

**Concept of deregulation -
Lessons from banking history in India**

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Abstract

The paper seeks to provide an analytical basis for evolving a concept of deregulation, in banking industry. It attempts to unfold the true nature of deregulation in banking industry, by means of an analysis of historical developments in Indian banking since 1770 up to current times, leading to the recent policy regime of deregulation.

The study periodizes the development of private banking in India, under different phases and sub phases, before delineating the characteristic features of each. It depicts a chequered history of private banking in our country, dominated by bank failures, mergers and disappearances of small private banks. The study has, for the first time, developed a econometric model to explain bank failures in India, during the period 1913-46. It captures the impact of RBI and industrial growth on the proportion of bank failures.

In general, it is accepted that central plays a stabilizing role in the banking industry. However, historians like Bagchi argued that banking instability increased after the inception of RBI. This conclusion undermines the role of central banking. The study points out that the above conclusion is anomalous and has arisen out wrong empiricism and methodology. It concludes that an appropriate policy framework of deregulation must include a well-defined role of central bank. It is necessary for sustained and stable growth and development of banking industry.

Key words: Deregulation, banking history, bank failure, role of central bank.

JEL classification: B15, B25, D78, E44, G21, K23, L51.

BANKING INDUSTRY AND DEREGULATION: LESSONS FROM HISTORY

1.0 INTRODUCTION

The motivation for the paper arises out of current controversy set in US banking industry regarding the notion and impact of deregulation. While there are apparently two views in the extant literature, both of them examine the impact of increased competition from deregulation on the dynamics of the U.S. banking industry only from one standpoint. Stiroh and Strahan (2002) found that the link between a bank's relative performance and its subsequent market share growth strengthens significantly after deregulation as competitive reallocation effects transfer assets to better performers. On the other hand, a study by Wall (2002) presents evidence that banking deregulation led to decreases in entrepreneurship in some U.S. regions, and to increases in others. Thus no unambiguous positive relationship between the real economy and the market structure of the banking sector is found in the literature even in the context of US banking, which is set in a developed financial market. Hence, it appears necessary to refresh the basic understanding of the historical developments so as to appreciate why regulation arose in the first place. This is especially because the case for regulation in undeveloped financial market is, in the first instance, much stronger.

Both the above views of deregulation, that are purportedly opposed, are based on the ordinary notion of allocative efficiency, where inefficient firms are giving way to efficient firms. However, in the case of banks, the criterion for efficiency cannot be based

on an ordinary notion of profitability alone because a bank has a dual objective function. It is equally important for a commercial bank to maintain liquidity, without which it may lose public confidence resulting in a run on it. Thus, unlike an ordinary firm a banking firm always has to negotiate a dual objective function including both profitability as well as liquidity. The notion of allocative efficiency used in Stiroh and Strahan (2002) based on the fact that those firms that are retained by the market possess larger market shares and hence they are the efficient firms. It could well be argued that the banks, which have a larger market share, have achieved these shares despite reckless investment. The third argument rests on the direction of causality. In the sense that increase in market share is due to the departure of other firms rather than on account of the inherent efficiency of the firms that are retained.

The primary focus of the study is to develop an understanding about the notion of deregulation in the context of banking. Ordinarily, the understanding rests on the notion that deregulation enhances efficiency, which is measured by profitability. Any attempt to conceptualise deregulation in banking should be based on an analysis of characteristics of a banking firm as well the banking industry. Existence of such differences would have a direct and a significant bearing on the concept of deregulation in banking. It is already stressed that, a commercial bank, unlike other enterprises, cannot afford to have a single objective namely profitability. In the case of public sector banks, the profit motive may be broadened to include other motives as well. However, it does not alter the position with respect to stability being an equally important objective of a bank.

Our notion is effectiveness of the process of deregulation. The process would be effective only if while promoting efficiency, it also contain instability. Ideally, it is assumed that a bank is aware of its dual objective and hence it is assumed that if a bank is efficient, it has also effectively handled instability. However, such an understanding sets aside the role of central bank and assumes that there is no scope of market failure, because banks are acting in the best interest of the society. Nevertheless, this is a matter of research as to whether banks act in the best interest of society. In the more immediate context, our interest in this issue arises out of the fact that Narasimham Committee (1991) has almost exclusively concentrated on operational efficiency and profitability. It appears as though the stability aspect has been almost ignored. Instability in Indian banking history provides very fertile ground for evolving the notion of deregulation in the context of banking.

The current paper is based on two planks. One is theory of banking, which clarifies the differences between bank vis-à-vis an ordinary firm on the one hand, and differences between bank and other financial institutions, on the other. The other plank is provided by history of banking in India, which has distinct phases that alternate between deregulation and regulation. It gives enough historical and empirical material to study the very concept of deregulation in banking. In particular, it reveals the implication of lack of regulation in banking industry, by means of an analytical and empirical analysis of historical developments up to the period of independence. We are deriving a case for a certain kind of concept of deregulation in banking on the basis of the historical developments as

opposed to theory of regulation or any school of thought like free banking school.

Economic historians like Bagchi(1972) argued the phenomenon of bank failure in India increased after the inception of RBI. However, in general, it is accepted that a central bank plays a stabilizing role in banking industry. The objective of this study is to verify the historical fact by a rigorous methodology.

