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A Thesis with the subtitle  
**Impact of Financial Development on Economic Growth of Pakistan:  
An Empirical Analysis of Developing Countries.**

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## ABSTRACT

The purpose of my study is to examine the impact of Financial Development on Economic growth of Pakistan. Different variable are use for this purpose, which are GDP, Exports, Domestic credit to private sector, Government-Expenditure, and Growth rate of money. It uses two proxies of financial development: Domestic credit to private sector and Growth rate of money. GDP is taken as dependent variable and exports, government expenditure, domestic credit to private sector and growth rate of money are taken as independent variables. This paper used to evaluate that how GDP affect the exports, government expenditure, domestic credit to private sector and growth rate of money. Eviews is use to test the data and find the relationship between the data. Dickey Fuller test used to find the stationarity and non-stationarity of the data. And for the finding of relationship Co-integration test and Error Correction Model used. And result occurs that there is long-run relationship between the Financial development on Economic growth of Pakistan. The data which is used is annual data. And time period of data is from 1978 to 2012.

**Key words :** *(Government expenditure, exports, DPS, Growth rate of money, GDP, Augmented Dickey-Fuller (ADF) Unit Root Test, Co-integration test, Error Correction Mechanism (ECM).*

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## Chapter no.1

### Introduction.

#### 1.1.1 Background:

During recent decades, a huge amount of interest has been received on the relationship between financial development and economic growth. The most productive sectors for investment both domestic and foreign savings are mobilized by the process of financial development supports. To determine the appropriate of different financial intermediation variables and explain the outcome of financial development on economic growth by many scholars, researchers and practitioners. In the financial intermediation, some variables have been used as a proxy. In word of extent and competence special economic mediators in the entire financial development must relatively be significant by the selected variables.

While the financial area sign alert on the M2/GDP% by many empirical studies. When an substitute determine of economic intermediation uses to the classified region near GDP provided by the share of recognition. The association between financial progress and cost-effective development discovered by the pioneers to the study of (McKinnon-Shaw, 1911-1973) can be traced by the theoretical basis of this relationship. As a deliver principal association between financial improvement and cost-effective development describes by Schumpeter (1911). On the banking system, imposing restrictions by the contact of straight administration interference under the monetary area investigates McKinnon-Shaw (1973). Hamper economic growth consequently, on the growth of the economic area have straight harmful things on interest price maximum and recognition programs.

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The reason is that, from the high competition with the lack of protection in most of these countries by the financial institutions. Moreover, in most developing economies on the financial sector by the governance of a little quantity of profitable collection, and the efficient allocation of resources may undermine (Mohammad, 2008). Overtime, a great attention among economists and policy analysts has generated the relationship b/w economic growth and financial development. From 1980 to 2010 nexus focusing on the finance growth. Before 1980, high tax burden on financial earnings, reserve requirement ratios, high liquidity and negative real interest rate by the system of financial repression. After 1980, the active part of the economy started by the financial markets.

In Turkey, the economic life constituted a turning point by the beginning of 1980. Consequently, in order to promote economic growth has a possibility to increase financial development. The relationship b/w financial development and economic analysis the financial liberalization process to evaluate by this study. The residual-based co-integration test have mainly used in the previous studies related by Engle and Granger (1987) and greatest analysis supported going on Johansen (1988) and Juselius (1990). Too small then co-integration techniques may not be appropriate (Nerayan and Smyth, 2005; Odhiambo, 2009). On the cross-sectional data relied some previous studies, the country specific issues may not satisfactorily address.

### **1.1.2. Significance of the Study:**

At different stages of financial development by the grouping countries using a cross sectional method, on economic growth with the state result of supply advertise growt (Odhiambo, 2009; Odhiambo,2008, Ghirmay, 2004; Quah, 1993; Casselli et al.,1996). The study utilize two proxies of financial development namely the Growth rate of money and Domestic credit to private sector, DPS every of which be articulated like a fraction of GDP. I read many articles. Many researchers worked to this research paper. Many researchers uses the model error correction mechanism, vector auto-regression (VAR), ADRL-bounds testing procedure, Generalized method of moments (GMM) technique. But I am using the technique E-Views at the level form and 1<sup>st</sup> difference level for checking the results.

At the early stage of development, Greenwood and Jovanovic (1990) prediction of the well-known model. Banerjee and Newman 1993, Aghion and Bolton (1997) claim that on the pitiable

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recognition constriction are chiefly required. Schumpeter (1912) can be traced the work a major constructive association b/w financial development and economic growth. Bencivenga and Smith (1991), Greenwood and Jovanovic (1990), Pagano 1993 suggesting that on economic growth economic intermediate have helpful outcome. Lucas (1988) claimed that the position of financial development on economic growth of Pakistan have generally overstressed. Stern 1989; Lucas 1988 denies that the causal relationship is mutually independent b/w financial development and economic growth.

### **1.1.3. Aim of the Study:**

Regional economic growth and financial development cycles can trace major global and unobserved factors evolved overtime. The structural characteristics of economies linked to the issues. Financial development and Economic growth explaining fluctuations which plays an important role.

Lartey and Farka (2011) find near the collision stand going lying on the rank of financial development plus financial crises have a negative effect lying on economic development. King and Levine 1993, Levine et al., 2000; Lartey 2010; Gupta 1986, using different procedures of financial development as well as finds to near be a significantly positive association b/w economic growth and financial development. Robert Lucas (1988) asserts that economists, in economic growth the position of economic issues “badly over-stress”. Al-yousif (2002) finds that time-series with section information are mutually causal based lying on fiscal improvement as well as cost-effective development in 30 increasing nation.

### **1.1.4. Financial Development may openly develop the well-fair of the poor:**

This article investigates through a distributional effect, how financial development assist near decrease deficiency throughout economic growth its indirect effect. Through the McKinnon conduit effect banking system provide saving opportunities and to facilitate transaction system for the well-being of the poor. This paper develops due to systemic growth processes persistent structural poverty from poverty passes naturally with time. Ben Rogaly (2010) suggest that

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micro-finance institutions to reduce poverty. In this sector, to increase resource allocation the current campaign has improved anti-poverty financial intermediation.

#### **1.1.5. The relationship b/w Financial Development and economic growth:**

John Gurley and Edward Shaw (1955), James Tobin (1965) and Ronald McKinnon (1973) suggests that seminal contributions is based on finance and economic growth. Gurley & Shaw (1955,1967) and Goldsmith(1969) investigate into economic growth the significance of financial system. Calderon and Liu(2003) measured to economic growth the financial development is the necessary condition. Chow, 1987; Xu, 1996; Balaguer and Cantuella- Jorda, 2002; Kletzer and Bardha, 1987; terminate that industrial sector of that country gives comparative advantage of financial development.

The purpose o this lesson be near locate away the causal association as well as possible co-integration b/w exports, government expenditure, GDP, M2,and domestic credit to private sector (DPS) in Pakistan economy. Goldsmith (1969), King and Levine (1993) and Levine and Zervos (1998) to study the association b/w financial development and economic growth new cross-country analysis. Hassan and Bashir, 2003; Khan and Senhadji, 2003; Chuah and Thai, 2004; Al-Awad and Harb, 2005 finds that estimation methods, purposeful shape of the association, data frequency with proxy events be responsive to the special countries on cross-country analysis. Gross domestic product represented impact on economic growth about some conclusions and financial development indicators. Gurley and Shaw (1967), Gold smith (1969) and Jung (1986) finds that increasing demand for financial services who theorize into increasing countries increase direct economics. Barro (1991) by dividing financial variables and found significant relationship b/w subsequent growth in real per capita incomes and financial conditions. Levine and Zervos (1998) suggest that a significant positive influence on GDP growth would contribute both stock market and banking development liquidity.

#### **1.1.6.Financial growth promote economic development in china:**

Economic growth in china “leads” financial development to investigate the hypothesis by use this methodology in the first attempt. In china, a VAR econometric context with investigating

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the association b/w economic growth and financial development and debate finance-growth. Into the container of china where sustain strong economic growth, reform in the financial sector, a swift change and opening domestic financial market in china has brought about important financial development..

Over the last 20 years, in both political and economic institutions have been profound changes in china. In this paper, toward learn the position of official society, supporting pluralism lying on development charge and financial deepening employ section information used for the Chinese regions Paul Wachtel, & Minguning Zhou (2009). A transition economy for a institutional developments be the appearance and validation of the advertise market, the financial development area markets and institutions, the organization of protected assets civil rights, the liberalization of political institutions and the growth of a private sector. In regression models, explanatory variables are used toward clarify regional GDP development charges. Paul Wachtel (2009) proof suggests that stronger growth are connected by the growth of fiscal marketplace, knowledge of assets civil rights with following pluralism and legal environment.

In every region of china, we find that there is close relationship b/w finance and economic growth. Financial development accelerates economic growth and economic gap can partially explain the financial development gap. In the future, economic performance can partially explain initial financial development level. Economic growth has very close relation with the financial marketization. Financial development can promote financial opening.

#### **1.1.7. The direction of causality between Financial development and Economic growth:**

Cesar Calderon (2003) finds to economic growth usually leads to financial development. Economic growth from Granger causality to the financial development and the Granger Causality coexist the economic growth from financial development. In the manufacturing countries, economic deepening donate extra toward the fundamental association than in the increasing countries. On economic growth, financial development has larger effect and longer the sampling interval. A new express assets growth and production development during economic growth propels financial deepening.

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Dimitris K Christopoulos (2004) investigate that the financial depth and in the long run relationship economic growth has the most efficient manner trying to utilize data in panel co-integration analysis and unit root tests. In small open economy, financial development leads to economic growth. In stimulating financial sector growth have a favorable outcome through removing the repressionist policies and financial liberalization. Calderon & Liu (2003), Fase & Abma (2003) and Christopoulos & Tsionas (2004) that economic growth promotes financial development. In developing countries, we find a positive relationship b/w financial development and economic growth.

#### **1.1.8. In Turkey Financial development and Economic growth:**

In Turkey, thesis investigate the association b/w economic growth and financial development. A bi-directional association b/w financial development and economic growth have emerged difficult this theory (Levine, 1997). A figure of countries by panel data or cross section techniques. and normally accept a particular calculate of financial development and taxing the association b/w financial development and economic growth (Jung, 1986), Rubini and Sala-i-Martin (1992), Demetriades and Hussein (1996) and Leuintel and Khan (1999). A exacting country utilizing time series method is to examine the hypothesis for empirical literature. (Murinde and Eng (1996), Lyons and Murinde (1994), Odedokun (1989), Agung and Ford (1998) and Wood (1998)).

Above 20 years of economic liberalization, in Turkey the relationship b/w economic growth and financial development is the first single-country lesson. Tohnasen (1988) and Johansen and Juselius (1990) finds that vector error correction model (VECM) and multivariate co-integration used in the methodology. In financial development by using two alternative proxies used for the strength of the causality outcomes. Other proxies may give rise different causal relationship and financial development is different to measure. Demetriades and Hussein (1996) suggest that financial development follows economic growth. Special connecting outline b/w financial development and economic growth do give rise different measures of financial development. A particular quantity of financial development use only findings of previous study.

#### **1.1.9. Alternative indicators of financial development:**

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A suitable observed calculate of financial development to obtain the relationship b/w financial development and economic growth. For financial development the two proxies are used: Domestic credit to private sector DPS and Growth rate of money M2. A place of uneven provide monetary aggregates which might be old to calculate the level of financial development (De Gregorio and Guidotti, 1995 and Lynch, 1996). In the literature, financial development is the part of some extensive money stock, generally M2 most commonly used in the level of nominal income (King and Levine, 1993; Wood 1993; Murinde and Eng 1994; Lyons and Murinde 1994; Berthelemy and Varoudakis 1995; Arestis and Demetriades 1997; and Agung and Ford 1998). In the economy, the degree of monetization measures this simple indicator. In which cash offer expensive fee and saving services of a growing economy to show the real size is designed the monetization variable. (Lynch, 1996).

De Gregorio and Guidotti (1995) criticize financial development utilize of fine cash to profits share as a proxy on the basis and the effect of financial underdevelopment is most likely fa high stage of monetization (M2/GDP), while in financial markets a high degree of sophistication is the result a low level of monetization, which permit persons to save lying on their cash assets. De Gregorio and Guidotti (1995) suggest that financial development use monetary aggregate as a proxy (M2/GDP). In this study, in Turkey one measure of financial development will be used while the percentage of extensive money to increase. Between 1963 and 1970 the income ratio to the average broad money was 18.5% rising b/w 1970 and 1980 to about 23%. In some cases, the extent of financial development may be very poor indicator especially narrow money aggregates.

