Financial Development and Economic Growth Nexus in Pakistan: An Analysis of Bound Testing Approach

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Abstract
This study researches on the financial development and economic growth in Pakistan. The study demonstrates the correlation connecting financial development and economic growth from the range of time, 1974 - 2014. For checking the stationarity of variables, Augmented Dickey-Fuller (ADF) and Philip-Peron (P.P) unit root technique is applied. To elaborate long-run relationship, ARDL (autoregressive distributed lag) and Bound test is conducted. By ARDL technique, study investigate that Gross Domestic Product, Money supply, Exchange rate, Gross fixed capital formation, Domestic Savings and Trade Openness are assimilated. According to research findings: economic growth directly related to money supply (M2) and domestic saving in long-run but money supply illustrates insignificant impact. The study uses GDP as endogenous variable and represents Economic growth. While M2 as exogenous variable which represents financial development and financial liberalization. Current researches seek to establish direct relation of economic growth with trade openness and money supply. Pakistani researchers aim to examine the association of economic policies with financial satisfaction over the globe.

Keywords: Gross Domestic Product, Broad Money, Exchange Rate, Gross Fixed Capital Formation, Pakistan.

1. Introduction
When Pakistan came into being in 1947, the economic conditions were very poor. There existed different economic barriers. The problem of residence and proper allotment of resources i.e. land, capital etc. So, in that condition, no one offered attention towards economic progress. The economic recital and different policies used to sustain GDP level at 5-6% with cyclical slumps of 1960. In that era, Pakistan was facing the hardships due to high amount of defense expenditures, higher rate of population growth, instable political conditions, martial laws and no considerable attention on social welfare (education, health sector, entertainment etc). Pakistan could not expand remarkable growth rates till initial four decades due to unstable political conditions.

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In 1990’s, lawlessness and terrorism bent difficulties in development of economic and finance sector. For the rapid growth of Pakistan’s economy, financial and monetary circumstances were necessary elements. Certain conditions were applied to improve economic sector growth. Government established the structural adjustment program (SAP) for making further improvements in problems of Pakistan in early 90’s. To liberalize financial development SAP instigated some modifications. The modifications included that open banking was transferred into private banking, no restriction on outflow and inflow of investment, profit etc. Private and public savings are totting up as domestic savings.

National savings increased when domestic savings increases and it was about 83% in the era of 1960-1990. Gross national product (GNP) was sprawl under 10%. Financial development was intended for towards the spiraling of finance sector. The fundamental element of financial augmentation and economic growth considered to investment and savings.

Financial development is defined as the leading proficient intermediation and adequate finance sector with the help of appropriate policies, determinants and institutions. As the financial development enhances there would be higher savings mobilization and new investments on new projects. There would be more capital allocated and more risk would be present in strong financial sector. The more rapidly financial sector developed, more services are available from financial sector.

Economic growth is the fundamental issue of economic literature. Actually, economic growth used notation or term to articulate the economic progress. Generally, increment in the volume of goods or things depicts its growth. Economic growth measured quantitatively. So, we can say that if output (GDP), national income, per-capita income, expenditures, savings and investments i.e. macroeconomic variables, increase in a whole country then this phenomenon is known as growth of the economy. On the other side, if there is appropriate use of factors of production, modern technology of production and all are well managed, due to this, national production level boost up, this correspond to an increment in the amount of goods produced by the economy. Development is continuing addition of dynamic potential.

The development or growth of the economy is a consequence of continuous addition to the rate of savings or reserves and population of the country through, gradual and steady change in long-run factors (Mahmood & Humphrey, 2013). Economic growth usually brought from external forces and technical efficiency. Savings done by the local residents of a country played a great character in order to prolong the enlargement of an economy due to the amplified external financial stiffness (Enu, Attah-Obeng, & Hagan, 2013).According to Charles Caleb Colton; commerce flourishes by circumstances, precarious, transitory, and contingent just about as the winds and waves that bring it to our coast. (Caprio & Summers, 1993) elaborated that mutually tr de and
financial development alongside with speculation in human likewise in human capital augment GDP growth. Our idea to move towards the economic development must be up to date, focused and in harmony with the worldwide fashions, argued by (Ali, Khalid, & Subhan, 2014) studied the stages of financial development in the reservoir segment and its effects on economic situations of Nigeria. This shows the long-run association among variables.

Services provided by financial mediators are necessary for economic development argued by (Hassan, Sanchez, & Yu, 2011). Financial development gives strength to financial markets and hence promotes saving and investment (Bansal & Pasricha, 2010). Bibi, Ahmad, and Rashid (2014) endorsed growth effects of financial development and trade openness by using the new theory of growth. According to Jose Maria Aznar, without economic development, any potential for political openness and freedom will be questionable. Economy can be there only where there is efficiency, said by Benjamin Disraeli. According to Michael P. Todaro; escalation of the economy is an ongoing procedure from which dynamic aptitude of the economy amplified with time to express about intensifying level of national productivity and proceeds.

Through the various channels, financial sector stimulate economic growth. (Atif, Jadoon, Zaman, Ismail, & Seemab, 2010) who demonstrates that in developing countries urges finance because of increasing demand for further services induce by economic growth. Hence, financial sector performs the basic task of collecting funds and spending funds to productive investment, profitable financial development is commonly a necessary element of country strategy for economic growth. Different economists presented their view that higher interest rate causes the increase savings and financial development i.e. encourages the competence of both investment production and savings.

Poverty is considered as to be one of the biggest obstacles in the way to stability, prosperity, development, and peace. Hahn (2009) studied that around 8 million people, or even more, in the world are currently living in extremely poor conditions due to which they are on verge of dying. Poverty has, indeed, become an international urgency and alleviating it, has become a major goal for all the countries around the world. For the achievement of this goal, a number of reforms and strategies have been taken up, in order to be able to run on the path of economic development.

The financial segment is a segment which consists of all wholesale, retail, proper and improper associations in an economy and presents financial services to customers, businesses and to other financial organizations. In its widest definition, Banks, stock exchanges, saving organizations and finance organizations all are included in the finance development. There are many things which highlight the importance of financial development:

- Proficiency and competitiveness of finance sector may perk up.
• There should be increased financial services which are provided to consumers in time.
• The total amount of money that through the finance sector determine, is increased.
• Improvement in mediator directive and constancy.
• Money supply improves the monetary conditions.
• Domestic savings are much important in irregular or random variations like floods, accidents, earthquakes, wars and famines etc.
• Trade openness helps to earn more foreign exchange by export more goods.
• In poor countries, economic growth raises income level.