In the US economy the new deal of thirties specified rules that prevented banks from engaging in security and insurance business. Prior to depression, banks ran into trouble since they took excessive risks and provided loans to industrial companies, in which bank officers had direct personal involvement. This led to enactment of Glass-Steagal Act, which prohibited mixing of business of banking, security and insurance. In the case of US therefore regulation was prompted by the conditions caused by depression. The impact of regulation was seen in case of US banks because new deal was successful. However, conversely speaking, the impact of deregulation could be equally seen in the saving and loan crisis during 1980s and 1990s in US.

In our study, apart from looking at banking instability in historical perspective, we have also incorporated the influence of industrial growth in order to examine the relation between industrial growth and banking instability. The business of production, trade and banking were conducted in a mixed manner in colonial period, which is attributed to managing agency system, a feature peculiar to colonial India, which developed due to

underdeveloped nature of financial market. The study attempts to address the following questions.

- How did depression effect industrial growth and consequently what was its impact on banking instability?
- What were the historical trends in banking instability?
- What lessons do these historical developments hold for the notion of banking deregulation?

The plan of the paper is as follows. Section 2.0 clarifies the distinctions between a banking firm and an ordinary firm on the one hand and banking industry and an ordinary industry on the other. Section 3.0 systematically describes developments in private banking in India in terms of various phases. Section 4.0 reviews the literature relating to bank failure in pre-independence era. Section 5.0 provides the data sources and the methodology. Section 6.0 focuses on the results. Summary and conclusions are discussed in section 7.0.

2.0: PECULIARITIES OF BANKING FIRMS AND INDUSTRY

Financial institutions may be defined as economic agents specialising in the activities of buying and selling at the same time financial contracts and securities. Banks may be seen as a subset of the financial institutions, which are retailers of financial securities: they buy the securities issued by borrowers and they sell them to lenders. In view of varied and complex operations of a bank, an operational definition of a bank may be provided as follows. A bank is an institution whose current operations consist in granting loans and receiving deposits from the public. Definition of

"Banking" as per the Banking Regulation Act, 1949 says-"banking" means the accepting, for the purpose of lending or investment, of deposits of money from the public, repayable on demand or otherwise, and withdrawable by cheque, draft, order or otherwise". The Act defined the functions that a commercial bank can undertake and restricted their sphere of activities.

An ordinary entrepreneur assumes risk to earn profit. Hence there is a natural tendency on the part of an entrepreneur is to maximize profitability. However, while risk taking activity of a bank leads to profitability it may increase profitability, it also increases the tendency to create instability and thereby endanger the very existence of bank. As opposed a firm, there is a dual objective function of bank; profitability and stability. While maximization of profitability arises out of the natural behaviour of a bank, the same may not be said about stability. What is required for stability is restraint, which cannot come from within. It is not endogenous. An external arm is needed to contain instability and to protect the stakeholders from the externalities. This is basic difference between deregulation between a bank and firm

Unlike a firm, a bank provides a public good in terms of liquidity and means of payment. This implies that the externalities of a bank failure are far greater those emerging from a failure of a firm. Failure of a firm creates hardship for the labour force employed in the firm, not for public in general. The economic and political costs of failure of a large bank may be substantial forcing the governments to bail them out. A recent event related to the Global Trust Bank provides such an example in India.

A bank is also distinguished from an ordinary firm by virtue of nature of risks it faces. While it is true that existence an intermediary like bank has a net cost advantage relative to direct lending and borrowing, banks face a double-edged risk, one from the side of the lender and other one from the side of the borrower. This is because the equity base of a bank is typically small relative to the liability. A substantial component of liability of a bank consists of its deposits. Apart from current and savings deposits, even term deposits can be subject to premature withdrawal. It faces a withdrawal or liquidity risk when creditors are unwilling to extend or renew their credit to the bank, or they are willing to renew at different terms alone. A default risk arises when the debtors of the bank are not able or willing to meet their obligations to the bank at the agreed upon time. Thus existence of both liquidity and default risk for a bank differentiates it from an ordinary firm.

There is a basic contradiction between deregulation and competition in the case of banking industry. The above contradiction may be established from certain basic characteristics of banking industry as well. As far as the functions of the central bank are concerned, a distinction is made between general monetary policy and specific measures directed to banks (Goodhart, 1987). This dual role forms the basis of quantitative and qualitative credit control by central banks. While quantitative credit control regulates the supply of credit, selective credit control, amongst other things, regulates demand for credit. If rate of interest in banking industry may be compared with price in the context of industry, then control on bank rate by central bank is akin to price control. In a very broad sense, therefore, banks would be reduced to price takers. Thus, in all the three aspects of credit market,

captured by supply, demand and price determination, the link between credit control and control of competition is manifested.

A certain amount of control appears to be necessary to ensure that no unwarranted exit takes place in banking industry. Unlike any other enterprise, which can exist without a central control, a bank cannot. There has to be a central bank in order to closely monitor the operations of banks in trouble, provide guidance, and even bails them out by acting as a lender of the last resort. Exploration of nature of a banking firm establishes that existence of commercial bank is possible only with presence of a central bank. It is important to understand the content of deregulation in banking industry despite the existence of a central bank. It appears that deregulation in the context of banking industry does not tantamount to ushering of unfettered competition. An interpretation of deregulation in banking as pure competition or laissez faire would result in an anarchic situation.

