FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH: A CASE STUDY OF INDIA

CHAPTER 1

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Finance is the lifeblood of all economic activities. Financial sector plays an important role in any economy. Acting as an intermediary between the deficit and the surplus sectors of the economy, the financial sector provides financial services to commercial and retail customers. Both households and business firms, as also governments, deal with financial decisions that entail allocation of scarce financial resources over time. Households face financial decisions that range from consumption and saving decisions, investment decisions, financing decisions and risk management decisions. Likewise, firms engage in financial decisions in the area of capital budgeting, capital structure, working capital management, and risk management. These financial decisions are exercised using the financial system defined as “the set of markets and other institutions used for financial contracting and the exchange of assets and risks” (Bodie, Merton and Cleeton, 2009) The financial system thus, encompasses markets for bonds, shares, derivatives and other financial instruments, and a broad range of financial intermediaries and institutions ranging from banks, investment companies, insurance companies, fund management firms, etc., and regulatory bodies working in overlapping financial markets, namely, the money market and capital market.

1.1: FINANCIAL SYSTEM AND ITS FUNCTIONS

The financial system comprising financial institutions and intermediaries, financial markets and instruments, financial services, and regulatory bodies, providing services to households, businesses, investors and governments to execute their financial decisions, is not confined to the geographical boundaries of a country; rather its scope is global owing to the international network of telecommunication enabled by the internet. Financial markets and financial intermediaries demonstrate an interweaving of transfers between the surplus and deficits units.

In view of the significance of the financial sector in facilitating intertemporal financial decisions of economic agents, the development of the financial sector forms a crucial aspect of economic development of a country. How widely the services of the financial sector are available, accessed and used by households, firms and governments form important ingredients of economic development. The vital role of the financial sector in any economy is borne out by the wide ranging functions performed by the financial sector. The functional perspective of the financial sector provides a systematic base for measuring what constitutes financial development. The functions performed by the financial sector are as follows:

- **Inter-temporal, inter-sectoral and spatial transfer of economic resources:**
  The financial sector facilitates transfer of money over time and space by the means of advancing of loans and credit facilities and payments. Such a transfer not only smoothens financial and economic transactions but also enables more efficient use of the monetary resources through productive use. Mobilization of savings lead to greater capital formation and accumulation which is very essential for economic growth, particularly for countries in early stages of development. Along with mobilization of financial savings, the financial sector also provides the mechanism to gather information on investment projects at lower costs compared to what individual investors can manage to do, and thus encourages transfer of resources from the surplus sector to the deficit sectors. Access to finance for excluded sections of the society – poorer households and rural households, and allocation of lendable funds to MSMEs, in particular, also contribute to inclusive growth with social development.

- **Managing risk:**
  The financial sector also provides the mechanism for bundling of risks and redistributing the same over a larger pool of hedgers in return for a small premium. Greater the pooling of risk, lower is the cost at which the risk can be managed. Insurance companies play a major role in this function, as also the capital market in enabling pooling of investors according to their risk appetite through the securitization of equity and debt capital. The capital market provides a source of finance to firms along with liquidity to the investors and it is this role that is intertwined with the risk management function. Also, by providing an exit route, the financial sector, ensures liquidity of assets which is important element in risk management.

- **Clearing and settling payments:**
  The financial system also performs the function of a medium of settling payments in a quick and efficient manner, which, among other things, is manifested in the degree of monetization of the economy. Use of convenient forms of money and money substitutes facilitates transactions for households and businesses, and any measure of increase in the use of money in settling payments and debts is an indicator of efficient functioning of the financial sector. Financial innovation enables more people to be included in the formal financial sector by facilitating transactions at lower cost via digital modes. It

also encourages greater degree of specialization in economic activities due to monetized transactions.

- **Pooling resources and subdividing shares:**
  The financial system provides an efficient means to undertake real economic activities on a large scale coherent with the nature of modern technology. In the absence of the financial sector it would not be possible to mobilize funds for high-risk projects due to the risk aversion of individual investors. It would also not be possible to reach the scale of an indivisible enterprise given the huge volume of investment required. The money market, capital market and the banking sector provide mechanisms through which the surplus funds of scattered households and retail investors can be mobilized to provide the required capital for large scale businesses. It is only through the sub-dividing of shares in lump sum investments that retail investment is made feasible and profitable while also allowing for liquidity through easy exit in conjunction with satisfying investors' risk-reward horizons.

