Chapter 1

Introduction

The beginning of the 1990s was marked by a 'new consensus' centered on the view that liberalisation of the financial sector would improve allocative efficiency. The argument for liberalizing the financial sector on grounds of 'allocative efficiency' was intuitively appealing. For, the link between the financial and the real sectors in a market economy gets manifest through the allocative role of financial intermediaries and markets. The 'new consensus' was predicated on the belief that freeing financial intermediaries, particularly banks, from administrative controls would enable them to rank and screen firms (and projects) in terms of their efficiency to lend accordingly. Resources would thus shift towards projects with higher productivity, leading to a rise in the average productivity and therefore economic growth. Improving the allocative efficiency of the financial sector has thus been an 'article of faith' and the raison-d'etre for liberalizing not just the credit sector, but the securities market as well. The advocacy for implementing financial sector reforms by multilateral agencies like the World Bank and the IMF during the 1990s was essentially based on this logic. The financial sector reforms in India since 1991 have also been based on same logic.

Keeping in view the aforesaid objective of the financial sector reforms, one could legitimately ask whether indeed there has been an improvement in the efficiency in the allocation of resources. However, before posing this question, it is necessary to recognize that a change in allocation of resources across production sectors, across firms and across users of finance has to necessarily precede any improvement that might have taken place in terms of the efficiency in allocation. Therefore the issues that need to be addressed in the first instance are whether there has been a change in the allocation of resources by the financial intermediaries and what have been the consequent distributive implications? In examining these issues, it is necessary to recognize that the financial sector reforms not only targeted financial intermediaries and capital markets but also impinged on the financing choices of the users of finance. The reallocation of resources, if any, during the reforms has therefore to be viewed as a result of the allocation of resources by financial intermediaries (and markets) on the one hand, and the response of the users of finance on the other.
This study is based on the premise that the changes in the allocation of resources in an economy resulting from financial sector reforms needs to be analyzed and understood in its own right before issues relating to the efficiency in allocation can be addressed. A study that helps in understanding the resource reallocation during the process of financial liberalisation is meaningful and relevant because of the paucity of such studies on India that focus on this dimension. This study aims to fill the gap and analyze the allocative effects of financial liberalisation in India since 1991.

Before going into the specific objectives and the organisation of this study, this chapter provides a critical overview of the literature relevant to understanding the allocative effects of financial liberalisation. The chapter also outlines the approach adopted in the study for analyzing the 'Allocative effects of financial liberalisation in India' and then spells out the specific objectives of the study.
Section 2
Financial liberalisation and resource allocation

During the 1950s and 60s, policy makers in newly independent countries, including India, viewed the deficiency of material capital, and a low rate of savings as one of the principal causes of backwardness. According to Charavarty (1987), policy makers in India were of the view that even if the domestic capacity to save could be raised by means of suitable fiscal and monetary policies, there were structural limitations preventing conversion of savings into productive investment. If the market mechanism was accorded primacy, it would result in excessive consumption by the upper income groups, along with under investment in sectors essential to the accelerated development of the economy.

The interventionist logic: With these perceptions, it was felt that the basic questions of, how much to save, where to invest, and in what forms to invest could be best handled through a Plan. State intervention in the financial sector, thus complemented the intervention of the State in the real sector. The extant view on the allocation of financial resources was that, in the early stages of development, there is a divergence between social and the private rate of return on investment in banking infrastructure (Rakshit: 1994). To resolve the problem of allocation of resources when market prices of factors and products differed from their shadow prices, the first best solution is to implement a system of taxes and subsidies. The other alternative was to introduce a system of administered prices. For the credit sector, it meant, putting in place a system of administered rates of interest for loans and deposits, and to ration credit across economic activities in consonance with the priorities identified by a central planning authority.