Behind the economic growth, the solid developing sector play vital role as a powerful engine. It creates confined savings which induces investment that is more productive for local business. So, the finance department provides prerequisites for economic growth and creation of jobs. The span of financial enlargement and cost-effective escalation in Pakistan is overall expanding. The improvements in the finance department of the country leads to the expansion of the economy. Generally, both terms are expressing the idea of economic progress. When we talk about only economic growth, its scope is narrow because economic growth apprehension with raising pointers of macroeconomics. Development of economy means economic growth along with structural changes in the economy for acquiring better life. The comprehensive scope of financial development can be expressed by following equation:

Financial Development = Economic Growth + Structural Changes

Structural changes include the following:
• Occupational structure changes.
• Structure of foreign trade.
• Sector structure changes of national output.
• Industrial production sector.
• Technological progress.
• Social and institutional changes.

The expense on receipt of information and create transactions induce enticement for manifestation of financial markets and institutions. By argue of (Estrada, Park, & Ramayandi, 2010) state-contingent assert framework with expenditures of business deal. For the extension of resources, projects of research, management inspect, invention management, there is no any need for financial system. Furthermore, any conjecture about the character of financial development in the growth of an economy elaborates different resistances to Arrow-Debreu-model. Various kinds and combinations of policies and transaction costs urge towards financial indentures, monetary markets.
Market frictions:
- information cost
- Transaction cost

↓

Money markets and Intermediaries

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Financial objectives:
- savings enlistment
- resource allotment
- ease in trading of goods and services

↓

Way towards growth:
- capital accretion
- inventive equipments

* Approach to Finance and Growth

In the models of (Romer, 1990), (Aghion, Howitt, & Mayer-Foulkes, 2005) the objectives performed by the financial system affect gradual growth by varying the pace of advancement in technology. Thus, as presented in above diagram, the remaining section examines how particular market restrict moderate the markets, emergence of contracts and these arrangements provide financial activities that allocates the savings and arrangement decisions in terms to exert or effect the economic growth.

2. Literature Review

Khan, Qayyum, Sheikh, and Siddique (2005) explained Financial Development and Economic growth: The case of Pakistan. In this study economists wanted to increase the efficiency of development process i.e. reducing cost, minimize transactions and monitoring goods. Literature has focused on stability, inequality and income and wealth in macroeconomics. Economic development created the demand for financial resources. The results of the study were based on time series data from 1971 to 2004. It was investigated during the study that economic development of financial services was bi-directional in most of the countries. When Pakistan came into being in 1947, there was non-existence of bond and equity markets and market of money was under-developed. To overcome this situation, SBP adopted easy and reliable monetary policy to decrease the govt. cost of borrowing on internal debt. The variables that were included GDP, Gross fixed capital formation (GFCF), real Deposit rate, Inflation and Financial depth. It was examined that financial depth and economic growth has directly associated. The economic growth affected the real investment significantly in short-run. The CUSUM
and CUSUMQ stability test found the stability between economic growth and financial development.

Jalil and Ma (2008) analyzed Financial Development & Economic Growth: time series Evidence from Pakistan & China. The study used the time series data from 1960-2005. For build up long run relationship ARDL approach was conducted. The variables such as GDP, Money supply (M2), Deposit liabilities, Real interest rate, Capital stock, Trade ratio, Gross fixed capital formation & trade were used in this study. In case of Pakistan, deposit liabilities (DLR) and credit to private sector (CPS) both had reliable impact on economic growth. While DLR kept inverse shock on economic growth of China. The study revealed that resource recruitment and credit expansion was common channel for comparing economic growth of both countries. Economic growth boosted by high level of deposits. So, the hypothesis “finances leads to growth” cannot be ignored.

Demirgüç-Kunt, Levine, and Detragiache (2008) estimated Finance and Economic development: the role of government. Economic development supported through financial expansion in spite of their intrinsic delicateness. Mostly, when appraised on finance and growth considered that well-established sectors essential part in upholding economic growth in long-run. Generally, the power of firms to amplify exterior finance was relatively inadequate in the official finance sector, although the rights are not detached. The study used the variables economic growth, income distribution, poverty, political and microeconomic environment and financial development etc. Descriptive technique was also used in this study. The results revealed that countries having financially and economically development enjoyed better standard of life, lower level of poverty and equality in income distribution. The results also described the function of government to modernize financial strategies and procedures that aided to finance effort for development.

kiran, yavuz, and güris (2009) investigated Financial Development and Economic growth: Time series evidence from Turkey. In this study time series data was explored from 1968 to 2007. The broad intention of this sculpt was to examine the correlation connecting financial development and economic growth in Turkey. Turkey started to slacken its financial sector in 1980 and the economists took into structural breaks. The variables used in this article were in natural logarithms. The characteristics of data were analyzed through ADF and Philip Peron (PP) procedures. For checking significance Unit Root test was applied. From this study, it was realized that savings also play vital role in interaction between both development of financial sector and economic growth. Liquid liabilities were vitally related to GDP.

Enlightened Financial Reforms and Industrial sector growth: Bound Testing Analysis for Pakistan. The study analyzed the interaction between modernized finance sector and manufacturing segment for Pakistan. Industrial growth boosted up by the real interest rate and investment in short-run, it assembled gradually in long-run. The data was taken
from annual time series over the period from 1971 to 2007. The industrial sector
established by two main things: (1) Capital resources for building's construction
and for purchasing modern technology. (2) Capital involved for buying production
material, wages of labors and other costs. The variables used in this study GDP, Interest
rate, and financial liberalization index (FLI), Labor force and Gross Fixed Capital
Formation (GFCF) etc. Augmented Dickey-Fuller (ADF) test was performed in this study.
For improved industrial enlargement the expenses on purchasing material, maintenance
cost kept at minimum level. As capital added up, industrial growth enhanced. It is suggested
that restructuring in financial sector affected growth of industrial products. Pakistan
policy makers revised financial liberalization to evaluate the facts for industrial sector
expansion.

