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Analysis of Financial Development and Economic Growth in Pakistan

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ABSTRACT

The study is focused on the analysis of financial development and growth in Pakistan economy for the period of 1972-2011. Cointegration techniques and Granger causality test based on the block exogeneity (Wald test) has been applied for the analysis. The cointegration test confirmed the long run association among the inflation, credit to private sector, deposits, foreign direct investment, domestic savings and economic growth. The present study supports the "supply-leading" hypothesis in Pakistan economy. Granger causality test results show that there is bidirectional causality between inflation and growth, deposits and growth, and savings and growth. Furthermore, unidirectional causality is running from foreign direct investment to growth. The coefficient of the error correction has the correct sign and is statistically significant. The study also draws some conclusion and suggests some policy implications for the establishment of robust financial sector and setting up a strong growth trajectory of the economy.

KEY WORDS: Finance, Economic Growth, inflation, Credit, Deposits, Foreign Direct Investment, Savings, Time Series, Cointegration, Causality, Pakistan.
JEL Classification: C32, G21, O4, O16, P44.

1. INTRODUCTION

Financial sector, in theoretical and empirical literature, has been considered to play a vital role in stimulating economic growth, accumulation of physical capital and increase in the economic productivity. In an important study by Schumpeter (1911), it is concluded that a well-functioning financial system has an encouraging impact on technological innovations. Improved financial system increases funding to entrepreneurs that results in stimulated growth of the economy. Financial system contributed to industrial revolution in England (Hicks, 1969). Some of the studies concluded that economic growth cause financial development (Robinson, 1952; Kuznets, 1955; Friedman & Schwartz, 1963). Patrick (1966) pointed out "supply-leading" and "demand-following" hypotheses. The supply-leading hypothesis put forward a causal association from financial development to economic growth. It implies that development of financial institutions and markets augments the supply of financial services and stimulate growth. The *demand-following* hypothesis advocates causal association from economic growth to advancement of the financial sector. Patrick (1966), in his *stage of development* hypothesis, suggests that that supply-leading financial development, in early stages of economic growth, enhances the real capital formation. New opportunities for savers and investors are opened up with the introduction of new and innovative developments in the financial sectors. A process of self-sustained economic development starts with the development in financial sector. As the economy moves to financial and economic growth this supply-leading impact of financial development starts diminishing and then starts demand-following financial growth in the economy.

McKinnon (1973) and Shaw (1973) argue that financial intermediaries cause growth. Furthermore, it is also concluded that intervention of government in the development of financial system has negative impacts on the financial sector development. The government restrictions on financial sector such as interest rate ceiling, higher reserve requirements and direct credit programs slowdowns the financial development process. Consequently, it slows down the growth of the economy. Lower interest rate may discourage saving and may create a shortage in investible financial funds. As a result efficiency of investment may reduce. Some of the theoretical and empirical studies consider financial development to have no or little importance for the growth of an economy. Robinson (1952) pointed out that it was economic growth that created the demand for financial growth yet development of

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financial sector had no effect on growth process of the economy. Levine, (1997) and Kemal, Qayyum & Hanif (2007) argue that financial development may be harmful for growth.

According to Lucas (1988) finance is, relatively, unimportant factor of growth and the role of financial development in the process of economic growth has been overstressed. There has been a long debate over bank-based and market financial system but the debate has been inconclusive both at empirical and theoretical level. Market based financial system has positive impact in the economy (Stigliz, 1985). Whereas, Levine (1997) and Boyd and Smith (1998) have argued oppositely. Huybens et al. (1999) pointed out that bank-based and market based financial systems are complementary. Market based financial system stimulates economic activity in the economy by providing liquidity and lessening the risks linked to investments (Levine & Zevros; 1998). Beck et al. (2000) termed it difficult to draw extensive conclusions from UK, US, Japan and Germany since these four economies experienced trajectory of divergent economic growth. The stock markets as well as banks have significant economic growth (Beck & Levine; 2004). There is a mutually causal association between financial development and economic growth (Khalifa Al-Yousif, 2002). Murinde & Eng (1994) and Agbestsiafa (2004) concluded evidence of supply-leading phenomenon. Moreover, Odhiambo (2007) investigating the causality between financial development and in three Sub-Saharan African economies found strong evidence of demand-following response in Kenya and South Africa but supply-leading impact of financial sector in Tanzania.