However, different schools of thought viewed desirability of a central bank differently. Historians of economic thought grouped those under three headings: Currency school, banking school and free banking school. Free banking school disapproved the issue of relevance of a central bank, while the other schools approved it with disparate views. Currency school preferred a rule bound central bank, and an unbound authority of central bank found favour with banking school.

3.0 PHASES OF DEVELOPMENT OF PRIVATE BANKING IN INDIA

Two major phases are distinguished in the course of development of private banking in India: early and later historical phase. The early historical

phase covers the period till independence. While, the first part of the later phase just stops short of the current period of deregulation, the second part consists of current developments arising out of deregulation. In all, four phases are distinguished.

- Early historical and formative era: 1770-1905.
- Pre-independence era: 1906-1946.
- Post independence regulated era: 1947-1993.
- Post independence deregulated era from 1993 onwards.

3.1 First phase of development of banking: (1770-1905)

The first phase of development of banking was not characterized by any kind of regulation on banks whatsoever. Development of banking, during this period, was mostly in accordance with the laissez faire policy, pursued by the colonial government in economic matters. The following sub-phases may be distinguished under the initial phase covering the early history of private banking in India.

3.1.1 First sub-phase (1770-1812)

The English traders that came to India in the 17th century could not make much use of the indigenous bankers, owing to their ignorance of the latter's language as well the latter's inexperience of the former's trade. Therefore, the English agency houses¹ in Calcutta and Bombay began to conduct banking business, besides their commercial business, on the basis of unlimited liability. These agency houses were organised by the Europeans with aptitude of commercial pursuit, who resigned from civil and military

¹ A type of business organisation recognisable as managing agency took form in a period from 1834 to 1847. Managing agency system came into existence when an agency house first promoted and acquired the management of a company. This system, with no counterpart in any other country functioned as an Indian substitute for a well organized capital market and an industrial banking system of western countries.

services in India and organised agency houses. The primary concern of these agency houses was trade, but they branched out into banking as a sideline to facilitate the operations of their main business.

The English agency houses, that began to serve as bankers to the East India Company had no capital of their own, and depended on deposits for their funds. They financed movements of crops, issued paper money and established joint stock banks. Earliest of these was Hindusthan Bank, established by one of the agency houses in Calcutta in 1770. General Bank of India and Bengal Bank were established about 1785. These banks were chartered by East India Company and were followed by banks, established under acts of Indian legislature. The latter may be divided into two groups, the three Presidency banks and the Indian joint stock banks. Bank of Calcutta was established in 1806 and received its charter as bank of Bengal in 1809. It was first of the Presidency banks. Bank of Bombay and Madras were the other two Presidency banks, which were established in 1840 and 1843 respectively.

The first bank failure took place in 1791, when General Bank of India was voluntarily liquidated, due to inability to earn profits following the currency difficulties in 1787 (Desai, 1987). Bengal Bank failed around 1791, due to a run on it caused by emergence of difficulties of a related firm. As will be seen later, the nexus between trade and banking continued to spell doom for many more banks, for a long period of time.

3.1.2 Second sub-phase (1813-1860)

The real stimulus for the establishment of joint stock banks was provided by an Act passed in 1813. It removed all the restrictions on

Europeans settling in India. A number of banks were established, mainly by English Agency Houses on the basis of unlimited liability, as before. These banks conducted ordinary banking business, financed internal trade and issued notes. Their cheques were as good as legal tender. These banks are characterised by gross mismanagement and wide speculations. They were extremely vulnerable to panic and defalcations. There were a number of instances of forgery, panic and run on the banks, leading ultimately to their closure. This phase ultimately culminated a crisis in 1829-33, in which most banks failed. It was precipitated by the combination of banking with trading, speculation, mismanagement and fraudulent use of funds. However, the crisis did not deter the spirit of European Houses. Even after the crisis, they started several new banks, on the basis of unlimited liability. This only led to a repetition of the earlier course of events by 1860. Half of these failed because of speculation and mismanagement permitted by careless auditing of their accounts.

2.1.3. Third sub-phase (1860-1905)

The next phase in the development of banking activity unfolded with formation of joint stock companies, with limited liability. They were established after passage of act VII, in 1860. For the first time, certain safeguards were introduced in order to ensure the stability of banks and protection of depositors. The limitation of liability itself served to minimize the risks associated with the banking system. During this phase, speculative activity again led to bank failures. The American Civil War cut off the supply of American cotton to England, caused an unprecedented boom in India's cotton trade with England. This led to an orgy of speculation. A large number

of banks and different kinds of companies were formed to take part in this activity. But all of them failed within a short time, and public confidence in banks was destroyed. Out of numerous banks, which started during this period, only three survived the crisis. The crisis slowed down the banking development for some time. The currency confusion during 1873-1893 caused trade uncertainties and also played its role in creating an atmosphere unfavourable to establishment of new banks. As a result, from 1865, till the end of the century, the progress in the creation of joint stock banks was very slow.

3.2 Second phase of development of banking: (1906-46)

In this phase, two sub-phases are distinguished. The former starts with entry of new banks after the Swadeshi movement till establishment of RBI in 1935. The later runs from inception of RBI, till the period on the eve of independence.