Awan, Munir, Hussain, and Sher (2010) investigated rate of interest, financial
liberalization and domestic savings trend in Pakistan. In this study, time series analysis
was conducted from 1973-2007. The variables included in this article real rate of
interest, coefficient of trade openness, and remittances of Pakistani’s emigrants. The
ARDL technique was applied in this study. Trade has strong relationship with economic
growth. It was examined from results that trade openness and remittances of emigrants
established the negative association with domestic savings. This study also realized the
positive impact of financial development on domestic savings.

Munir, Chaudhry, and Akhtar (2013) examined Financial Development and Economic
Growth in the Organization of Islamic Conference countries. The group of economists
agreed that financial development and economic growth were correlated. In developed
countries, domestic capital took part to raise savings and also the rate of investment
and thus got economic growth. The five functions discussed in the study i-e facilitating risk
amelioration, getting knowledge about investment and utilization of resources, judge
the managers, savings and facilitating exchange. These functions helped to enhance
the investment ratio, so that higher economic growth increased. Multivariate time series
technique was used in this study. The variables were GDP < Financial Investment,
Trade, Govt. Inflation and Domestic savings. The VAR analysis was conducted in this
study that a variable determined the large ratio of forecast error variance. It was
analyzed from this study that there was a connection and association between financial
development and economic growth due to time series measures. It showed “what has
happened in the past?” we might be able to gain experience from past experiences.

development in Pakistan. This article explained the strong impact of trade openess,
discounts and economic growth of Pakistan. The main objective of trade openness was
to take free interest rate, no burden on credit increasing compatibility in the
developmental sector. Time series data was included from the period 1959 to 1995. To
get the econometric results, Augmented Dickey-Fuller (ADF) test was applied on the
taken variables. This test examined that all variables were stationary at first difference.
The variables were taken as real income (per capita income), money supply, domestic savings, foreign savings, lending rate, domestic investment, public investment and GDP. The real income and per capita income were not stationary at first difference but at level. The results showed that domestic saving rate and money supply were positively related to each other and both were statistically considerable.

Presented Financial Deeping and Economic growth in Pakistan: An Application of Co integration & VECM approach. The study used ADF approach. VECM approach showed the occurrence of short-run correlation among variables. The variables used in the study financial deeping (FD), economic growth (GDP), foreign direct investment (FDI), inflation (INF) and M2. The study used time span of 1975 to 2012. This study estimated the link among economic growth, financial development and inflation. It concluded that Financial Deeping has low level of structural & institutional changes. Bansal and Pasricha (2010) determined the impact of financial liberalization on economic growth: a case study of South Asia. In this article, time series data was taken from 1990 to 2011. Gross Domestic Product (GDP) used as dependent variable to estimate economic growth. The variables inflation, lending rate, exchange rate, financial deepens used in this study.

3. Theoretical Framework
The theory of McKinnon is used according to study of “financial development and economic growth in Pakistan”. Many economists elaborated theories about the economic growth and financial development; some of them are given below. The development of the economy as a consequence of the improvements in the financial system has been a mean of discussion for strategy manufacturers. We can context on the financial liberalization that can be categorized in following:
- Classical theory
- Neo-Classical theory
- Keynesian theory

The Classical speculation states that the with no interruption of outer and marital economies of scale, the improved equipment and tools in manufacturing zone proceed into swift and complex production stages, manufactured goods are better than before, foremost towards financial maturity. Due to large production, market would be extended, arrangement of to do business with various nations, thus this provides many angles to achieve financial development. The hypothesis related to export-led growth resulting in higher demand, in receipt of international trade, which persuades economies of scale. This hypothesis was evaluated by classical economists such as Adam Smith and David Ricardo. So, resources used in industrialization are the essential factors for the expansion of growth.

According to Neo-Classicals, like Marshall, Friedrich Von and W.S Jevons, reward of investment (interest) will reduce by fiscal escalation, while level of efficiency and
amount produced will increase. In reality, it does not occur. Rate of interest and acclaim of non-traded sector get higher. Robert Solow states that sculpt of augmentation depicts that fiscal succession relies on investment accretion, to enhance the capabilities of the system to produced goods. There must be large amount of capital merchandise and must be sufficient reserves to venture and enlarged our further proceeds attained from higher production.

About the role of finance, Keynesians view that decision of investment are particularly settle on by assurance level, increasing demand, and “spirit of earning profit” by private investors. According to Keynesians, it is savings that urges to investment. Although rate of interest is not important to demand factors. Growth level may be suppressed by higher interest rate. The disequilibrium approach by Keynesian’s view describes that investment based on profit ratio and financial limitations on firm’s sale (Sneessens, 1987). It is not sure that a perfect market of capital will approach to higher level of investment.

Modigliani and Miller (1958) “unrelated intention” have implies modern neo-classical theory of finance and about investment until now. It states that in full stock capital market, with perfect competition, free entry, no restrictions and full information about market conditions among all investors. At the level of macroeconomics, there leads a dichotomy between financial system and investment. Investment prospects are concerned with factors like efficiency, output demand, technological improvements and relative correspondence of labor and capital. Most recent views have quashed the Modigliani-Miller intention and generated high level of capital which enhances its value in stock market by soothing some fundamental assumptions.

The financial repression hypothesis, have been worked with developed economies where capital markets are well established. The McKinnon-Shaw suggestion is that a introverted financial sector get in the way with growth in various ways: savings have do not use adequately, financial intermediaries that added savings do not utilize them properly and because of limited financial policies, firms are unenthusiastic from investing. Financial deepening and restructuring of financial sector argues for enriched growth of financial liberalization, the essential relations of financial liberalization prototype are: there is positive relationship between real deposit rate and saving rate, a association existed among financial deepening and rate of output, raising level of investment and ascending deposit rate endorse economic development (Precious, Bahl, & Praise, 2014).

3.1. McKinnon-Shaw Model of Financial Liberalization

Molho (1986) intention is depend on important classical assumption that investment is investigated from savings and there is proper allocation of resources. This is similar to Keynesian scaffold which determines that if supply urges to investment and supply of loans is dependent through money multiplier process which can be increased keeping
deposit base unchanged in the course of banking system. Institutions like corporate branches, saving banks feel hesitation to provide long-term loans which companies need to boost up their newly established business, buying machinery, tools and compete in new market. Closely existed companies can conceal inefficient investment plans and low level of profitability at least for short time period while widely launched companies cannot manage to pay for this opulence.