## **1.2 Purpose statement**

The reason of this study is to examine the collision of financial development on economic growth of Pakistan through taking dependent and independent variables. Here in this study GDP is dependent variable and exports, govt\_exp, DPS, and Growth rate of Money are independent variable.

## **1.3 Objective of the Study**

1. To study the impact of Export on GDP.

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2. To examine the impact of Govt\_Exp on GDP.
  3. To analyze the effect of Domestic Credit to Private Sector on GDP.
  4. To analyze the effect of Growth rate of Money on GDP.
  5. To study the impact of Financial Development on the Economic Growth of Pakistan.

#### **1.4 Hypothesis of the Study**

##### **Export:**

H<sub>0</sub>: Impact of export on GDP is no significant.

H<sub>1</sub>: Impact of export on GDP is significant.

##### **Govt Exp**

H<sub>0</sub>: Impact of Government\_ expenditure on GDP is no significant.

H<sub>1</sub>: Impact of government \_expenditure on GDP is significant.

##### **Domestic Credit to Private Sector**

H<sub>0</sub>: Impact of DPS on GDP is no significant.

H<sub>1</sub>: Impact of DPS on GDP is significant.

##### **Growth Rate of Money**

H<sub>0</sub>: Impact of growth rate of money on GDP is no significant.

H<sub>1</sub>: Impact of growth rate of money on GDP is significant.

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## Chapter no.2

### Literature Review:

Using different techniques has been investigated extensively by the relationship b/w economic growth and financial development. In the long run financial development promote growth is usually more supportive for literature. In the United Arab Emirates, economic growth and financial development using time series data from 1978-2012 was examined by Marashdeh, Naziruddin & Al-Malkawai (2012), the model was estimated using E-views technique. A bi-directional underlying association b/w financial development and economic growth show a negative and statistically significant results. In the transition phase, economic growth will be able to promote the UAE financial system wants to achieve a assured stage of development. In Turkey for the period of 1975-2005, Ozturk, Ilhan(2008) examine the causality b/w financial development and economic growth by a vector auto-regression (VAR) structure. The learn prove unidirectional underlying association to financial development from GDP growth.

Erdal, Veli Safakli and Behiye (2007) studied the ordinary least square (OLS) technique by the connecting association b/w financial sector and economic growth for Northern Cyprus. here is an irrelevant helpful cause of economic area on GDP growth shows the results. Ruda Pradhan (2009) examined in India using VAR technique by the causal nexus b/w financial development and economic growth. From market capitalization to economic growth VAR results revealed unidirectional causality. Neusser and Kuglar et al (1998) investigated economic deepness and economic growth by the long-run relationship. Supply-leading phenomenon provided empirical findings. Xu (2000) revealed that a vector autoregressive (VAR) using the cause of financial development on production b/w 1960 and 1933 concludes that economic growth follows the financial development and has minor cause going on it. Chang (2002) for Mainland China used

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the VAR representation to analyse the supply-leading hypothesis and the demand following. There is no association b/w financial development and growth finds the GDP and Granger Causality test, financial zone display and employment provides co-integration test in the long-run relationship.

Jayaraman (2009) used establish of financial zone development-growth nexus literature as a private sector and he concludes that private sector not a reliable indicator at all and be unsuitable quantity of financial development. Thus ,the study urbanized a determine support on the mainly normally use variables which include GDP, Exports, Government expenditure, Domestic credit to private sector and M2. In Sierra Leone over the period 1970-2008 using Auto regressive Distributed Lag approach (ADRL) and studied the relationship b/w financial growth and monetary development (Mohamed, Patricia et al, 2008). Financial development and economic growth indicate observed positive effects. Adeoye (2007) used five indicators to examine the financial development nexus increase namely, exports, government expenditure, DPS,M2,and GDP indicated that there is harmful and helpful association b/w economic growth and financial markets.

Safiat A. Saber (2013) suggest that extensive and short-run energetic link b/w Sudan economic growth and financial sector development investigation empirical studies. The result indicate that govt expenditure, M2 apply harmful results, while exports and domestic credit to private sector have positive effect on GDP. Songul Ka and Ilhan Oz (2009) employed in sub-saharan Africa, GMM techniques and Pannel co-integration examine the causality b/w financial development and economic growth. The causal relationship b/w GDP growth and the credit provide a bi-directional empirical results by the banking sector. Emeka N.and Aham K. Uko (2013) examined that in Nigeria a useful result of financial zone development on economic growth evidence found through the financial development growth. To accelerate growth, domestic credit to secret area and financial area are fail and ineffective. In Sub-Saharan Africa for ten countries, the fundamental link b/w economic growth and financial development to investigate by the Vector Error Correction Model (VECM) and Anthony and Tajudeen RG.et la (2010) found that in the selected region countries there is a extensive correlation b/w financial development and economic growth.

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Godfrey Ndlovu (2013) this study investigates, from a Zimbabwean perspective the causal relation b/w economic growth and financial system development, the ultimate way of the underlying correlation and co-integration relationship b/w the two is found on two inter-connected extensive plan. In Zimbabwe, the study offered subsistence of demand subsequent financial development by the study provided existence of demand following financial development. Dimitris K. Christopoulos (2003) studied the relationship b/w financial development and economic growth in 10 developing countries using panel data.

In the stage of development hypothesis by Patrick' s involves a "supply-leading and a "demand-following phenomenon. The "demand-following hypothesis" posits that the demand for financial services it will spark, and in the economy real growth takes place. By the development the "supply-leading thesis" postulates that the financial system will lead to economic growth . Furthermore, financial development and economic growth can exist the feed back association by researchers assert. At the theoretical level, the relationship b/w financial development and economic by discussing this literature review.

For a long time, in the finance-growth link economists have been interested. Schumpeter (1911), in promoting economic growth had been emphasized by the importance of financial services. McKinnon (1973) and Shaw (1973) also recommended that for motivating economic growth the financial intermediation has critical role. Adams,(1819); Robinson,(1952); Hicks,(1969); Demetriades and Hussein,(1996); financial development follows economic growth and that finance strengthens economic growth are not convinced . Demetriades and Hussein (1996) point out that in the work on money demand maintain used for this demand subsequent hypothesis can also be establish by Friedman and Schwartz (1963). The velocity of circulation is the inverse regular measure of the broad money stock of financial development by realizing rationalize this view, money balances as a luxury by viewing the services rendered, which is greater than unity can purely reveal an income flexibility and financial development and real gross domestic product per capita have any positive association. As such, through the demand for money would run from the direction of causation by the real GDP to financial development.

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The endogenous theory, the classical, the neo-classical and in the various growth models the stronger arguments in the theories facilitating economic growth by the finance. Harrod-Domer (1946) studied the national capital-output and growth rate of gross national product as well as the relation of national savings by the classical growth model for a closed economy. By the expansion economies save a portion of their national income and new capital stock through investment takes place. Economic growth will lead to this new investment generated through savings. Kennely (1996) was extended to open economies by the Harrod-Domer growth model with savings having similar implications. Schumpeter (1911) which purports that financial intermediaries, technological innovation and economic growth are essential managing risks, mobilizing savings, monitoring managers and facilitating transactions, and evaluating projects.

Long-run economic growth to explain population growth, capital accumulation and technological progress which by considering productivity is that of the neo-classical of growth theories. In Solow's (1956) growth model, in promoting economic growth the importance of savings and capital investment is emphasized. Goldsmith (1969) who focused on the neo-classical growth theory, into long-term how to transform short-term financial instruments and in economic growth how long-term financing can result. Harrod-Domer model build the approach in this regard. Goldsmith (1969) noted that if there are surplus savers and borrowers in the financial system can be generated by that liquidity so that through financial instruments excess is shifted to shareholders. Goldsmith alluded that to the process of economic development is important for the creation of liquidity.

Major determinants of economic growth are physical and human capital in which investments in research and development, is the endogenous models by the addition to the growth literature. The main sources of economic growth are other external factors and technological progress which contends that the contrasts to the neo-classical economies. Through the financial system, when external funding is available through development activities and costly research are achieved by the innovation and knowledge, can affect the growth-creation process through financial intermediaries.

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Valverde et al (2007) explained in their endogenous growth framework how the efficient operation of financial institutions leads to economic growth. Greenwood and Jovanoic (1991) prove that faster economic growth can promote the improved capital allocation by the new growth model. In the process, valuable information can obtain through financial intermediaries by the firms and entrepreneurs seek capital, in verifying and monitoring these firms thus reducing the cost. Diamond (1984) concurs that to maintain the safety of their depositors fund and hold diversified portfolios in the efficiently monitor their borrowers by the financial intermediaries. In the end, increased and more efficient investment being reduced by the transaction costs and information asymmetries in this result. Stiglitz (2001) in acquiring information does not downplay the success, in the markets moral hazard and adverse selection could lead by some information imperfection will still exist.

On developed countries, on the finance growth there exist a large body of empirical work (Gupta, 1984; Jung 1986; Levine, 1997; Arestis and Demetriades, 1997). Lucas (1988) concludes on the debate that the association b/w financial development and economic growth is “over-stressed”. Within the survey of the empirical studies mixed findings on the direction of causality b/w finance and economic growth reveals by Caribbean. According to the methodology and data employed by the evidence how financial development is measured.

Over the period 1978-2012 for Guyana, the real GDP as a measure of ratio of domestic credit to private sector to GDP as proxy for financial development and economic growth by the Ganga (1997) utilized as a measure of economic development has three different ratios of financial development, in adding to GDP per capita and GNP. Modeste (1993) as a portion of income as indicators of exports, real GDP and financial development as a measure of economic growth, on the other hand, used the govt savings, foreign savings, and real interest rate respectively. However, Barbados (1981-1991), Guyana (1978-1990), Jamaica (1978-1989) and Trinidad & Tobago (1981-1991) finds that on pooled annual data the data set was based. A bi-directional relationship b/w finance and growth found by all three studies.

Ramlal and Watson (2005), Craigwell et al (2001) and Lyare and Moore (2011) were used econometric techniques Vector Error Correction model (VECM) and Vector Auto-regressions

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(VARs). For the period 1970-2002, a VECM formed with quarterly data by Ramlal and Watson (2005), Barbados, Jamaica, Trinidad and Tobago. The ratio of broad money (M2) and ratio of domestic credit to private sector to GDP was measured by the financial development. Economic growth to represent per capita growth in real GDP. In case of Jamaica, in interacting with the other variables was found to be insignificant the private sector credit variables. Barbados, Trinidad and Tobago was maintain for bi-directional causality b/w growth and money. Bidirectional causality is observed by some evidence, lower growth rates may lead to relations as financial development indicate some results.

On the other hand, Barbados and Craigwell et al (2001) found that financial development to economic growth from uni-directional causality. For financial development as the proxies the nominal GDP at market prices ratio of total commercial bank deposits, real capital per capita and real interest rate used by the study data covering the period 1974-1988. However, long-run effects may not adequately capture time span. In a recent study, Iyare and Moore (2011) found finance-growth causality from the traditional examination by different approaches was taken and omitted variables would have suffered by many of the studies above highlighted. For the period 1960-2003, Tobago, Trinidad, Singapore, Jamaica, and Barbados for the economies, financial development and real GDP per capita established a Vector Error Correction Model (VECM) near examine exogenous variables, trade openness, saving, investment and real interest rate. here be a helpful relationship b/w financial development and growth in all four countries by the shows result. However, differences in the terms of size and openness in the long-run countries varies the finance growth. May overestimate this linkage, advance to examining the association b/w financial development and economic growth by the result suggested a cross-country.

Wood (1993) indicates that b/w the two variables there existed a bi-directional causal association for the entire period under study. To test the stage- of- development hypothesis, for the period 1946-1990, and then for sub-periods 1946-1968 and 1969-1990 to check the underlying association b/w financial development and economic growth new an addition of Granger causality owing to Hsiao and wood (1979,1981) he utilized the ratio of M2 to GDP by the measure of financial development. For the first sub-sample (1946-1968 it was found that causality run in one direction from economic growth to financial development, while for the

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second sub-sample (1969-1900), where financial development induced economic growth the study showed a supply-leading association. Patrick's stage-of-development hypothesis is proposed by the result.