- **Provide pricing information:**
  The saving, investing, financing and risk managing decisions of households and firms are greatly informed by the pricing information provided by the financial markets. Market rates of interest, prices of securities, net asset values of units of mutual funds, asset prices, etc., embody information on valuation of comparable assets and thereby enable economic agents to make prudent financial decisions. Development of derivative financial products and their markets has further helped in sharpening the economic value of many assets whether traded or untraded. By this virtue, it has encouraged inclusion of households in the formal financial system, thereby increasing the depth and breadth of the financial sector vis-à-vis the real sector. This in turn is expected to lead to efficient allocation of real resources for greater output.

- **Dealing with incentive problems**
  The financial sector by providing the mechanism of collateralization of loans reduces the risk of lending and thereby encourages the flow of surplus funds to the real sector. The advancement in technology has helped in lowering the cost of gathering and disseminating information on the creditworthiness of borrowers, on account of which the pricing of debt becomes more efficient. Technology has also facilitated easy

valuation of a vast array of assets that can act as collateral enabling greater leverage of resources.

These functions of the financial sector form the fundamental base for the dimensions of financial development in a country and in analysing its impact on economic growth of the country. The present study is an attempt to measure various dimensions of financial development in India over the years, and particularly, in the post-reforms period.

1.2: A SNAPSHOT OF THE FINANCIAL SECTOR OF INDIA

The financial sector of India is highly diverse and dynamic, expanding at a fast pace. It may be categorized into organized and unorganized financial sector. The organized Indian Financial Sector (IFS) is composed of financial institutions or intermediaries which can be further classified into banking and non-banking financial institutions (NBFIs), mutual funds, insurance companies, housing finance companies, etc. While the banking sector includes commercial and cooperative banks, the NBFIs include a vast array of non-banking financial companies (NBFCs) ranging from leasing companies, hire-purchase businesses, retail lenders, infrastructure finance companies, mortgage guarantee companies, micro-finance institutions, etc. NBFIs also include the very important Development Financial Institutions (DFIs) at National and State levels which are sector specific or purpose specific, providing long term finance. There are 76 banks in India in total, comprising Public Sector Banks (PSBs), Private Sector Banks (PVBs), Foreign Banks (FBs), Regional Rural Banks (RRBs) apart from Small Finance Banks (SFBs) and Payments Banks. As per Report on Trend and Progress of Banking in India (RBI, 2021) there are 9680 NBFCs in India of which 312 are systemically significant.

The financial markets comprise the capital and money markets, where the former includes the equity market and the debt market, and the latter, various short term financial instruments. The regulatory institutions include the Ministry of Finance, the Reserve Bank of India (RBI), the Securities and Exchange Board of India (SEBI) and the Insurance Regulatory and Development Authority of India (IRDAI).

India’s financial system is traditionally bank based, as against market based. Measured by the ratio of bank deposits to GDP, India’s financial sector has increased from 32.8 percent to 66.67 percent over the 30-year period from 1990-91 to 2019-20, growing at a compound annual growth rate (CAGR) of 2.5 percent. Bank assets as a ratio to the Gross Domestic Product (GDP) hovered around 90 percent in the recent years for India. From around 49 percent as a ratio to

GDP in the year 1990-91, bank assets stood at more than 88 percent in the year 2019-20, recording a CAGR of two percent. However, this ratio compares poorly with countries like China and Japan which also have a bank-based financial sector. According to IMF data (https://www.theglobaleconomy.com/rankings/bank_assets_GDP/), Japan had a bank asset to GDP ratio of 171.21 percent in 2020. China's banking sector size was as high as 218.22 percent of its GDP. Comparable countries like Brazil and South Africa, which also have a bank-based financial sector had a banking sector size of 132 percent and 88 percent, respectively, relative to the size of their real economies. Germany, Spain and Italy which also have a bank-based financial sector, recorded the ratio at 98.42, 131.83 and 123.43, respectively, in the year 2020. Thus, while the banking sector of India has expanded over the years, it still compares poorly with other countries, and its growth and structure needs a closer examination.