From the information like this, investors would be able to differentiate among efficiency and carry all of them consequences of companies, decision to make further investments and deliberate resolution and gives improved methodology for economic decision makers. Although corporations face pressure to contend with equity markets on a proper share for funds of investors, they can be liable for sponsoring large organizations and firms, endure from increased instabiltity and keep an eye on short-term financial revenue instead of economic development based on long-term. The basic factor of McKinnon-Shaw is Financial liberalization are shown as:

Interest rate

![Figure 1. Theoretical Framework.](image)

The McKinnon Shaw model of financial liberalization has some important components that represent the figure; it depicts that saving (S) is the function of interest rate at income level (Yo). There is limited investment (Io). This occurs on political pressures, size of approved loan and to give pay back to the loan officer. These all conditions are the cause of inconsistent investment prospect. If financial constraint increases from f to f', it also increases saving and investment. The level of income also increases and shifts the saving function to S(Y1) during this process. The effects on development are multiplicative. Interest rate also shifts to ‘r2’ and it finds out the saving function. McKinnon’s model has two assumptions of how rate of interest affects saving, investment and development: (1).Economic units are limited to self-finance. (2).There
is indivisibility in investment i.e. consumption is bulging investment. Thus, this is McKinnon’s hypothesis, so-called “the fundamental harmonizing between money and labor.

Another Economist, Shaw levels that enhancing growth between savers and investors is due to financial liberalization. Financial development increases the level of real returns to savers and then decrease in the cost to investors during simultaneously by using liquidity preference. The pragmatic test showed in McKinnon and Shaw theory gave attention to a saving task with one explained in:

\[
\frac{S_d}{Y} = f\left(\frac{Y}{P_N}, d, i^*, \frac{S_f}{Y}\right)
\]

\(S_d\) is household saving rate, \(Y\) represents gross national product, ‘\(P\)’ is implicit gross national product deflator, ‘\(N\)’ showed population and ‘\(d\)’ is nominal interest rate on time deposits of 12 months. \(I^*\) is expected rate and \(S_f\) denoted foreign savings. The interest rate is divided in two components: \(d\) and \(i^*\), and they move in same trend. Due to this multicollinearity appears. The incidence of problem was investigated by Modigliani (22). When the saving and investment mutually anticipated in clear market situation then the identification problem is present in the economy. So, rate of interest is determined by the order given by Government. These rates are lower than market level. This showed that availability of investment rises the interest rate and on this stage, if higher investment showed at this rate so, higher the savings i.e. funds are available.

This theory explained that liberalization in financial sector is main source of domestic savings. If financial depression is showed in the economy then country couldn’t move towards prosperity. According to theory of McKinnon-Shaw the financial subjugation defined as indiscriminate: “deformation of financial prices with interest rates and foreign exchange rates”, which declines the interest rate of growth and size of financial system relative to non-financial enormity. Pakistan developed the financial sector after its structural adjustment program (SAP) is generated.

All above mentioned theories reveals that there is increase in financial development due to increment in savings because savings generate investment and investment further leads to economic growth. When there is low level of interest rate, investment will lead to increase.

### 4. Model Specification, Data, and Methodology

We take into account the data of GDP, Broad money, exchange rate, gross fixed capital formation, trade openness and domestic saving by considering the data from period 1974 to 2014 that is gathered from WDI and State bank of Pakistan. GDP is explanatory and M2, ER, GFCF, TO and DS are independent variables.
4.1. Model Specifications
In our model GDP is dependent variable and M2, ER, GFCF, TO and DS are independent variables. Linear model
\[ Y = f(X_i) \]

Where:
\[ Y = f(X_i) \]
\[ Y = \text{GDP} \]
\[ X_i = \text{M2, ER, GFCF, TO, DS} \]

\[ GDP = f(M2, ER, GFCF, TO, DS) \]

4.2. Econometric Form
The following equation shows the econometric form:

\[ GDP_t = \beta_0 + \beta_1(M2)_t + \beta_2(ER)_t + \beta_3(GFCF)_t + \beta_4(TO)_t + \beta_5(DS)_t + \varepsilon_t \]

Where:
\[ \beta_0 = \text{Intercept} \]
\[ \beta_1 - \beta_5 = \text{Coefficients of exogenous variable} \]
\[ \varepsilon = \text{Disturbance/ Error term} \]

And subscript’s’ shows time period.

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Figure 2. Model of Dependent and Independent variables.
4.3. Description of variables

4.3.1. Gross Domestic Product (GDP)
Gross domestic product (GDP) is actually the total value of goods and services that a country produces during the given time period, i.e., usually one year. It analyzes the whole economic condition of a country during a year. GDP is also known as “Bottom line” (earnings); which examined the final use of product by consumers or “value added”. The GDP growth is conducted to indicate the success or failure of economic strategy whether it is in recession or boom. GDP can be calculated on an annual basis as well as on quarterly basis. GDP incorporates consumer spending, government spending, investments, and net exports of a nation. Gross domestic product is used as an indication of the financial condition of a nation. When GDP decreases for two successive years, then it indicates that the economy is in a recession. Alternatively, when GDP increases then it implies that the economy is in boom. GDP is used as a guide for government officials and policy makers in making decisions regarding the economy. The determination of GDP indicates the overall health of the economy.

4.3.2. Broad Money (M2)
The provision of money can be defined as the collection of money and further liquid types of money, in the economy of the country in a precise time. Money supply involves cash (paper money), coins, and resources held in safekeeping and discount accounts. The important measure of money supply is M2 involves M1 (narrow money) plus short-term time transactions in banks and finances of money market at whole day (24 hours). The proper definition of this measure relies on the country. The notation “broad money” is used to analyze M2 depending on civic practice.

4.3.3. Exchange Rate (ER)
The pace of currency to convert it into another country’s currency is known as exchange rate. Simply, the rate at which two currencies are malformed from one form to another. A country devalues its currency either to get international importance or to enhance trade openness. The factors that affect exchange rate are inflation (increasing price), trade stability, political assurance, unity, economic equilibrium, and good governance. It must be noted that when currency altered into another form then what the worth of currency we gain.

