

# ROLE OF FINANCIAL SYSTEM IN ECONOMIC GROWTH OF INDIA

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## ABSTRACT

*Interrelationship between financial system and economic growth is most important for any country. It is an established fact that there is a significant relation between these two at the international level. There are various studies proving this through cross-country regression. In this paper an attempt has been made to see the link between these two through time series regression. Specifically stepwise regression has been used. Indian financial system is represented by bank and stock market and it is found that banking sector has significant relationship with economic growth but not the Indian stock market. Therefore, Indian financial system represented by its financial institutions like bank is influencing the economy but not the financial market represented by stock market.*

## Introduction

A well developed financial system and especially financial intermediation is also important for the efficient allocation of capital between competing uses and to ensure that saving is used for investment purposes. In the early stages of development most saving is done by the household sector of the economy, which invests less than it saves. In the absence of financial assets, savings takes the form of the acquisition of physical assets, including animals, land, jewellery and the like. The purchases of such assets free resources for investment, does not guarantee that the seller of the assets will use the sale proceeds for investment purpose. The proceeds may be consumed or invested in relatively unprofitable activities because there is no mechanism for the distribution of new capital beyond the

sectors in which it is generated. The existence of monetary assets and financial intermediaries provides a surer guarantee that the act of saving will lead to investment and that the return on the investment will be maximized. A well developed financial system has four main requisites each of which can contribute to the process of financial deepening and to raising the level of saving. These four requisites comprise:

- the monetization of the economy and the replacement of barter as a means of exchange
- the establishment of a central bank
- the development of a commercial banking system and
- the development of a well co-ordinated capital market

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Financial system of a country is made up of specialized and non-specialized financial institutions. It also consists of organized and unorganized financial markets, financial instruments and services which facilitate transfer of funds. Financial system is a set of complex and also closely intermixed financial institutions, markets, instruments, services, practices, procedures etc. Financial markets can be defined as centers or arrangements that provide facilities for buying and selling of financial claims and services. In other words, financial system is a set of instrumental arrangements by which the surplus resources in the economy are mobilized from surplus units and transferred to deficit spenders.

The main constituents of financial system are financial assets, financial markets and financial institutions. Financial assets are claims of securities which are divided into two categories namely primary and secondary securities. Financial markets deal in financial assets or instruments of various kinds of such as currency, deposits, cheques, bills and bonds. Financial markets are more or less like markets for goods and services. They have their own demand and supply, quantities and prices. The third constituent is financial institutions or financial intermediaries. Under this category all banks and nonbanking financial institutions are covered. In India, the banking system comprises of the commercial banks and co-operative banks and the central or the Apex Bank. A developed financial system is a necessary part of an expanding economy as it mobilizes the financial resources of the economy to support investment and technological advances. The growth of output in any economy depends on the increase in the proportion of savings and investment to a nation's output of goods and services. The financial system and financial institutions help in the diversion of rising current income into

savings and investment.

## **The Role of the Financial System**

The role of the financial system is to intermediate between lenders and borrowers, providing a menu of saving vehicles with differing risk and return characteristics, and helping investors find the financing they need, taking into account the returns and risks on the projects they wish to undertake. In carrying out their functions, financial intermediaries reduce transactions costs for savers and investors and help reduce problems of asymmetric information that are inherent in the relationship between investors and entrepreneurs. In this regard the development of sophisticated derivative instruments has helped improve the allocation of risk in the economy, and increase the efficiency of the saving- investment process. For a given level of saving, more efficient financial intermediation increases the productivity of investment. It thus seems obvious that the more efficient the financial system, the more rapid the growth rate.

In practice, there are two views on the importance of the financial system for development. The first view is that the financial sector does not matter very much, and that any correlation between financial development and growth is a result of growth leading development. The second view is that an efficient financial system is key to development. In his classic, *Lombard Street*, published in 1873, Walter Bagehot argued that it was England's efficient capital markets that made the industrial revolution possible. However, the most important and thorough early contribution on financial development and economic development came from Jose Schumpeter, whose 1912 German book on the subject was published in English only in 1934, as the *Theory of Economic Development*.

