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*Original Research Article*

# Financial Development and Impact on Fast Growing Countries

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**In this research paper, it is approved that financial growth positively contributes towards economic growth through the efficient use of financing. In this study macroeconomic factors like GDP, Bank credits, capital are considered into financial growth and which support the economic theory as well.**

**Keywords:** Financial development, GDP, Bank credit, Panel data analysis.

## INTRODUCTION

The financial system of investment and saving decisions by different units' funds to start bringing in the economy is given the highest return sector to invest in the form of financial instrument that is not channeled through the structure. Tools which are providers to invest in the transfer of funds in the financial system must be available. Cash, deposits, loans, treasury bills and bonds, asset-backed securities and so on. It should be located between the financing instruments. The financial intermediaries in the system; banks, stock exchanges, are made up of institutions such as investment trusts.

The financial system can be divided into market-based and bank-based. The high share of banks' financial health of the bank financial system, based on the state of the high market share of the capital market institutions known system. Bank system based on deposits, deposit insurance, such as car loans are used extensively, various securities and derivatives market based system is used more intensively.

Bank advocates based system, especially weak institutional arrangements that in the early stages of economic development, channeling savings into productive investments. They declare that to be more successful in the system. The market-based view; in the financial system and stock markets become more active capital market institutions, such as investment trusts represents the growth would be more effective.

More market-based financial systems of various risk management provide tools. However, both systems expected, financial intermediation function fulfilling in a healthy manner, ensuring efficiency in resource allocation and that is by contributing to economic growth. Country experiences also show that the success of both systems in different countries.

For the existence of the relationship between the financial system and economic growth debate has a long history. The most important cause of the increase, while expressing banking activities, Schumpeter attributed the economic growth of the role played by the banking system to finance investments. Hicks represents the realization process of the industrial revolution is a great contribution to the financial system's capital mobility. Different perspectives on the effects on the financial system on economic growth in numerous studies carried out to date has provided the theoretical basis.

Financial information systems acquisition, control, ensuring the effectiveness of risk investment undertaking functions such as diversification of economic growth increase the efficiency. Several times while performing this function expected of because of disruptions in economic growth. They are also not fulfilling the conditions in question. In particular, asymmetrical reasons arising from the market, such as information and credit rationing, the system also constitutes a kind of state intervention in financial pressure.

On the basis of the views put forward towards financial repression and liberalization McKinnon (1973) and Shaw (1973)'s separately laid out their theory in the same period. Financial pressures according to the authors, the formation of interest rates in the market should lead to the realization of levels at lower levels. Disadvantages caused by the dominant financial system, but relieved liberalizing the financial system. Institutions operating in the financial market following liberalization and an increase in the number of vehicles used will lead to the deepening financial.

Financial system, deepening the developed economies to increase investment in mobilizing savings, efficiency in the use and distribution of resources will be provided. The increased

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activity will trigger economic growth. Since 1970s and after both developed and developing countries, expression studies carried out by financial liberalization and financial liberalization format.

The abolition of the existing arrangements with the dominant financial system was functioning better and provides a financial structure that contributes more to economic growth accordingly. However, there are differences of opinion regarding the continuing role of finance in the finance-growth relationship. The first "financial development is the cause of economic growth" as the premise of supply view. Against the "economic growth causes financial development" demand-following views are expressed as. A large number of studies carried out to determine the direction of the relationship, gave different results depending on the structural characteristics of the analyzed countries. In this study, financial development, between deepening and economic growth located in the emerging markets group relations (Argentina, Brazil, China, Hong Kong, South Korea, Malaysia, Mexico, Singapore, Thailand and Turkey) test for ten countries.

It is to test the accuracy of their policies. Panel data analysis study method would be preferred; the country's 2003-2013 ten-year period of the selected data has been used. The data are used from the World Bank Development Indicators (WDI). The basic functions of the financial system in order to study, financial deepening various indicators used to measure, model related financial deepening, various hypotheses financial deepening and growth of relations were discussed and finally a panel of financial deepening and growth of relations regression testing was conducted.

## BASIC FUNCTIONS OF THE FINANCIAL SYSTEM

Financial system, economic agents in the hands of idle funds, real sector through the transfer of funds to finance their investment upon demanding it. Fund that is provided, yields the highest field efficiency in directing the allocation of resources (Levine, 2004: 5). The assessment of the market conditions is difficult and expensive for individual savers. Often claiming to borrow funds, providing funds and has more than the right information. The supply with demand for funds is from this perspective that arises from information asymmetry. Evaluating investments of depositors of lack of information is causing them to be reluctant to invest in question (King and Levine, 1997: 695).

The high cost of information data, high return on capital, etc. prevents the transfer areas in depending on the financial development through the financial system to function which is developed. Much more through activities at the beginning of economic development when implementing the new financial instruments by banks emerged in the later stages. Financial intermediaries are saving because they are experts in their subject distribution of high return investment opportunities and to pinpoint those who request credit fund. It costs less than the average small investor to decide the worthiness they create (Khan, 2000: 6). Risk information they collect through financial intermediaries, but to finance higher-yielding investments, increase the productivity of capital.