The stock market is also an important component of the financial sector as it provides a direct channel for domestic savings and foreign investments to provide investible funds to the corporate sector, along with the resultant improvement in productivity that comes with market discipline. The stock market capitalization of India has witnessed remarkable growth over the study period. Stock market capitalization to GDP ratio for India doubled from around 48 percent in 2000-01 to 97 percent in the year 2019-20. Stock market capitalization represents the ability of firms to mobilize capital and diversify risk over a large pool of investors. USA and UK have primarily market-based financial system, recording market capitalization of 194 and 106 percent as a ratio to GDP for the year 2021.

Although, the relevance of bank-based versus market-based financial sectors for economic growth remains a debatable topic, the development of both the components form important elements of financial development for any country. The significance of banks and capital markets warrant an examination of their various dimensions.

1.3: FINANCIAL SECTOR REFORMS IN INDIA

At the onset of the decade of 1990, the Indian economy underwent significant structural changes with the introduction of economic reforms and structural adjustment programmes. Economic growth and development cannot be accelerated without an efficient financial sector that provides effective financial intermediation. Equally important is financial stability induced by adoption of prudential norms effectively stipulated by the central bank and the government. Financial stability helps the system to endure shocks, whether internal or external, and survive crisis, and thereby, ensure monetary stability. Given the strong interweaving of the real economy and the financial sector, focused reforms were also initiated in the latter. While the main focus of the economic reforms was to liberalize various real sectors of the economy from excessive controls and regulations and to unleash their growth potential by opening up to international competition, the financial sector reforms too resonated similar objectives so as to facilitate the process of liberalization, privatization and globalization.

Financial sector reforms can be examined under two broad heads, namely, reforms related to the banking sector and those related to the financial market. The nationalization of banks in 1969 and 1980 contributed immensely by transforming the Indian banking sector from class banking to mass banking. It helped in expanding banking services to wider geographical regions including, rural areas, and in improving the accumulation of household savings on account of better mobilization of savings. Historically, the nationalization of banks has been instrumental in widening and deepening the financial sector of India. For instance, in the decade after nationalization, between 1970-71 to 1980-81, the total deposits of the banking sector increased at the CAGR of 14.78 percent from Rs.6.95 billion to Rs.27.58 billion. Likewise, the share of deposits with maturity greater than five years increased from merely 6.2 percent in 1969 to 61.8 percent in 1981. The amount of term loans provided by commercial banks, particularly, to agriculture sector and small scale industries, increased remarkably after the nationalization of banks. On account of this, the share of long term loans in total bank credit increased from 12 percent to 24 percent in the decade following nationalization.

However, the 1970s and 1980s were also marked by excessive government borrowings from the RBI and the commercial banks, leading to inflationary pressures combined with lower productivity. High levels of deficit financing led to the crowding out of the private sector through the pre-emption of investible funds and high statutory reserve requirements resulting into prohibitive rates of interest. Amidst the geographical and functional expansion of the commercial banks, their operational efficiency became important focal point for the future pathway of the Indian Banking Sector. In this context, the Chakravarty Committee (1982) formed to review the working of the monetary system, gave significant recommendations which mark some of the initial efforts towards liberalizing the banking sector since 1985. The committee recommended greater role for interest rate to promote credit with price stability through selective deregulation of interest rates, development of treasury bills as an active monetary instrument with a well-functioning secondary market as well, and creation of money markets.

Further financial sector reforms in India were introduced based on the recommendations of the Narasimham Committee Report (1992 and 1998). Broadly, the reforms in the banking sector may be categorized as deregulation and adoption of prudential norms of regulation by the RBI. Deregulation sought to gradually liberalize the interest rates by giving autonomy to the banks to decide the rates of interest, to ease entry and exit norms for the banking sector so as to instil competition in the sector, and to ease the reserve requirements to be maintained by banks to lend greater freedom to banks to decide the deployment of the deposits mobilized by them.

The recommendations also aimed at strengthening the banking sector by laying down the requirements of risk related capital adequacy, asset classification, provisioning for doubtful debts based on the recommendations of the BASEL norms I adopted in India in 1992-93 and BASEL norms II adopted in the year 2004. Measures have also been taken to strengthen the legal framework within which the financial institutions operate to instil stability and resilience in the system. The Securities and Exchange Board of India (SEBI) was made into an autonomous body in 1992 and statutory powers were given to it. This eventually led to innovations in financial instruments, introduction of the derivatives markets, dematerialization of financial instruments and changes in the nature of financial participation.