Schumpeter contended that financial development causes economic development – that financial markets promote economic growth by funding entrepreneurs and in particular by channeling capital to the entrepreneurs with high return projects. He developed his case in vivid language:

The growth of output in any economy depends on the increase in the proportion of savings/investments to a nation's output of goods and services. The financial system and financial institutions help in the diversion of rising current income into savings/investments. Economic activity and growth are greatly facilitated by; the existence of a financial system developed in terms of the efficiency of the market in mobilizing savings and allocating them among competing users. Well-developed financial markets are required for creating a balanced financial system in which both financial markets and financial institutions play important roles. Deep and liquid markets provide liquidity to meet any surge in demand for liquidity in times of financial crisis. Such markets are also necessary to derive appropriate reference rates for pricing financial assets. In financial system banking and stock market indicators are playing main and significant role in economic growth. Therefore, we have selected these two components as representatives of the whole financial system. Banking system accepts deposits of money and creates through lending to creditworthy borrowers a reliable bank non convertible into the stable monetary base. Bank money is convenient and economical, and as Schumpeter argued is a pregnant method of financing entrepreneurship. Stock market finances governments and business enterprises by facilitating the issue of new securities (bonds, equity shares, and other financial instruments) and gives such securities "liquidity" by providing trading markets for securities after they are issued.

## **Importance and Role of Banks and Stock Market in the Economy**

The well being of the nation depends upon the prudence of the administration of the banking system. The modern banking has to perform a three-fold function in the economic system. In the first place, it has to collect from the whole of the community the savings and unused purchasing power into what we might term a great reservoir. Secondly, it has to place these sums entrusted to it at the disposal of those who can make use of them. Thirdly, it has to provide a suitable medium of exchange to facilitate these functions. From these, we can understand that the foremost function of banks is accepting deposits from the public, the system should make available these funds to the business and investing community through granting of loans and the process, procedure and medium connected in these should be facilitating these functions easily. There is no need to over-emphasize the importance of banking as part and parcel of modern industrial and commercial culture. The role of banking in promoting development and growth especially in the context of planning and breaking the vicious circle of poverty and to retrieve the economy from the trap of underdevelopment is a matter of paramount importance, particularly when our country is on the way of development. The stock market is an indispensable institution created in competitive economy which has fostered the growth of joint-stock companies. Without an efficient stock exchange, the savings of the community could not be used fully. Stock exchange provides facilities to meet the investment requirements of the public. Individuals and institutions can buy and sell securities, whenever, they please, very conveniently and quickly and also economically. Through the stock exchange, the sellers of stock can sell at the best possible price and

buyers can buy at the prevailing market price of the securities. It is a market place where the transactions converge. A stock exchange provides a place to raise capital for industries. The existence of a broad and liquid exchange market is a vital factor in facilitating the issuance of new securities, which are to be listed there. Their presence reduces the cost of underwriting and encourages both individuals and institutions to invest. A stock exchange directs the flow of savings between different types of competitive investment. It helps in chanelizing the savings of people to meet the investment needs of the entrepreneurs and the buoyancy created, sets forth activity in the capital market. Thus, the capital is not only attracted but, is directed towards profitable channels. This task is accomplished by watching the price movements. Unlike in conventional auctions where only buyers compete, in a stock exchange, even sellers compete. The prices in a stock exchange reflect the basic law of supply and demand. A rise in price of a particular security indicates future prospects and affords an incentive to investor. Stock exchanges reflect the general conditions of the business atmosphere. The significance of stock exchange lies in the provision of a broad, continuous liquid market. By continuous market, we mean a market where only listed security may be bought and sold at any time during business hours at comparatively small variations from the current price. Thus, a stock exchange is an important institution in a capitalistic system. With the advent of planning and growth through the expansion of public sector, the importance of stock exchanges had diminished considerably.

