adjusted	-10.9402	-12.6934	
<i>B_d</i>			
• Levels	-10.5646	-12.1344	Stationary => I(1)
• Seasonally Adjusted	-10.9402	-12.6934	
<i>B_c</i>			
• Log Levels	-10.4909	-11.1209	Stationary => I(1)
• Seasonally Adjusted	-11.7293	-12.7072	

Notes: 1. All variables are in their real terms deflated by the WPI inflation rate at 1993-94 prices.

2. We have used the additive seasonal adjustment method since the some of the monthly variations contained negative values.

Source: Handbook of Statistics on the Indian Economy, Reserve Bank of India 2001

The PP unit root test results shows that all the three saving and lending variables are stationary I(0) series both when seasonally unadjusted and adjusted. Therefore, we explore short-run Granger causality.

5.2 Causality Tests

We employ the same Granger's Block Causality test in a bivariate (VAR) framework under the null hypothesis of 'no block causality' between saving and lending flows. The optimal order of the VAR obtained was one for *bc* and *bd* and six for *bc* and *fs*. We proceed to test the null hypothesis of 'no Granger block causality' between saving and lending measures.

Table 2: Test of Granger's Block Causality in a VAR Framework under the Null Hypothesis of 'No Block Causality'

Hypothesis X causes Y (X → Y)	CHSQ Test Statistic χ^2 (p)	Reject/Do not Reject Null Hypothesis	Statistical Inference
<i>Bd</i> → <i>bc</i>	0.37706 (0.539)	Do Not Reject	<i>bc</i> Granger causes <i>bd</i>
<i>Bc</i> → <i>bd</i>	3.0512 (0.081)	Reject	
<i>Fs</i> → <i>bc</i>	7.5882 (0.270)	Do Not Reject	<i>bc</i> Granger causes <i>fs</i>
<i>Bc</i> → <i>fs</i>	12.2466 (0.057)	Reject	

Notes: 1. The figures in the parenthesis are probability values

2. The optimal lag length chosen as per the SBC criterion for BD and BC is 1 and for FS and BC is 6.

3. In the construction of VAR the deterministic component included an intercept and seasonal dummies for netting out seasonal influences.

Source: Same as Table 1

The causality test shows that rather than saving determining lending flows, lending flows as proxied by bank credit Granger-cause both bank deposits and financial savings. The direction of causation is consistent with the 'old' credit view, sometimes associated with Schumpeter, which suggests that the supply of credit is highly responsive to loan demand at given rates of interest. The money multiplier is important although the causal arrows work in reverse. Loans make deposits and deposits make reserves redundant by the institution of interbank clearing, which helps banks expand their loans further.

In order to see the influence of the *ls* ratio on interest levels, we use the inter-bank call money rate as the representative short-term interest rate (*ir*). To explore the effects of deviations of lending from saving flows on interest rate levels, two *ls* ratios are constructed: (i) *bc/bd* and (ii) *bc/fs*. The rate of change in industrial production (Δiip) is used as a proxy to examine the independent effect of the *ls* ratio on the interest levels after disentangling the business cycle effects. The inflation rate (Δcpi), the rate of change in the consumer price index of industrial workers (*cpi-iw*), is used as another control variable to incorporate inflationary effects. For the most part of the post-reform phase the central bank's interest rate policy has been largely influenced by the magnitude of capital flows and consequent exchange rate movement. Nominal interest rates have been kept high against high inflation to attract capital flows. Recourse had to be had to sterilisation through open market operations which has resulted in gradual accretion of capital inflows into reserves. We do not have reported data on foreign lending with monthly frequency. Therefore, we use the change in net international reserves (net foreign exchange assets) of the banking sector as a proxy for foreign lending and this has been included in the estimation process as a ratio of foreign lending to bank credit (*fl*). We also include the rate of change in the exchange rate (Δer), the nominal effective exchange rate (*neer*) of the Indian rupee which is the 36-country bilateral trade-based weights as an explanatory variable since it is expected that the market-determined exchange rate would influence interest rate movement. We also created 11 seasonal dummies to net out monthly seasonal effects. Besides, we have introduced appropriate intercept dummies, 1994 M12 and 1995 M10 for *ls* (*bc/bd*) ratio and 1999 M1 for *ls* (*bc/fs*) ratio since these ratios displayed unusually high movements at these time points. The ADL form could be represented as follows:

$$\Delta ir = \alpha_1 + \sum_{i=0}^n \psi \Delta ir_{t-i} + \sum_{i=0}^n \theta ls_{t-i} + \sum_{i=0}^n \phi \Delta iip_{t-i} + \sum_{i=0}^n \varphi \Delta cpi_{t-i} + \sum_{i=0}^n \eta fl_{t-i} + \sum_{i=0}^n \xi \Delta er_{t-i}$$

The above equation also contained the seasonal dummies and the intercept dummies that were found to be significant in the estimation. The results are given in Table 3 and 4.