4.3.4. Gross Fixed Capital Formation (GFCF)
Gross Fixed Capital Formation (GFCF) involves land betterment, latest machinery, and buying inputs. Capital formation includes the structure up roads, dams, railways, and also schools, public hospitals, residential blocks, banks, and industrial factories. GFCF is an important factor that is used to enhancing labor capacity within a given time period. It does not take account of consumption of fixed capital and also procure agriculture inputs. It is an essential element of consumption approach to get the cumulative of GDP.
4.3.5. Trade Openness (TO)
A measure of policies of economics that determine the enticement or restrictions in trade between different countries” is known as trade openness. Trade openness has an effect of boosting the economic development. Trade openness often refers as the point of reference in the country’s economy. It depicts to take interest to increase the profit by trading with other countries keeping in view the prospects and opportunities of trade. Trade openness can be defined as the exclusion of limitations on the free interchange of goods among countries. This includes the elimination or reduction of both tariff (duties etc.) and non-tariff (e.g. quotas) hitches. The viewpoint of TO relies primarily on the principle of comparative advantage. TO emphasis free trade in the world. Its focuses on demolishing the obstructions or restrictions on international trade. With the help of TO a nation can earn greater amount of foreign exchange. It also helps in reducing the dependence of a nation on outdoor commercial borrowings. By having trade openness, a country can have better and miscellaneous goods in their country. There is an increase in foreign investment of a nation when the trade is free. Thus, TO benefits and supports a nation in many modes.

\[
\text{Trade Openness} = \frac{X+M}{\text{GDP}}
\]

\( X = \text{Exports} \)

\( M = \text{Imports} \)

4.3.6. Domestic Saving (DS)
Domestic savings mean to subtract GDP from annual consumption expenditure. It is described as the percentage of gross domestic product. DS encloses the savings of communal, personal and government sector. Domestic saving has positive effect on GDP.

4.4. Sources of Data
This part of study represents the sources of data which are used in this study. Time series data is used from the period 1974 to 2014. The data is obtained from World Development Indicator, State Bank of Pakistan (hand book of statistics) and Economic survey.

4.5. Process of Estimation
In estimation process, there are different steps concerned. Estimation process is done with the help of software E-Views 9.5. The analysis used the time series data to approximation of its time series properties and stationary of variables will be conventional with the help of E-views. The estimation process guides to make a decision about the precise methods to be used in the analysis. The next step of estimation of process is Walt testing (Bound test) to search out whether the long-run association between relating variables exists or not. After that short-run and long-run coefficients will be calculated.
### Table 1: List of Explanatory Variables with Expected Sign

<table>
<thead>
<tr>
<th>Variables</th>
<th>Descriptive variables</th>
<th>Units of measurement</th>
<th>Sources</th>
<th>Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
<td>% of Annual growth</td>
<td>World Development Indicator</td>
<td></td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M2</td>
<td>Money Supply</td>
<td>M2 as % of GDP</td>
<td>World Development Indicator</td>
<td>Positive</td>
</tr>
<tr>
<td>ER</td>
<td>Exchange Rate</td>
<td>Million rupees</td>
<td>State Bank of Pakistan</td>
<td>Negative</td>
</tr>
<tr>
<td>GFCF</td>
<td>Gross Fixed Capital Formation</td>
<td>Million rupees</td>
<td>State Bank of Pakistan</td>
<td>Negative</td>
</tr>
<tr>
<td>TO</td>
<td>Trade Openness</td>
<td>Trade as % of GDP</td>
<td>World Development Indicator</td>
<td>Positive</td>
</tr>
<tr>
<td>DS</td>
<td>Domestic Saving</td>
<td>% of GDP</td>
<td>World Development Indicator</td>
<td>Positive</td>
</tr>
</tbody>
</table>

Source: Estimated by Authors

#### 4.5.1. Data Stationary
Stationary of data is necessary for estimating the factors of the study. To analyze the integration of the data in various actions, this method is used. Stationary exists when the average values of the data and discrepancy are fixed. If the average values and variations in the data are not fixed then there will be no stationarity among variables. Without stationary of variables, estimation is not possible.

#### 4.5.2. ADF & P.P Unit Root test
Before conducting ARDL test, we first applied two tests, namely ADF (Augmented Dickey-Fuller) test and P.P (Philip-Peron) test. ADF test is modified form of DF (Dickey Fuller test and Phillip Peron projected non-parametric test). P.P is more beneficial than ADF. It has an advantage to correct the serial correlation and heteroskedasticity. It is more strengthen than ADF. In P.P test there is no order of lag length. These two tests are used to analyze the inclusion of each variable. These tests are used to estimate stationarity and non-stationarity of all variables.
4.5.3. **Bound Testing Approach (Wald test)**
Bound tests are used to see presence of the long-run relationship, when we have time-series data. It checks the stationary of data. The bound test technique has three validations. First, (Pesaran, Shin, & Smith, 2001) elaborated the use of ARDL approach for estimation of level correlation because the model recommend that when the ARDL has been documented, the association can be approximated by OLS technique. Second, the bound test includes I(0) LCB and I(1) UCB variables as explanatory, i.e. the order of amalgamation of suitable variables may not be similar. Therefore, the ARDL approach has advantage that to adjust causal data, there is no need of commanding identification properly. Third, the small or finite sample size uses this technique appropriately. There are some benefits for which bound test is applied:

a) All variables are hypothetically endogenous used in the analysis.
b) This test is applied to analyze whether organize of integration of the variables is initial or zero.
c) The inferences about the long-run and short-run co-efficient are generated.

If Null hypothesis  Ho: No Co-integration exists
Alternative hypothesis  H1: Co-integration exists

4.5.4. **Autoregressive Distributed Lag (ARDL)**
ARDL (Autoregressive Distributed Lag) is that type of model in which we exploit regression equation to determine the current value of dependent variable that inflicts upon current value of independent variables as well as its previous (lagged) values. In this methodology, is there endogeneity problem, going to be addressed? Identification of suitable lags with ARDL will sufficient for both problem of endogeneity and serial correlation. If there is no serial correlation in estimated model of ARDL, then there are less chances of endogeneity problem. Almost all included variables are assumed to be endogenous and consequently we determine the parameters of long-run and short-run. We know that there exists strong relationship among financial development and economic growth. According to study, there exists association i.e. bidirectional. Why we use ARDL? For ARDL keeps the best properties of sample. For checking the primary connection, the ARDL model is perfect for bound test and its custom impact on research studies is hastening nowadays. The use of ARDL estimation procedure is directly equivalent to partially parametric, fully customized OLS approach of Philips and Hansen (1990) to recommendation of co-integration accessory.