Gürayay *et al.* (2007) analyzed the association between financial development and growth in Northern Cyprus. They employed Ordinary Least Squares (OLS) method for the analysis. A negligible but positive impact of financial development on growth has been concluded. Moreover, Granger causality test results did not confirm causality running from financial development to growth but causality from growth to financial sector development was evidenced. Khan (2008) used ARDL technique to empirically explore the impact of financial devleopent and investment on growth in Pakistan economy for the period of 1961-2005. The author concluded a positive but insignificant effect of real deposit rate on economic growth in long run. The relationship between real interest rate and economic growth was found to be positive and significant.

Oura (2008) shed light on the linkages among uneven expansion in several divisions of financial system in India by using firm level data. In his analysis, patterns of corporate financing and growth of the firm are also examined. The study pointed out some inefficiency in Indian financial system especially in the mechanisms of debt financing. Inefficiency in the financial sector hampers growth of finance-intensive enterprises in India. Furthermore, up-gradation of financial system would be helpful to avert a potential slowdown in the growth and productivity of the firms. Moreover, the development of debt financial facilities is suggested as a policy option for the development of financial sector in Indian in the future.

Jalil and Ma (2008) used bound testing ARDL cointegration approach to examine the association between financial development and growth in China and Pakistan for the period of 1960-2005. In this study deposit liability ratio and credit to private sector were used to explore the impact of financial sector on growth of the economies. Financial development variables are found to have statistically significant impact on growth in Pakistan but in the case of China deposit liability ratio has positive and significant on economic growth. The credit to private sector has positive but insignificant effect on economic growth in China. Lal *et al.* (2009) used Johansen cointegration method to explore the relationship between growth and financial structure in Pakistan economy. 'Weighted sum of structure activity and structure size of financial sector' have been used as proxy variables of financial structure. These variables are found to have positive correlation with the economic growth in the economy. Efficiency of the financial sector is important for the economic performance of the economy.

Mukhopadhyay *et al.* (2011) investigated the finance-growth nexus in Indonesian economy by using annual data. The researchers also tested the structural breaks in the finance-growth link to examine the changes in the different policy regimes. The ARDL test results supported the Lucas argument (Lucas, 1988) that finance has no matter with economic growth. Moreover, structural break, in this analysis was found in the year 1997 in the finance growth nexus. In a recent study, Mehrara, Sargolzaei, Ahmadi & Ahmadi (2012) used ARDL bound testing approach to analyze the impact of financial development on economic growth in Iran. The authors, using credits advanced to private sector as a measure of financial development, concluded that financial development stimulates growth of Iranian Economy both in long run and short run. Moreover, they also found capitalization and oil revenue to have positive and significant impact real output in the long run. But, in short run, capitalization showed its positive effect on growth whereas oil revenue has negative effect on growth in the economy. Khodaei (2012) used liquidity and credit to private sector as measures of financial development also explored growth enhancing impacts of these variables in Iranian economy.

Mahmood (2013) attempted to analyze the relationship between financial sector development index on economic growth in Pakistan. The author explored long run association between real interest rate, real deposit rates, financial investment and economic development by using ARDL technique. He found that the relationship between

real deposit rate was positive but insignificant in long run. Moreover, the author observed positive impact of financial development index and investment to GDP ratio on economic growth in long run and short run. We see that the evidence on the impact of financial sector on economic growth is inconclusive. The present study would provide a profound insight into the relationship between financial development and economic growth by utilizing the recent time series technique of econometric analysis.

2. THE DATA, ECONOMETRIC METHODOLOGY AND RESULTS

2.1. The Data Sources and Model

The present analysis is an attempt to explore the impact of financial development on economic growth in Pakistan economy. Real GDP growth is dependent variable in the model. The financial development variables are credit of the banking sector to the private sector as percentage of GDP and demand deposit plus term deposits as percentage of GDP. The impact of annual inflation rate measured by Consumers Price Index (CPI), Foreign Direct Investment (FDI) and domestic savings as percentage of GDP is also controlled in the analysis. The data of the demand deposits and term deposit has been taken from Handbook of Statistics on Pakistan Economy (2010) of the State Bank of Pakistan (SBP, 2010) and Economic Survey of Pakistan (ESP, 2011-12, 2009-10). The data of GDP has been taken from the World Development Indicators (WDI) of the World Bank (World Bank, 2012). The data of rest of the variables included in the investigation is taken from WDI (2012). The estimated model is:

$$G_t = \gamma_1(P_t) + \gamma_2(C_t) + \gamma_3(M_t) + \gamma_4(F_t) + \gamma_5(S_t) + u_t \quad (1)$$