3.2.1 The first sub-phase: (1906-35)

Partition of Bengal led to Swadeshi movement, when there was another burst of banking activity. The agitation, related to partition of Bengal, gave a fillip to the establishment of indigenous banks. A large of these new banks was smaller banks. The larger and older ones operated along sound lines and were strong enough to withstand the crisis that followed. However, they were not as strong as the Presidency banks.

During 1913, Indian Companies Act was passed. It contained a few sections related to joint sector banks. While this act is significant, being the first legislation related to banks, it was not adequate for regulation of banking activity. Many banks were left altogether free from regulation. Consequently,

the post-Swadeshi movement boom ended up in a banking crisis during 1913-17. Majority of the banks that failed were small and weak, accompanied by a few large ones. These failures weakened public confidence in Indian joint stock banks and constituted a major setback to banking development in India. The small banks, which came up during the initial part of this period, opened the doors to great laxity of practice, leading to bank failures. There was a brief respite in bank failures from 1918-21. The boom during the later part of World War I and after it gave another impetus to the starting of new banks. A number of banks were established, some specially for financing industries. But from 1922, the bank failures increased once again due to economic depression.

Bagchi (1972) argued that the monetary arrangement in India (up to the First World War and probably right up to depression) was geared almost entirely to the requirements of trade.² In absence of any industrial banking, the commercial banks provided finance to industries. But they were allowed to engage only in short term lending. The high risk in lending to potential investors for working capital was reflected in exorbitant interest rate, due to high-risk premium. To meet such demand, a number of banks came up in Western India, Punjab and United Provinces. They conducted their business, in violation of even the elementary principles of banking. Keynes has attributed the vulnerability of Indian banks to undercapitalisation, inadequate cash reserves and speculative proclivities (Keynes, 1913). Let us elaborate the reasons leading to bank failure in this phase.

² *Particularly foreign trade in staple commodities such as foodgrains, raw cotton, raw jute and jute manufactures.*

The deficiency of capital made newly established banks almost wholly dependent on deposits. Keen rivalry among them to attract deposits led to luring of depositors, with rates of interest much higher than they could really afford, had they conducted their business legitimately. Had there been a central bank, market rate of interest would have been pegged down at an appropriate level. However, banks employed the funds provided by the depositors in hazardous enterprises, in order to be able to pay the high interest rates they promised. On the other hand, the Presidency Banks followed a cautious lending policy and lent to only sound established houses. Thus, The vulnerability of the other banks was clear.

Many directors and managers were incapable and had little knowledge of principles or practice of banking. They intended to make a quick buck, without possessing the necessary skill. Large sums were locked up in speculative dealings in silver, pearls and other commodities. Long-term business was financed, without an efficient enquiry into their soundness. They supplied some long-term capital to new investors, in the form of indefinite extensions of short-term loans. A disproportionate share of the total available funds was frequently sunk in a single business. To cap it all, funds were lent, in some cases, on the security of the lending banks' own shares.

While these banks had an impressive authorised capital, the subscribed capital was far smaller and the paid up capital was even smaller. The law did not prevent this malpractice. Thus, the lack of regulatory framework helped the banks to deceive the public, who was ignorant of the differences among three kinds of capital. The deception of the public was

complete with adoption of high-sounding names by some of these banks. Many managers resorted to downright dishonesty, fraud or criminal mismanagement, and continue it in connivance with the auditors. Directors or managers of the banks lent the funds to themselves or those concerns in which they were directors or partners. They made away the assets of the banks, by showing debt in their books, due to nonexistent banks. To hide mismanagement and fraud, the accounts, were either left incomplete, or were falsely made up. Window dressing was freely resorted to while presenting the balance sheets. There are instances of dividend being paid out of capital, and later out of deposits, when capital ran out. Another problem was that Cash reserves were maintained at a very low level³.

When banks function in a manner, described earlier, emergence of crisis is inevitability. But the crisis was aggravated by the complete absence of co-operation among Indian Joint stock banks themselves on the one hand and between them and the other two categories of banks-Presidency and exchange banks.⁴ For example, the Bank of Bengal refused to lend to banks in Lahore, even against government securities. This is attributed to complete decentralisation of the Indian banking system, i.e. complete absence of a central bank. The banking crisis of 1913-17 showed clearly the defects of the system, under which the country did not have, any, coordinated banking policy. Each bank conducted business in its own fashion, without any control of any central institution.

To begin with, the Presidency banks were opposed to amalgamation.

However, their experience during the later part of the war showed the merits

³ *In 1910, the ratio of cash to deposit liabilities was only 11% and lower in cases of smaller banks.*

⁴ *Exchange banks are those, which have their head offices outside India.*

of a policy of co-operation and co-ordination. If the presidency banks were to remain isolated, one of the foreign banks would have attempted to amalgamate with, or absorb some of the banks in India. This would have made them dominant in the Indian financial system. An Act of 1920 amalgamated the three presidency banks into Imperial Bank of India in 1921.