## Review of Literature

**Randall K.Filer, Jan Hanousek, Nauro F.Campos (1999)** This paper provides evidence of a positive and significant causal relationship going from stock market development to economic growth, particularly for less developed

countries, by using Granger-causality. In this paper stock development is measured by three variables:

market capitalization over GDP, turnover velocity, the change in the number of domestic share listed. Here, they grouped countries based on the share of domestic credit provided by the banking sector as a percentage of GDP using data from the World Bank. According to them, high bank credit may indicate an overall well-developed financial sector, but it may also indicate countries where effective substitutes for equity markets make such markets less important in determining growth. This paper concluded that active equity market is an important engine of economic growth in developing countries.

**Adalbert Winkler** This paper surveys how economic theory has dealt, or is dealing, with the dual impact of financial markets on economic development. Four theories have been selected for consideration – neo-classical and Keynesian theory, the New Development Finance approach and the new theory of which is grounded in the economics of information. Each emphasizes different aspects of the relationship between financial markets an economic development. They concluded that the links between macroeconomic, monetary factors and the financial markets are even closer than is suggested by an assessment, proper attention should be paid to macroeconomic theory and the theory of finance which is suggested not only by the results of the theoretical survey presented here but also by recent developments in the East Asian financial markets.

**Zhen Li, August (2002)** They developed a general equilibrium model showing the positive relationship between financial development and economic growth at the aggregate level. It also suggests an explanation for this relationship that is primarily through the reduced

capital accumulation and misallocation of resources at the presence of financial constraints as capital accumulation is the engine of growth in this economy. Finally, this paper has shed light on our thinking about financial development and economic growth. Qualitatively, it emphasizes a positive association between the two. Technically, it provides a general framework to study this issue at the aggregate level.

**Ross Levine, Sara Zervos, (1996)** This paper was developed mainly to find out the cross-sectional relationship between stock market development and growth. To find out the link between stock and growth they used pooled cross-country, time-series growth regressions. They have included a variety of macroeconomic indicators to evaluate the strength of the partial correlation between stock market development indices and economic growth. To assess the strength of the relationship between stock market development and economic growth they used partial correlation. They have concluded that a strong positive relationship between stock market development and long-run economic growth.

**William F. Duisenberg (2001)** This paper provides whether the design of the financial system matters for economic growth, the role of monetary policy in the interplay between financial markets and economic growth and the role of central bank in prudential supervision. The conclusion was that the transformation in the financial and economic landscape entails certain potential risks, but it will provide many opportunities for enhanced efficiency and growth in the financial markets and economies in the euro area.

**Stanley Fischer** This paper discussed about the importance of financial markets in economic growth of Brazil. It concluded that the unstable government finances and high inflation can destroy a financial system, and suggested for

the sound regulatory framework: the reform of inefficient financial institutions, whether through privatization or by allowing competition – including from foreign firms; to restructure the financial system; the removal of discriminatory taxes and other elements of financial repression; and strong corporate governance and the adoption of sound accounting practices.

**Peter L. Rousseau and Richard Sylla** This paper defined what constitutes a good domestic financial system. They provide narrative historical case studies of the development of such systems in Britain, Netherlands, United States, France, Germany, and Japan, and show that the development of a good financial system, in each of these important cases, predates periods of rapid economic growth. This paper analyzed the role of private Bank finance in domestic economic development, but they recognized the importance of stable money and of developed public financial institutions (central banks and public banks). They concluded that the government policy and the effect of banks on the fiscal health of the government relatively influences – private credit supply, fiscal health, stable money, mercantilist financing of empire – are mixed in the “black box” of M3

**Jose De Gregorio, (1998)** This paper analyzed the relationship between international financial integration and economic growth. The aim is to emphasize the role of financial deepening on economic growth, examining the role of international financial integration in promoting a deep domestic financial market and through that channel fostering economic growth, and to examine the portfolio diversification, allowing higher profitability of investment which leads to higher rate of economic growth. In this paper he used regression and correlation to find whether there is any relationship between financial integration and economic growth. Finally, he concluded that the beneficial effects

of financial integration on economic growth come mainly through fostering the development of the domestic financial system. This paper also highlights the benefits of foreign direct investment and its interactions with human capital.