Financial intermediaries in the distribution of economic activity to the extent provided through capital growth is increasing (Greenwood and Jovanovic, 1990:1076). Through cost reduction as one of the most important functions of the financial system because of the reduced capital cost. Parallel to the developments in the financial sector as occurred in the services offered by financial institutions is in competition, it has attracted interest costs down by providing a downturn in the debt. The higher yielding areas of the greater part of the savings to the extent that reduce the costs of the financial system allow to be channeled through and to that extent it is efficient (Darrat, 1999: 33). In addition, financial institutions, companies and managers can monitor the appropriateness of the resources used (Levine, 2004: 667).

The most prominent among the key features of financial markets and the uncertainty emerging risk factor is the presence of relative obscurity. The financial system or investment by investors of different risk factors on savings decreases (Mishkin, 2004: 32). The use of household saving in many different areas while diversifying the risk away for the people of the uncertainties associated with individual projects are removed. Risk diversification and reducing the uncertainty in the increase of savings is a promoting factor (Khan, 2000: 6).

## FINANCIAL DEEPENING (SIZES AND MODELS)

The concept of financial innovation is the process of saving the financial depth of the economy. It represents the channel into mutual diffusion and financial deregulation. It is the number of institutions operating in the financial markets as a result of applications. It leads to increased financial deepening. Financial deepening per capita increase in financial services and institutions and in the ratio of total financial assets, income increase can be expressed in the form (Leo and Korap, 2006: 2). Financial deepening at national and international level is a measure of savings mobilization system.

This recognition by the financial system, but the funds generated by the financial sector to the real sector transfer means deepened and developed to that extent (Oskay'ın, 2000: 3). The funds in the financial system created a financial system failed to provide depth in full. In this case undesirably funds in the system stay in and to return to financial gain, that money is earned money. Real sector investments cannot be financed over the long-term economic growth and it reveals adverse effects.

### *Measurement of financial deepening*

In an economy's financial depth measurement for calculating numerous convenience methods. "The number of institutions operating in the financial markets and increase in the diversity "and" increasing diversity of financial instruments, "financial" depth among indicators is accepted. However, this general index is also available as well as selective indicators. Selective indicators can be grouped under five main headings. They (Lynch, 1996: 12); quantity indicators, structural indicators, the real interest are the varieties of products and replacement costs.

### *Quantity Indicators*

Monetary aggregates, credit and capital market size can be divided into three (Kar, 2001: 157). Monetary aggregates, narrowly defined money supply(M1) and broad money supply (M2) which is the ratio of national income. M2 / GDP ratio made the study is one of the most commonly used indicators of financial deepening. Economy monetization said the definition of money supply rate income also refers to the degree of using the banking system and the level of households.

It gives information about M3 / GDP ratio of the M2 money stock in addition to report and indicating the size of GDP consisting of the sum of the parts of a bank funds. Another

criterion is the monetary rate. The high proportion of these financial markets refers to the development.

The size of loans that are used as indicators of financial development are three separated. The indicators used for the capital market is the ratio of stock market capitalization. This ratio; the stock exchanges in real GDP represented by the volume of transactions. It includes the development of financial deepening capital markets. The company develops and markets that have the ability to find a direct loan stock capitalization rate increased market acceptance as a measure of sophistications (Basoglu and Ceylan, 2001: 512).

***Structural Indicators***

A basic indicator that measures the development of the financial system in structural terms is the M2 / M1 rate. M2 / M1 ratio increases more and more money in the hands of the economic unit and evaluates a large part of the deposit. It is regarded as an important indicator of the structure of development system (Lynch, 1996: 12). This ratio value between 5 and 8 in the country's financial system is developed can receive. Another structural indicator, FR (Financial relations Ratio) = Total Financial Assets / GDP is expressed as "Financial" Relations ratio " The higher the ratio called the country's financial development rate is so high (Goldsmith, 1987: 26).

***Real Interest Rates:*** negative impact of interest rates on savings is negative. The real interest rate is positive, especially in developed countries due to creation. It is the basic condition for financial development. The level of real interest rates and real interest rates in the economy rate flexibility in adapting to rapidly changing economic climate that interest rates show, as the most important indicator in determining the level of financial development is used. Financial development, deepening and intermediation,the real interest rate based on the idea that the activities are linked to interest rates.

There are numerous studies using financial variables. Real interest rates located under the election as a variable rate is based on the idea McKinnon Shaw hypothesis. On the basis of the hypothesis that the increase in real interest rates on the financial savings funds and therefore can be used for the financing of investment to increase the investment is argumental. Another measure of financial developments in financial markets, increasing the diversity of used vehicles and used these tools become increasingly more common. The financial system tool to be used for increasing funding request which enables customers to meet (Oskay, 2000: 19). Financial depth weak market loans and bonds and so on. Basic financing instruments, while developed markets in swaps, futures, derivative products such as forwards and options are used.

***Brokerage Costs:*** Financial system, received from investors through function. The difference between interest rates on loans given to depositors with deposit interest rate as the cost of mediation is prevented. A functioning financial system through effective must be low cost. The low cost of operation, thus increasing the amount of funds that can be transferred to the investment (and Heavy Snow, 2005: 17).