In a similar study was also not supported Patrick's stage-of-development hypothesis by Lorde and Iyare (2004) suggested that financial intermediaries provided the ratio of credit as well as the ratio of M2 to GDP and financial development used as an indicator near the personal area toward GDP for Barbados (1960-2000). In all countries, demand-following response exists indicating a bi-directional causality in all cases which showed the result of supply-leading through Granger causality technique by Hsiao's (1979-1981), Barbados, Trinidad, and Tobago. On a short-run/long-run basis, over particular periods b/w the variables checked stationary and long-run relationship by did not explicitly test the stage-of –development hypothesis Lorde and Iyare (2004). For long-run association b/w growth and finance did not examine for stationarity check by Modeste (1993) and Wood (1993). The variables are co-integrated by the results are not valid. Wood acknowledged that in financial development and economic growth the effect of contemporaneous innovations detecting the test and missing-variables bias may suffer from results.

Financial development is positive for growth among economists no general agreement. Depends positively on the steady state growth rate by the AK model, the percentage of savings diverted to investment through channels financial deepening affects growth is converting savings to investment by Pagano (1993). Cournot oligopolists to discover that the growth speed based completely on the amount of banks in the stable equilibrium the degree of competitiveness of the financial system by Berthelemy and Varoudakis (1996). Green wood and Jovanovic (1990) considers a model that the relationship b/w financial structure and economic development as well as investigating the association b/w income distribution and growth. More efficient capital allocation and more efficient undertaking of investment on growth on the fundamental reason have a beneficial result of financial structure. The relation b/w financial development and growth with the classical view is more or less consistent. King and Levine (1993) conclude that capital accumulation, economic efficiency and financial development is correlated with subsequent rates of growth and there is a constructive association b/w economic growth and financial

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development conclude various financial indicators. With financial intermediation, models of endogenous growth is a standard implication.

Atje and Jovanovic (1993) conclude that on the level on economic growth has positive effect. Levine and Zervos (1996) conclude that there is a significant relationship and use various determine of stock market development and economic growth. For the US and Germany, Johansen use co-integration analysis and Arestis and Demetriades (1997) use time series studies. Neusser and Kugler (1998) to analyze the existence of manufacturing TFP and financial sector GDP as well as long run association b/w manufacturing sector GDP and financial sector GDP from OECD countries. Residual-based panel co-integration tests and Johansen maximum likelihood including different tests were performed. They found that, financial sector GDP and manufacturing GDP could not be established by a co-integration relationship. Subsequent, mixed results gave causality tests. Where legal rights of creditors, like cross-sectional instrumental variable estimators and GMM by Levine et al.(2000).

Finance development on economic growth of the exogenous components can be partly explained a strong helpful association b/w financial development and economic growth. Levine (1999) find that financial development have a helpful effect on economic growth through exogenous components are used by GMM procedures. In both directions, the direction of causality b/w financial development and economic growth could imply. Beck et al. (2000) investigate not only the relationship b/w financial development and total factor output, physical capital growth and personal saving rates has the sources of growth. They conclude that total factor productivity and higher level of financial development direct to advanced rate of economic growth.

Levine (1998) examines the links b/w long-run economic growth and banking development. Using a model of 44 developed and less developed countries throughout the stage of 1975-1993. The exogenous module of banking improvement through output growth, productivity growth and physical growth is helpful for a physically powerful association by the empirical evidence. Enders and Granger (1998) suggest that in the presence of mis-specified dynamics the co-integration analysis counting panel co-integration tests have inferior authority. Dynamic panel

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estimators use the GMM method proposed by Levine et al. and Beck et al.(2000). However, the data are ignored from the integration and co-integration properties in this approach. So, it is not obvious to a structural long-run balance association the estimated panel models represent.

Neusser and Kugler (1998) and Levine et al (2000) signify two dissimilar poles. Ignoring the simultaneity issue through the time series assets of the statistics by Neusser and Kugler. In Levine et al (2000) examined the two steps, GMM to address simultaneity and finance and ancillary regressors is conducted a cross-sectional failure of development. In our evaluation come near, we develop both time-series dimension of the information and cross-sectional statistics through using panel co-integration methods. In Levine et al.(2000) the long run regression represents cross-sectional regression while the short-run dynamics represents pass-regression predictable through GMM.

### **2.1. Financial development has the impact on Economic growth:**

According to McKinnon (1973) finds that use of financial intermediation by investors and shareholders and the monetization of the financial system, overtime institutions and among people allocate well-organized stream of resources. This encourages moving assets as of fewer helpful to additional dynamic sectors by improves allocative competence of investment and savings reduces constraint on capital accumulation. The financial development that liberalization promotes to rise with the level of investment as well as the efficiency. Balassa (1993) suggested that negative rates of return and self-investment at low in firms, public authorities and commercial banks rather than capital markets by allocation of credit, due to the advanced charges of asset reflecting by a transfer left as of capital-intensive investments, the elimination of fragmented and inefficient crub markets in the lengthening of financial maturities.

King & Levine (1993) finds that reduces cost of investment for individual investors in a cost effective manner process information an investment projects and financial system is to collect another important functions. The installed capacity is as important for the amount of assets and ability utilization is determined by the productive capacity of the economy. Reduce the gap b/w actual and potential output, is predictable to develop the competence of supply portion by particularly working capital. In fact, five broad functions in financial systems: First, possible

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investments produce information about ax ante. Second, pool savings and allocate capital capital by the mobilize. Third, after providing finance, they exert corporate governance and monitor investments. Fourth, they facilitate management of risk and trading diversification. Fifth, goods and services by the exchange of ease.

While these financial functions provide all financial systems and on economic growth these functions to have an impact on the large differences. Financial system has three basic characteristics: (1) Financial intermediation has the level.(2) Financial intermediation has the composition.(3) Financial intermediation has the efficiency. First, Financial intermediation has the level each of the functions is important to an economy relative the size of a financial system. Economies of scale of a large financial system allows the exploitation, in the operation of financial intermediaries are significant fixed. The earlier theoretical models of the finance-growth literature in some channel emphasized, with positive implications for growth can produce better information and join financial intermediaries (e.g Green wood & Jovanovic, 1990: Bencivenga & Smith 1991). By-passed credit rationing will not be profitable investment opportunities, to borrow the greater ability of firms, credit constraint can also ease a large financial system.

In this function, there are significant economies of scale monitoring use of funds and should also be extra efficient at assign assets by a large financial system. Investment patterns and helping to smooth consumption, the resilience of the economy to external shocks can also increase greater availability of financing. In an economy, a financial organization play an significant purpose in reallocating risk and transforming. Allen & Gale (1997) suggested that intertemporal risk sharing may improve a large financial system by the cross-sectional risk diversification.

Second, the financial intermediation has the efficiency: Stiglitz & Weiss (1992) claimed that imperfect competition and externalities in financial markets be able to guide to sub-optimal stage of investment and financing, for economic growth which are detrimental illiquidity or fraud. But a public body through appropriate oversight may be best addressed by some of these market imperfection.

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Third, the financial intermediation has the composition: the growth of capital markets and institutional investors to the maturity of financing available relate to the composition of financial intermediation such as insurance companies and pension fund. Certain investments may be profitably exploited may affect the maturity of loans and bonds. On the other hand, in the cost of intermediation to be a result of changes by market appears and the replacement of banks. Jacklin (1987) finds that banks has no specific advantage. Modigliani and Miller (1958) explained the insignificance of the option of financing for company's saving resolution.

Through its impact on corporate governance with which firms allocate resources to effect the efficiency for the composition of financial intermediation by one potential channel. Through their impact on corporate governance in boosting steady-state growth that assess the role of markets no theoretical models. During asset addition or economy rates than through total factor productivity mainly on act on growth shows the impact of financial development by Levine (2000). Aghion et al (2005) claimed that financial development clarify it does not apply a straight outcome on steady-state growth or convergence.

Finally, the collision of financial development lying on profits disparity and deficiency has also started by empirical literature. Exact development determinants could have a regressive consequence through deference to income supply by Dollar & Kraay (2001). Financial depth elevate the typical earnings of the inferior 80% of residents and extensively as a supplier to inferior variation and strongly entered by Li et al. (1998). Financial development decrease revenue variation and complete poverty rank by performance the observed proof also provide Beck et al. (2004).

## **2.2. Financial Development and Economic Growth examining the Empirical Evidence:**

The linkage b/w financial development and economic growth to a nearer assesment of the observed proof. King & Levine (1993) regress growth in arrange to keep away from endogeneity of the existing M2/Y variable and increasing countries as a cross-section on earlier fiscal strength and OECD for seventy-seven in 1960-89. Highly significant regional dummies is almost entirely

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eliminated of their financial depth variable by the statistical significance. The model fails completely for the predictive power by contemporary correlation b/w financial depth and growth is accounted (Arestis & Panicos, 1997).

Further, King & Levine and other studies in the amount of supply markets qualified to that of banks or in the relation of supply advertise capitalization to GDP do not discover any descriptive rule in the earlier section. In developing countries, b/w banks and markets are complementarities shows firm-level evidence (Demirguc-Kunt & Maksimovic, 1996). Another possible indicator, in a cross-country studies that has not been used of financial development, because the duration of fixed income securities and bank loans, lack of data availability. Caprio and Demirguc-Kunt (1997) shows that when long-term finance is available to them, companies grow faster and are more productive.

De Gregorio & Guidotti (1995) find that during the 1970s and 1980s was really harmfully associated through development in Latin America the level of bank credit to GDP ratios. Loayza & Ranciere (2004) have also create proof elevated levels of financial weakness and a harmful association b/w growth and short-term modify in bank recognition in those countries. They claim that over the long term on economic growth permanent increase in bank credit with the positive impact are compatible these temporary effects. At initial stages of development can exist mainly significant for economic development at the level of financial intermediation. A more relevant determinant of economic growth may be the composition and efficiency of financial intermediation for richer countries. King & Levine (1993) and Andres et al. (1999) and Leahy et al (2001) study that they were unable to find significant links b/w economic growth rates and bank credit to GDP ratios in OECD countries.

## **2.5. Financial Liberalization, Savings and Investment:**

During which personal asset is likely to increase two main channels have emphasized as leading to financial development of financial liberalization. The first channel due to increased private saving that would pursue the deduction of interest rate ceiling during a rise in the accessibility of recognition and the second channel thereby increasing the marginal productivity of investment due to the higher cost of capital is through enhanced screening of investment projects,(

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McKinnon ,1973). Removing mandated credit allocations, ensuring helpful real interest rate and reducing extreme store conditions by finishing financial oppression would also recover bank competence ( McKinnon, 1989). Finally, in the form of reinvested profits their own savings capacity by no longer limited in their asset conclusion by de Melo & Tybout (1986).

The process of liberalization varied widely suggest experience of financial liberalization across countries. Withen broader liberalized macroeconomic frame work exist in both non-market and market imperfections in developing countries. Which interpret into short income and elevated risk, owing to the elevated part costs of require of helpful security and loan administration by financial institutions are biased against small borrowers. The great majority of employment and the bulk of production as small firms account for all developing countries. Extension schemes and public sector development banks has traditionally been addressed by this gap. In this coverage and scope, which are systematically limited and not effectively replaced by micro-credit schemes.

McKinnon and Shaw has not been observed saving and commercial profitability from the point of view of allocative efficiency (Williamson & Mahar, 1998). Fry (1997), Ghani (1992), King and Levine (1993) revealed significant and positive cross-section relationship b/w real interest rate and average economic growth by the World Bank. On 16 developing countries, in his study Fry (1997) experimental an reversed U shaped association b/w real interest rates and national saving, during the results of these rates on production development high and low real interest rate at both declines national saving.

### **2.5.1.The Theoretical review:**

In an intensive study, Levine (1997) breaks five basic functions into the primary function of financial sector: exerting corporate control and monitoring managers, services and goods easing exchange, allocation of resources, pooling risks and hedging, and mobilization of saving. For the emergence of financial markets create incentives informational asymmetries and transaction costs that supply financial instruments. To satisfy illiquid high-return investments and demands on deposits investment assume a combination of fluid low-return and liquid deposits to savers can offer by Banks. In doing so, while facilitating long-run investments offer whole cover to

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savers beside liquidity threat through banks. For economic growth is also crucial regions and industries, across individual projects by the ability of banks and security markets. With high-expected returns, a portfolio risk toward projects induce financial markets by facilitating risk diversification.