**Richard Sylla** This paper analyzes the Historical Financial Revolution of the The Dutch Republic, Great Britain, United States, Europe, and Japan. They identified five essential components of financial system like economic reasons, stable money, banking system, central bank, and securities market. They concluded that for economic modernization articulated financial systems, industrial revolution, and the industrialization process are necessary.

**Mity Osinski (2000)** This paper examines the question whether in transition economies the level of financial development influences economic growth. The empirical investigation was carried out using both simple cross-country correlation analysis and dynamic pooled least squares. Cross-country correlation analysis shows strong positive link between financial development and economic growth. Several simple Granger causality tests were run in order to estimate the direction of causality between financial development and economic growth. Since the main focus of the paper is on transition economies, the indicator reflecting one of the major drawbacks of financial systems of some transition economies – inter enterprise arrears- was introduced and then tested using the data on Ukraine and Russia. They concluded that the data are generally supportive to the hypothesis of positive influence of financial development on future growth rates. In principle financial development cannot be the source of growth by itself, it can only facilitate it given that real sector is proposing some profitable investment opportunities. This is very important for transition economies, because many of them suffer from the absence of the well-

developed markets, poorly defined property rights and contract enforcement mechanisms. Without these premises, there would not be enough investment projects to put money in and consequently; there would be no explicit role for financial sector to play in facilitating economic growth.

**J. Benson Durham (2000)** This paper examines both the short- and long-term transmission mechanisms that support this component of capital account reform. This paper re-examines the final phases of both of these causal paths. First, considering the long run, several factors recommend re-examining the empirical link between stock market development measures and macro economic growth. Second is in relation to the short run mechanism. This paper tests how private investment responds to changes in stock market valuation in both higher and lower income markets. They used regression to tests whether stock markets have varying real effects depending on the initial level of national income. They have done a test based on GDP per capita. This indicated that though stock market behavior has varying real effects depending on the initial level of income. With respect to growth and equity market development, the long run model suggests that higher income countries drive the overall positive relation. Also, interaction terms with initial GDP and country credit ratings are largely positive and significant, and a few legal variables are also robust. The econometrics on private investment produces more lucid results. Statistical interactions with initial GDP and country credit are significant, but curiously, neither financial development nor legal related variables seem to be key intervening factors.

**Robert G. King, Rose Levine(1992)** This paper mainly developed a set of "robust stylized facts" about the relationship between financial structure and economic growth, measured

by the growth rate of per capita gross domestic product, in a large cross-section of countries over the 1960-89 and to undertake a preliminary exploration of the "channels of influence" by which financial indicators are related to growth. The paper used three methods to document the relationship between financial indicators and growth. They presented bi-variate graphs and correlations to illustrate the ties between financial indicators and growth, they used cross-country regressions, and time-series regressions to examine the robustness of the partial correlations between growth and the financial indicators and the channels through which this relationship runs. The time series regression suggests that the financial indicators are linked through both the investment and efficiency channels.

**Edward K.Y.Chen & Raymond C.W.Ng** Hong Kong has achieved remarkable economic growth with high investment and savings rates throughout its development process. Much credit should be given to the remarkable development of the financial sector. The Hong Kong experience may be an example of how economic development can be financed through a market-oriented financial framework. This paper concluded that based on Hong Kong experience, for economic development prudent bank regulation and supervision with special reference to capital and liquidity adequacy, as well as risk exposure and management.

**Ross Levine(1996)** This paper explains the functional approach to understand the role of financial systems in economic growth, it organize an analytical framework of the finance growth nexus and then assess the quantitative importance of the financial system in economic growth. It narrows its conceptual focus by studying the financial services available to an economic regardless of the geographic sources of those services. They used the Regression to assess the independent link between stock

market liquidity and growth after controlling for other aspects of financial development. Ratio analysis used to analyze size of the economy, cross country variability and banking development. It was concluded that A growing body of empirical analyzes, including firm-level studies industry-level studies individual country-studies, and broad cross-country comparison demonstrate a strong positive link between the functioning of the financial system and long run economic growth. But he says that, we will not have a sufficient understanding of long run growth until we understand the evolution and functioning of financial systems.