To reduce the costs of the financial system through a long-term sustainable it is a prerequisite for growth. Financial intermediation costs, with loan interest rate is expressed by the margin between interest rates on deposits (BRSA, 2006: 18). The financial system can have a positive impact on economic growth, to fulfill their function as well as the financial depth to be provided. Literature in relation to the existence of financial development and economic growth, there has been a number of studies. However, Lucas (1988: 4), financial markets and the scientists examined the relationship of growth of financial markets on growth. They stated that economic growth in physical capital and human exaggerate the role. There are two sources, including the capital. The level of development and the economy. the growth rate of only two cases where this set of financial markets. It puts the emphasis will be on economic growth, but a small role.

***Financial Deepening Related Models***

Describing the relationship between financial system development and economic growth. It is gathered in two main axes opinion that although many models. First of the opinion, in 1973, McKinnon (1973) and Shaw (1973) 's separately based on the views put forward in this study and an alternative is the opinion of the structuralism school. Financial liberalization of financial results and leading the development of models for economic growth as set forth relationship Based on the McKinnon-Shaw models which later Kapur (1973), Fry (1989)Mathieson (1980), as many economists have put forward their own model.

***McKinnon-Shaw model***

Financial pressures, governments and financial activities of political-legal regulations orientation refers to the prices of financial products and checking. Governments, to control the distribution of financial resources and public pressure policy. They use low cost to finance the deficit. Fund requests, forcing the government securities held by legal sanctions or low-interest sources and they are using to achieve.

High reserve coverage ratios and holding public paper, they have the obligation to fund private sector financial institutions and financial markets limit their opportunities through transfer functions exactly. It hinders the fulfillment (Fry, 1989: 14). How large a portion of the funds is transferred to the public sector, financial repression policies that It is considered very successful. Public resources transferred will be transferred to the private sector the negative impact on growth is limited by excluding investment funds they create (sea et al, 1999: 3).

Financial repression under the mechanism McKinnon Shaw is the basic starting point of the model. Financial pressure and factors determining interest rates, exchange rate controls and high reserve ratio the credit is directed towards the economic need very political decisions. The pressure on financial markets and control, necessary savings for investment, reduces and impedes the economy's long-term growth. McKinnon-Shaw model is based on two assumptions. The first assumption; In developed countries due to the low financial capital accumulation is low and due to the immaturity of the market, its capacity to invest in physical capital

It is limited to finance them to potential level (McKinnon, 1973: 57). Second, the assumption of greater investment spending and consumer spending still is a magnitude. McKinnon, physically higher yielding of depositors investments until they have sufficient resources to invest in financial assets, instead It suggests accumulate funds. These funds are invested in the form of deposits, capital, therefore constitutes a source for the accumulation of physical capital and deposits becoming the complementary assets. The main hypothesis of the McKinnon-Shaw models, savings, real deposit rates and which is an increasing function of the increase in real output,

while investment in domestic interest rates. It is based on the assumption that a decreasing function. Financial dominant first Nominal interest rates are fixed ot the stage, so that the equilibrium level of interest rates is below. Low interest rates ahead of the current consumption while increasing savings pass. Lowering the interest rate ceiling leads to a decrease in savings.

In the second phase of low interest rates on the marginal efficiency of capital fall, return on investment can be transferred with less resources. Increasing investment activity leads to an increase in output and increases in long-term savings.

But where abundant investment opportunities in the financial system under pressure invest in more efficient and key interest rates and the high savings in is rising (McKinnon, 1991: 11-12). A rise in interest rates on deposits increase the credit creation capacity by stimulating the growth of the banking sector. Interest low rates of capital investment that brings marginal rises being limited, it loose profitable. Under these conditions, the average investment activity and increased growth and savings increases. Financial pressure and Although savings are insufficient investment opportunities in many countries under limits to growth (McKinnon, 1973: 59-61). Shaw (1973: 13), financial liberalization and development results in the savings and investment and investment implies that the incentive to increase the average efficiency.

Financial intermediaries, funding diversification and the reduction of transaction costs, it simplifies and reduces the risk. This application information for those investors who gain real money by reducing costs and investing in real terms. It reduces costs. Interest rates in cases where the financial intermediary system in the market is below its equilibrium level should be put under pressure and savings and it remains below optimal level (Fry, 1988: 21). In this case, high bank interest ceiling of the risk premium in the economy because they cannot collect income from the project. The decrease in risk appetite and cause the average return of investments (McKinnon, 1991: 12).

McKinnon-Shaw, the disappearance of the dominant models in the financial markets and the provision of financial deepening will accelerate economic development. McKinnon and Shaw will provide foreign trade and capital integration with the world's financial sector and the pressure on the movement should be lifted so that the external financial liberalization.

They argue that they should be provided ceiling deposit interest rates and credit rationing, higher required reserve ratios, such as selective credit controls on the banking system. It would cause delays in the development of the financial system and restrictions to express that they would be adversely affected as a result of economic growth (Ghali, 1999: 310).