Until the establishment of RBI in 1935, the Imperial Bank had been effectively discharging certain central banking functions. In addition to these central-banking functions, the Bank performed the ordinary commercial banking business. Government on its ordinary commercial business functions, because of its special nature, imposed certain restrictions. Bagchi (1972) argued that, there was no central bank for India, before the establishment of RBI in 1935. According to him, Imperial bank was a half way house, since it was mainly a commercial bank, and only secondarily a banker's bank. Up to 1935, government of India retained all the powers of a central bank, including powers of note-issue in its own hands. But, it never operated consciously to influence the rate of interest in the money market, by the standard methods used by modern central banks.

3.2.2 The second sub phase (1935-46)

As early as 1898, witnesses before the Fowler Currency Committee advocated the establishment of a central bank. However, this view did not find favour with the then government of India. But, the Public opinion in India began to strongly urge creation of a central bank. In 1926, Hilton Young Currency commission recommended the creation of a separate bank, to be called Reserve Bank of India. It was to perform central banking functions, so as to leave Imperial bank entirely free to continue and extend its

commercial banking activities. With establishment of RBI in 1935, the Imperial Bank ceased to be the government's banker. Establishment of RBI, as has been seen, is a response to the demand for a central institution to guide and regulate the developments in banking, without which, the banking industry was only moving from one crisis to another.

Special provisions related to minimum capital and cash reserve requirements and other operating conditions of banking companies were incorporated in the amended Indian companies Act of 1936. But bank failures in South India drew attention to the need for even stricter legislative control over banks. Nevertheless, government of India decided that the issue of undertaking a comprehensive banking legislation should be postponed until after the war. In the meanwhile, interim measures, involving the minimum of legislation, should be carried out to improve the part of Indian companies act related to banking. Amendments were made in relevant parts of Indian Companies Act in 1942 and 1944.

However, from 1939 onwards, certain developments began to surface as a result of war. They imparted greater instability to the resources of the banking system and rendered it vulnerable. While rates of interest on fixed deposits already reached lower levels, during the period of depression, the tendency was further strengthened by war. Low rates of interest on fixed deposits and inflated prices of durable assets like gold, shares and real estate strengthened the desire of the public to hold liquid assets in the form of current deposits. Deposit growth slowed down, because saving was used as working capital, for obtaining larger output from existing scale of equipment in establishments. A number of banks were liquidated during the period

1939-42, followed by rapid expansion of banks during 1942-46. Such rapid expansion of banks may be partly attributed to the early stages of growth of the banking system, which generated large scope for expansion. Another likely reason is currency expansion due to war finance. As a result, enormous funds found it way into old banks in form of deposits. This also helped to set up new banks due to difficulties in establishing industrial concerns. Lowering of interest rate on deposits more than counterbalanced adverse impact on profitability due to a larger proportion of more liquid assets. As a result, profits of banks increased.

The defects in this phase of development of banking are as follows. Indiscriminate branch expansion in areas already served led to unhealthy and wasteful competition. Other problems included inadequacy of paid-up capital, manipulation by management in issuing shares, acquisition of control of non banking companies, interlocking of bank and other concern, undesirable manipulation of accounts and utilisation of profits. Gain in market prices of securities was used for paying dividends, instead of building reserves. Thus began another spate of liquidation of banks in 1939, which continued through 1942-46, alongside expansion of banking.

The ongoing unhealthy developments in the banking system during 1939-46 underlined the need of some machinery to combat it. This was provided by powers given to RBI by means of passage of Banking Companies (Inspection) Ordinance during 1946 and Banking Companies (Restriction of Branches) Act at the end of 1946. The former enabled RBI to bring about liquidation of banks, which were beyond recovery and to redeem others, by timely help and advice. The indiscriminate opening of branches of

banks was checked by the passage of the later. A number of restrictions came into force from July 1946. These were meant to improve the operations of banks incorporated after 15th January 1937.

Neither the function of the central bank as a lender of the last resort, nor capital adequacy norm of any kind was present till 1935. After 1935, while the former came about, the later was still missing. It is only after implementation of report Narasimham Committee; the later measure came into being in 1993. The period till 1935 was characterised by abrupt fluctuation in bank failures and may be labelled as chaotic period in the history of banking in India. The said period consists of events, which led to the evolution of RBI in 1935. It is only after 1935, when RBI came into being and began to perform its role as the lender of last resort, proportion of bank failure fell.

Bank failure could arise either due to making losses or due to over lending and hence there being a run on the bank. Throughout the period, industrial growth was increasing. Therefore, the opportunities were not lacking for banks. The inception of RBI had imposed a control on rate of interest and implicitly would have depressed profitability of banks. In spite of this, in the second phase, bank failure declined; it stands to reason that bank failure in the early phase was due to largely due to absence facility of last resort. Since bank failure has progressively reduced after introduction of RBI, it becomes evident that role of RBI was predominantly one of stabilising the banking system as a lender of last resort. We can only assume that bank failure before 1935 occurred as a result of absence of the function of lender of last resort.

In England, central bank, in the form of Bank of England started operating way back in 1694. In India, a central bank, in the form of Reserve Bank of India, was founded out of concern for the well being of the banking system as a whole. It was largely an evolutionary development spanning through a period from 1770 to 1935. But, the initial impetus behind establishment of the first government-sponsored bank in Europe generally related to financial advantages⁵. Governments felt that they could obtain from support of such bank. There was no intention that they would undertake the functions of a modern central bank, which included discretionary monetary management on the one hand and regulation and support of the banking system on the other.⁶

4.0 REVIEW OF LITERATURE

Bagchi pointed out a few reasons, which led to a banking crisis during 1913-15, in which many banks failed.