**Ross Levine (1992)** This paper focused on how economic growth elicits the creation and modification of financial arrangements, while simultaneously explaining how the evolving financial structure alters he incentives of individuals in ways that change the economy's growth rate. This paper helped to reconcile theory with the empirical evidence. This paper used an endogenous growth model based on Levine (1991). Liquidity risk, productivity risk, information gathering and resource mobilization costs, and financial transactions costs generate a demand for financial services. In addition, the level of income per capita may affect the affordability and provision of financial services. The analysis predicted that it is the provision of specific services that will be related to long-run growth, not necessarily the size of the financial system or of any particular financial institution.

**Paul Harrison, Oran sussman, Joseph Zeira** This paper described a feedback effect between real and financial development. The paper presented a new variable, which we call the cost of financial intermediation, through which the feedback between finance and growth operates. The theoretical part of the paper described how specialization of financial intermediaries leads to such a feedback effect.

The main result of this feedback was that differences in productivity across countries are amplified by financial intermediation. The empirical part of the paper used U.S. cross-state data from banks' income statements to measure the cost of financial intermediation and to provide evidence for the feedback effect between finance and growth.

**Tuuli Koivu (2001)** The relationship between financial sector and economic growth in transition countries has been largely ignored in the earlier empirical literature. In this paper, he analyzes the finance-growth nexus using a fixed-effects panel model and unbalanced panel data from 25 transition countries during the period 1993-2000. He measured the qualitative development in the banking sectors using the margin between lending and deposit interest rates. His second variable for the level of financial sector development is the amount of bank credit allocated to the private sector as a share of GDP. According to his results, the interest rate margin is significantly and negatively related to economic growth. This outcome is in line with theoretical models and has important policy implications. On the other hand, a rise in the amount of credit does not seem to accelerate economic growth. The main reasons behind this result could be the numerous banking crises the transition countries have experienced and the soft budget constraints that are still prevalent in many transition countries.

**Michael Leahy, Sebastian Schich, Gert Wehinger, Florian Pelgrin, Thorsteinn Thorgeirsson, (2001)** The recent period of sustained high growth in the United States has drawn attention to its financial system and the efficiency with which it seems to be able to channel funds to new productive investment projects, particularly in hi-tech industries. This study examines the role played by the financial systems in OECD countries

and how they affect resource allocation and growth. It provides evidence suggesting that legal and regulatory framework conditions for financial systems, and particularly their enforcement and transparency, support innovation and investment in new enterprises. In addition, using dynamic panel regression techniques, the study finds significant relationships between investment and financial development, as measured by indicators of the scale of financial activity. Evidence is also found of significant relationships between financial development and growth over and above the links via investment indicating impacts via overall economic efficiency.

### **Time -Series Growth Regression Framework**

This section empirically evaluates whether the financial system represented by STOCK and BANK is linked to economic growth. To conduct this analysis, we use time-series growth regressions. The study basically has two observations. The first observation uses gross domestic product as dependent variable. For this purpose quarterly data from June 1996 to December 2003 were used from RBI and BSE sources. The second observation uses Index of Industrial production as a proxy for Gross Domestic Product due to non availability of monthly data. For which, monthly data from RBI and BSE were collected from June 1996 to December 2003 period. Analysis are made with and without IIP data as it had a greater role in the stock market. Thus the dependent variable, GROWTH, is the GDP and IIP of the relevant period. The structure of our regression equation is the following:

$$G(j) = X + \square \text{BANK} + \square \text{STOCK} + u$$

Where the growth indicator,  $G(j)$  is either gross domestic product or the index of industrial production over the 1996 - 2003 period; BANK

is set of banking variables like bank credit to private enterprises to GDP and bank deposits to GDP; STOCK is set of turnover ratio (TOR), total value traded ratio (TVT) and Market capitalization ratio (MCR); X is set of control variables like financial depth measured by M3 divided by GDP and inflation represented by wholesale price index (WPI).  $\beta$  is a vector of coefficients on X,  $\beta_1$  is the estimated coefficient on the bank,  $\beta_2$  is the estimated coefficient on the stock market and  $u$  is the error term.