In this paper, Dornbusch and Reynoso (1989) argue that the evidence on economic growth for the helpful outcomes of financial liberalization have a tendency not to be maintain by the strong statement. To maintain their state, financial repression against empirical facts and propositions by the conventional theoretical. First, the relationship b/w saving rate and real deposit rates: Although saving would stimulate higher interest rates by the strong belief, an ambiguous total effect on saving mean the compensate revenue and replacement property of enlarged interest rates. In developing countries, to provide any evidence make it harder their poor quality and lack of appropriate. Second, substantially across countries the relationship b/w growth and financial depth is not strong.

Levine (1991) drives long-run investment projects stimulate less expensive to trade equities where more liquid stock markets because before the project matures they need liquidity and investors can easily sell their stake. He concludes that in long-run high-return projects attracts investment high liquid stock market that boost productivity growth.

Mauro (1995) starts yet although their supply markets have been comparatively immature high saving rates and fast growth have experienced by Japan and continental Europe, their stock markets have been well developed by low saving and slower growth have been characterized by US and UK. Into an endogenous growth model some results from precautionary saving literature in which the immature and the mature share production created by their “ family business”. In a closed economy, precautionary saving to reduce risks by the existence of stock market. The paper shows that the method will reduce investments and be inclined to inferior development, if doubt is of a multiplicative environment and effectiveness across condition is CRRA (Constant relative risk aversion).

### **2.5.2: Empirical Review:**

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Economic growth, saving, investment and financial system development has been difficult to test b/w the empirical relationship. The first investigates the association b/w economic presentation and financial improvement indicators (King and Levine 1993), Atje and Jovanovic (1993), Levine and Zervos (1998), Rajan & Zingales (1998) Harris (1997). Bayoumi (1993), Henry (2000), Kim and Singal (2000), Bekaert and Harvey (2000) focuses on the contact of financial liberalization on financial presentation.

Over 80 countries from 1969 through 1989, using data with economic development are positively associated with advanced stage of financial development by the examine King and Levine (1993). In order to measure financial development have been constructed four indicators. First, to GDP is the relation of fluid responsibility. Second, in allocating credit the central bank relative to the deposits banks. Third, to non-financial institutions the share of credit issued. Fourth, physical capital accumulation and faster rates of economic growth are positively associated with higher levels of financial development by using cross-country regressions and country policy characteristics.

They also point out that for long-run economic growth financial development be a superior analyst above the next 10 to 30 years. These findings confirm that both financial and economic development b/w contemporaneous shocks does not simply reflect a positive association b/w economic growth and level of financial depth shows a strong correlation and economic activity does not only follow finance. Over the period 1980-88, a cross country study of economic growth and stock market presents by Atje and Jovanovic (1993). They discover a important association b/w supply advertise capitalization and standard financial development for 40 countries.

However, financial development and economic growth has causality direction may be skeptical as indicated by Rajan and Zingales (1998). Specifically, the present value of growth opportunities they anticipate potential economic growth and supply market capitalization may tend to lend more financial institutions. In this case, a causal factor as a leading indicator can be viewed by financial development. Harris (1997) re-examines more advanced econometric techniques and investment using more appropriate instruments by the empirical relationship b/w

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economic growth and stock markets. In contrast to Atje and Jovanovic (1993) growth in per capita output to explain the level of stock market activity by the evidence.

## **2.4 Financial Liberalization and Economic Instability:**

In finance literature are change interchangeably the concept of financial openness and financial liberalization. Adam (2011), in developing countries the growth ingredients has been dubbed by the financial liberalization/openness. In the economic development process, play an important part to give their markets government plans in the developing countries that took place by the financial liberalization. On the domestic financial market, government imposed by the financial liberalization is the exclusion or slack of limitations. Kaminsky and Schmukler (2003) opined that the domestic financial division viewed discretely from the stock market sector, household economic area and deregulation of the distant area assets explanation consists on financial liberalization.

Johnston and Sundararajan (1999) viewed transform the financial system and deregulate the policy measures as a set of operational reforms by the financial liberalization and an appropriate regulatory framework with a liberalized market-oriented system to achieving its structure. Chandrasekhar (2004) measures financial sector in different segments control over the activities of agents, instruments and institutional structures by the financial liberalization. The price mechanism for financial services serve to allowing the market forces and restrict financial activities controls financial liberalization. The deregulation of the financial system can be termed by the financial liberalization. Akpan (2004) conducted a study to empirically and theoretically explore the endogenous growth model on the speed of economic growth an increase financial deepening (M2/GDP) and real interest rate in the form of financial liberalization.

Covering the period from 1978-2012 and study used time series annual data. In the model, both the small and long-run collision of the variables to capture was used through the Error Correction Model (ECM). To expedite economic growth is unlikely involve that interest tempo liberalization only and demonstrate a small coefficient of the actual deposit charge. On the

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economy of Nigeria, our results shows a positive impact. Kasekende and Atingi-Ego (2003) examined its effect on the real sector and conduct of banking business on the impact of financial liberalization. Quarterly data from the following variables: Gross Domestic Product, Exports, Govt Expenditure and Money Stock M2 & Domestic tribute to personal area new as substitute of Financial Development. In the banking industry efficiency gains has promoted economic liberalization and consequently financial development leads financial liberalization and increased growth of domestic credit to private sector. The study supports the McKinnon-Shaw Hypothesis and provide evidence of a positive impact.

Abu-Bader and Abu-Qarn (2005) examine time series annual data from 1978-2012 using VAR methodology and relationship b/w economic growth and financial development in Egypt. Five variables namely: Gross Domestic Product, Exports, Government expenditure and Money Stock ( M2) & domestic credit to private sector (DPS) instead of proxies for financial development. The financial liberalization demonstrate increase in personal asset was assist economic presentation in Egypt in 1990s. Their results demonstrate that there is a straight connection b/w financial liberalization and financial development. From the period spanning 1978 to 2012 in two emerging countries, macroeconomic variables evaluated the impact of financial liberalization by Tokat (2005). Multivariate Granger- Causality test was analyzed domestic interest rate, trade-weighted normal overseas manufacturing construction indicator and domestic industrial production index conducting in dynamics. The financial liberalization process increased interdependency among the variables. The revise offer proof on both countries growing collision of overseas economies and macroeconomic variables involve that in both countries monetary liberalization has been useful.

In Nigeria, some macroeconomic variables effect of financial liberalization also investigated by Okpara (2010). Discriminant analysis technique using liberalization comparative analysis and were selected real GDP, Exports, Govt exp, M2 and Domestic credit to private sector. Positively the highest contribution which recorded the real GDP on the impacts of economy. The growth of the economy increases positively financial liberalization. From 1978-2012 using time series data through Johnson Co-integration test on the contact of economic liberalization on financial development analyzed by Banam (2010). The results suggest that gross domestic product

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measured by the economic liberalization has helpful and statistically important force on economic growth. The findings provide support and increasing investment and productivity can promote growth by the financial liberalization who argued McKinnon-Shaw (1973).

## **2.5. Overview of Economic Growth Theory.**

### **2.5.1 Classical Growth Theory:**

Adam Smith, Ricardo David and Allyn Young are main representatives by the classical economic growth theory's. Determinants factors of economic growth on analyzing those theories. Not all economic activities can provide surplus of production and investment will be use much surplus of production depends on economic growth. Productive labor and unproductive labor can be divided into two categories by Adam Smith (1776). In economic growth the role of division of labor examined. He claimed two important factors for the increase of labor productivity, the growth of national wealth and the ratio of productive labor in total labor by the division of labor. When transaction cost and transport cost is very low especially the benefit of labor division explaining transaction cost. Well-functioning market system, low transport cost and international trade for rapid economic growth key factors emphasized Adam Smith and some other scholars.

### **2.5.2 Harrod- Domar growth Model:**

Saving and investment is based on Harrod-Domer growth Model. Harrod (1939) and Domer (1946) claimed that not only promote total supply which lead to increase of productivity but also promote total demand which lead to increase of national income. More investment will shift into more income and more national income bring increase of productivity. Capital-output ratio and marginal savings rate is the function of economic growth. In economic growth, the key role of capital accumulation emphasized both of them. Improve capital-output ratio, introduce foreign capital, controlling the amount of saving by the promoting economic growth, the macro-economic control and the feasibility of government intervention.

### **2.5.3 Neo classical growth Theory:**

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A perfect competition economy described by the neo-classical growth theory. In neoclassical growth theory, between the efficiency of investment and financial development is a strong positive relationship. Promoting development of industry and surplus unit to deficit unit by capital flows. Promoting economic growth, bringing technological change and innovative enterprises for financial support provides and financial market collects money.

#### **2.5.4 New growth Theory:**

The lead developer of new growth theory is the Paul Romer (1986). Improve living standard and derive technical renovation by the institutions and human capital. Even increasing return rate, will get a stable by the investment on knowledge. In developed countries imitate existing developed technology can achieve technology innovation by developing countries. From developed countries to introduce advanced technology for developing countries is an obstruction that low capital accumulation by Basu and Weil (1998). They will experience a rapid economic growth period and increasing the amount of saving can raise capital accumulation by developing countries.

#### **2.6. Overview of Financial Development Theory:**

Financial development theory and economic growth who contributed by the Joseph Schumpeter (1939). According to Joseph Schumpeter (1939) in economic growth process are two key factors banking and entrepreneur. Entrepreneurs made financing for technological innovation and banking can evaluate; economic growth which can promote technological innovation by entrepreneurs. On evaluation the investment the importance of economic intermediaries emphasizing marginal productivity of capital could effect financial intermediaries pointed out by Schumpeter (1939). On economic growth, the importance of financial intermediaries emphasized by John Gurley and Edward Shaw (1955, 1960). By encouraging saving and provide loan for investment the amount of money available increased by financial intermediaries. High saving and high capital productivity realized on economic growth by the helpful consequence of financial development.

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To the higher productivity growth rate could lead the lower level of the productive forces found by the Russia, Germany and Gerschenkron by analyzing the development. Economic growth theory and contributed to financial by Alexander Gerschenkron (1962) based on Schumpeter (1939) theory. There is an intimate relationship b/w banker and entrepreneur in this catch up process banker play an important role. Lying On the causality b/w economic growth and financial development paid more attention by H.T. Patrick (1966). He defined two models, named provide principal and exact subsequent. In the case of supply leading, promote the economic growth and lead over the economic growth by financial development. The demand of financial services generates the supply of financial services. In the case of demand following, the development of real sector is a result of financial development. Financial intermediaries and financial instruments emerging for financial service through the actual area. In increasing countries, the financial supply leading is more possible and economic development in the early stage maintained by Patrick. However, in some more developed economies, so the demand following is more possible, the financial sector has already developed in the late stage of economic growth.

In successful industrialization process, about the relationship b/w economic growth and financial development provided more details by Rando Cameron (1967). At the same time, be led by economic growth and to the economic growth may lead the financial system. Firstly, decreasing the borrowing cost encourages the investors by financial intermediary. The rate difference b/w different area and different clients should decrease a developing financial sector. Secondly, a funding mechanism is financial intermediary. From risk averse savers collects money and who are risk-love conducts to investors. Thirdly, in the early stage of industrialization for efficient allocation of capital created the possibility by financial institution. In promoting technical progress, the important role of bank emphasized in the end.

### **2.6.1 McKinnon-Shaw's financial theory:**

On financial repression McKinnon-Shaw mainly focus on financial theory. For investment decreased the scale of capital available financial repression was not good for long-run economic growth by the financial development. Low interest rates and exchange rates on financial

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activities by government intervene. For capital, the true relation b/w supply and demand cannot reflect the interest rate, saving interest rate and loan interest rate for upper limit set by the government. The real interest rate is very low even could be negative, when the nominal interest rate goes up, which have high inflation rate in some developing countries. In this situation, from bank borrowers need money and in banks individuals do not want to save money. By rationing other privileged organizations or some state-owned company will flow from capital by this lead to demand exceeds supply. Financial oppression is not good for lengthy time economic development. The fraud will show and the large quantity of average and small businesses can not obtain cash. Fry (1995) stated that economic area can facilitate the administration obtain sufficient dues. However, in some increasing countries, the administration applies financial oppression policies. when the government can not force sufficient dues. The preserve against put down, administration bonds and the concentration time maximum are supportive for the government to increase money for community mechanism projects.