Arguments for State intervention in the financial sector thus stemmed largely, from considerations of welfare and equity and the perceived need to allocate resources within a planning framework. Since the Public sector was to be the engine of growth, a large part of the savings mobilized by the financial sector was directed to financing the public sector. Considerations of equity and balanced regional development led to a policy favoring the location of industrial units especially in backward areas. The setting up of branches of nationalized banks in rural areas, and introducing a system of selective credit controls, directed credit to small farmers, village and small industries followed the same logic.
The experience with directed credit has been varied across countries. The rapid growth of the East Asian Economies during the 1970s and 1980s has been frequently cited as a successful example of 'directed credit' as a strategy for development (Amsden:1989). However, subsequent studies in the realm of comparative financial systems suggests that directed credit might be effective only in early stages of development (Chang: 2000). With a shift in the production structure towards more sophisticated products and services, information on the profitability and viability of products becomes more dispersed. Centralized methods of credit allocation turn out to be inefficient as it becomes increasingly difficult to assess what products will create value (Boot and Thaker: 1997). Taking a somewhat different view, on directed credit as a strategy for investment financing, Fry (1988) observed that most countries did not aim at financial repression per se. Rather, they inadvertently strayed into financial repression. Regardless of these nuanced views about the reasons underlying controls, the logic of directed credit, selective controls and State ownership of banks came to be increasingly questioned by the 1980s and these measures were also viewed as the main cause of inefficiency in the allocation of credit.

**Logic of Financial Liberalisation:** The adverse effects of financial repression and the logic of liberalizing the financial sector were cogently put forth in the well-known studies of McKinnon (1973) and Shaw (1973). Their work related to credit markets and focussed on the adverse effects of controls prevalent in most developing countries on the functioning of such markets. These controls typically included the following:

- **a) Interest rate ceilings;**
- **b) Directed credit programmes;**
- **c) High reserve ratios;**
- **d) Public ownership of banks; and**
- **e) Restrictions on market entry for banks.**

Controls, being the root cause of low saving and investment rates, the policy prescription that followed from what came to be known as the 'financial liberalisation hypothesis (FLH) was the dismantling of all forms of financial repression, in particular, interest rates controls, selective credit controls, restriction on entry into the banking sector etc. Through the 1980s, the emphasis was predominantly on liberalizing the rate of interest (or rather allowing an increase in the loan and deposit rates). The FLH as (originally) envisaged highlighted two
important effects. Following Gupta and Lensink (1996) they could be classified as follows:

a) the scale effect; and
b) the allocative effect.

Under the 'scale effect', an increase in the rate of interest on deposits and loans (which was previously controlled), was expected to increase the total volume of savings mobilized by the banking sector and further, to a corresponding increase in the volume of loanable funds. Greater competition through entry of new banks in the private sector would ensure that spreads between interest rates on loans and deposits would decline in the banking sector and there would be better productive efficiency (Gibson and Tsakalotos:1994).

During the 1970's and the 80's, it was the 'Scale effect' that received attention of researchers and was put forth as the main rationale for liberalizing financial markets. The policy advice from multilateral institutions like the World Bank and the IMF drew strength from this argument. Several studies aimed at validating the so called 'scale effect', that is, the responsiveness of savings and investment to changes in interest rate followed. On the whole, most empirical studies on the effect of interest rate on saving were inconclusive. As Dixon (1997) put it, '.... effects of higher interest rates on the total amount of saving are ambiguous...'

The Revised Hypothesis: Mckinnon (1991) acknowledged that "aggregate saving as measured in the GNP accounts, does not respond strongly to higher real interest rates" but went on to add that "... reduction of repression will improve the quality of investment". Lance Taylor (1997), while discussing the deregulation package (prescribed to LDCs) by the World Bank noted that:

"....a third target is deregulation or 'derepression' of financial markets. The aim is to equalize the rates of return across financial assets. The view in the 1980s was that raising of interest rates that had been held down or 'repressed' as a subsidy to borrowers would stimulate savings. Such a response proved to be impossible to detect empirically and is no longer emphasized. Rather, the current Washington view is that positive real interest rates lead to better allocation..."

The allocative effect of financial liberalisation as envisaged in the work of Mckinnon (1973) and Shaw (1973) was formalized in a theoretical model in Galbis (1977), where the economy is divided into two sectors; an advanced sector and a
backward sector. Both sectors produce the same good, with different technologies. The advanced (or the modern) sector has a higher rate of return on investment. Though opportunities to lend to the modern sector are in plenty, this sector is always short of investible funds. On the other hand, opportunities to lend in the backward sector are limited. As a consequence, investment in the backward sector is less than its internal savings. A part of the surplus of this sector is thus used to accumulate financial assets, say bank deposits.

A rise in real interest rates on deposits is expected to lead to an increase in the accumulation of the deposits (with banks) by the backward sector. Banks step up lending to the advanced sector where investment opportunities are assumed to be plentiful. This reallocation of funds and physical resources towards the modern sector leads to an increase in the productivity in the economy and therefore, its growth. It is further expected that with the liberalisation of credit controls, previously marginalized borrowers would have better access to credit. Financial savings would get translated into productive investment in the economy. Broadly, as per the above view, removal of interest rate controls can improve the allocative efficiency of the financial system.