Table 3: *ls* Ratio Influence on *ir* levels

Autoregressive Distributed Lag Estimates		
Dependent variable is Δir		
90 observations used for estimation from 1993 M10 to 2001 M3		
Explanatory Variables	Coefficient	T-Ratio (Probability)
$\Delta ir(-1)$	- 0.565	-7.030 (0.00)
$\Delta ir(-2)$	-0.376	-4.348 (0.00)
$\Delta ir(-3)$	-0.277	-3.106 (0.00)
<i>Ls (bc/bd)</i>	0.005	2.540 (0.01)
Δiip	0.143	1.716 (0.09)
Δcpi	0.363	0.833 (0.41)
<i>Fl</i>	-0.002	-1.414 (0.16]
<i>Fl(-1)</i>	0.001	0.661 (0.51)
<i>Fl(-2)</i>	-0.001	-0.686 (0.50)
<i>Fl(-3)</i>	-0.001	-1.178 (0.24)
<i>Fl(-4)</i>	-0.0003	-0.254 (0.80)
<i>Fl(-5)</i>	-0.005	-4.507 (0.00)
Δer	0.680	2.432 (0.02)
$\Delta er(-1)$	-0.952	-3.448 (0.00)
<i>Seasonal Dummy 7</i>	-3.725	-3.131 (0.00)
<i>Seasonal Dummy 9</i>	3.536	3.258 (0.00)
<i>Dummy 1994 M12</i>	-330.517	-2.534 (0.01)
<i>Dummy 1995 M10</i>	21.131	3.496 (0.00)
$R^2=0.66, \bar{R}^2 =0.57, S.E.= 3.31, F(18, 71)=7.65, DW\text{-Statistic}=1.90$ LM(Residual Serial Correlation)-F(12, 59)=0.390(0.96), RESET-F(1, 70)=1.165 (0.28), JBN- $\chi^2(2)=2.925(0.23)$, LM (Heteroscedasticity)-F(1,88)=1.756(0.24)		
Estimated Long Run Coefficients		
Dependent Variable is Δir		
Explanatory Variables	Coefficient	T-Ratio (Probability)

<i>Ls (bc/bd)</i>	0.002	2.436 (0.02)
Δiip	0.065	1.684 (0.10)
Δcpi	0.164	0.819 (0.41)
<i>Fl</i>	-0.004	-2.397 (0.02)
Δer	-0.122	-0.682 (0.50)
<i>Seasonal Dummy 7</i>	-1.680	-3.099 (0.00)
<i>Seasonal Dummy 9</i>	1.594	3.102 (0.00)
<i>Dummy 1994 M12</i>	-149.050	-2.430 (0.02)
<i>Dummy 1995 M10</i>	9.529	3.258 (0.00)

Notes: The same as Table 2

Source: The same as Table 1

Table 4: *ls* Ratio Influence on *ir* Levels

Autoregressive Distributed Lag Estimates		
Dependent variable is Δir		
90 observations used for estimation from 1993 M10 to 2001 M3		
Explanatory Variables	Coefficient	T-Ratio (Probability)
$\Delta ir(-1)$	-0.579	-7.140 (0.00)
$\Delta ir(-2)$	-0.376	-4.349 (0.00)
$\Delta ir(-3)$	-0.310	-3.586 (0.00)
<i>ls (bc/fs)</i>	0.003	2.092 (0.04)
Δiip	0.110	1.306 (0.20)
Δcpi	0.465	1.073 (0.29)
<i>fl</i>	-0.002	-1.579 (0.12)
<i>fl(-1)</i>	0.002	0.131 (0.90)
<i>fl(-2)</i>	-0.001	-0.860 (0.39)
<i>fl(-3)</i>	-0.002	-1.576 (0.12)
<i>fl(-4)</i>	-0.003	-0.237 (0.81)
<i>fl(-5)</i>	-0.006	-5.105 (0.00)
Δer	0.641	2.316 (0.02)