There are four possessions of monetary oppression on economic development according to Shaw. The first is earning cause. High effectiveness activity may not obtain credit and some low effectiveness own-stated companies can obtain the asset as a substitute. Because of the high price charge in increasing counties which are useful financial oppression, community and project will reduce the economy in banks in order to evade the price rice, so there is not sufficient assets which can be loaned and devoted. This slows down the economic growth in increasing counties. The second is reserves result. They desire to raise customer expenditure or transfer money to abroad in order to evade price rises. In some increasing countries, the financial oppression, the high prices time and the low concentration price decrease the economy motivation of persons. The third is asset result. Get agriculture as an example, the improvement in agriculture slows down, which guide to the rising trade require for agricultural products. Under the financial oppression policy, savings in some customary sectors are restricted. Hence, the economies of financial oppression countries have to support on overseas counties. The fourth is service result. There are also many labors in town region so some of them are jobeless. Under the financial oppression approach, the oppression on conventional sectors outcome in the labor move from urban region to rural region.

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R.J.Mckinnon and E.S.Shaw (1973) criticized the financial oppression analysis. They assumed that the strategy and events which associated to financial oppression should be neglected. They thought attention price liberalization is supportive for economic growth in the extensive lope. They highlight some of monetary strategies had depressing outcome on the encouraging connection between financial development and economic growth. They estimate how financial development fractional economic growth through recover the asset competence and hopeful economy. The significance tempo was restricted under the advertise stage and the assets was transfer to some concern area. In some increasing countries, the administration restricted the portion of financial assets by restrictive financial advertise opposition. Also, the low concentration speed led to surplus require of mortgage. With the low competence of credit, the subsidiary efficiency of assets will be low. However, they claimed that by liability this, the concentration speed was very low which guide to the lower economy level. These outcome could guide to a sluggish economic growth. So both of them arranged with financial liberalization, free the concentration speed to advertise strategy in arrange to encouraging economy and growing the range of capital for assets.

After Mckinnon and Shaw, there were a group of studies, for example, Kapur (1976), Galbis (1977), Mathieson (1980) and Fry (1980). In these models, the regime equipments the financial oppression by calculating the economy attention rate under the advertise strategy instead of calculating the mortgage concentration speed. They urbanized the worldwide financial system form. A high price speed guide to low actual require for money. The high price reduce the economic growth because people favor remain non-productive property which can evade high prices (such as money) to devote money on creative property by discount money in banks. The actual demand for money is determined by actual concentration speed and high prices. Kapur and Mathieson (1980) came up with a new reproduction of financial oppression: yet there is no interest-rate maximum, the regime also can obtain the same outcome with there is interest-rate maximum by calculating the essential reserve relation. They all suggested that desert the interest-rate maximum, give up designed loan, inferior the essential reserve fraction and build certain the viable atmosphere for monetary region. In all Mckinnon-Shaw school models, the consequence of liberated advertise balance can encourage economic growth.

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## **2.7. Financial development and endogenous economic growth:**

Financial mediator also make it possible that persons decrease their threat while conference the liquidity wants. The portion of assets is more capable. Bencivenga and Smith (1991) establish to the reality of financial mediator conduct capital portfolio go to high threat but high efficiency course, which encourage economic growth. Greenwood and Jovanovic (1990) urbanized another form which together financial negotiator and economic growth be endogenous. They set up that here is constructive relationship between financial development and economic growth. Berthelemy and Varoudakis (1996) used education by liability position of analyze to study. They understood that such as major business, and then actual area urbanized and had more excess cash, financial area had helpful authority on promoting the growth of actual sectors, so they will have extra economy in banks, which also include helpful influence on financial growth.

## **2.8. In Economic Growth the role of Financial Development:**

Financial development be competent toward influence economic growth by disturbing the quantity of economy. From the extend threat perception, financial advertise can assist people allocate the give way threat, such as the threat approach from the changeable of collection give way. If the coefficient of threat hatred is fewer than 1, then the authority will be encouraging. However, the inferior of give way risk's authority on the economy part or economic growth is strange. when financial mediators change cash into high trivial competence of assets development, it might support economic growth. It is unsure whether financial development improve the competence of reserve portion. In some studies, such as Levine (1991) assumed the economy fraction is a stable, or the coefficient of danger dislike is fewer than 1. So a fraction of helpful consequence will be equalize. These types of investigate expelled the unsure authority of dispersel threat on the fraction of economy. The financial oppression not only rising the contract price but also reduce individual's economy reason. From the concentration price method point of view, the rising of concentration tariff does not have a confident authority on the part of economy. So the economy part is reserved in financial oppression strategy, therefore the economic growth sluggish behind. The increasing of concentration speed will guide to the earning outcome, which build people payout more cash on utilization and fewer cash on

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economy. But when the financial oppression rule is neglected and the concentration speed rise, we can not compose definite its power on the economy fraction. But at the same time, the increasing of concentration speed will guide to the cost diminish in the future, so people start to change direct expenditure with long-standing utilization, then the economy part rise. So the attention speed result is unsure. These two opposing things determined the whole result of rising significance price collectively.

## **2.9. The Role of Economic Growth in Financial Development:**

Based on Greenwood and Smith (1997) and Levine (1993)'s model, the financial mediators and financial advertise urbanized with the development of human being standard profit. With the growth of financial system, the development of asset level and the opposition of dissimilar financial mediators, the price of organization financial mediators are declining, which could support individuals to contribute the financial behavior. The financial mediators have organization expenses. Greenwood and Smith (1997) regarded the price of individuals make a payment the financial behavior as missing. They planned three financial organization, namely, no financial mediators and financial advertise, only financial mediators and only financial advertise. In the early period of economic growth, per capita GDP is very slow, individuals do not have sufficient cash to compensate for the price of financial mediators and financial advertise, so the financial organization will not become visible. Only when the income is better than the missing, the individuals concentrate the financial behaviors. Or there is only a small amount of individuals contribute the financial behavior, so the lost is better than the revenue. With the growth of financial system, an rising amount of individuals contribute the financial behavior, so the financial structure developed. In this condition, individual to be short of inspiration to contribute the financial behaviors, so the appropriate financial services do not survive. Easy financial scheme will build up into more difficult scheme with the rising of per capita profit and GDP. Also, the financial development can give a good background for the constant growth of financial segment. That is how financial urbanized with the development of financial system. More and more financial services will show such as scheme estimate, private savings and financing, store advertise and insurance.

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## **2.10. Previous Empirical Studies about Financial Development and Economic Growth:**

Goldsmith (1969) is the initial one who calculated the relationship among financial development and economic growth on the observed perception. The assumption is that the amount of a financial organization has helpful association with provide and feature of financial mediators. He used the quantity of whole property of financial mediators and annually GNP to calculate financial development. He establish to here is a constructive association between financial development and economic growth. His model was from 35 countries from 1860 to 1963. But he did not examine the causality among financial development and economic growth. He simply attentive on the growth of bank manufacturing. He get the consequence that in the premature phase of economic growth, financial deepen guide to economic growth. Fritz (1984) used Philippine as an pattern, did causality examination by using periodical data of 1969 to 1981. And in the late phase of economic growth, with the rising demand of financial service, economic growth guide to financial development.

Kind and Levine (1993) urbanized Goldsmith (1969)'s theory. They establish that financial advertise encourage assets growth and economic growth by increasing economy concentration speed and support knowledge improvement. He used 80 countries model during 1960 to 1989 to study if financial development point can calculate asset increase, the rise of output and long-run economic growth. Levine (1997) orginate the position of financial mediators in economic growth. Pasano (1993) completed the essential AK representation by addition a variable which can calculate the position of financial mediators. Financial mediators can support economy, allocating income, encourage business, reduce threat and manage firms. His consequence also supported financial development guide to economic growth assumption. Odedokun (1996) analyzed 71 developing countries in dissimilar phase. He concluded that financial mediators encourage economic growth in about 85 percent countries; financial mediators position in economic growth is as significant as other feature, like export, government expenditure, domestic credit to private sector, growth rate of money, and gross domestic product; the positive result mostly survive in developing countries.

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Philip Arestis and Panicos Demetriades (1997) using time series figures examined the distinction association between special countries. However, in the US, here is not adequate proof to explain that financial development guide to the development of GDP. In Germany, only financial development affect GDP and the development of GDP does not have important result on financial development.

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## CH 3.

### Data and Methodology

#### 3.1 Introduction:

Independently of research results requires research design and evaluation. Outcome of the research and impact of this process with methodological choice is concerned by this chapter. Data was analyzed and gathered by research approach, subjects, identifying data requirements and techniques. The role of an intranet in knowledge sharing to establish using grounded theory principles by a single case study. The first section explain the data. Data define the variables and verify the stationarity of each variable. In the second section explain the each variables gross domestic product, government expenditure, exports, domestic credit to private sector and growth rate of money. In the 3<sup>rd</sup> section explain the research paradigms. Research paradigms explain different types positivism, post-positivism, inter-pretivism and pragmatic paradigm. In the 4<sup>th</sup> section explain the methodology. Methodology explain the test results. In the 5<sup>th</sup> section explain

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model specification. In the model specification variables have positive effect. And the last section is stationary process.

- Data collection schedules from the development.
- Employed actor-network theory of the data a socio-technical analysis.
- For subsequent analysis the data collected from the means of coding.

### **3.2 Data:**

Many economists claim that b/w GDP and Govt- expenditure is two sided-relationship, while it is the one-sided effect some economists claim. Between the two variables it is essential to analysis for fundamental, existence and course association. The Error Correction Model (ECM) are used through these variables. Over the previous two decades, a unit root test for the presence have been developed to test by several approaches, into two categories these approaches be able to generally be separated; the first type consist the null hypothesis to reject that is sufficiently strong by the empirical evidence and second category consists as null hypothesis by the company of unit root test. yet still the OLS estimators are marvelous reliable in the presence of unit of root by the tests of the hypothesis are extremely problematic. A description of the Dickey-Fuller test customized by Phillips and Perron (1981) one suggested by in this frame work the most popular test.

The stationarity properties of the data do not take into account by the regressions in level are misleading. among the two variables here is a long run association conclude and it is not sufficiently to causally examine information tendency. Whatever the series are  $H(0)$  or  $H(1)$  to determine in first difference and in all of the variables in levels designed for the company of unit root test by this background. In a case spurious results will produce regressions on non-stationary variables and the majority financial time series be non-stationary. In any one of the series designed for the opportunity of stochastic trend to account, through and with no the hypothesis of deterministic development by the Dickey-Fuller test.

### **3.3 Explanation of Variables**

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The detail of the following variables is as follow:

### **3.3.1 GDP:**

GDP is the amount of gross value further by all occupant producer in the market plus any manufactured goods taxes and deficiency any subsidies not incorporated in the price of the goods. It is designed not including manufacture world bank national accounts data, and OECD National accounts statistics files.

### **3.3.2 Exports:**

Exports of commodities and services correspond to the price of all commodities and new market services offer to the respite of the humanity. They comprise the assessment of products, goods, assurance, carrying, travel, world bank national accounts statistics and OECD National Accounts information files.

### **3.3.3 Govt Expenditure:**

universal government ultimate expenditure costs contain all government present expenditures for obtain of supplies and services but eliminate government military expenditures to be component of government capital development.

### **3.3.4 Domestic Credit to Private Sector:**

DPS refers to economic reserve give to the private sector by financial corporations, such as throughout credit, purchase of non- equity securities, and pathway credit and other global financial subsidize, International Financial Statistics, and statistics files and world Bank and OECD GDP estimation.

### **3.3.5 Growth rate of money (M2):**

Money is the amount of exchange external banks, demand put down additional than those of the essential government; the instance, savings and foreign exchange deposits of occupier sectors extra international economic fund, International Financial statistics and information files.

## **3.4 Research Paradigms:**

Mertens (2005), Bogdan & Biklen (1998) influences the study and interpreted distinct from a theory and theoretical frame work is referred to as paradigms. For the research, expectations, motivation and sets down the intent by the paradigm. Research design, literature methods and

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methodology are not basis without paradigm. At the beginning of the research design are discussed paradigms by some research texts. Bogdan & Biklen (1998) studied that research and orient thinking that propositions concepts, assumptions related by a logically loose collection. Cohen & Manion (1994) understanding a study of motivation or philosophical intent. Alternatively, Siraj-Blatchford, Mac Naughten and Rolfe (2001) provide which include criteria for validity, a methodology and the nature of knowledge. Creswell (2003), Neuman (2000) referring paradigms by the research methodologies, epistemology and ontology. In the literature a theoretical paradigms are discussed such as post-positivism, Interpretivism, positivism and pragmatism.