The following equation is estimated to scrutinize the short-run association between following ARDL:

\[
\Delta GDP_t = a_0 + a_1 \sum_{j=1}^{\infty} \Delta GDP_{t-j} + a_2 \sum_{j=0}^{\infty} \Delta M2_{t-j} + a_3 \sum_{j=0}^{\infty} \Delta ER_{t-j} + a_4 \sum_{j=0}^{\infty} \Delta GFCF_{t-j} + a_5 \sum_{j=0}^{\infty} \Delta TO_{t-j} + a_6 \sum_{j=0}^{\infty} \Delta DS_{t-j} + \gamma_1 GDP_{t-1} + \gamma_2 M2_{t-1} + \gamma_3 ER_{t-1} + \gamma_4 GFCF_{t-1} + \gamma_5 TO_{t-1} + \gamma_6 DS_{t-1} + \epsilon_{1t}
\]
The second step engages the long-run outcrop association among successively variables. The subsequent equation represents the assessment of long-run sculpt:

\[
GDP_t = a_0 + \sum_{i=1}^{k} \theta_{1i} GDP_{t-j} + \sum_{i=0}^{k} \theta_{2i} M2_{t-j} + \sum_{i=0}^{k} \theta_{3i} ER_{t-j} + \sum_{i=0}^{k} \theta_{4i} GFCF_{t-j} + \sum_{i=0}^{k} \theta_{5i} TO_{t-j} + \sum_{i=0}^{k} \theta_{6i} DS_{t-j} + \varepsilon_t
\]

The ARDL technique for the Error Correction (ECM) or short-run illustrated as:

\[
\Delta GDP_t = a_0 + \sum_{i=1}^{k} \theta_{1i} GDP_{t-j} + \sum_{i=0}^{k} \theta_{2i} \Delta M2_{t-j} + \sum_{i=0}^{k} \theta_{3i} \Delta ER_{t-j} + \sum_{i=0}^{k} \theta_{4i} \Delta GFCF_{t-j} + \sum_{i=0}^{k} \theta_{5i} \Delta TO_{t-j} + \sum_{i=0}^{k} \theta_{6i} \Delta DS_{t-j} + \sum_{i=0}^{k} \theta_{7i} ECM_{t-1} + \mu_t
\]

4.5.5. Error Correction Model (ECM)

Error Correction Model reveals the promptness of correction for attaining the stability. The most significant point of ECM approves the presence of stable long-run association among variables. ECM deals with the final period in stability that has well-intentioned economic impact. It is a correction term that analyzes the time duration crucial in short term to transfer stability value of long-run. It is essential that value of ECM must be negative and substantial to illustrate the existence of relationship between the variables of the analysis.

4.5.6. Stability Test

For infer out the outcome significantly and also guide the policy makers to construct effective policies, the need is to infer the stability of the coefficients. Conversely, the non-stability of coefficient will not provide proper information to the policy makers. To check the stability of Short-run and Long-run parameters, we make use of the test known as CUSUM (Cumulative Sum of Recursive Residuals) & CUSUMQ (Cumulative Sum of Recursive Residuals of Squares) stability test.

The sculpt will illustrate to be steady, if the schemed lines are between the significant boundaries. If this state is satisfied, then in such circumstances the model will be accurate for policy makers. Within the critical bound at 5% significant level, the graphical representation of CUSUM and CUSUMQ test is illustrated. This shows the model is structurally stable and properly specified.

4.5.7. Diagnostic Test

The diagnostic test is used in which in-depth evaluation is required with relatively narrow scope of analysis. It is used to identify the condition or a problem. In this study, diagnostic test is applied to analyze the problems present in it.

4.5.8. Empirical Outcome

Before scrutiny the short run and long run association of variables, the unit root test is functionalized to see that ARDL approach is significant for this analysis or not. Therefore, the econometric results of the unit root estimates that the variables of the
model are significant at the conditions, level and first difference. Hence, it is clear that ARDL approach can be easily applied.

5. Empirical Analysis
This section depicts the variables and their relations to each other. It also demonstrates the integration among the variables by applying ARDL technique.

5.1. Descriptive Analysis
Descriptive analysis of the model gives the quantitative measures. It also determines the mean, median, skewness and kurtosis of the model.

This table 1 illustrates descriptive statistics. The gross domestic product has kurtosis 3.4702 which is greater than 3, it shows GDP is Lepto kurtic and negatively skewed. Broad money (M2) has value of kurtosis 2.6546 which is greater than 2, it indicates that M2 is Meso kurtic. It is also negatively skewed. Exchange rate is Platy kurtic because its value is 1.5853 which is less than 2 and negative sign illustrates that it is negatively skewed. Gross fixed capital formation is also greater than 3 with the value 3.1015 which indicates GFCF is Lepto kurtic. Trade openness has the value 2.671031 which is Meso kurtic and is negatively skewed. Domestic saving is less than 2 having the value 1.964495 which shows DS is Platy kurtic.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Std.Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>1.473790</td>
<td>1.578200</td>
<td>0.507001</td>
<td>-0.853092</td>
<td>3.470215</td>
<td>0.068880</td>
</tr>
<tr>
<td>M2</td>
<td>3.737076</td>
<td>3.722400</td>
<td>0.085851</td>
<td>-0.130745</td>
<td>2.654660</td>
<td>0.851911</td>
</tr>
<tr>
<td>ER</td>
<td>3.418298</td>
<td>3.429100</td>
<td>0.809762</td>
<td>-0.084300</td>
<td>1.585337</td>
<td>0.176630</td>
</tr>
<tr>
<td>GFCF</td>
<td>2.780502</td>
<td>2.830900</td>
<td>0.115599</td>
<td>-0.987623</td>
<td>3.101506</td>
<td>0.035387</td>
</tr>
<tr>
<td>TO</td>
<td>4.193398</td>
<td>4.196900</td>
<td>0.304032</td>
<td>-0.385928</td>
<td>2.671031</td>
<td>0.548089</td>
</tr>
<tr>
<td>DS</td>
<td>2.360290</td>
<td>2.329100</td>
<td>0.368111</td>
<td>-0.199862</td>
<td>1.964495</td>
<td>0.349107</td>
</tr>
</tbody>
</table>

Source: Author’s calculations E-Views 9.5

5.2. Time Series Analysis
In the time series analysis, stationary of data is checked by Augmented Dickey-Fuller (ADF) and Philip-Peron (P.P) of unit root is functionalized as shown in table 3.