Through reforms aimed at the banking and non-banking financial sector, capital market and insurance sector, the government gradually infused increasing degree of autonomy and competition, allowing private and foreign sector participation in the financial system. Along with multifaceted reforms, the adoption of information technology in financial services gave further impetus to the sector in entirely new dimensions to accommodate and grow. These changes are expected to get reflected in increased levels of financial deepening and access. Increased levels of competition may result into efficiency gains as well. Further, the launch of the Jan Dhan Yojana has widened the coverage of population with bank accounts. Similarly, the increased stress on digital modes of operation is expected to improve the cost efficiency of transactions and the access to banking. These reflections offer significant areas for research.

1.4: FINANCIAL SECTOR DEVELOPMENT

The concept of financial sector development has evolved over time with changing constructs as the system became more and more sophisticated. With the invention of the internet and information technology, the financial sectors have become increasingly global adding new dimensions to how financial sector development can be perceived. The earliest construct of financial sector development was in terms of financial depth, typically measured as liquid liability to GDP ratio and thereafter, broad money to GDP ratio. This was in connection to increasing move from non-monetized to monetized economy.

Financial development for a developing country like India is about establishing the fundamental blocks of the financial sector in terms of improving its breadth and depth as also achieving this with efficiency and stability. Unless the financial sector achieves a reasonable degree of width and depth, any large private capital inflows or those induced by government or central bank efforts may result into distorted allocation of finance. It implies, therefore, that broader and deeper financial sector have an important bearing on the efficiency of the sector.

Financial sector reforms not only lead to development of the sector but are also expected to help the real economy to exploit its potential for growth and development. The financial sector and the real economy reinforce each other to create a synergy of sorts. Development of financial sector increases its absorptive capacity to manage inflow of more funds both from domestic as well as external economy in a more efficient manner.

1.5: RESEARCH GAP AND RATIONALE FOR THE STUDY

About three decades of efforts and initiatives taken by the government and the RBI and other regulatory authorities in the country entails an inquiry into the impact that it has had on the financial sector of India and on its economy, and the implications it has for the future. With this premise, the proposed study aims at gauging the extent of financial development that has taken place in India and how it has impacted the real economy. Financial development is multi-faceted in its dimensions which go beyond size and depth parameters and which have not been adequately examined in the context of India. The changes that have been witnessed in the Indian financial sector would have impacted the efficiency with which the financial services are rendered. It is also observed that even as new sections of the society are being included in the formal financial system, there is also a gradual trend of disintermediation of banks happening on account of increased direct participation in the financial markets.

It may be said that while the financial sector may be undergoing consolidation, banking and other financial activities have grown over time and are being conducted in more evolved manner as the system becomes more sophisticated. How these developments have affected the efficiency and strength or stability of the financial system, is an area that has not been adequately researched. The World Bank has developed a conceptual framework of *4x2* dimensions of financial development based on which the Global Financial Development Database is prepared. It encompasses four aspects of financial development, namely, access, depth, efficiency and stability across two components of financial sector, viz., financial institutions and financial markets. The *4x2* framework provides several alternative measures by which financial deepening and access, and efficiency and stability of the sector can be captured. In other words, the framework seeks not just to measure the breadth and depth of the financial sector but also if it is achieved in cost-effective ways. The proposed study seeks to draw from this framework of indicators developed by the World Bank. These indicators in essence, are ways to measure how well financial institutions and financial market perform the functions enumerated in section 1.2.

Most studies that have attempted to gauge the extent of financial development in India are country studies which focus on a single year of comparison or very limited number of years for vast array of countries. These include Bonin, Hasan and Watchel (2004), Beck, Kunt and Peria (2005), Darrat (2006), Claessens (2006), Mohan (2006), Yuncu (2007), Sarma (2008), Ahmad and Malik (2009), Arora (2010), Hannig and Jansen (2010), Rojas-Suarez (2010), Ardic, Hiemann, and Mylenko (2011), Akgun Unaldi (2011), Amidžić, Massara, and Mialou (2014), Aggarwal (2014), Sharma (2016), Prasad (2017), etc. These studies are centered around limited dimensions of financial development such as access, inclusion and depth. There is no study found that examines the financial sector development in India in its entirety and over a long period of time. Also, no study is found which has attempted to pool these dimensions together and bind them into indices to investigate into their combined impact and provide a structural construct of the concept of financial development. Further, no study is found which carries forward the findings related to financial development to investigate into its impact on economic growth.