The argument for credit sector reforms based on the logic of bringing about an improvement in the allocation of credit has found resonance in studies on India as well. For instance, commenting on the Indian banking sector, Joshi and Little (1996) noted "While performance was satisfactory in terms of resource mobilization, it was very unsatisfactory as regards resource allocation". They went on to observe that while low productivity of investment (in India) had many causes, inefficient credit allocation by the banking sector was undoubtedly one of them.

**Empirical studies:** Empirical studies on the allocative effects of liberalisation have mostly focused their attention on measuring the change in the efficiency in the allocation of resources. The underlying concept of allocative efficiency has broadly corresponded to what Tobin had termed as 'functional efficiency' (Tobin 1984) arising from the accuracy with which market valuation reflect fundamentals. The question however is of measuring such a change especially when it comes to credit from financial intermediaries. Empirical studies on the efficiency in the end use of credit have used various measures such as profitability, productivity, value added or the return on assets as proxies for efficiency.
Broadly, the empirical studies that have attempted to measure such a change have adopted one of the following three approaches (or a combination thereof). Our focus here is mainly on studies pertaining to the credit sector. The first is of measuring the variations in borrowing rates across different production sectors, before and after financial liberalisation. In this approach, gains in allocative efficiency in the credit sector have been interpreted as a tendency towards equalization of rates of return on investment in different sectors which is mirrored through a reduction in variations of the cost of finance across borrowers (Cho 1988). Adopting this method, Cho (1988) observed that the credit sector reforms in Korea during the 1980s led to an equalization of borrowing rates across sectors. Park(1993) using a similar approach found that the variance in cost of credit and the variance in the rate of return on capital across industries respectively declined over the period 1979-1988 which is interpreted as an indication of higher allocative efficiency. A limitation of this approach, as Cho admits in his study, is that it abstracts from risk, uncertainty and transactions costs.

Using dispersion measures, in a study on India, Dash (2008) analyses the impact of financial liberalisation on the efficiency in capital allocation for the manufacturing sector. He compares the mean and dispersion of the Tobin's q (i.e. ratio of market value of a firm to its replacement cost of capital) as a proxy for marginal return for 1988-89 to 1995-96 and 1996-97 to 2005-06. He observes that there has been an improvement in efficiency in allocation in the later period. Further, Atish (2008) also finds that financial liberalisation led to a reduction in the variation in marginal return to capital across the sample of firms in the Indian manufacturing sector. The dispersion measure when regressed in a time-series OLS model on a financial liberalisation index constructed for India for the period 1985-2006 (and other control variables) provides further evidence that financial liberalisation improved allocative efficiency in India during the latter period..

The second method involves computing a ratio of the actual return on investment in a given year to the return on investment that would have been realized had total financial resources, (say bank borrowing), been distributed across firms in proportion to each firms share in the total capital stock. The underlying assumption here is that the size of capital stock of the firm is an important determinant of its access to finance especially in a financially repressed regime.
Financial liberalisation is expected to lead to a redistribution of resources to the most productive sectors. In such a case, the ratio as mentioned above is expected to show an improvement in the period after financial liberalisation. Adopting this methodology, Schiantarelli et al (1994) find that in Indonesia, the aggregate ratio calculated (as above) showed an increase after liberalisation period. Galindo, Schiantarelli and Weiss (2002) constructed a summary index of the efficiency of investment allocation to measure whether investment funds went to firms with a higher marginal return to capital for twelve developing countries and conclude that in a majority of cases financial reform led to an increase in the efficiency. Using a similar method, Guha-Khasnobis and Bhaduri (2000) in their study on the effects of financial liberalisation on investment allocation in India for the period 1991-1998 examined the changes in the allocation of credit across industrial sectors and find that there is no perceptible increase in allocation efficiency.

The third method is based on panel data analysis using firm level data within an econometric model in order to identify the type of firms to whom financial liberalisation succeeded in redirecting finance. Using a panel of Ecuadorian firms during the 80's, Jaramillo, Schiantarelli and Weiss (1993) find that there was an increase in the flow of credit accruing to technically more efficient firms after liberalisation. Borensztein and Lee (2005) investigate the efficiency of credit allocation by the financial system in Korea over the period 1970 to 1996. Using data at the level of 32 industrial branches they estimate the determinants of credit allocation and find no evidence that credit flows were directed to sectors that were more profitable, either before or after financial reforms were initiated in the 1980s.