#### **3.4.1 Positivism:**

Mertens (2005) August Comte, John Locke, Emmanuel Kant, Francis Bacon that originated empirist philosophy, based on the rationalistic by the science research or scientific method is referred to as Positivism. Creswell (2003) determine effects or outcomes in which reflects a deterministic philosophy. A causal nature can be provided explanations, the social world that is value free for studying a method, in the same way the natural world can be studied the social world on the assumption the social world may be applied positivism. Mertens (2005) O' Leary (2004) that surrounds us the control forces and in order to predict measurement through observation describe an experience by the positivists aim to test a theory.

#### **3.4.2 Post-Positivism:**

Cook & Campbell (1979) is being tested as well as a number of well-developed theories is influenced by any piece of research from the assumption by post-positivist work. Thomas Khun (1962) theories may challenge the whole theoretical frame work by the new understandings and are held to be provisional. O'Leary (2004) provides multiple realities and variable see the world ambiguous by post-positivism that claiming constructivist paradigm in some sense post-positivism. With quantitative methods of data collection and analysis is most commonly aligned by the positivists and post-positivist research. O'Leary (2004)

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suggest that qualitative in nature with findings exploratory and inductive by the holistic and intuitive post-positivism. Mertens (2005) provided more widely used definition with conflict to be seems as post-positivism.

### **3.4.3 Inter-pretivism:**

Mertens (2005) Eichelberger (1989) and other German philosophers understanding the study of interpretive called hermeneutics. Mertens (2005) Cohen & Manion (1994) suggesting that human experience of the world and socially constructed by the reality of understanding the intension research. Creswell (2003) studied the participants views of the situation tends to rely by the interpretivism researcher and their own experiences and background of research on the impact of recognizes. Creswell (2003) throughout the research process the pattern of meanings and inductively develop a theory by the interpretivism. A combination of both quantitative and qualitative methods analysis and data collection method on qualitative is most likely to rely by the constructivist researcher. Effectively deepens the description and qualitative data expands which supports in a way may be utilized by quantitative data.

### **3.4.4 Pragmatic Paradigm:**

Any one system of philosophy is not committed by Pragmatism. Creswell (2003) research problem focus on “How” and “ What” by the pragmatist researchers. Mertens (2005) asset of a particular systematic technique about the real world solely that community investigation was competent to contact the “Truth” rejected the scientific notion by pragmatists. Mertens (2005) Somekh & Lewin (2005) Teddlie & Tashakkori (2003) with the transformative paradigm philosophically some mixed-method researchers provides the underlying philosophical frame work for mixed-method research by pragmatism. With any paradigm could be used mixed methods. Creswell (2003) understanding the problem applies all approaches and the research problem by the pragmatism paradigm places.

## **3.5 Methodology.**

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Over the period of 1978-2012 data is obtained from World Development Indicator (WDI) and International Financial Statistics (IFS). Our empirical analysis using government expenditure, Exports, Growth rate of money and Domestic credit to private sector (DPS) and real gross domestic product (GDP). In the first step, we applied unit root test and we employ the Augmented Dickey-Fuller test, in the second step b/w the variables the long run equilibrium relationship to identify the co-integration test. When we test the causality b/w the variables govt expenditure, exports, growth rate of money, DPS and Gross domestic product (GDP) use the Vector Autoregressive Approach (VAR) model. The VAR test ensure the validity of the results by several tests.

Different studies were undertaken in order to understand the role of dependent variables on GDP in Pakistan. Different methods and variables were used for this purpose. To discover the long run association among the variables we have used various regression analysis. In this study we have paying attention on secondary category of data, every one data is composed from World Development Indicator and International Financial Statistics (IFS). In this learn we have used the simple linear regression method to investigation the representation. Augmented Dickey Fuller Test (ADF) are used to verify the individual stationarity of all variable. In ADF check the level form and 1<sup>st</sup> difference level who shows the P-Value. The data for the variables such as Gross Domestic Product (GDP), Exports (X), Govt-Exp, Domestic credit to private sector (DPS), Growth rate of Money stock (M2) are collected from World Development Indicator (WDI) and (IFS). Augmented Dickey Fuller test is used to estimate the unit root test. Johnson co-integration test is too used to verify the long run association b/w the variables. Error correction model is also applied in estimation. GDP will be taken as dependent variable and Exports, Govt-Exp, DPS and M2 are taken as explanatory variables.

1. From stable long run equilibrium, do not deviate temporarily through a large number of economic variables has provided the evidence by the concept of the unit root and the deviations are permanent. In a regression model, the variables are stationary or non-stationary are determine by the unit root tests.

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2. The disturbance term is white noise on the assumption is based on the Dickey and Fuller test. However, a unit root Dickey and Fuller (1979) test can not be used as a Dickey and Fuller regression by this assumption does not hold.
  3. Enders (1995) analyzing the system of variables on the dynamic impacts of random disturbances and the interrelation of time series is used the vector auto-regression (VAR) model. The VAR analysis determine the interrelationship among the parameter estimates rather than economic time series. In the previous periods, the interaction of the variables reveals the residual correlation in the VAR model.
  4. In the co-integration view, to test the validity of theory are used for imposing restrictions which are derived by the long-run parameters. Thus co-integration regressions b/w economic variables show the equilibrium or long run relationships. In to the estimation of the short run disequilibrium relationship provides enables utilization of the estimated long run parameters and a direct test of the economic theory by the co-integration approach.
  5. However, in their papers from shinn tables and Pesaren is selected through  $K = (n-1)$  by the value of Wald F-Statistics and no trend and unrestricted intercept is selecting through ARDL bound test. AIC criteria is (2,2,2,2,2,2) is selected through the order of ARDL model. Whereas, AIC has lower prediction error and is based on this model.
  6. Within the error correction models operate the approximate of the long run constraint be estimate through the short run or the dynamic disequilibrium associations. Banerjee et al (1986) suggest the “ Error Correction Model” (ECM) as a box- Jenkins modeling approaches and convenient alternative modeling to the static. In fact, the ECM provides both long run (in levels) adjustment process and short run dynamics (in difference) is combined model by these two approaches.

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7. Pesaran and Pesaran (1997) analyze that when the variables be of unusual organize of combination that it can be applied by the major benefit of ARDL representation lies in its suppleness. Laurenceson and Chai (2003) examine that in a general-to- specific representation frame work to detain the statistics generating procedure that the representation obtain adequate amount of lags by another advantage of this approach. Moreover, Banerjee et al (1993) suggest that a simple linear transformation can be derived through ARDL and a dynamic error correction model (ECM). Without losing long run information the ECM integrates the long run equilibrium with the short run dynamics. Laurenceson and Chai (2003) argued that non-stationary time series data using the ARDL approach.

### **3.6 Model Specification:**

Kasekende and Atingi-Ego (2003), Faria et al, (2009), and Akpan (2004) in this study model employed and built modification of the models. For the purpose of this study, Domestic credit to private sector and Money stock (M2) was contain because it is observe as an significant financial development proxy. Endogenous variable Gross Domestic Product specifies model as a function of Govt\_expenditure, Exports, Domestic credit to private sector and Money stock M2 representing the exogenous variable.

The quantitative relation b/w finance and growth to measure many model specifications. Growth model of Odedokum (1996) and condition form of Rame (1999) be a little modified by this study. The aggregate production function is plugged as input by the level of financial development. Real services to the economy provides by the financial development. With the economy, the non-neutrality of financial development to establish. In the model, a real variable status and a broader spectrum is rendered by financial development. A general production framework is derived by the model as follows:

$$GDP = f(G.E_t, X_t, DPSt, Mt)$$

Where Y, G.E, X, DPS, M stand for total real output, Government Expenditure, Exports, Domestic credit to private sector, and Growth rate of money respectively.

$$GDP = f_{G.E} dG.E + f_x dX + f_{DPS} dDPS + f_M dM$$

$$GDP = \left[ f_{G.E} \frac{G.E}{Y} \right] \frac{dG.E}{G.E} + \left[ f_x \frac{X}{Y} \right] \frac{dX}{X} + \left[ f_{DPS} \frac{DPS}{Y} \right] \frac{dDPS}{DPS} + \left[ f_M \frac{M}{Y} \right] \frac{dM}{M}$$

$$GDP = \varepsilon_{Y,G.E} \frac{dG.E}{G.E} + \varepsilon_{Y,X} \frac{dX}{X} + \varepsilon_{Y,DPS} \frac{dDPS}{DPS} + \varepsilon_{Y,M} \frac{dM}{M}$$

$$\frac{dY}{Y}, \frac{dG.E}{G.E}, \frac{dX}{X}, \frac{dDPS}{DPS}, \frac{dM}{M} \text{ are growth rate of output, govt.exp,}$$

exports, domestic credit to private sector and growth rate of money respectively. Output elasticities representing by the government exp, exports, domestic credit to private sector and growth rate of money by  $\beta_1, \beta_2, \beta_3, \beta_4$  respectively and including stochastic component,  $\mu$  and a constant,  $\beta_0$ .

$$GDP = \beta_0 + \beta_1 d \left( \frac{G.E}{G.E} \right) + \beta_2 \left( \frac{dX}{X} \right) + \beta_3 \left( \frac{dDPS}{DPS} \right) + \beta_4 \left( \frac{dM}{M} \right) + \mu.$$

Since we can't directly measure financial development, we have to find proxies domestic credit to private sector and growth rate of money to represent them. For financial development, I utilize two substitute proxies- the domestic credit to private sector and growth rate of money.

$$GDP = \beta_0 + \beta_1(G.E) + \beta_2(X) + \beta_3(DPS) + \beta_4(M) + \mu$$

On GDP growth, all explanatory variables to have positive effect.

$$GDP_t = \beta_0 + \beta_1 X_t + \beta_2 G.E_t + \beta_3 DPS_t + \beta_4 M2_t + \epsilon_t$$

GDP growth rate.

X = Exports.

G.E = Govt-Exp.

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DPS = Domestic Credit to Private Sector.

M2 = Growth rate of money.

Here  $B_0$  is a constant while  $B_1$ ,  $B_2$ ,  $B_3$  and  $B_4$  are the coefficients. GDP is dependent variable while exports, govt-exp, DPS, and M2 are the independent variables.

### **3.7 Stationary Process**

A stationary time series has a established mean, a constant variance and the covariance is independent of time. Stationary process is compulsory for average econometric theory. Lacking it we cannot get consistent estimators. Primarily it will be checked that whether all above series are stationary or non stationary? To examine the stationary material goods of all above series, the Augmented Dickey- Fuller (ADF) test will be used. In statistics and econometrics, an Augmented Dickey-Fuller test (ADF) is a test that is used to check the stationarity of the data.

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## **Chapter no.4**

### **4.1.DATA ANALYSIS AND INTERPRETATION OF FINDINGS:**

#### **4.1. Unit Root test:**

Hill (2001) suggest that in time series many macroeconomic variables are non-stationary. On the one hand, both are a function of time, the mean or variance and the time series is non-stationary. On the other hand, to its long run equilibrium returns to the shock imposed on is variable and

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elimination by a service is stationary. Varying the variables will be infinite, if the time is infinite. Stereo and Hall; (2006) examine that away from its path equilibrium will be divergent by the variables. In question to examine the stationary of variables are using Augmented Dickey- Fuller test. In conducting this test, the stationarity of data to determine would be employed by the Augmented Dickey- Fuller (ADF) unit root test. There is stationary of data to ensure that it is necessary to perform unit root test and time series statistics are frequently presume to be non-stationary. The problem of spurious regression to avoid the test would be employed. To determine relationship b/w the variables make difficult that the data is not stationary, the technique of least squares develop into is not expectation through the time series data is non-stationary. In the direction of conclude the nature of the relationship b/w the variables are used in this case co-integration test and the unit root test. In Jordan relationship examined b/w the govt\_exp and gross domestic product. To determine the stationary of time series is used by the Augmented Dickey- Fuller (ADF) Dickey & Fuller (1981).