***Constructivist Models***

Structuralism school, McKinnon Shaw's basic argument is that of the dominant financial model.–Although schools adopt the same views about the harmful effects of the financial pressure, policy proposals differ. According to the structuralists, in developing countries institutionalized (formal structure) as well as non-institutionalized financial system (informal structure) and the occasional presence of a financial structure that may be larger than the formal system are mentioned. In developing countries, these two formations in the financial structure, financial dualism name is given.

Two of the reasons that make the financial dualism. There are views (Ghata, 1992: 835). On first sight, the structure of formal and informal structures

It implies that it is a result of the defect. This flaw that exists in the formal sector restrictions imposed on the institutions and the system of government in the financial system to be regulated, in other words, is the presence of financial bust. That exist in the formal market the problem of finding living quarters are turning to credit constraints as a result of the informal sector. The opinion of the supporters of financial liberalization carried out in the informal sector results

They express the activity will be reduced. Secondary approach to the existence of the informal financial sector, the informal sector coming out in the formal sector constraints underlying causes of the emergence that is, it is the differences in the economic and social structure of society. Proponents of this view have been a more regulated exhibit favor of liberalized financial system and the financial system, even though claims arising from informal social structures that survive building tend to Taylor pioneer of structuralism models, different models of McKinnon-Shaw expressed as contraction in the economy would lead to an increase in interest rates. In Taylor's model, households and the formal banking assets deposits in the system, while in the informal market are considered to be inefficient and gold

They contain as real estate. Firm’s loan from the formal banking system. In the informal market such as bankers can find or save directly from owners also find credit. Thus, both bank deposits and informal markets also it can be replaced with the unproductive investments such as gold and real estate. Taylor located by informal market widely in developing countries and has an important role to play because of competitive macroeconomic property transportation

There are contrary to the model specified in the McKinnon-Shaw, a deposit interest rise, available credit, and may not lead to an increase in investments. At these points a result of the increase occurred in interest rates, which increase in bank deposits (Taylor, 1983: 92). Increase in gold and bank deposits If stem from bank loans and unproductive investments such as real estate The increase in investment will be possible. The increase in interest in the outcome of the informal market used as credit resources to the formal banking system as deposits will lead to a credit contraction in the overall economy is transmitted.

Because legal deposits in the banking system in response to the separation requirement, which can be extended limit the amount of credit (Taylor, 1983: 100). Structuralisms in the banking sector mandatory deposit money supply because loss of applications is high that they represent. The new structural funds formal and informal models sector has fluidity between markets and investors both in it can be used.

**FINANCIAL DEPTH-GROWTH RELATIONSHIP HYPOTHESES**

Studies on the subject, aspects of the relationship between financial development and growth they are unrelated or no consensus about the direction of results reports. There are two basic approaches about the direction of the relationship between financial development and growth. These are: "Hypothesis premise supply" and "demand-following hypothesis".

***Supply Predecessor Hypothesis***

The premise of the supply side of the causality hypothesis, economic development than financial and it is true growth. This hypothesis is financial, as the neo-classical economics views the liberalization of the market will be encouraged savings and marginal productivity directed to areas of high growth will be accelerated (Alper and Onis, 2001: 2). It According to the hypothesis, financial development affects three different mechanisms. These are: (I) domestic The dimensions of the financial system / efficiency, (ii) and the transition of domestic firms to foreign funds (iii) reducing the problems of the developing units operating with common management the degree. Financial liberalization result of the entry of foreign institutions to market the resulting competition, reducing investment costs will increase and thus growth.

Competition, the leading domestic financial instruments in the financial sector of the country by increasing efficiency It provides the advantage and leads to increased growth (Galindo et al., 2002: 8). This enabled the source of the functions of financial intermediaries active format is fulfilling. The functions of financial intermediaries providing loans to the real sector successfully contributing to the extent that it fulfills its economic growth can provide. Follow-up demand hypothesis, Demand from economic growth following hypothesis on the financial aspects of causality is the right to development. Growth, technological developments and the increase in labor productivity It occurs. The result of the growth of the real economy and the financial instruments they offer, the demand for services is increasing.

To respond to the growing demand on these financial institutions significantly increased demand and an expansion pressure to make this edition. As a result of financial development and expansion of the (Calderon and Liu, 2003: 326). Economic growth is creating demand for new financial instruments and financial services It promotes the formation of institutions. The resulting increase in demand in the real sector It plays an instrumental role in meeting financial instruments. Robinson (1952), which discuss the topic "initiative provides guidance, financial follow" outline format. Demand-following approach to finance is basically a passive element in the growth process that implies.

***Hypothesis Development Phase***

Patrick (1966: 174) in the development stage and said called hypothesis of mutually monitoring and financial developments resulting from growth status. There are describing an opinion. According to this hypothesis, the growth of early new opportunities provided by economic growth, positive financial development stages in the direction of impact. System due to the increase in the types of financial instruments and services apart from the rest of the economy, led by increased investment by withdrawing supply system. It reveals the stage. In other words, financial development and real capital the accumulation and increase economic growth (Atamtürk, 2007: 78).