5.3. Bound Test
The following table shows the results of bound testing approach:
If the value of F-statistics is superior to the upper bound values then discard null proposition of no co-integration. (This is done in long-run relationship). From the above table, at 1% level of significance LCB I(0) is 3.06 and UCB I(1) is 4.15. There are two more possibilities: if there is 5% level of significance then F-statistics lies between values of upper and lower values then the results are inconclusive (In this case, no decision exists). If level of significance is 10%, then F-statistics will be less than the inferior critical bounce then null proposition of no co-integration is established (In this situation, short-run relationship exists).

Table 3: Augmented Dickey-Fuller (ADF) Test for Unit Root

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF Test</th>
<th>P.P Test</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level</td>
<td>1st Difference</td>
<td>Level</td>
</tr>
<tr>
<td>GDP</td>
<td>Intercept</td>
<td>-4.154*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>T&amp;I</td>
<td>-4.683*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>-1.03</td>
<td>-</td>
</tr>
<tr>
<td>TO</td>
<td>Intercept</td>
<td>-5.5237*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>T&amp;I</td>
<td>-4.5727*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>-5.5653*</td>
<td>-</td>
</tr>
<tr>
<td>M2</td>
<td>Intercept</td>
<td>-6.0543*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>T&amp;I</td>
<td>-6.1877*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>-6.108*</td>
<td>-</td>
</tr>
<tr>
<td>ER</td>
<td>Intercept</td>
<td>-5.0998*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>T&amp;I</td>
<td>-4.9964*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>-3.2494*</td>
<td>-</td>
</tr>
<tr>
<td>GFCF</td>
<td>Intercept</td>
<td>-5.1020*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>T&amp;I</td>
<td>-5.2443*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>-5.16884*</td>
<td>-</td>
</tr>
<tr>
<td>DS</td>
<td>Intercept</td>
<td>-7.4949*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>T&amp;I</td>
<td>-7.8212*</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>-7.5489*</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Calculations are carried out with the help of E-Views 9.5 (Quantitative Software).
Note: *, **, *** these indicate the significance at 1%, 5%, 10% respectively.
Table 4: Bound test for ARDL Approach

<table>
<thead>
<tr>
<th>F-Statistics</th>
<th>7.162078</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Bound Value</td>
<td>LCB</td>
</tr>
<tr>
<td>10%</td>
<td>2.08</td>
</tr>
<tr>
<td>5%</td>
<td>2.39</td>
</tr>
<tr>
<td>1%</td>
<td>3.06</td>
</tr>
</tbody>
</table>

Source: Author’s calculations E-Views (9.5)
Note: At 0.01(1%) level of significance, F-statistics is 7.162078 which is significant.

5.4. Estimates of Short-run coefficient of model
The following table shows the outcome obtained from employing ARDL technique. The coefficients of $\Delta\text{GDP}$ (-3), $\Delta\text{M2}$ (-1), $\Delta\text{ER}$ (-2), $\Delta\text{GFCF}$ (-1), $\Delta\text{TO}$ and $\Delta\text{DS}$ all are statistically significant. The symbol ‘$\Delta$’ shows short-run. The Coint Eq (-1) or ECM (-1) is statistically significant with expected (−) negative sign which shows Long-run relationship between variables. The process of Short-run adjustment is adjusted by ECM (-1). ECM (-1) value of (-0.39) shows that 39% disequilibrium of previous time period will be eliminated in current time period. In our analysis, we take 3 lags of GDP and the probability is 0.0001, 1 lag of M2 with the probability 0.0202, 2 lags of ER given the prob. of 0.0020. There is 1 lag of GFCF having the probability 0.0243. The variable TO and DS have zero lag with the probability 0.0354 and 0.0288 respectively.

5.5. Estimates of Long-run coefficient of the model
The following table 6 shows the outcome of long run coefficients by employing the ARDL technique:

By discussing relationship, between $R^2$, adjusted $R^2$, Durbin Watson, SIC, AIC, F-statistic and Probability we analyzed that there is positive relationship: 1% increment in M2 will direct to an increase of about 4.58% in GDP (explanatory variable). There is negative relationship of ER: due to 1% rise in ER, GDP will reduce to about -1.68%. There is negative relationship among GFCF and GDP. There is negative relationship of TO: 1% increase in TO will lead to decrease of about -2.19% in GDP. Due to 1% increase in DS, increment in GDP is about 2.59%. $R^2$ is 0.823399 which fulfills the condition that $R^2$ must be lies between 0 to 1. Durbin-Watson stat is 1.843408. The variable M2 is positively related to GDP. Sheikh, Faridi, and Tariq (2010). GDP and ER are negatively associated, according to articles of (Enu et al., 2013) and (Romer, 1990). The study depicts the presence of inverse associations among Gross Domestic product and Gross fixed capital formation. There is no considerable effect of GFCF on GDP (Safdar, 2014). The study shows that trade openness (TO) be impact negatively to GDP (Wizarat & Hye, 2010).As Domestic savings increases it also raises the Gross Domestic Product (GDP).