G_t = Natural log of real GDP growth rate
P_t = Natural log of inflation rate measured by Consumer Price Index (CPI)
C_t = Natural log of credit to private sector as percentage of GDP
M_t = Natural log of Demand deposit plus term deposits as percentage of GDP
F_t = Natural log foreign direct investment as percentage of GDP
S_t= Natural log of Domestic saving as percentage of GDP
u_t = White noise error term

2.2. Methodology and Results

As the annual time series data from 1972 to 2011 is used for the analysis it was important to test the order of integration of the time series included in the model. Augmented Dicky-Fuller (ADF)test (Dickey & Fuller, 1979) has been employed to test the stationarity property of the time series. In the present analysis, following regression for the estimation of ADF test statistic have been used.

$$\Delta x_t = \emptyset_0 + \emptyset_1 t + \emptyset_2 x_{t-1} + \sum_{j=1}^{m} \emptyset_j \Delta x_{t-1} + \epsilon_t \quad (2)$$

Here, null hypothesis:H_0: $\emptyset_2 = 0$. The results of the ADF unit root test are given in the Table 1. The results of the stationarity test are evident that all of the variables are stationary at their first difference. There exists a long run equilibrium relationship amongst the time series if variables are integrated of the same order (Engle & Granger, 1987).

Table 1: ADF Test Results

Variables	None	Constant	Constant & Trend
Level			
G_t	-0.5250	-5.9803*	-6.5541*
P_t	-0.2927	-3.8630*	-3.8055*
C_t	-0.5720	-3.2269**	-3.1982
M_t	2.5524	0.9801	-1.8171
F_t	-1.6985	-1.7858	-2.8954
S_t	-0.2390	-1.8461	-2.1378
1st Difference			
G_t	-6.1794*	-6.0899*	-6.1468*
P_t	-7.9103*	-7.7945*	-7.9532*
C_t	-4.296*	-4.2373*	-4.1488*
M_t	-0.5202	-2.4389	-4.3745*
F_t	-7.2488*	-7.2449*	-7.2569*
S_t	-6.6638*	-6.5718*	-6.5003*
Critical Values			
1% level	-2.6308	-3.6105	-4.2119
5% level	-1.9504	-2.9390	-3.5298

Source: Authors
***(**) significant at 0.10(0.05) level.**

We preceded further and applied Johansen method of cointegration (Johansen, 1988, 1991; Johansen & Juselius, 1990) to test the presence of cointegration vectors. The time series variables stationary at their first difference but the linear combination of these non-stationary variables would be stationary. Any deviation from this relation would be temporary and the relation would hold in the long run. The existence of such type of relation implies that the variables are cointegrated. Johansen and Juselius cointegration method of analysis can be expressed as:

$$\Delta y_t = \alpha + \sum_{i=1}^{p} T_k \Delta y_{t-k} + \pi y_{t-1} + \varepsilon_t \quad (3)$$

Where y_t is a vector of six variables and ε_t is multivariate Gaussian error term. k is lag length and π is sixth order impact matrix. This sixth order matrix provides the information about the long run association between these variables. The rank of this matrix would be the number of cointegrating vectors. Two likelihood ratios, in Johansen (1995) cointegration technique, are estimated in explore the cointegrating association between the variables. These are Trace and Max-eigen statistics. In the present study, trace and Max-eigen statistic has been used to examine the cointegrating relationship among the variables. The trace statistic can be estimated as:

$$\lambda_{trace}(r) = -B \sum_{k-1}^{m-1} ln\,(1 - \lambda_l) \quad (4)$$

Where B is the number of observations, r is the number of cointegrating vectors, l is the number of variables and λ's are eigenvalues. The trace statistics tests the null hypothesis of less than or equal to$r$ cointegrating vectors against the alternative hypothesis of more than r cointegrating vectors.

The max-eigen statistics can be defined as:

$$\lambda_{max}(r, r+1) = -Blog(1 - \lambda_{r+1}) \quad (5)$$

Max-eigen statistic tests the null hypothesis of r cointegrating vectors against the alternative hypothesis of $r+1$ cointegrating vectors. Before the cointegration test the selection of optimum lag length 2 was selected by the SIC criteria and then we proceeded further for cointegration analysis. The results of Johansen cointegration test are summarized in the Table 2. The results show that Trace and Max-Eigen statistics confirm two cointegrating vectors at 0.05 level of significance.