**METHOD AND ANALYSIS OF RESULTS OF ECONOMETRIC**

***Literature Summary***

Financial development literature to determine the relationship deepening and growth is divided into two parts. The first group trying to determine the presence of literature growth-deepening relationship between financial developments, the second group is investigating the direction of the causality of the relationship literature. A summary of the financial development and study tries to explain the existence of a relationship between growths are presented in Table 1. Table 1 presents the work of a large part of financial development / deepening and supporting the presence of a strong positive relationship between growths. The study summaries for determining the direction of causality is presented in Table 2.

Table 2 in the financial development work to grow to the financial development of the growth study, the existence of a causal relationship has been observed.

Time series between the variables of the series must be stationary to prevent fake relationship. Due to the low explanatory power in small samples of univariate unit root tests Levin, Lin and Chu (LLC 2002), Breitungen (2000), Maddalena and Wu (1999) panel unit developed root tests can be used. LLC (2002) test,

$$\Delta Y_{it} = P^{*} Y_{i,t-1} + \sum_{L=1}^{p1} \theta\, \theta Y_{i.t-L} + Z_{it}' \gamma + \mu_{it}$$

$H : \rho^{*} = (\rho - 1) = 0$ series are not stationary, $H : \rho^{*} < 0$ series is stationary shaped. Push the equation z, fixed, fixed effects model and started as a simple trend. It represents deterministic components. Dynamic autoregressive variable coefficients

$\rho\rho_i = \rho$ = ρ uniform for all panel components () is assumed. IM, and vaginal pessary

Shin (IPS) (2003) test,

$$\Delta Y_{it} = p_i * Y_{i,t-1} + \sum_{i=1}^{p_i} \theta_{iL}\, \Delta_{Y_{i,t-L}} + Z_{it}\, ' \gamma + \mu_{it}$$

$H_0 : P_i^{*} = (P_i - 1) = 0$, HI : $P_i^{*} < 0$

(for at least one cut line) position.$P_i$'S i.e., for each series of panels may be varied for each series of panel. It is assumed to be heterogeneous. A series having a different delay length, IPS tests have a high explanatory power than the test that LLC show is (Maddalena and Wu, 1999). In the IPS test panel is stationary on the alternative hypothesis that the at least one serine It is expressed. The ADF unit root is calculated for each section of the IPS series method. The average statistics is taken.

$$\bar{t} = \frac{1}{N} \sum_{i=1}^{N} t \; p$$

Statistics 2N degrees of freedom and $X^2$ Distribution has. Test $P_i$, each the unit root test for a series ρ section refers to the value obtained. Maddalena and Wu (1999) compared to IPS and Fisher type test more successfully LLC. It is stated. In this study, the IPS test, Fisher and Wu proposed Maddalena ADF and Fisher PP series of tests is carried out using stationary test, The results in Table 4 were obtained.

IM, vaginal pessary and Shin (2003) have shown that the test statistic normally distributed. Maddalena and Wu (1999), a good cross-section of each íof the unit root null hypothesis is rejected at the significance level obtained by combining estimated for Fish and suggested the PPI test. In this test;

$$P = -2 \sum \ln \; p_i$$

**Table 1.** Studies on the Existence of Financial Development and Growth Relationship

| **Authors** | **Country** | Methods | **Key findings** |
|---|---|---|---|
| Gupta(1984) | Countries in Asia and Latin America | Regression Analysis | The financial development of the fourteen countries surveyed has reached the conclusion that leads to economic growth. |
| AtheveJavanovic(1993) | 39 countries | Econometric methods | The securities have reached the conclusion that there is a positive relationship between economic growth and stock market trading volume. |
| KingveLevine (1993a) | 80 countries | Econometric methods | The existence of a positive relationship between financial development and economic growth have been identified. |
| Kingve Levine (1993b) | 80 countries | Erkonometrik methods | The relationship between financial development and economic growth is relatively high and growth ekomomik has concluded that the positive effects of financial development. |
| JapellivePagano (1994) | Italy | Ekonmetrik methods | It decreased amount of savings when household loans increased and reached a result of slowed economic growth. |
| Levineve Zervos (1996) | The stock markets of 77 countries | Econometric methods | The development of stock market liquidity and has concluded that create pozif impact on economic growth. |
| Rajanve Zingales (1998) | USA | Econometric methods | Financial development is the result of foreign firms provide industry grow more as a result of the financing has been reached. |
| Yazarlar | samples | method | Key Findings |
| Beakartve Harvey (2000) | 30 least developed countries | Econometric methods | Financial liberalization, financial development provided through was concluded to have a positive impact on economic growth. |
| Arestis, Demetriadesve Luintel(2001) | 5 developed countries | Econometric methods | Stock contribution to the economic growth of the banking sector reached the conclusion that the market further. |
| Evans(2002) | 83 countries | Panel data analysis | Sınuc is more than human capital to contribute to the economic growth of financial development has been reached. |
| Fink, HaisveHristofora (2003) | 13 developed countries | Causality and co integration analysis | Economic growth and the development of the bond market has concluded that fugitive affected. |
| Bhattacharyave Sivasubraman (2003) | India | Regression analysis and Granger causality analysis | It provides a positive contribution to economic growth in the long term the changes in M3, while the direction of the relationship to the conclusion that the financial development to economic growth has been reached. |
| Beckvd.(2004) | 39 countries | Statistical and econometric analysis methods | Removing constraints on small firms, financial development has reached the conclusion that contributes more to the development of the industry. |
| Rioja veValev(2004) | 71 countries | GMM | Financial systems in developing countries than in developed countries have reached the conclusion that the contribution of economic growth to be higher. |
| ChrisopolusveTsionas(2004) | 10 developing countries | Dynamic panel data analysis | That there is a positive relationship between financial development and economic growth and the direction of causality from financial development to economic growth that has been concluded. |
| Ghirmay(2004) | 13 African countries | Panel co-integration analysis | Long-term financial improvement in 12 of 13 countries and has reached the conclusion that the positive relationship between economic growth. |
| RousseauveWatchel(2005) | Developed and Developing Countries | VAR analysis | Income 3,000 and $ 12,000 level in countries affected by the strong growth in financial deepening, they reached the conclusion those higher-income countries in relation to wane. |
| VaonavePatuelli(2008) | Italy | panel Data | Local financial development on economic growth has reached the conclusion that play a key role. |
| Goldsmith(1969) | 35 Countries | Time Series Analysis | Financial development concluded that there is a strong correlation between economic growth. |