The impact of Financial Development and Economic growth in Pakistan is somehow to estimate the prolong association between financial sector and economic growth. Also another reason may be the underdeveloped nature of financial sector in Pakistan.
Table 5: Estimated Short-run Coefficients Using ARDL Approach

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t. Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ΔGDP (-3)</td>
<td>-0.560549</td>
<td>0.116563</td>
<td>-4.808992</td>
<td>0.0001</td>
</tr>
<tr>
<td>ΔM2 (-1)</td>
<td>-2.038821</td>
<td>0.808217</td>
<td>-2.522616</td>
<td>0.0202</td>
</tr>
<tr>
<td>ΔER (-2)</td>
<td>-2.855944</td>
<td>0.802080</td>
<td>-3.560675</td>
<td>0.0020</td>
</tr>
<tr>
<td>ΔGFCF (-1)</td>
<td>2.745943</td>
<td>1.126779</td>
<td>2.436985</td>
<td>0.0243</td>
</tr>
<tr>
<td>ΔTO</td>
<td>-0.893015</td>
<td>0.395854</td>
<td>-2.255922</td>
<td>0.0354</td>
</tr>
<tr>
<td>ΔDS</td>
<td>0.758630</td>
<td>0.321951</td>
<td>2.356357</td>
<td>0.0288</td>
</tr>
<tr>
<td>Coint Eq (-1)</td>
<td>-0.394265</td>
<td>0.048784</td>
<td>-1.081819</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: Author’s calculation (E-Views 9.5)

Table 6: Estimated Long-run Coefficients using ARDL Approach

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t. Statistics</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>M2</td>
<td>4.586226</td>
<td>4.414910</td>
<td>2.238804</td>
<td>0.0113</td>
</tr>
<tr>
<td>ER</td>
<td>-1.684148</td>
<td>1.310432</td>
<td>-1.285186</td>
<td>0.2134</td>
</tr>
<tr>
<td>GFCF</td>
<td>-12.769883</td>
<td>12.248472</td>
<td>-1.042570</td>
<td>0.3096</td>
</tr>
<tr>
<td>TO</td>
<td>-2.192333</td>
<td>1.724150</td>
<td>2.271544</td>
<td>0.0218</td>
</tr>
<tr>
<td>DS</td>
<td>0.0406</td>
<td>2.599964</td>
<td>2.344428</td>
<td>2.108997</td>
</tr>
<tr>
<td>C</td>
<td>0.3180</td>
<td>30.159643</td>
<td>29.449079</td>
<td>1.024129</td>
</tr>
</tbody>
</table>

Source: Author’s calculation (E-Views 9.5).

5.6. Estimate Equation

The following table shows the values of R-squared, adjusted R-square, Durbin-Watson statistics, Akaike info criterion (AIK), Schwarz info criterion (SIC), and Probability of F-statistics.

Table 7: Estimate Equation of ARDL

<table>
<thead>
<tr>
<th></th>
<th>R-squared</th>
<th>Adjusted R-squared</th>
<th>Prob (F-Statistic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.823399</td>
<td>0.682119</td>
<td></td>
</tr>
<tr>
<td>AIC</td>
<td>0.734211</td>
<td>SIC</td>
<td>1.474362</td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>1.843408</td>
<td>Prob (F-Statistic)</td>
<td>0.000170</td>
</tr>
</tbody>
</table>

Sources: calculated by (E-Views 9.5)
The exceeding stand illustrates that $R^2$ is 0.823 and adjusted $R$-squared is 0.68. Akaike info criterion (AIC) is 0.73 and Schwarz info criterion (SIC) is 1.4743. Durbin-Watson statistics is 1.843408 and Probability of F-statistics is 0.00017, that is lower than 0.05 (<0.05), thus, this describes that there exist significance in the sculpt.

### 5.7. Diagnostic Test

The following table shows the results of diagnostic test to check the problems of serial correlation and hetroskedasticity.

<table>
<thead>
<tr>
<th>Test Statistics</th>
<th>Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Correlation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hetroskedasticity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F- Statistic</td>
<td>0.4846</td>
<td></td>
</tr>
<tr>
<td>F-Statistic</td>
<td>0.1693</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s calculation (E-Views 9.5)

From the above table, it is interpreted that there is no serial correlation and hetroskedasticity because the F-statistics is 0.48 and 0.16 respectively, which is greater than 0.05.

### 5.8. Stability Test

The following figures show the stability of long run and short run parameters.

CUSUM

![CUSUM](image_url)

**Figure 3.** Plot of Cumulative Sum of Recursive Residuals.

CUSUM

The straight lines signify the critical values at 5% level of significance.

CUSUM SQUARE
Figure 4. Plot of Cumulative Sum of Recursive Residuals Square.

The straight lines signify the critical values at 5% level of significance.

The exceeding graph illustrates that the plotted graph lines lie between the critical boundaries. The sculpt is affirmed to be steady as the mapped lines are in middle of the critical border lines. The state of stability is proficient, therefore the representation is well thought-out suitable for the policy designers.

6. Conclusion
The research study pointed out the correlation among fiscal enlargement and monetary augmentation during the range of years from 1974 to 2014. It identified the relationship between economic growth (GDP), money supply, exchange rate, trade openness, gross domestic fixed capital and domestic savings. The study conducts the unit root (ADF) and (P.P) test to analyze the stationary and non-stationary of the capricious. In this paper all are stationary; GDP is at level while others are at 1st difference. ARDL approach defines the negative association of trade openness, exchange rate with GDP. The remaining variables i.e. money supply and domestic savings having direct relationship to GDP. Pointer coefficient is negative but significant, which shows 39% disequilibrium of previous time period that will be eradicated in current time period. We explore long-run stable association of fiscal sector growth and monetary expansion, specified by CUSUM and CUSUMQ stability tests. Thus, our results are reliable with the analysis that economic expansion is the resultant factor of fiscal growth.

The study concludes that in early era’s financial development and economic growth was not so much developed, so different policies were adopted to boost up these dynamics of finance development and growth of economy.

7. Policy Suggestions
We can originate some necessary suggestions which are support by above consequences:

- There is need to concentrate on long duration policies, if policy organizers want to boost up the expansion of economy. For example, building up new and modern organizations.
• Create reforms in banking sector and stock exchange.
• External finance of any is disturbed through the monetary markets and hence, their behavior should become visible by smoothing the progress of the further investment process.
• Even if there is no condition of investment at low-cost, economic growth is impracticable in long-run.
• In financial system, government should sustain stability at higher level of growth.
• New rules and regulations should be made by the policy developers for the progress of financial and capital markets.
• Govt. should cooperate to improve the domination of organizations and management of capital and money markets.
• For the development of fiscal zone, the govt. should make certain that policies are competent and all financial institutions work appropriately.
• Govt. should promote the small industries and offers loan to small entrepreneurs, so that, they have easy access to credit availability.
• Monetary authorities should be encouraged for reduction of interest rate. In this way, investment may be raised by the investors of the country and may be lead to production capacity.

References