## Results of the Study

### Unstandardized Co-efficient

Unstandardised co-efficients are determined without transforming the independent variables. From table no: 1 we could understand that: In case of Quarterly GDP & Quarterly IIP, the bank deposit divided by GDP interacts with economy significantly (DEPOGDP). Whereas, in the stock market all variables namely size, liquidity are influencing the stock market negatively. This has very good general explanatory power. It looks as though, only banking sector of the economy really a matter for the economy not the stock market. Such conclusion is subject to the condition that FI plays a significant role in the stock market. Though both bank and stock market are part of the economy it is found that only bank is influencing or interacting with economy not the stock market. Almost the same conclusion is drawn from the regressions obtained by considering the quarterly IIP but with decreased magnitude of coefficients. One of the liquidity measures is not interacting with the economy unlike the GDP measure of economy. Significantly, FI influencing the IIP negatively, which was not at all interacting with GDP? Here also, we could take that the general explanatory power is very good and with significance.

When IIP monthly data was considered for the regressions, it is found that none of the stock market variables interact with economy represented by IIP but one of the banking sector variables interact with economy. This time it is the bank credit to private enterprises is interacting with economy proxies by IIP. General explanatory power the model fit is good but relatively it is less compared with quarterly data. It is now obvious that when we include the FI influences, both quarterly as well as monthly data reveal that financial system represented by banking sector influences the economy. Stock market another component of financial system interacts with economy either negatively or there is no influences.

Table 2 presents the regression coefficients without considering the FI as independent variable for the same set of dependent variables considered earlier. Same result is obtained namely, only banking sector influences the economy not the stock market. Banking sector represented by deposits mobilized and credit given to private enterprises influences the economy. In the case of stock market it either interacts negatively or don't interact with the economy. The conclusion from these two tables is that in India, financial system is only bank in terms of it relation with economy, but not the stock market. Which needs, the attention of the policy makers and regulators to identify the causes for such status in India?

### Standardized (beta) coefficients

It is the regression coefficients when all variables are expressed in standardized (Z-score) form. Transforming the independent variables to standardized form makes the coefficients more comparable since they are all in the same units of measure. Unlike unstandardized coefficients, standardized coefficients for the model gives rather very clear indication as to

how many changes will help the other variable to change.

Same type of attempt was made to see the link between financial system and economy by having one set of data with FII and another set of data without FII (Refer table no: 3 and 4). Quarterly data confirms the above results that deposits mobilized by banks in India influences the economy positively and the stock market represented by all its variables influences the economy negatively. In case of monthly data it is seen that both stock market turnover and market capitalization influences the economy when FII is allowed

to interact with other independent variables. But when the FII is not allowed it is found that bank credit to private enterprises and the turnover of stock market interacting. It is clear that FII is increasing the market size though it allows the stock market size to interact with the economy. When FII is not included we find that bank credit to private enterprises influences the economy. Net of all is that FII through its influence on the stock market size makes it to interact with economy positively. Stock market liquidity seems to influence the economy irrespective of FII's role on the stock market. In other words, only stock market liquidity seems to

Table 1  
Unstandardized Regression Coefficients  
(With FII)

VARIABLES	QUARTERLY GDP	QUARTERLY IIP	MONTHLY IIP
CONSTANT	545002.7 (7.617) [0.000]	127.101 (13.280) [0.000]	103.239 (49.016) [0.000]
TO-BSE	--	--	0.0001080 (4.343) [0.000]
BANKCRE	--	--	0.00008412 (25.069) [0.000]
WPI	11.110 (10.811) [0.000]	0.001751 (7.993) [0.000]	--
DEPOGDP	92217.636 (4.873) [0.000]	22.200 (5.315) [0.000]	--
TVT	-2621182 (-3.584) [0.001]	-718.438 (-6.744) [0.000]	--
TOR	-3453796 (-3.321) [0.003]	--	--
MCR	-191297.0 (-5.190) [0.000]	-11.350 (-2.818) [0.009]	--
FII	--	-0.005815 (-2.637) [0.014]	--
R2	0.944	.922	00.892
ADJ R2	0.932	0.906	0.889
F	83.582	59.007	362.015