**Table 2.** Studies to Predict Growth and Development Direction of Financial Relations

| Authors | Country | Methods | Key findings |
|---|---|---|---|
| Jung(1986) | Developing countries | Granger causality analysis | Between financial development and economic growth is set to bi-directional causality. |
| Ahmed &Ensari(1998) | India, Pakistan, Sri Lanka | Causality Analysis | Financial development has been concluded that the causes of economic growth. |
| Ghali(1999) | Tunis | Granger causality analysis | A causality from financial development to economic growth has been concluded that the existing |
| LuintelveKhan(1999) | 10 countries | VAR analysis | Financial developments have reached the conclusion that the two-way causal relationship between economic growth entire sample. |
| Xu(2000) | 41 countries | VAR analysis | A causality from financial development to economic growth has reached the conclusion that exist. |
| Gursoy veAl-Aali(2000) | Bahrain, Kuwait and Saudi Arabia | Granger causality analysis | From financial development to economic growth for Kuwait, it has been the causality relationship between financial development and economic growth for other countries. |
| Al-Yousif (2002) | 30 developing countries | Panel data analysis | The bi-directional causality between financial development and economic growth has reached the conclusion that exist. |
| Henry (2003) | 18 least developed countries | Econometric methods | With financial liberalization on financial development has been concluded that the causes of economic growth. |
| Muslümovve Aras(2004) | OECD countries | Granger causality analysis | A causality from financial development to economic growth has reached the conclusion that exist. |
| Thangaveluve Ang (2004) | Australia | Granger causality analysis | It has reached the conclusion that the long-term bi-directional causality between financial development and economic growth. |
| Dritsakisve Adamopoulos (2004) | Greece | Granger causality analysis | The bi-directional causality between financial development and economic growth has reached the conclusion that exist. |
| Changve Chandil (2005) | Taiwan | VAR analysis | The causality from financial development and economic growth concludes that exists. |
| AngveMc Kibbin (2005) | Malaysia | Granger causality analysis | The causality relationship between financial development and economic growth has reached the conclusion that exist. |
| Habibullahve Eng (2006) | 13 Asian countries | GMM and Granger causality analysis | The causality from financial development to economic growth has reached the conclusion that exist. |
| Eita ve Jordan (2007) | Bostwana | Granger causality analysis | The causality from financial development and economic growth concludes that exists. |

Statistics 2N degrees of freedom and $\chi^2$ It has the distribution. Test $Pi$, one of each the unit root test for a series ρ section refers to the value obtained. Maddalena and Wu (1999) compared to IPS and Fisher type test test more successfully LLC it is stated. In this study, the IPS test, Fisher and Wu proposed Maddalena**.** ADF and Fisher PP series of tests is carried out using stationary test, The results in Table 4 were obtained.

***Panel Data Regression Models***

Different data types from each other are used in economic research. These data type, but the structure can be subjected to analysis with the appropriate model. Time series and the individual analyzes can be performed horizontally, vertically sectional data.

Using cross-sectional data to estimate the size of the economic relations with the method of panel data analysis are given name (Pazarlioglu and Curler, 2007: 37). Both dimensions using the panel data time series and cross-sectional data, including one data set is created. There are several advantages over the horizontal section or time series analysis of the panel data. These can be summarized as follows (Gujarati, 2003: 638): (i) the non-uniform cross-sectional size of the data in the data section when the data size effects can be better controlled. (ii) In the panel data only or data only to determine the effects section cannot be observed in the time series and it is easier to measure. (iii) The panel also increases the degree of freedom increases with the number of observations occurring in the user data. (iv) the

increase in the degree of freedom is reducing the multiple linear connection problems between the independent variables. (V) it can be obtained more reliably explanatory variables, data model estimation parameters of the panel because it contains both data sections and the time dimension. Increasing the accuracy of the parameter estimates more reliable results can be obtained means

***i* =1**

In light of the above information panel data model expressed in Eq 5 can be.