In the case of India, Guha-Khasnobis and Bhaduri (2000) found that equity, as a source of fund, had risen dramatically, in the period immediately after the abolition of Controller of Capital Issues. However, investment in gross fixed assets did not match it at all, except for matured firms. Instead, the correlation between increments in internal sources of funds and investment in gross fixed assets increased after liberalisation. They qualify their observations by stating that the observed lack of allocational efficiency of investment in the years immediately after liberalisation could be because there were many other changes at the domestic as well as the international levels in the 1990s.
Some studies based on firm level data also address the question of whether financial constraints got relaxed following liberalisation and find that smaller firms had improved their access to external resources. For instance, using panel data on firms in 13 developing countries (Laeven: 2000) found that financial liberalisation affects small and large firms differently. Small firms are financially constrained before the start of the liberalisation but become less so after liberalisation. Financing constraints of large firms, however, are low both before and after financial liberalisation. The initial difference between large and small firms disappears over time. They also find that financial liberalisation reduces financial market imperfections, particularly the informational asymmetries with respect to the financial leverage of firms.

The third approach (based on firm level data) allows for taking recourse to the insights from a large body of theoretical and empirical literature on the factors that determine access to external finance, the role financing constraints and the theories relating to capital structure of firms under varying assumption relating to risk and informational asymmetry.

While the empirical studies on allocation of resources following financial liberalisation provide useful insights, their focus is essentially on resource allocation to the corporate sector and within the corporate sector across firms mostly in the manufacturing sector. In the process, the broader inter sectoral and distributional issues do not find a place in such studies, an aspect that this study seeks to address - the framework for which is elaborated in the next section.
Policy changes during the reform process in India have been graduated (rather than dramatic) as compared to some East-European economies. While the financial sector reforms have directly targeted financial intermediaries and capital markets, it has also impinged on the financing constraints of the corporate sector. The change in the direction of allocation of resources during financial reforms has thus been an outcome of actions taken by financial intermediaries as well as users of finance, particularly the firms in response to changes in their financing constraints and investment opportunities. Therefore, the question that arises is about the approach that could be adopted for studying the allocative role of financial intermediaries during a period of reform? Should it be viewed purely through the prism of 'efficiency' and its change between two selected time points, or does the allocative function of the financial sector encompass aspects other than efficiency?

The comparison in terms of allocative efficiency using a 'before and after' approach to draw a contrast between a repressed credit market and consequent to liberalisation is useful. However, there has been a tendency to over simplify on two counts, namely, the 'Initial conditions', and the 'Transition process'. As a result, these studies do not provide insights on the kind of problems one may encounter en-route, leave alone, giving a road map for bridging the chasm between a repressed financial sector to one based on market principles. For that purpose, we draw additional insights available from three streams of literature that are also relevant in the context of this study. The first relates to the importance of the credit channel in determining the distribution of credit. The second relates to the problem of asymmetric information that often characterizes credit markets and the third is based on the structural features of the credit sector.

The importance of the credit channel: The cumulative experience of financial liberalisation in different countries during the 1980s and the 1990s has revived the interest of researchers in understanding the supply side of credit or the credit channel based on the 'lending view' fashioned by Bernanke (and others). The 'lending view' is based on the idea that credit market frictions drive a wedge between the cost of internal and uncollateralized external funds. Monetary policy
decisions can have an enhanced impact on borrowing and spending decisions of those most likely to face credit market frictions (Gertler and Gilchrist: 1993). The work of Bernanke (1983), Bernanke and Blinder (1992), B. Friedman and Kuttner (1993), Kashyap and Stein (1994) suggest that the impact of changes in conditions of supply of bank credit may not be symmetrical across different types of borrowers, if bank credit and disintermediated forms of finance (i.e. securities) are not substitutable for a class of borrowers (say, small firms). The credit view thus focuses on the role of bank credit as a channel for transmission of monetary impulses to the non-financial sector and is therefore relevant for understanding the impact of the financial sector reform process on allocation of resources.

**Allocation across risk classes under asymmetric information:** In contrast to the financial liberalisation hypothesis (outlined in section 2) that implicitly assumed perfect information and the interest rate as a market clearing variable, Stiglitz and Weiss (1981) focused on the tendency of credit markets to ration credit in the presence of informational asymmetries. The importance of interest rates in credit allocation crucially depends on whether the price mechanism is the dominant channel for clearing the credit market. Credit markets are often marked by asymmetric information. Therefore quantity adjustments rather than price adjustment clear markets.  