$\Delta er(-1)$	-0.893	-3.201 (0.00)
<i>Intercept</i>	-0.701	-1.501 (0.14)
<i>Seasonal Dummy 7</i>	-4.104	-3.459 (0.00)
<i>Seasonal Dummy 9</i>	3.259	3.019 (0.00)
<i>Dummy 1999 MI</i>	9.309	2.412 (0.02)
$R^2=0.65$, $\bar{R}^2 =0.57$, S.E.= 3.34, $F(17, 72)=7.870$ (0.00), DW-Statistic=1.82 LM(Residual Serial Correlation)- $F(12, 60)=0.333(0.98)$, RESET- $F(1, 71)=1.655$ (0.20), JBN- $\chi^2(2)=2.5203(0.28)$, LM (Heteroscedasticity)- $F(1,88)=1.645(0.19)$		
Estimated Long Run Coefficients		
Dependent Variable is Δir		
Explanatory Variables	Coefficient	T-Ratio (Probability)
<i>Ls(bc/fs)</i>	0.002	2.064 (0.04)
Δiip	0.049	1.291 (0.20)
Δcpi	0.205	1.051 (0.30)
<i>fl</i>	-0.005	-2.929 (0.00)
Δer	-0.112	-0.638 (0.53)
<i>Intercept</i>	-0.310	-1.372 (0.17)
<i>Seasonal Dummy 7</i>	-1.812	-3.408 (0.00)
<i>Seasonal Dummy 9</i>	1.439	2.891 (0.01)
<i>Dummy 1999 MI</i>	4.110	2.342 (0.02)

Notes: The same as Table 2

Source: The same as Table 1

It is not surprising that in the deregulated regime the deviations of lending from saving flows are exerting an upward pressure on interest rate levels both in the short run as well as in the long run. However, the magnitude of the upward pressure is slight. In fact, what is glaring is that even in the deregulated regime, the interest rate movement is negatively and substantially influenced by its own lags. This suggests interest rate rigidity. What is even more interesting is that the change in the domestic macroeconomic environment (business cycle effects and inflationary effects) proxied by the rate of change in industrial production and the rate of inflation do not have statistically significant positive influence

on interest rate movements. The Δiip , though having a positive coefficient, either weakly explains bc/bd both in the short and long run or is statistically insignificant for bc/fs both in the short and long run in explaining the interest rate movement. The Δcpi was found to be, rather surprisingly, statistically insignificant though it contains a substantial positive coefficient in explaining interest rate movements both in the short and the long run in both the equations. In both the estimated equations fl as well as Δer turn out to be the major behavioural variables in explaining interest rate movements. For fl mostly the first and fifth lags are statistically significant with a negative coefficient in the short run and in turn they are also significant in the long run. The Δer substantially and statistically significantly explains the interest rate movements, but with countervailing effects in the short run. It has an instantaneous positive effect, which is more than countered by a negative effect on the interest rate movement and in turn has a negative effect in the long-run, but turns out to be statistically insignificant in the long-run.

We propose that the Post Keynesian approach to proactive bank behaviour, against the effective demand constraint, might be a consistent way to conceptualise this liberalising financial system. According to one line of attack, a markup theory of interest rate determination might be applied (Rousseas, 1998) The story is no different from the theory applied to the firm except that wages are included in fixed costs. The interest rate would be relatively insensitive to variations in demand. The theory would be part of the explanation of movements in the general level of prices. The interest rate would be one component of the theory of effective demand wherein aggregate demand and supply both affect and are affected by income, output and spending flows. The liquidity preference of banks has been found to be a productive ingredient in the framework (Carvalho, 1999; Hawkins, 2002). Banks actively operate on both sides of their balance sheets. Those with a preference for liquidity will not passively accommodate demands for credit but will compare risk and returns on a host of assets. L-P Rochon (1999) proposes a useful distinction between exogeneity and stickiness here. The interest rate is exogenous which is not the same as asserting that is sticky. The Reserve Bank of India sets the bank rate and commercial rates are marked up on the central rate. It is unnecessary to assume that bank rates influence the demand for credit. Rather, profit expectations play a critical role in determining the total volume of bank credit demanded. There can never be an over-

issue of bank notes since the money supply is demand driven. At a given rate of interest, banks are willing to meet the demand from all firms they perceive as creditworthy.

6. Conclusion

The empirical connection between saving, lending and interest rates in India has been explored. The findings run counter to the standard account. There is no support to the view that saving flows determine lending flows. However, the analysis of financially deregulated post-reform India shows that the causality, in fact, runs from lending to saving flows as defined by bank credit to bank deposits and financial saving. In other words, as Earley (1994) argued, the conclusion is not that there is no relationship between saving and lending. Rather, past savings determine the extent of lending flows but the channels of influence are indirect. The liquidity preference of intermediaries and the nonbank public determines the relationship between saving and the provision of credit. That is to say it is finance, not saving, that can constrain investment activities. The fundamental postulate is that saving and investment are two different activities/processes determined by two different set of agents in two different markets.

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