$$Y_{it} = \beta_1 + \beta_2 X_{1it} + \beta_3 X_{2it} + \beta_k X_{kit} + \upsilon_{it}$$

i = 1, 2,…...N, t=1,2,……T

The number of data i in the equation above section shows a T time period. According to time with the unit or units of coefficient of variation in the model assumed a "fixed effects model" (FEM) is called (Pazarlıoglu and Curler, 2007: 37). It said "fixed effects model," 6 which is indicated in the equation (Gujarati and Porter, 2009: 596);

$$Y_{it} = \beta_1 + \beta_2 X_{1it} + \beta_3 X_{3it} + \beta_k X_{kit} + \upsilon_{it}$$

i = 1, 2,…...N, t=1,2,……T

To prevent loss of degrees of freedom because encountered in fixed effects model. It is requested (Baltag of 2005: 13). Random effects model, the constant term in the equation No. 6 $\beta_{1i}$ not fixed, $\bar{\beta}$ average is a random variable. In this case the value of the constant term for each unit is as follows;

$\beta_{1i}$ = β + $\mu_i$ , $\mu_i$ It is the error term with zero mean and constant variance. In these circumstances a random effects model (REM);

$$Y_{it} = \beta_1 + \beta_{2it} X_{2it} + \ldots\ldots\ldots + \beta_{kit} X_{kit} + \mu_{it} + \mu_{it}$$

$$Y_{it} = \beta_1 + \beta_{2it} X_{2it} + \ldots\ldots\ldots + \beta_{kit} X_{kit} + W_{it}$$

It is a composite error term. $W_{it}$ It is the error term. The specific components of the unit. The term error $\mu_{it}$ and the panel is the error term $\mu_{it}$. Specific fixed effects panel data analysis while specific group or incidental. The most important problems encountered during the adoption of model selection.

Fixed effects least squares for model (OLS), the most effective and unbiased (Blue-Best Linear Unbiased Estimator) estimators while; generalized least squares in random effects models (GLS) is the agent most effective and unbiased estimates. Determination as fixed or random effects specific to specific groups Although the content of the data allowed the investigator's preference conditions to obtain and the method is important on which model will be preferred at this point

While preferred Hausman model specification test statistic is commonly used. Hausman test statistic random effects estimator is correct. Zero Under the hypothesis, it shows k degrees of freedom, chi-squared distribution realizations. In case of random effect model residuals it can be judged to be associated with the components of the arguments. The test statistic result is the large table in the value of state $H_0$ hypothesis is rejected and the FEM model REM model is preferable (Gujarati, 2003: 650).

First King and Levine (1993 A) used by and following but many developed parallel to the model used in the study process. Unlike the indicator of financial development and deepening Levin's work to test the relationship between economic growth with arguments being used. In order generated it is estimated following multiple linear regression model.

$$Y_{it} = \beta_0 + \beta_1 M2_{it} + \beta_2 M3_{it} + \beta_3 BX_{it} + \beta_4 PX_{it} + \beta_5 MX_{it} + \mu_{it}$$

The variables used in the model are as follows.

$Y_{it}$ : GDP per capita growth rate in year t (annual percentage change) 2

$M2_{it}$ : broad money supply in the year t (currency in circulation + demand deposits + term deposits) / GDP3

$M3_{it}$ : t cash liabilities of banks in the year (M2 + non-bank financial intermediaries deposits, treasury bills and so on. liquid assets) / GDP4

$BX_{it}$ : of total domestic credit in year t given by the bank / GDP5

$PX_{it}$ : t In the private sector, total domestic credit / GDP6

$MX_{it}$ : market capitalization rate in year t (total of shares traded value) / GDP7

$\mu_{it}$ : The term error

1Money and Quasi Money M2 as %of GDP (WDI Online System Series Name)
2Liquid Liabilities M3 as % of GDP (WDI Online System Series Name)
3Domestic Credit Provided by Banking Sector as % of GDP (WDI Online System Series Name)
4Domestic Credit to Private Sector as % of GDP (WDI Online System Series Name)
5Market Capitilization of Listed Companies as % of GDP (WDI Online System Series Name)

Used to determine the financial deepening and growth relationship model Variables are also used to test the financial development and growth relationships in the literature. Unlike studies in the literature study, financial deepening financial indicators used in the measurement, credit indicators and capital market relationships with growth using a combination of indicators tested. Previously introduced as theoretical and literature are expected to be positive in other studies of the relationship between financial deepening and growth in light of results obtained from and is expected to be positive coefficients. Effective forecasting methods include fixed effects model and random effects model

To determine which it is, models, random effects Hausman test after using fixed effects models and random effects predicted by the model which has been determined to be an effective method of estimation. According to Hausman test unit and stated that the stochastic effects of time $H_0$ hypothesis probability value of 1.00. Find and effective method of estimation rejected because Fixed Effects Model using models to predict the decision was given. Made fixed effects model According regression results are shown in Table 5.