The interest rate mechanism cannot be relied upon for optimum allocation of credit on account of the difficulty faced by banks in distinguishing safe from risky borrowers and on account of the divergence between the expected rate of return to the entrepreneur and the expected return on a loan to a bank. For credit rationing to occur (i.e. where changes in interest rates fail to clear the market), it is only required that the expected (certainty equivalent) return received by the lender does not increase monotonically with the rate of interest. There are two basic factors on account of which the relationship between the interest rate and the expected returns to the lender may not be monotonic.

  a) **Adverse selection:**
  
b) **Adverse incentive:**

**Adverse selection:** As the interest rate increases, the mix of applicants changes, since safe potential borrowers drop out of the market. When the interest rate is increased, there is a direct positive effect on the total expected return to the lender - averaged over all applications. But there is also a negative adverse selection effect,
as the best risks (i.e. those with lowest project risk) drop out of the market. As the interest rate increases, there is a critical interest rate \( r^* \), at which the safer borrowers stop applying. Thus the return to the bank declines on account of this adverse change in the mix of applicants.

**Adverse incentive effect:** An interest rate increase also induces risk taking by borrowers. For a given firm with the option of investing in either a safe or a risky project, both with the same expected return, the return on the safer project decreases more with an increase in the interest rate because the safer project is more likely to have to pay the promised rate. The firm undertakes the project with the highest expected net return. For interest rates below a critical level \( r^* \), firms choose to not opt for a risky project. Beyond a critical \( r^* \) there is sudden precipitous fall in the net return to the bank as firms move to using the funds for riskier projects.

These two effects together discourage potentially safe borrowers and also induce existing borrowers to adopt riskier projects. And this increases risk of default. To preempt this possibility, lenders resort to credit rationing using non-price methods rather than raise the rate of interest. On account of these factors, even if the private and social rate of return on investment were identical, market forces (i.e. freeing of interest rates) may not lead to optimum allocation of credit. Credit rationing thus leads to a market-equilibrium rate of interest that may not correspond to the competitive market-clearing rate. Credit rationing behavior is essentially an outcome of information asymmetry and could therefore occur even where there are no credit ceilings or controls.

Problems arising from asymmetric information are likely to be more severe in economies with poor information flows and high costs of information gathering. Fragmentation and segmentation may also result from weakness in the infrastructure that supports the financial system, such as contract enforcement, and the type of collateral. In an economy undergoing a transition from a regulated environment to a market based one, there are new risks that may have to be priced into supply and demand behavior.

The net implication of the above is that 'credit rationing' is endemic to all credit markets (including competitive ones). The question that arises in the context of this study is whether the degree of credit rationing would necessarily decrease with the process of financial liberalisation and integration of financial markets? Or, does the
process of transition from a rule based credit allocation system to a market based system throw up new sources of informational asymmetries that impinge on the lending behavior of the banks?

The Structuralist Critic of the Orthodox view: The thrust of the financial liberalisation literature has been on the formal sector institutions and organizations falling within the regulatory framework of the Central Bank. However, economies, such as India are dualistic in terms of composition, where neither the financial sector (comprising of various types of intermediaries), nor the real sector (comprising of firms) are homogenous. There has been a third strand of literature that is relevant in this context. The Financial Liberalisation hypothesis was criticized by economists broadly categorized as Structuralists (Edward Buffie: 1984, Lance Taylor:1983: and Van Wijnbergen: 1983), who criticized the financial liberalisation hypothesis on the grounds that McKinnon-Shaw type models do not pay much attention to the effects of liberalisation of interest rates on the Kerb markets.

According to the 'Structuralist' view, a rise in the rate of interest in the formal sector could make the position of kerb market operators more vulnerable. More importantly, the focus of the 'Structuralists' was on the differential impact that a change in the interest rates may have on different types of financial intermediaries and their corresponding type of borrowers.

In the above context it may be stated that after two rounds of nationalization of commercial banks (i.e., in 1969 and 1980), public sector banks had come to dominate the financial sector in India. However, despite the systematic decline in the share of the private sector in banking (during the 1970s and 1980s), 'private initiative' had managed to carve out a niche for itself in the form of finance companies. While it may be incorrect to equate private finance companies to kerb markets in the urorganised sector, the fact remains that they operated in what may be termed as the grey area between the formal - regulated banking sector and the informal credit sector. These companies were quick to respond to the opportunities thrown open by economic reforms initiated in 1991. There was a rapid expansion in their number and scope of activities. But this phase came to an abrupt end in 1997 and there were a series of closures of such companies.