- Absence of banker's bank either to help during a temporary run on them or to guide them in their ordinary business.
- Dearth of sound business propositions.
- Lack of government backing for such business. (It may mean that there was no development banking)

While Bagchi has highlighted these three reasons of bank failure, during the early 20th century, obviously these are general reasons for bank failure. It needs to be pointed out that, the earlier studies anomalously reckoned bank failure in terms of absolute numbers and concluded that, in

⁵ *Swedish Riksbank (1668) and Bank of England(1694)*

⁶ *Through the function of lender of the last resort, for example.*

general, bank failure was increasing throughout the period, more particularly after setting up of RBI. This anomalous conclusion could have been avoided, had the proportion of bank failure been observed. An earlier study by Desai (1987) sought to highlight the role of RBI through the capital involved in the banks that have failed. Once again, this need not have been necessary, had the proportion of bank failures been observed. The conclusion of these studies was ambiguous and inadequate, both on account of studying the wrong variable and not having a rigorous empirical framework.

5.0 DATA SOURCES AND METHODOLOGY

It is difficult to define in strict legal terms the scope of organized banking, particularly before the period preceding 1913. Many doubtful companies registered themselves as banks and when they failed, figured in the statistics as banking failures. Hence, the data used in the study is related to the period 1913-46. The data on industrial production was collected from table on gross domestic product by industrial origin at 1938-9 prices, published in Sivasubramonium (2000)⁷. The data on total number of banks was arrived at by adding number of banks in different categories, as reported in different annual reports of trends and progress of banking in India. The data on number of failed banks was collected from Banking and Monetary Statistics of India (1954)⁸, published by RBI

For handling the problem, firstly we have developed a general model, based on some of the factors mentioned above, that is applicable to the entire

⁷ Column 10 from table 6.10, Sivasubramonian(2000), page 411.

⁸ Banking and Monetary History of India(1954) page, 279.

period, as opposed to early period of the 20th century. The other problem was handled by using proportion of bank failures, instead of number of banks that failed. A full model has been constructed to include a slope and intercept dummy, with an attempt to capture the impact of RBI. The intercept dummy variable assumes value zero for the period before 1935 and one thereafter. It is introduced to capture the structural break. The slope dummy is introduced to see the difference in slope coefficients before and after 1935.

The second variable in Bagchi's framework relates to lack of sound business propositions. Presence of sound business proposals is related to fundamentals of the economy Banking, being a part of urban economy, its existence would critically depend on industrial growth. The model includes an industrial growth variable as a proxy variable to capture fundamentals of the economy. A time dummy was also used for capturing other exogenous influences. The third variable mentioned in Bagchi's framework could not be captured because of absence of the concept of development banking at that time.

Two sets of equations are used. The first set of equations is used for explaining bank failures. There are three different equations for explaining bank failure. Firstly, two equations are used to examine the trend of bank failures over two periods, before and after the establishment of RBI. The third equation includes industrial development variable along to capture the role of fundamentals of the economy in presence of slope and intercept dummy, with a view to explain the proportion of bank failures. An exogenous variable also was used in the equation. The second set of equations is used for explaining industrial production, which represents one

of the fundamentals of the economy. The second set of equations consists of two equations. They are used to find out growth and growth rate of industrial production during: 1913-46

The equations to be estimated are as follows:

$$\text{Log}Y = \mu_0 + \mu_1 t + u_5 \dots \dots \dots (1) \text{ and } (2)$$

This equation is estimated twice, one for the period 1913-34 and the other for the period 1935-46.

$$Y = \beta_0 + \beta_1 Y_1 + \beta_2 D_1 + \beta_3 D_2 + \beta_4 t + u_3 \dots \dots \dots (3)$$

$$Y_1 = \delta_0 + \delta_1 t + \delta_2 D_1 + \delta_3 D_3 + u_4 \dots \dots \dots (4)$$

$$\text{Log}Y_1 = \lambda_0 + \lambda_1 t + \lambda_2 D_1 + \lambda_3 D_3 + u_2 \dots \dots \dots (5)$$

Y = proportion of bank failures.

Y₁ = industrial production.

D₁ = intercept dummy assuming value zero for period before 1935 and one from 1935 onwards.

D₂ = slope dummy, assuming value zero for period before 1935 and values of industrial production from 1935 onwards.

D₃ = slope dummy, assuming value zero for period before 1935 and values of time variable from 1935 onwards.

t = time variable.