In a time series sample a unit root is an augmented Dickey-Fuller Test. extra complex position of time series models and a large Dickey-Fuller test by an augmented version. A negative number used in the test by the augmented Dickey-Fuller (ADF) statistics.

#### **4.1.1 At the Level Form**

##### **Augmented Dickey-Fuller Test**

<b>Variables</b>	<b>T-Calculated</b>	<b>T-Tabulated</b>	<b>Prob</b>	<b>Remarks</b>
Gross Domestic Product (GDP)	-1.629203	-2.634731	0.0965	Non-Stationary

Exports (X)	-1.457112	-3.670170	0.5411	Non-Stationary
Government Expenditure. (G.E)	-2.001538	-3.661661	0.2847	Non-Stationary
Domestic credit to private sector (DPS)	-1.888722	-3.646342	0.3333	Non-Stationary
Money	-1.320168	-2.634731	0.1691	Non-Stationary

\*MacKinnon (1996) one-sided p-values.  
Source: research findings.

### **Interpretation:**

This table shows the results of Augmented dickey fuller test. In this table all the  $t_c$  values are greater than  $t_t$ . So it means that the data is non-stationary here we will reject  $H_0$  hypothesis and accept  $H_1$ . Like GDP,  $t_c$  value is -1.629203 that is greater than  $t_t$  that is -2.634731 so, this data is non-stationary because the value of  $t_c$  is greater than  $t_t$ . Like this in case of Exports,  $t_c$  value is -1.457112 and the value of  $t_t$  is -3.670170 it demonstrate that the considered assessment of exports is greater than the tabulated value so,  $H_1$  is rejected and  $H_0$  is accepted. In case of Govt\_Exp the calculated value  $t_c$  is -2.001538 is greater than  $t_t$  value of Govt\_exp that is -3.661661 in this case  $H_0$  is accepted and  $H_1$  is rejected. In this case DPS also shows that its calculated value is  $t_c$  -1.888722 and tabulated values  $t_t$  is -3.646342 so  $H_1$  is rejected and  $H_0$  is accepted. Like other variables Money also shows that its calculated value is  $t_c$  -1.320168 and tabulated values  $t_t$  is -2.634731 so  $H_1$  is rejected and  $H_0$  is accepted. All the variables are non-stationary at the level form.

### **4.1.2 At the 1<sup>st</sup> difference level:**

#### **Augmented Dickey Fuller test:**

Variables	T-Calculated	T-Tabulated	Prob	Remarks
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Impact of Financial Development  
On Economic Growth of Pakistan.

Gross Domestic Product (GDP)	-8.945234	-3.646342	0.0000	Stationary
Exports (X)	-7.843072	-3.653730	0.0000	Stationary
Government Expenditure (G.E)	-6.358259	-3.661661	0.0000	Stationary
Domestic credit to private sector (DPS)	-5.102369	-3.646342	0.0002	Stationary
Money	-7.254029	-3.646342	0.0000	Stationary

\*MacKinnon (1996) one-sided p-values.  
Source: research findings.

### **Interpretation:**

This table shows the results of Augmented dickey fuller test. In this table all the  $t_c$  values are less than  $t_t$ . So it means that the data is stationary here we will reject  $H_0$  hypothesis and accept  $H_1$ . Like GDP,  $t_c$  value is -8.945234 that is less than  $t_t$  that is -3.646342 so, this data is stationary because the value of  $t_c$  is less than  $t_t$ . Like this in case of Exports,  $t_c$  value is -7.843072 and the value of  $t_t$  is -3.653730 it demonstrate that the calculated price of exports is less than the tabulated price so,  $H_1$  is accepted and  $H_0$  is rejected. In case of Govt\_Exp the calculated value  $t_c$  is -6.358259 is less than  $t_t$  value of Govt\_exp that is -3.661661 in this case  $H_0$  is rejected and  $H_1$  is accepted. In this case DPS also shows that its calculated value is  $t_c$  -5.102369 and tabulated values  $t_t$  is -3.646342 so  $H_1$  is accepted and  $H_0$  is rejected. Like other variables Money also shows that its calculated value is  $t_c$  -7.254029 and tabulated values  $t_t$  is -3.646342 so  $H_1$  is accepted and  $H_0$  is rejected. All the variables are stationary at the 1<sup>st</sup> difference level.

### **4.2 Johnson Co- integration Test:**

A lower rank of integration may have a linear combination are integrated by two or more time series are called co-integration. Between the time series long-term equilibrium relationship shows the linear combination, a linear combination is stationary are integrated by the variables.

Cliv Granger (1980) showed that Pseudo-regression can lead on non-stationary time series data was inappropriate by the linear regression. Between the studied variables for the long-term relationship test is used. In the long run relationship are no less important as the short run dynamic, in the long run the dependent and independent variables indicates the equilibrium relationship by the co-integration test. The johansen (1988) and johansen & juselius (1990) suggest that using the variables b/w the long run equilibrium relationship to identify the co-integration test. Acceptable test of co-integration for choosing the specific lag length periods is used to determine by Schwartz criterion. In residuals, for autocorrelation johansen method is sensitive. Al- Fawaz and Al- Sawai (2012) and Pantula (1989) to determine the co-integration rank. Purpose of long-run equilibrium association is relevant to the problem by the concept of co-integration. Between variables a long run equilibrium relationship exist is the statistical implication by the co-integration. The trace statistics must be greater than 5% critical value is that a long run co-integrating vector by the condition.

#### ***4.2.1 Co-integration Rank Test with Growth rate of Money(Trace).***

Eigen values		Null Hypothesis	Alternative Hypothesis	T-Statistic	0.05 critical value	Prob.
Pakistan						
<b>Trace Tests.</b>						
$\lambda_1$	0.631189	$r^* = 0$	$r > 0$	88.68905	47.85613	0.0000
$\lambda_2$	0.579039	$r \leq 1$	$r > 1$	55.77249	29.79707	0.0000

$\lambda 3$	0.489341	$r \leq 2$	$r > 2$	27.22038	15.49471	0.0006
$\lambda 4$	0.141704	$r \leq 3$	$r > 3$	5.042592	3.841466	0.0247

Trace test and the Max Eigen experiment point to 1 Co-integration eqn(s) by the 0.05 point.

\*indicate negative response of the theory at the 0.05 point.

\*\*MacKinnon-Hag-Michelins (1999) p-value.

#### ***4.2.2 Co-integration Rank Test with Growth rate of Money(Maximum Eigen Value).***

Eigen values	Null Hypothesis	Alternative Hypothesis	T-Statistic	0.05 critical value	Prob.	
<b>Pakistan</b>						
<b>Maximum Eigen tests.</b>						
$\lambda 1$	0.631189	$r^* = 0$	$r > 0$	32.91656	27.58434	0.0094
$\lambda 2$	0.579039	$r \leq 1$	$r > 1$	28.55212	21.13162	0.0038
$\lambda 3$	0.489341	$r \leq 2$	$r > 2$	22.17778	14.26460	0.0023
$\lambda 4$	0.141704	$r \leq 3$	$r > 3$	5.042592	3.841466	0.0247

Trace test and the Max Eigen experiment point to 1 Co-integration eqn(s) by the 0.05 point.

\*indicate negative response of the theory at the 0.05 point.

\*\*MacKinnon-Hag-Michelins (1999) p-values.

#### ***4.2.3 Co-integration Rank Test with Domestic Credit to private Sector(Trace).***

Eigen values	Null Hypothesis	Alternative Hypothesis	T-Statistic	0.05 critical value	Prob.	
<b>Pakistan</b>						
<b>Trace Tests.</b>						
$\lambda 1$	0.607999	$r^* = 0$	$r > 0$	67.12298	47.85613	0.0003

$\lambda 2$	0.497681	$r \leq 1$	$r > 1$	36.21874	29.79707	0.0079
$\lambda 3$	0.264394	$r \leq 2$	$r > 2$	13.49758	15.49471	0.0978
$\lambda 4$	0.096932	$r \leq 3$	$r > 3$	3.364595	3.841466	0.0666

Trace test and the Max Eigen experiment point to 1 Co-integration eqn(s) by the 0.05 point.

\*indicate negative response of the theory at the 0.05 point.

\*\*MacKinnon-Hag-Michelins (1999) p-value.

#### ***4.2.4 Co-integration Rank Test with Domestic Credit to private Sector(Maximum Eigen Value).***

Eigen values	Null Hypothesis	Alternative Hypothesis	T-Statistic	0.05 critical value	Prob.	
<b>Pakistan</b>						
<b>Maximum Eigen Tests.</b>						
$\lambda 1$	0.607999	$r^* = 0$	$r > 0$	30.90423	27.58434	0.0180
$\lambda 2$	0.497681	$r \leq 1$	$r > 1$	22.72116	21.13162	0.0296
$\lambda 3$	0.264394	$r \leq 2$	$r > 2$	10.13299	14.26460	0.2033
$\lambda 4$	0.096932	$r \leq 3$	$r > 3$	3.364595	3.841466	0.0666

Trace test and the Max Eigen experiment point to 1 Co-integration eqn(s) by the 0.05 point.

\*indicate negative response of the theory at the 0.05 point.

\*\*MacKinnon-Hag-Michelins (1999) p-values.

From the table above, co-integration exists or long run relationship among gross domestic product (GDP), Exports (X), Government Expenditure (G.E), Domestic Credit to private sector (DPS), and Growth rate of Money (M2). At the 5% significance level has been rejected by the hypothesis of no co-integration.

#### **Interpretation:**

This table shows the result Johnson co-integration test. In Co-integration there are two tests which are Trace trial and Max Eigen value tests. In the above table we have five variables GDP,

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Exports, Govt-Exp, DPS and M2. Where GDP is dependent variable. We check the long run relationship through Johnson Co-integration test and result shows that in trace test T-statistic value 88.68905 greater than critical value 47.85613 at (prop) 0.0000% or none\* shows here is only single Co-integration equation exist at the 0.05 point of implication where null assumption be rejected and interchange theory be established. Or at Eigen test T-statistics value 32.91656 which is superior than the critical value 27.58434 which shows that is significant at the probability of 0.0094. In trace test T-statistic value in Domestic credit to private sector 67.12298 greater than critical .value 47.85613 at (prop) 0.0003% or none\* shows here is only single Co-integration equation exist at the 0.05 point of implication where null assumption be rejected and interchange theory be established. Or at Eigen test T-statistics value 30.90423 which is greater than the critical value 27.58434 which shows that is significant at the probability of 0.0180. Eigen test indicates there is 1 Co integrating eqn(s) at the 0.05% point which indicates the negative response of the null theory at the 0.05 point.

#### **4.3 ERROR CORRECTION MODEL:**

In the independent variables dependent variable adjust to changes at which the rate. i.e. degree of adjustment or the speed is the error correction mechanism. Error Correction Mechanism (ECM) using the short run dynamism for the speed of the adjustment, established a long run equilibrium relationship. The study applies the Error Correction Mechanism b/w variables to attain the short term dynamic association. In the period of study, the speed of adjustment of disequilibrium showed the coefficient of vec (-1). In brackets show the calculated t-value written numbers and parentheses by the standard error values. Positive investment and exports is negative for the coefficient of GDP. Export and Govt\_Exp forecast error over 83% explains ten years GDP. Owing to shocks come into to the variable after ten years the volatility GDP of the 85% suggests by the evidence. Due to GDP and Govt\_Exp are fluctuation by 28% and 7%. Due to shocks entered upon to it export volatility of 65%. Finally, 83%, 16% and 1% of govt\_exp volatility is due to export, DPS, Growth rate of money and GDP respectively.

Within the error correction models operate the approximation of the long run parameters are estimated by the short run or the dynamic disequilibrium relationships. Banerjee et al (1986) suggest the “ Error Correction Model” (ECM) as a box-jenkins modeling approaches and

convenient alternative modeling to the static. In fact, the Error Correction Model provides both long run (in levels) adjustment process and short run dynamics (in differences) is combined model by these two approaches.