1 Discussed in chapter 2
Following an overhaul of the regulatory framework for Non bank finance companies (NBFCs), the period after 1997 was marked by a change in the composition of this segment. It can be argued that if financial intermediaries in the unregulated (or the less regulated) segments and firms that depend on them are a significant part of the economy, then the impact of financial liberalisation on these segments also needs to be explicitly taken into account while assessing the overall allocative effects of financial liberalisation. The developments in this segment of the financial sector following the liberalisation process are therefore relevant from the perspective of this study on resource allocation as these finance companies were playing the role of purveyors of credit and finance to segments that were inadequately serviced by the banking sector.

As stated at the outset, the reallocation of resources, if any, during the reforms is the outcome of the actions of financial intermediaries (and markets) on the one hand, and the response of the users of finance on the other. The reallocation of resources has multiple dimensions, that is, across production sectors viz. agriculture, industry or services, or across production units (firms) and also a spatial dimension (that is, across regions). It is important to identify the segments of the economy to which financial resources got diverted and the segments from which the resources move away on the lines outlined in the Galbis model cited earlier in this chapter. Which were these sectors (or segments of the economy) and what, if any, were the policy response to these changes? In this context, it is the private corporate and the rural sectors that we are referring for these were the two segments that were most affected by the financial liberalisation process in terms of their access to resources.

Following from the above discussion we are of the view that a study that analyses resource allocation in the economy in a comprehensive manner covering various segments of the Indian economy is meaningful and relevant. While there are hardly any studies on India that specifically focuses on the allocative and distributive effects of financial reforms, there has also been a tendency to over simplify the effects of the liberalisation process. This study aims to fill the gap.

**Objectives of the study** In specific terms, the objective of this study is to understand the changes in resource allocation consequent to the financial liberalisation initiated in India since 1991 by addressing the following specific questions -
What were the initial-conditions characterizing the allocation of credit by financial intermediaries. In other words what were the factors that shaped allocation of financial resources in India prior the reforms initiated in 1991;

How have the reforms of the credit sector altered the pattern of lending by financial intermediaries such as Banks, Development financial Institutions and private non-bank finance companies?

What was the response of the private corporate sector in terms of the use of financial resources over the liberalisation period?

To what extent did the importance of firm specific factors that determine external financing, especially borrowing, change over the liberalisation period?

How did the reform process impact the flow of credit to the rural and agriculture sectors and what was the policy response?

Organization of the study The study is organized into seven Chapters, including the present one. The chapters address the above questions in more or less the same order. Having presented the issues in this chapter, we provide a synoptic view of the development of financial sector in India during the post-independence and its role in allocating financial resources in chapter 2. The justification for recounting the developments relating to the financial sector prior to the reform period stems from the need to provide a background on the initial-conditions that characterised the allocation of credit prior to the reforms. With that as the starting point, our study moves to examine the pattern of resource reallocation by the credit sector (in chapter 3 and 4) and by the users of finance namely the private corporate sector (chapter 5) and the rural sector (chapter 6) during the period 1991-2007.

In chapter 3 we analyse the changes in the conditions of supply of credit and the consequent changes in the allocation of credit. More specifically, chapter 3 focuses on the off take of bank credit and whether the supply side constraints on credit eased with the liberalisation. We then analyse the changes in the distribution of credit across production sectors, across borrower categories and across the interest rate spectrum and the possible role of capital constraints in determining the distribution of credit?

Keeping in view the unique role played by private finance companies in providing finance to economic activities that were inadequately catered to by the banking sector, chapter 4 analyses developments relating to these companies in order to provide a more comprehensive picture for the credit sector. In that sense this chapter complements chapter 3 which focuses on the banking sector.
We then examine the pattern of use of finance by specific sectors like the corporate sector and the rural sector so as to highlight the sectoral shifts in resources over the reform period and to provide an integrated picture in the context of the study. The choice of the private corporate sector and the rural sector has a strong rationale.