Insert tables I.1 to I.5 here

6.0 RESULTS OF THE STUDY

The detailed results relating to the estimated equations are reported in tables

I.1 to I.5. Regression results also produced below for ready reference.

$$\log Y = -1.65 - 0.008t, \quad \text{Adj. R sq} = .23, F = 0.63 \dots \dots \dots (1')$$

(-8.02) (-.49)

$$\log Y = 4.52 - 0.23t, \quad \text{Adj. R sq} = .91, F = 118.37 \dots \dots \dots (2')$$

(7.47) (-10.87)

$$Y = -0.07 + 1.35D_1 + 0.0002 Y_1 - 0.0003 D_2 - 0.01t, \quad \text{Adj. R sq} = .50, F = 9.5 \dots$$

(-.66) (5.31) (3.09) (-4.94) (-3.54)

$$Y_1 = 2029.64 + 67.1t - 702.23D_1 + 30.81D_3, \quad \text{Adj. R sq} = .87, F = 75.36 \dots \dots (4')$$

(15.94) (6.92) (-1.00) (1.19)

$$\log Y_1 = 7.65 + 0.23t + 0.0029D_1 + 0.00008D_3, \quad \text{Adj R sq} = .83, F = 55.36 \dots (5')$$

(167.09) (6.64) (.01) (.009)

Two periods are distinguished: 1913-34 and 1935-1946. They are referred to as the earlier and later period respectively. Equation (1') shows that there was no significant trend of bank failure during earlier period, although the direction was negative. The reason for the trend in the first period not being significantly different from zero lies in its erratic behaviour. This has led to high variance and a consequent low t statistic. Equation (2') shows that the trend of bank failure was statistically significantly negative, during the later period. The t value was negative and statistically significant at one percent level of confidence. Adjusted coefficient of determination is 91 percent and calculated F value was significant. It clearly shows that proportion of bank failure was falling unambiguously and consistently during the later period.

As shown by equation (3'), all the variables emerged significant in explanation of proportion of bank failure during 1913-46. They are industrial

production, exogenous variable, intercept and slope dummies. The t values associated with all of them are significant at one percent of confidence. The adjusted coefficient of determination is 50 percent and F value associated with it is significant. While the industrial production and intercept dummy have positive sign, the other variables appeared with negative sign. The intercept term is larger in the later period. It points out to a higher proportion of bank failure, when RBI came into existence.

Insert figure I.2 here.

Sound business propositions are a necessary condition for sound banking, but not a sufficient condition. With growth prospects, the possibilities of expansion of credit emerge. But growth is only one of the fundamentals of the economy. If industrial growth were taken as a proxy for overall growth of the economy, better industrial growth would result in lesser bank failures. However, this is subject to the caveat that a banking system is properly functioning, in terms of adhering to a sound rate of interest rate policy. Equation (4') reveals that industrial growth was positive throughout the entire period, 1913-34. The t value associated with time variable is positive and significant at one percent level of significance. The adjusted coefficient of determination is high at 87 percent and F value is significant. It is also seen from Figure I.1 that there is continuous growth in industrial production from 1919 onwards. In addition, the industrial growth rate as well was positive and significant throughout the period, as revealed by Equation (5'). Here again, the t value associated with time variable is positive and significant at one percent level of significance. The adjusted coefficient of determination is high at 83 percent and F value is significant. The

influence of world depression, colonialism and an adverse tariff policy is not seen in the case of industrial growth in India. That the proportion of bank failure fell significantly during the later period is shown by D_2 coefficient in equation (3'). During first period, the influence of industrial production was positive on the proportion of bank failure and negative during later period, as shown by equation (3'). It appears that this change in the direction of the influence is a combined effect of industrial growth and RBI control. So, during the period before the inception of RBI, the story of bank failure cannot be attributed to the lack of strong fundamentals of the economy. The overall good fundamentals represented in positive industrial growth rate are reflected in equation (5'). In the second period, the proportion has fallen significantly in spite of no change in the trend of positive industrial growth, as revealed by equation (4'). Hence, falling proportion of bank failures can only to be unambiguously attributed to overall control of RBI, which has resulted in stabilising other fundamentals, namely the rate of interest.

To begin with, the rate of bank failure was insignificant, as shown by equation (3'). With industrial growth and the absence of RBI control, the level of bank failure rose. In the later period, the proportion of bank failure was falling. This was partly due to growing industrial production, as revealed by equation (4'). The industrial production was growing but it had a negative influence on proportion on bank failure in later period and partly due to negative influence of exogenous factors. While the influence of exogenous factors was uniformly negative, that of industrial production was positive in the first period and negative in the second period. Perhaps this was because in the first period, the banks did not have the necessary expertise. While

industrial growth provided the necessary conditions for venturesome ness, this adventurism was coupled with lack of RBI control. The positive effect of industrial production negated the negative impact of exogenous factors as to result in statistically insignificant trend in the first period. Conversely, the negative effect of industrial production in the second period coupled with the negative effect of exogenous factors resulted in significantly negative trend in the second period.

Insert figure I.2 here.

A look at the figure I.1 depicting proportion of bank failures over the period 1913-46 reveals that there occurred a violent fluctuation in proportion of bank failures before 1935. On the other hand, the proportion of bank failures after 1935 shows a distinct falling trend. According to Bagchi, one reason of bank failure was absence of sound business propositions. This is proxied by industrial production and it is seen from figure I.2 that industrial production has been raising from 1919 onwards and it continues to raise throughout the period following the inception of RBI. What is important to note that bank failures occurred in a very erratic manner despite continuous rise in industrial production during the major part of the study. It is after 1935, rise in industrial production was associated with falling proportion of bank failures. Clearly, the clue to bank failure does not lie in growth in industrial output. Industrial production was expanding in the first phase as well, showing that there was no dearth of sound business proposition. What lacked was the regulatory mechanism provided by central bank, which is crucial for sound operation by commercial banks. When this fundamental loophole was plugged after 1935 in form of inception of RBI, proportion of

banks started falling continuously in the background of a rising industrial production in the second phase.