Table 2: Cointegration Test Statistics

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	P-value**	Max-Eigen Statistic	P-value**
None *	0.8330	173.4057	0.0000	66.2275	0.0001
At most 1 *	0.6912	107.1782	0.0013	43.4727	0.0118
At most 2	0.5317	63.7056	0.0517	28.0679	0.1444
At most 3	0.3556	35.6377	0.2198	16.2612	0.5215
At most 4	0.2770	19.3765	0.2591	11.9995	0.4152
At most 5	0.1808	7.3770	0.3068	7.3770	0.3068

Source: Authors
Note: Trace and Max-Eigen Statistics indicate 2 cointegrating equations.
****denotes rejection of the hypothesis at the 0.05 level.***
*****MacKinnon-Haug-Michelis (1999) p-values***

The confirmation of two cointegrating vectors amongst the variables shows that there is a long run association amongst the financial sector variables and economic growth in Pakistan economy. The normalized cointegrating coefficients are given in the Table 3. The long run inflation elasticity of growth shows that inflation hampers economic growth in Pakistan. Ali (2013a) also concluded negative impact of inflation on poverty and growth of the economy. But Ali (2014a) concluded growth stimulating impact of inflation in Pakistan economy. Ahmad, Ahmad & Ali (2013) found that higher inflation hampers growth in Pakistani economy. Inflation and inflation uncertainty have negative impacts on growth (Mehrabian & Tofighi, 2012). Mughal *et al.* (2012) explored no significiant impact of inflation and inflation uncertainty on growth. A lower or moderate level of inflation may be helpful in increasing and stimulating investment and growth in the economy but higher levels of inflation may have negative impact on investment and growth. Higher levels of general prices results in increased demand for money balances by the household. This increase in demand for the cash balances increases the interest rate in the economy and causes a negative impact on investment. Higher levels of inflation reduce levels of investment and affects efficiency of the productive factors (Andres and Hernando, 1997; Ali, 2013b).

Table 3: Normalized Cointegrating Coefficients

Normalized cointegrating coefficients						
G_t	P_t	C_t	M_t	F_t	S_t	*Time*
1.0000	-1.1270	1.4051	3.9686	0.1234	2.4266	-0.4908
Std. Error	0.1674	0.6375	0.5446	0.2106	0.5312	0.0655
t-value	-6.7315	2.2042	7.2869	0.5861	4.5678	-7.4936

All of the financial sector development variables have positive and significant impact on economic growth in the economy. Credit of the banking sector to private sector, bank deposits and domestic saving elasticity of growth are positive and statistically significant. One percent increase in bank credit to private sector significantly increases GDP growth by 1.41 percent in the long run. Increase in total deposits also has positive and significant impact on economic growth in Pakistan. Moreover, domestic saving has growth stimulating impact in the economy. One percent increase in domestic saving to GDP increases the real GDP growth by 2.43 percent. This positive impact of financial sector development on economic growth of Pakistan economy is supported by the *supply-leading* hypotheses. Growth stimulating impact of financial development is also supported by the results of some theoretical and empirical studies. There is large number of empirical studies that concluded also concluded positive impact of financial development on economic growth. Some of these empirical studies are Patrick (1966), McKinnon (1973), Levine & Zevros (1998), Beck *et al.* (2000), Agbestsiafa (2004), Chang & Caudill (2005), Jalil & Ma (2008), Khodaei (2012) and Mehrara *et al.* (2012).

Foreign direct investment stimulates economic growth in Pakistan in long run. The inflows of FDI stimulate domestic investment in the host economies. FDI inflows have spillover impacts on the economy. Inflows of FDI not only fulfill the financial resource gap but also make possible the introduction of modern and innovative techniques of production. Foreign firms introduce new technology and modern production approaches coupled with the approach to the international market for the locally produced products. Moreover, FDI expands and creates competition amongst the firms and result in increased turnover. The results of the study are in strong agreement with the arguments in Shah *et al.* (2012). FDI stimulates private investment in Pakistan (Ali, 2013b; 2013c). FDI increases investment in Pakistan (Ali, Waqas, Asghar, Kalroo, Ayaz & Khan, 2014). So the increase in domestic investment increases the productive capacity of the economy. Moreover, the increased productive capacity increases the growth of the economy. The positive impact of FDI on economic growth in Pakistan is also supported by the results in Ahmad, Ahmad & Ali (2013). The results of the present study are in contrast to the results in Ali (2014b). Ali (2014b) find negative effect of FDI flows on economic growth in Pakistan.