With regard to the private corporate sector, it may be recalled that till the end of the 1980s, the private corporate sector in India faced severe restrictions on the activities that it could enter, and in raising finance. The economic reforms initiated from 1991 involved a major policy shift on both these counts. The abolition of industrial licensing and restrictive controls under the Monopolies and Restrictive Trade Practices Act, 1969 provided freedom to the private corporate sector to enter into new activities. The liberalisation of the financial sector gave it greater freedom to access finance. The reforms of the real and the financial sector thus complemented each other. The question is how far did these changes result in a shift of resources in favour of the private corporate sector and how did the corporate sector respond to reform process in terms of its use of financial resources, especially external finance? Was there an improvement in its efficiency in terms of resource use? These issues are critical in terms of the outcome of the reform process. Chapter 5 addresses these questions empirically at the aggregate level for the non financial private corporate sector. The chapter also econometrically analyses the role of firm specific factors like profitability, size, tangibility of capital, age and risk in determining access to external finance, particularly debt over the liberalisation period.

The last part of the study (chapter 6) focuses on rural credit. More specifically, we examine the manner in which the financial sector reforms the affected flow of resources to the rural sector? The choice of including the rural sector in this study is not merely as a contrast to the corporate sector, but also for reasons of presenting a balanced and an integrated picture for the economy.

The common thread running through the study is of unraveling the pattern of reallocation of resources by the credit sector (banks and finance companies) from the supply side and by the corporate and the rural sectors in terms of use of finances. In all the chapters, including chapter 2, (where we spell out the initial

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2 Discussed in Chapter 2
condition prior to the reforms), the effort is to juxtapose and integrate the changes on the financial and real sectors respectively so as to throw light on the central issue of the thesis i.e. 'resource reallocation in a liberalizing economy'. Our observations on the pattern of resource reallocation are presented in the concluding chapter.

For reasons of limitation of scope this study focuses mainly on the allocation of credit from the supply side and on borrowing from the demand side. While equity markets and foreign capital markets have no doubt played a significant role in financing investment, this study touches upon these developments in limited way in chapter 4\textsuperscript{22}. It is also important to emphasis once again that the focus of this study is on the changes in the allocation of credit consequent to the liberalisation of the financial sector rather than the efficiency aspects per se for reasons already stated at the outset. Furthermore, we also aware that the economic reforms in India have been all encompassing and it may be incorrect to ascribe changes in the direction of allocation of credit (as also the efficiency in its use) only to the financial sector reforms. We have therefore tried to contextualize these changes in relation to other policies to the extent possible.

**Methodology:** In terms of methodology, the study adopts the framework outlined in section 3 of this chapter. The study makes use of a combination of a data base approach, graphical exposition, econometric analysis and discussion of existing literature, including case studies, in order to give shape to the arguments and findings.
Endnotes

1 The role of the financial sector, particularly, financial intermediaries has been examined in several pioneering works (Gurley and Shaw: 1960, Goldsmith 1969 and more recently Levine and King (1993) These studies suggest that a well developed financial system could actively help to promote growth and if it is poorly developed would, result in stiltting growth. The functions performed by financial intermediaries and markets, though inter-related, can broadly be classified as: a) Monetization and Transaction function; b) Intermediation c) Maturity Transformation; d) Information gathering and monitoring; e) Risk diversification and f) resources allocation. Some of the other functions of the financial sector are subsidiary to the allocative role. For example, monitoring of borrowers by financial intermediaries serves as an input to the allocative function.

2 Efficiency means that resources are allocated in a manner that when the market is in equilibrium, there is no way to reallocate resources without making someone worse off. Equity concerns the distribution of resources and is linked with notions of fairness and social justice. A market may have achieved maximum efficiency but the "benefits" are unfairly shared. While markets may produce efficient outcomes, if they were to work properly, the outcomes however may not be equitable. The existence of equity/efficiency trade-off has been central to economists and policy analysts (Bardhan: 1996). However, in recent years the idea that unfettered markets may lead to outcomes that may neither be equitable nor efficient have gained ground. As Stiglitz observes "The theories that I (and others) helped develop explained why unfettered markets often not only do not lead to social justice, but do not even produce efficient outcomes".

3 (Chakravarty:1987 pp. 9-10)

4 The manner in which the Planning process shaped the financial sector in India is discussed in chapter 2.

5 Discussed in chapter 2

6 These broadly correspond to what Fry(1995 pp.45) calls as stylized facts about the financial system in developing centres.