7.0 SUMMARY AND CONCLUSION

Relevance of a definition of deregulation in the context of banking has provided the rationale of the paper. It has explored both theory of banking as well as history of banking in India to develop an analytical basis of concept of deregulation in banking industry. Theory of banking has clarified the characteristics of banking as opposed to industry and provided some clues. On the other hand; the history of banking in India also provided some empirical and analytical material for our objective. The paper analyses the development of private banking in India under different phases and sub-phases, before delineating the characteristic features of each. The review depicts a chequered history of private banking in our country, dominated by bank failures, mergers and disappearances of small private banks. It has been argued that the free market process of development of commercial banks, without a central bank, was an inherently faulty and expensive way of bringing about development of viable banking. The study has thrown up the view that banking industry is somewhat distinct from other industries, because of possible externalities isolated with bank failure. Thus, the concern with deregulation in banking should be related to the health of the banking system, as opposed to mere rate of return or efficiency. A policy framework is necessary for their sustained growth and development of banking industry. The policy framework for banks must be such that essential controls are retained and are coupled with a large area of deregulation. In other words,

while deregulation in banks mean removal of negative controls along with strengthening of positive controls. It is in this context; the new norms related to asset classification, income recognition and capital adequacy has to be viewed. Clearly, anything like a complete deregulation is ruled out in banking industry.

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Table I.1**Growth rate of Bank Failure:1913-1934**

<i>Regression Statistics</i>	
Multiple R	0.1079092
R Square	0.0116444
Adjusted R Square	-0.037773
Standard Error	0.4688203
Observations	22

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.051790033	0.05179	0.235631	0.632654253
Residual	20	4.39584995	0.219792		
Total	21	4.447639983			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-1.658683	0.206922015	-8.01598	a 1.13E-07	2.090314747	-1.22705
time	-0.007648	0.015754773	-0.48542	0.632654	0.040511529	0.025216

Table I.2**Growth rate of Bank Failure:1934-1946**

<i>Regression Statistics</i>	
Multiple R	0.960261
R Square	0.9221011
Adjusted R Square	0.9143112
Standard Error	0.2520149
Observations	12

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	7.51795583	7.517956	118.3716	7.30051E-07
Residual	10	0.635115003	0.063512		
Total	11	8.153070834			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>		<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	4.5213705	0.60501437	7.473162	a	2.13E-05	3.173314287	5.869427
time	-0.229288	0.021074543	-10.8799	a	7.3E-07	0.276245301	-0.18233

Table I.3**Regression output of Bank Failure:1913-1946**

<i>Regression Statistics</i>	
Multiple R	0.7531121
R Square	0.5671779
Adjusted R Square	0.5074783
Standard Error	0.0746186
Observations	34

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	4	0.211593253	0.052898	9.500531	4.91371E-05
Residual	29	0.161470040	0.005568		
Total	33	0.373063293			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	-0.070669	0.106479554	-0.66368	0.512136	0.288443852	0.147107
D1	1.351807	0.254717962	5.30707	a 1.08E-05	0.83085002	1.872764
indprodn	0.0001528	4.9374E-05	3.09416	a 0.004342	5.17898E-05	0.000254
D2	-0.000321	6.48305E-05	-4.9439	a 2.96E-05	0.000453111	-0.00019
t	-0.014375	0.004050216	-3.5492	a 0.001339	0.022658651	-0.00609

Table I.4

**Growth of
Industrial
Production
:1913-1946**

<i>Regression Statistics</i>	
Multiple R	0.9396021
R Square	0.8828521
Adjusted R Square	0.8711373
Standard Error	288.50379
Observations	34

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	18818181.93	6272727	75.36217	4.53811E-14
Residual	30	2497033.041	83234.43		
Total	33	21315214.97			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>		<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	2029.6364	127.3361703	15.9392	a	3.45E-16	1769.581478	2289.691
Time	67.098814	9.695210	6.920821	a	1.1E-07	47.29857364	86.89905
D1	-702.2284	704.2216	-0.99717		0.326658	2140.439408	735.9825
D3	30.813773	26.00107857	1.185096		0.245283	22.28745873	83.91501

Table I.5
Growth rate of Industrial Production:1913-1946 **Growth rate of Industrial Production:1913-1946**

<i>Regression</i>	<i>Statistics</i>
Multiple R	0.9203177
R Square	0.8469847
Adjusted R Square	0.8316831
Standard Error	0.1037793
Observations	34

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	3	1.788476732	0.596159	55.35293	2.44634E-12
Residual	30	0.32310427	0.01077		
Total	33	2.111581002			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	7.6537444	0.0458048	167.0948	a 4.18E-46	7.560198566	7.74729
Time	0.0231586	0.003487518	6.640431	a 2.36E-07	0.016036166	0.030281
D1	0.0028401	0.253319469	0.011211	0.991129	0.514506763	0.520187
D3	8.724E-05	0.009352992	0.009327	0.99262	-0.0190141	0.019189