In the related literature on India so far, no studies are found that investigate into the intricacies of the interconnections between the dimensions of financial development by examining their intra as well as inter linkages to provide a wholesome understanding of the sector. Therefore, given the substantially long period over which the financial sector in India has evolved, it warrants an in-depth study of the financial development in India.

Drawing from the *4x2* framework of the indicators of financial development, the study aims at encompassing financial development not only in terms of its size but also in terms of access, efficiency and stability for a 30-year period since 1990-91. The study will also examine the linkages between these indicators to establish meaningful associations, if they exist. Further, the present study attempts to construct dimensional and composite indices to inquire into the relative contributions of each dimension in financial sector development. In the extensive review of literature on related area carried out for the present research work, no such study was found. Accordingly, the analytical work is divided into two broad sections; one, four aspects of financial development, namely, access, depth, efficiency and stability, and two, the link between financial development and economic growth.

After examining the multidimensional financial development, the study undertakes analysis of the relationship between financial development and economic growth using models with alternative representations of financial development. No study is found in the literature that undertakes such an in-depth examination of the financial sector development of any country, covering all four dimensions across financial institutions and markets, and also relates it to economic growth. The present study is a sincere attempt to study financial development in India and analyze its impact on economic growth.

1.6: Outline of the Thesis

The study will be divided into seven chapters as shown below:

Chapter 1: Introduction

Chapter 2: Review of Literature

Chapter 3: Objectives and Research Methodology

Chapter 4: Analysis of Financial Development in India

Chapter 5: Interlinkages of the Dimensions of Financial Development

Chapter 6: Analysis of the Impact of Financial Development on Economic Growth

Chapter 7: Conclusion and Recommendations

The introductory chapter of the thesis highlights the significance of the financial sector in terms of its functions which form an important base for examining the varied dimensions of the development of the sector in the macro-economic perspective. The chapter also outlines the reforms undertaken in the banking and financial sector which again have implications for their development.

The second chapter details the extensive review of literature in the area of financial development. The chapter is organized into sections on thematic basis. The first theme relates to financial access, the second being financial depth. The third section covers studies related to financial efficiency. Section four relates to the theme of financial stability. The final section covers a vast range of studies related to the relationship between financial development and economic growth.

Chapter three lays down the objectives and hypotheses of the study in the light of the extensive review of literature and the research gap therein. It provides detailed outlines of the research methodology used in the analysis. Variables used in the study are clearly listed in the chapter, and formulae applied in the analysis have been explained in detail.

Chapters four to six cover the analytical work of the thesis wherein each objective has been addressed with appropriate variables and statistical tools. Chapter four provides detailed analysis of the four dimensions of financial development, namely, financial access, financial depth, financial efficiency and financial stability. Each of these dimensions are examined in multiple and alternative ways to gauge its development. To assess the impact of financial access, financial inclusion indices have been constructed with alternative variables, which provide different constructs of the concept of financial inclusion. Further, an Index of Financial Development has also been constructed, built as pyramid structure of primary, secondary and tertiary indices, using Principal Component Analysis for assigning weights.

Chapter five consolidates the four dimensions by examining their interlinkages. It examines correlations between the dimensions and establishes important associations. To investigate into the measures that contribute most to the latent variables such as access, depth, efficiency, stability and overall financial sector development, the Structural Equation Modelling (SEM) approach has been used for Confirmatory Factor Analysis.

Chapter six includes econometric analysis of the relationship between financial development and economic growth using alternative models to posit alternative dimensions of financial development. Broadly, two sets of models have been examined. One, which hypothesizes single measures of financial development, in particular, those related to financial depth; and second, which examines the impact of financial development through composite indices at primary, secondary and tertiary levels. Results of models with two alternative proxy variables for economic growth used for the dependent variable, total factor productivity and GDP at constant prices, are reported in the study. Models with PCI income and economic growth rate did not satisfy statistical reliability requirements and therefore, they are not presented in the chapter.

Chapter seven summarizes the major findings of the research work. It lays down policy suggestions for further improvement of the financial sector. It also touches upon the limitations of the study and highlights areas with scope for further research.