7 The well-known argument against financial repression and in favour of financial liberalization, in brief, runs as follows. Repressive measures like ceiling on loan and deposit rates raise demand for funds, but depress its supply. The unsatisfied demand for investible funds results in financial intermediaries rationing credit by means other than interest rates. A parallel market for credit develops in the informal sector, in response to these controls. The economy is then characterized by a fragmented credit market in which favored borrowers get credit at subsidized rates while others seek credit in inefficient expensive informal markets. Repressive controls lead to stunted growth of financial intermediation. A fragmented financial infrastructure is expected to be inefficient since savings do not get efficiently translated into productive investment. Savings would be channeled into unproductive assets due to the lack of, efficient financial intermediation and alternative financial assets. Repressive controls over the functioning of banks thus lead to a mis-allocation of investible resources. For the economy as a whole, savings and investment would be depressed and sub-optimal. This view followed from an implicit assumption that but for administrative controls on the pricing and allocation of finance and credit, these markets would be perfectly competitive and that there is free flow of information.

8. The arguments summarized are based on the view, that in developing economies, monetary assets are complements rather than substitutes to physical capital. With fragmented financial systems, and in the absence of alternative financial instruments, self-financing is the main route to capital accumulation in these economies. Entrepreneurs build up real money balances before taking up investment. This approach is based on the prior-savings view of investment (which at best characterizes the classic barter economy).

9 One may note, in passing, that the 'scale effect' depends, on responsiveness of savings (and of bank lending) in the economy to an increase in the rate of interest. In such a framework, the demand for credit is taken as given

10 (Dixon:1997). This happens mainly because the substitution and income effect (on consumption and savings) of a change in the rate of interest work in opposite directions. While an increase in the rate of interest may motivate individuals to substitute greater savings (future consumption) for current consumption, at the same time the increase in the rate of interest also increases the stream of income.
11 Through the 'Scale effect', it is expected that saving in the economy would rise in response to an increase in the rate of interest. The supply of loanable funds would also rise. The formal sector would mobilize greater resources and informal finance would gradually get eliminated. Entry of new banks would spur greater competition and spreads would decline in the banking sector (i.e., there would be better productive and allocative efficiency).

12 When we try to extend the Galbis model to sectors which have differences in the level of productivity but are producing very different products which are not substitutes (e.g., agriculture and manufacturing), then the implications may be different, although the phenomenon of cross-sectoral reallocation of financial flows may still occur. If the so-called backward sector constitutes a very large proportion of the economy producing essentially wage goods and the advanced one the urban based industrial sector, it is easy to see that demand side feedback effects may be significant.

13 The Galbis model does not specify what exactly the two sectors are supposed to be apart from being conceptual categories. He makes a simplifying assumption that the two sectors produce identical commodities although with different technologies. The model also circumvents the problem of aggregate demand by ignoring the income generation process in the backward sector.

14 In the context of this study we are referring to the efficiency in the end use finance rather than the efficiency of financial intermediaries. There is separate literature dealing with the efficiency in intermediation which we do not discuss in this study. However, we do analyse in chapter 3 the performance of the Indian banking sector in terms of some key financial ratios.

15 Also termed as 'fundamental valuation efficiency' (Tobin: 1984).

16 Gupta and Lensik (1996) deal with the question of measurement of allocative efficiency and provide a brief survey of earlier studies on measurement changes in the allocative efficiency of the credit sector following financial liberalisation. Guptas study using the portfolio approach shows that deregulation does not always guarantee an improvement in overall productivity.

17 The quantity adjustments referred to here are based on risk perception of the lenders about the potential borrowers and needs to be conceptually distinguished from quantity rationing arising from selective credit controls and directed credit. There could be situations where both types of rationing could occur. Interest rate changes could also induce portfolio shifts in financial savings, which in turn determine the ability of banks to extend loans.

18 A kerb market is one where trading takes place outside official market hours.

19 More specifically, an increase in the rate of interest causes households to shift financial savings from unregulated kerb markets to banks.

20 The rapid proliferation and subsequent collapse of Non-banking financial intermediaries during the nineties gives some credence to this view and is discussed in greater detail in Chapter 4.

21 De Mello et al. (1997) observed that liberalization depends on both initial conditions and political reform. Their observations were in the context of the centrally planned economies. However, the relevance of taking into account the initial conditions while analyzing the outcome of liberalization is valid for all other countries including India.

22 We are aware that deregulation and liberalization of the financial sector has been accompanied by significant growth of capital markets and external capital flows. There is also an link between the financial and the fiscal sector through the route of government borrowing. This study does not examine these aspects.

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