#### 4.3.1 Error Correction Model with Growth Rate of Money.

	COEFFICIENT	T-STATS	PROBABILITY
<b>C</b>	2.710725	1.952328	0.0617
<b>D(EXPORTS)</b>	0.029142	0.987929	0.3323
<b>D(GOVT_EXP)</b>	0.019169	0.524016	0.6047
<b>D(M2)</b>	0.063567	0.937881	0.3569
<b>EXPORTS(-1)</b>	0.089252	2.012856	0.0546
<b>GOVT_EXP(-1)</b>	0.014837	0.254611	0.8010
<b>M2(-1)</b>	-0.005875	-0.067682	0.9466
<b>GDP(-1)</b>	-0.718211	-3.836575	0.0007
<b>R-SQUARED</b>		<b>F-STAT</b>	3.119637
	0.456493		
<b>Durbin-Watson</b>	2.014501	<b>PRO( F-STAT)</b>	0.015797

#### 4.3.2 Error Correction Model with Domestic Credit to private Sector.

	COEFFICIENT	T-STATS	PROBABILITY
<b>C</b>	-1.435642	-0.375617	0.7102
<b>D(EXPORTS)</b>	0.166128	0.827173	0.4157
<b>D(GOVT_EXP)</b>	0.032631	1.105584	0.2790
<b>D(DPS)</b>	0.014753	0.385144	0.7033
<b>EXPORTS(-1)</b>	0.191550	1.164644	0.2547

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<b>GOVT_EXP(-1)</b>	0.101184	2.294612	0.0301
<b>DPS(-1)</b>	0.003871	0.064196	0.9493
<b>GDP(-1)</b>	-0.859884	-4.275353	0.0002
<b>R-SQUARED</b>	0.455539	<b>F-STAT</b>	3.107669
<b>Durbin-Watson</b>	2.079139	<b>PRO(F-STAT)</b>	0.016090

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### **Interpretation**

The above table shows the result of error correction model. In this table shown the short run relationship and long run relationship between the variable. There probability and standard deviation is also shown. The value of f- test shows the overall significant of the variables whereas R2 also shows the good fit of the model.

## **Ch 5.**

### **Conclusion.**

On this papers we've group moment collection info to examine the particular connection among economic growth and finanacial development also progress inside five growing nations around the world. This kind of thesis employ time-series details to see or watch economic growth, and also financial development. Before scientific studies used additionally cross-sectional or perhaps moment collection details yet equally appear near have got difficulty. Making use of moment collection details, can provide upwards undependable effects due to tiny time frame regarding

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rep details identify. We've employed entirely custom-made OLS to be able to rough the particular cointegrating connection, a way in which purchase with all the problems regarding endogeneity regarding regressors. We've used cell product main checks, and also cell cointegration examination finally that there are relatively robust data and only the particular speculation in which lengthy word causality works coming as to economic growth toward exist able to progress, the connection will be considerable, and also that there are simply no proof bi-directional causality. Moment collection data can be supporting for the proven fact that there is a special co-integrating vector among progress, economic growth and also additional factors (purchase discuss and also inflation).

Quite coverage inference will be in which procedures looking with bettering economic areas could have any late influence on progress, yet this kind of result will be considerable. The particular empirical data furthermore items for the course that there are simply no quick work causality among economic deepening and also end result, and so the result will be automatically long term inside dynamics. Standard actions regarding economic 'depth' (with regards to exclusive resources) and also economic 'development' (thought as relocating coming from financial institutions toward money areas) usually are not connected with increased costs regarding monetary progress. The particular prospective share regarding economic advancement to be able to monetary progress will be significant, yet can not be overlooked is dependent upon the particular design with the proper institutional construction. Economic liberalisation contributes to more effective and also water economic intermediation, yet will not seem to improve the costs regarding home-based financial savings or perhaps purchase inside the blend. The particular performance benefits from your common style of economic liberalisation with regards to purchase part and also company governance may be outweighed simply by fresh regarding lack of stability coming from short-term overseas money runs. These kinds of results may well give rise to outlining the particular arguments those types of focused on low income lowering as well as the state simply by several in which progress will not aid the indigent.

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Because the helpful influence regarding economic advancement about low income lowering will be dampened and even balked simply by economic lack of stability, the particular coverage package deal need to acquire the chance regarding economic lack of stability under consideration.. The true argument being employed will be around the coverage package deal as well as the effects regarding diverse components of that regarding syndication and also low income. (Kanbur 2001). Considering that the materials provides properly noted in which too much method of getting funds induces government expenditure, exports, domestic credit to private sector, and also growth rate of money.. Nonetheless, additionally it is crucial that you handle the particular international advancement regarding economic intermediaries since economic downturn are usually especially damaging for the weak. That is definitely beneficial to inspire the particular generation as well as the advancement regarding micro-finance specifically focused on lending options for the weak since credit rating progress will not gain these immediately.

In theory thinking and also empirically data, the particular materials around the connection involving the monetary progress and also economic advancement overwhelmingly advise since optimistic. Even so, empirical scientific studies around the problem regarding causality involving the economic advancement and also monetary progress, nonetheless, continue to be sparse (notice Pagano, 1993). Economic advancement may well basically be described as a major signal, as opposed to a great root reason behind monetary progress. Offering data about causality provides crucial significance. It helps coverage producers layout reforms in which without a doubt advertise progress increasing economic market advancement, normally, in the event the other thesis could be the appropriate outline regarding fact, then a needless focus on economic deepening can reflect consideration far from some other, maybe a lot more, important coverage alternatives to be able to inspire monetary progress. This kind of papers re-examines the particular causality problem from your cell info points of views while using the method Eviews approach manufactured by Arellano and also Bover (1995), and also Blundell and also Connection (1998) to be able to perform the particular causality analyze. The particular cell dataset required creating nations around the world regarding some principal locations: Photography equipment, Parts of asia, The european union and also American Hemisphere on the amount of 1990- 1998. Is different coming from earlier

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scientific studies around the cell causality analyze manufactured by Holtz-Eakin et 's. (1988), the device Eviews utilized in this kind of examine contain original ailments since further instrumentals to boost opinion accuracy and reliability. The particular regression examination regarding end result progress and also economic advancement deviation decompositions about a couple of several region feature factors will be performed such as Kose et 's. (2003) to show the particular comparable significance about the normal and also region aspects.

The particular empirical final results declare that the normal aspect will be a lot more crucial the particular a smaller amount risky the particular economic system even though the region aspect will be a lot more crucial the harder risky the particular economic system. Nonetheless, several some other region feature factors (the particular proportion regarding genuine every capita GROSS DOMESTIC PRODUCT to be able to You. Azines. genuine every capita GROSS DOMESTIC PRODUCT, the particular discuss regarding authorities outlay inside GROSS DOMESTIC PRODUCT, manufacturing's discuss regarding end result, and also interest distributed) present versions inside outlining the particular cross-country styles with the frequent and also region aspect deviation decompositions. In the mean time, our own final results offer further proof the particular nonlinear connection among economic advancement and also monetary progress considering that the unobserved frequent aspects as well as the deviation decomposition examination present apparent versions inside nations around the world together with diverse revenue ranges. As a result, any limit revenue stage may well are present, around which usually economic advancement would certainly connect to monetary routines in different ways. Upcoming study about fund and also progress must take into consideration different revenue ranges.

Ultimately, our own examine holds crucial coverage significance. Regarding well-developed nations around the world, authorities restrictions and also overseeing regarding economic and also consumer banking methods are usually essential to be able to steering clear of or perhaps lessening the probability of economic downturn. Nonetheless, in case a country's economic industry remains underdeveloped, authorities procedures to market economic change and also liberalization needs to be important. Given that Goldsmith (1969) noted the partnership among economic and also monetary advancement 25 years back, the particular career provides produced

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crucial development. Demanding theoretical perform cautiously illuminates lots of the programs whereby the particular introduction regarding economic areas and also organizations affect-and are usually afflicted by-economic advancement. An ever growing physique regarding empirical studies, which includes firm-level scientific studies, industry-level scientific studies, personal country-studies, and also extensive x-country reviews, illustrate a solid optimistic website link involving the operating with the economic climate and also long-run monetary progress. Principle and also data ensure it is challenging finally the economic climate merely- and also automatically-responds to be able to industrialization and also monetary action, or perhaps in which economic advancement can be an insignificant addendum for the means of monetary progress.

The goal of this kind of examine is always to verify the particular achievable course regarding causality and also long term stability among monetary progress, economic advancement and also global business while using the twelve-monthly info for your amount of 1973-2009. ADF and also PP product main analyze final results demonstrates GROSS DOMESTIC PRODUCT, That and also DC are usually  $I(1)$ , although extensive funds will be  $I(0)$ . Provides analyze regarding co-integration end result displays a lengthy work connection among economic advancement, global business, home-based credit rating and also monetary progress. Augmented Dickey Fuller test analyze final results unveils unidirectional causality coming from economic growth to be able to gross domestic product, government expenditure, exports, domestic credit to private sector and growth rate of money also coming from economic advancement t. Last of all, this kind of examine turned down the particular requirement pursuing speculation in case there is Pakistan. Conclusions with this examine illuminate in which so that you can activate monetary progress, economic advancement has to be increased, elizabeth. gary advancement regarding finance institutions and also inventory areas. Additionally, methods regarding economic market liberalizations has to be obtained and also consideration needs to be fond of long term procedures.

This kind of examine tries to be able to investigate the web link among economic deepening and also monetary progress inside Nigeria. We all analyze the partnership among economic deepening factors and also monetary progress varied simply by studying their particular long term attributes and also quick work characteristics. The particular econometric final results from

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your problem a static correction components present in which economic deepening features a unfavorable and also considerable affect monetary progress inside Nigeria. The particular unfavorable indications with the coefficients with the economic industry factors imply the particular method of getting these kinds of economic resources just isn't adequate to improve the particular economic system for the wanted stage.

In every, we all duplicate the materials about funds and also fund is fairly singing around the function with the method of getting economic resources inside monetary progress. In the event the offer will be tiny, the particular economic deepening such economic system is most probably being superficial. For your Nigerian economic system, the particular method of getting economic resources on the tried period of time will be significantly under the particular level necessary to attain monetary progress. We all as a result advise that there are any must set proper economic procedures set up that may inspire the particular progress every capita GROSS DOMESTIC PRODUCT. Here is the simply alternative for your achievement of your well-balanced and also lasting progress inside Nigeria. (Romer R. Meters., 1986). This kind of examine tries to be able to investigate the web link among economic deepening and also monetary progress inside Nigeria. We all analyze the partnership among economic deepening factors and also monetary progress varied simply by studying their particular long term attributes and also quick work characteristics. The particular econometric final results from your problem a static correction components present in which economic deepening features a unfavorable and also considerable affect monetary progress inside Nigeria. The particular unfavorable indications with the coefficients with the economic industry factors imply the particular method of getting these kinds of economic resources just isn't adequate to improve the particular economic system for the wanted stage. In every, we all duplicate the materials about funds and also fund is fairly singing around the function with the method of getting economic resources inside monetary progress. In the event the offer will be tiny, the particular economic deepening such economic system is most probably being superficial. For your Nigerian economic system, the particular method of getting economic resources on the tried period of time will be significantly under the particular level necessary to attain monetary progress. We all as a result advise that there are any

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We all analyze local cell regressions together with cross-sectional OIC nations around the world and also time-series proxy actions to ascertain linkage and also guidelines involving the economic growth and financial development. Moreover, we all execute different multivariate time-series product, for instance VAR, outlook problem deviation decompositions, behavioral instinct reply capabilities, and also Granger causality checks to be able to uncover probable coverage significance.

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Inside arrangement together with California king and also Levine (1993), Levine, Loayza, and also Beck (2000), and others, we all locate long-run connection among economic advancement and also monetary progress. Especially, we all realize that almost all proxies regarding economic advancement with the exception of yucky home-based financial savings (GDS), are usually really connected with monetary progress inside OIC nations around the world. Additionally, making use of Eview checks manufactured by Toda and also Yamamoto (1995), we all realize that the particular course will be coming from progress to be able to fund, assisting Gurley and also Shaw (1967), Goldsmith (1969), and also Jung (1986), which hypothesize in which inside creating nations around the world progress qualified prospects fund due to improving requirement regarding economic companies activated simply by monetary progress. Our own empirical final results according to Eviews checks and also cell regressions usually do not response the particular issue “What can happen in the foreseeable future? ” Somewhat, they will reveal “what provides took place inside the past”, and so we all could possibly study on earlier knowledge. A lot more especially, the particular issue regarding whether or not fund contributes to progress (or perhaps progress contributes to fund) will continue to be an interest regarding argument. We all realize that there is a confident connection among fund and also monetary progress understanding that the particular course continues to be a proven way inside OIC nations around the world, coming from monetary progress to be able to economic advancement.

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