**Table 5.** Regression Analysis Results

| Variables | Coeffecient | T Statistics* | Probability |
|---|---|---|---|
| M2(1)** | -0.100156 | -4.710069 | 0.00 |
| M3(1)** | 0.130927 | 3.847685 | 0.00 |
| BX | 0.044571 | 1.707358 | 0.08 |
| PX | -0.085209 | -2.830101 | 0.00 |
| MX(1)** | 0.033270 | 3.808962 | 0.00 |
| C | 5.206013 | 3.996605 | 0.00 |
| $R^2$ | 0.70 | LM $[\chi^2(2)]$ | 5.78 |
| F Statistics | 22.70474 | | |

**The first differences between variables were predictive model. White * t statistics are next t value adjustment has been made to correct the heteroscedasticity.

According to the results, 10% of the impact on BC's growth variables, It is observed that while the effects of other variables significant at the 1% level. The existence of a strong relationship between the independent variables and the dependent variable shows. R 2 value is 0.70, has a high confidence level. F value is a statistical model shows all significant. LM test

It shows that the autocorrelation problem. The problem of heteroscedasticity made the adjustment to eliminate the regression has been estimated. Hypothesis probability value of 1.00

Find and effective method of estimation rejected because Fixed Effects Model using models to predict the decision was given. Made fixed effects model according regression results are shown in Table 5.

According to the results, 10% of the impact on BC's growth variables, It is observed that while the effects of other variables significant at the 1% level. It is the existence of a strong relationship between the independent variables and the dependent variable shows. R 2 value is 0.70, has a high confidence level. F value is a statistical model shows all significant. LM test

It shows that the autocorrelation problem. The problem of heteroscedasticity which made the adjustment to eliminate the regression has been estimated.

Located M2 / GDP, per capita income between theory contradicts negative correlations was determined. M2 / GDP ratio of the change in the person the effect of reducing per capita GDP is 10%. Cash in the financial system expressing obligations and used as a measure of the sophistication of the financial systemM3 / GDP ratio between per capita incomes by 13 percent according to theory

There was a positive relationship. The depth of the financial system per capita income increases also it increases. The total amount of loans provided by the banking sector in BC coefficient model Describe the relationship between gross domestic product and per capita income growth rate It is. Theoretically expected financial development process, economic growth is affecting positively the increase in loan volume. According to test results, positive coefficient compatible. Accordingly, the BX/ GDP ratio of the change in the GDP per capita has a positive impact of 4.4 percent. Private sector loans to GDP ratio of 8 percent per capita by expressing the relationship between the growth rate of income coefficient is negative as PCI opposite theory.

In a sign of the size of the market capitalization of the stock market the market shares of the companies listed transaction represents the total market value.

Gross value of companies traded in the market share of domestic product it is an indicator of increasing financial sophistication. MCI shares coefficients used in the model

Gross Domestic total value of the companies traded on the stock marketing ratio and per capita income growth rate refers to the relationship between. A positive factor is proper theoretical expectations. MC / GDP ratio occurs GDP per capita change in a positive direction from unit has 3-unit effect.

## CONCLUSION

The relationship between financial deepening and growth in developing countries testing in order to comply with an econometric analysis in this study literature format used in a variety of indicators. As indicators of financial deepening,
GDP ratio of total financial assets (M2 / GDP), the financial system cashed ratio of liabilities (M3 / GDP), the share in GDP of total loans given by the bank, and total credit to the private sector share in GDP

The share in GDP of the value of companies traded in the stock market have been selected. Method the panel data regression model is selected, the data can be accessed and effects10 emerging markets in economic terms similar to Turkey for better visibility1992-2007 period data are used.

As a result of analysis performed the increase of cash in the financial system other liabilities indicating that the words used in the financial system more M3 / GDP growth obtained a positive and significant relationship between as expected. Again financial whether it financed through a system of bank loans to the real sector investment indicator of bank loans / GDP ratio increased growth positive It affects. Funds collected in more developed financial system together with real

It is used to finance investments in the sector. Therefore, bank loans To increase its share in GDP provide a positive contribution to growth. Analysis The findings obtained as a result lends support to this view. Stock market capitalization ratio shows the level of development of the capital markets, stock market transaction volume is expressed in terms of GDP. The financial system development includes the development of

capital markets. Stock market capitalization is determined by the existence of a positive relationship between growths.

Representing the broadly defined money supply to GDP ratio of M2 / GDP ratio economy represents monetization degrees. The financial system in the economy indicating the level used by the units of the positive growth rate is higher It affects. However, negative findings obtained at the end of the study, contrary to expectations, but it refers to the presence of a weak relationship. M2 / GDP growth rate the process of obtaining conclusions about the cause of negative effects, the study periodic changes in a country's money supply and monetary indicators which are subject definitions reasons differ from country to country, such as the scope of the M2

It can arise. However, as M2 money market funds and repos inclusion of financial resources and investment in developing countries this means The fact that a significant share among the causes of negative coefficients out of the total loans in the sector increased its share in GDP. Growth is expected to be positive. However, the findings from the study. It indicate the presence of a negative relationship. This is especially true in developing; the private sector in developing countries cannot sufficiently deepen the financial system credit growth-promoting investments in areas not converted form evaluated. Domestic economic market of the loans from the banking system positive impact on the growth of non-bank financial institutions in the real sector evaluated the effectiveness of its investments in the form of transfer of resources cannot be achieved.

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