\* (Figures in parenthesis indicate t-value) [Figures in bracket indicate significance)

Table 2  
Unstandardized Regression Coefficients  
(Without FII)

VARIABLES	QUARTERLY GDP	QUARTERLY IIP	MONTHLY IIP
CONSTANT	545002.76 (7.617) [0.000]	122.992 (9.272) [0.000]	103.239 (49.016) [0.000]
TO-BSE	--	--	0.0001080 (4.343) [0.000]
BANKCRE	--	--	0.00008412 (25.069) [0.000]
WPI	11.110 (10.811) [0.000]	0.001371 (4.624) [0.000]	
DEPOGDP	92217.636 (4.873) [0.000]	200.992 (9.270) [0.000]	
TVT	2621182 (-3.584) [0.001]	-575.428 (-3.878) [0.001]	--
TOR	-3453796 (-3.321) [0.003]	--	--
MCR	-191297.0 (-5.190) [0.000]	--	--
FINDEPTH	--	-135.318 (-1.837) [0.078]	--
R2	0.944	0.893	0.867
ADJ R2	0.932	0.877	0.889
F	83.582	54.426	362.015

\*(Figures in parenthesis indicate t-value) [Figures in bracket indicate significance]

Table 3  
Standardized regression  
(Without FII)

VARIABLES Y	QUARTERLY GDP	QUARTERLY IIP	MONTHLY IIP
TO-BSE	--	--	-- 0.156
MC-BSE --	--	--	--
BANKCR	--	--	0.899
DEPO	--	--	--
M3 -	--	--	--
WPI	2.705	1.920	
TOR --	-1.037	--	--
TVT	-1.299	-1.640	
MCR	-0.577	--	--
CREGDP	--	--	--
DEPOGDP	0.270	3.378	
FINDEPTH	--	-2.867	--
FII	--	--	--

interact with economy when we consider the monthly data and keep IIP as a proxy for GDP. Quarterly data seem to tell us the different information that stock market does not play any role in the economy.

## Conclusion

This paper studied the empirical relationship between various measures of stock market, banking development and long-run economic growth. We find that, even after controlling for many factors associated with growth, stock market liquidity and banking development are both positively correlated with index of industrial production. This result is consistent with the view that a greater ability to trade ownership of an economy's productive technologies facilitates efficient allocation, physical capital formation, and faster economic growth. Furthermore, the banking development enter the growth regression significantly, the findings suggest that banks provided different financial services to the economy compared to stock market. What is worth mentioning and noting

is the negative influences of the stock market with the economy with good general explanatory power. This negative relationship is in support of various studies already made on Indian stock market and economic relation. Wherein it is proved through time series regression that stock market does not play any role in Indian economy. It is in support of the research work done by D. Lazar, J. Jeyapaul and M.R. Sathyamurthy, (Management Matters: March 2004) where they have highlighted the fact that liquidity and size of the stock market don't have relation with economy. Thus to understand the relationship between the financial system and long-run growth more comprehensively, we need theories in which both stock markets and banks arise and develop simultaneously while providing different bundles of financial services to the economy. This paper finds a strong, positive link between financial development and economic growth and the result suggest that financial factors represented by banks are an integral part of the growth process.

**Table 4**  
**Standardized regression coefficients**  
**(With FII)**

VARIABLES	QUARTERLY GDP	QUARTERLY IIP	MONTHLY IIP
TO-BSE	--	--	0.156
BANKCR	--	--	--
M3	--	--	--
WPI -	2.705	2.452	
MC-BSE - -	--	--	0.899
DEPO - - -	--	--	--
CRGEP -	--	--	--
DEPOGDP -	0.270	0.374	
TVT	-1.299	-2.047	
TOR	-1.037-	--	--
MCR	-0.577	-0.197	
FINDEPTH	--	--	--
FII	--	- -0.186	--

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