If the time series are cointegrated their relationship can be expressed as Error Correction Model (Granger, 1988). The error correction model takes into account the short run dynamics of the variables. After finding out the long run equilibrium relationship between the variables the error correction equation for each of the time series variable has been estimated. The error term equations estimated are as follows:

$$\Delta G_{1t} = \gamma_{01} + \sum_{i=1}^{n}\gamma_{11,i}\Delta P_{t-1} + \sum_{i=1}^{n}\gamma_{21,i}\Delta C_{t-1} + \sum_{i=1}^{n}\gamma_{31,i}\Delta M_{t-1} + \sum_{i=1}^{n}\gamma_{41,i}\Delta F_{t-1} + \sum_{i=1}^{n}\gamma_{51,i}\Delta S_{t-1} + \delta_1 E_{1,t-1} + v_1 \quad (6)$$

$$\Delta P_{2t} = \gamma_{02} + \sum_{i=1}^{n}\gamma_{12,i}\Delta G_{t-1} + \sum_{i=1}^{n}\gamma_{22,i}\Delta C_{t-1} + \sum_{i=1}^{n}\gamma_{32,i}\Delta M_{t-1} + \sum_{i=1}^{n}\gamma_{42,i}\Delta F_{t-1} + \sum_{i=1}^{n}\gamma_{52,i}\Delta S_{t-1} + \delta_2 E_{2,t-1} + v_2 \quad (7)$$

$$\Delta C_{3t} = \gamma_{03} + \sum_{i=1}^{n}\gamma_{13,i}\Delta P_{t-1} + \sum_{i=1}^{n}\gamma_{23,i}\Delta G_{t-1} + \sum_{i=1}^{n}\gamma_{33,i}\Delta M_{t-1} + \sum_{i=1}^{n}\gamma_{43,i}\Delta F_{t-1} + \sum_{i=1}^{n}\gamma_{53,i}\Delta S_{t-1} + \delta_3 E_{3,t-1} + v_3 \quad (8)$$

$$\Delta M_{4t} = \gamma_{04} + \sum_{i=1}^{n}\gamma_{14,i}\Delta C_{t-1} + \sum_{i=1}^{n}\gamma_{24,i}\Delta P_{t-1} + \sum_{i=1}^{n}\gamma_{34,i}\Delta G_{t-1} + \sum_{i=1}^{n}\gamma_{44,i}\Delta F_{t-1} + \sum_{i=1}^{n}\gamma_{54,i}\Delta S_{t-1} + \delta_4 E_{4,t-1} + v_4 \quad (9)$$

$$\Delta F_{5t} = \gamma_{05} + \sum_{i=1}^{n}\gamma_{15,i}\Delta M_{t-1} + \sum_{i=1}^{n}\gamma_{25,i}\Delta C_{t-1} + \sum_{i=1}^{n}\gamma_{35,i}\Delta P_{t-1} + \sum_{i=1}^{n}\gamma_{45,i}\Delta G_{t-1} + \sum_{i=1}^{n}\gamma_{55,i}\Delta S_{t-1} + \delta_5 E_{5,t-1} + v_5 \quad (10)$$

$$\Delta S_{6t} = \gamma_{06} + \sum_{i=1}^{n}\gamma_{16,i}\Delta F_{t-1} + \sum_{i=1}^{n}\gamma_{26,i}\Delta M_{t-1} + \sum_{i=1}^{n}\gamma_{36,i}\Delta C_{t-1} + \sum_{i=1}^{n}\gamma_{46,i}\Delta P_{t-1} + \sum_{i=1}^{n}\gamma_{56,i}\Delta G_{t-1} + \delta_6 E_{6,t-1} + v_6 \quad (11)$$

Each of the error correction equations was estimated. The coefficients of the error correction term are displayed in the last row the Table 4. The coefficient of the error correction term of D(G) is negative and significant at 0.05 level. The coefficient of the error correction term -0.85 shows high speed of adjustment towards the long run equilibrium. Any disturbance in the system in every short run about 85 percent correction takes place to the equilibrium. The significance of the error correction term confirms the existence of long run causality running from explanatory variables to economic growth in Pakistan. If the two integrated of the order one and cointegrated then the first variable causes the second variable and/or vice versa (Granger, 1998).

We have used VECM based causality test to examine the direction of causality. VECM provides additional information for long run causality whereas the Sims and Granger causality tests ignored this channel. Joint significance of the coefficients of the lagged variables confirms the long run causality. Chi-Squared test is used to test the joint robustness of the coefficients of lagged variables and t-test is at service for test of significance of the error correction term. Before the causality analysis based on the VECM, diagnostic tests on each the error correction term are applied. After the confirmation of the validity of the fitted model by finding the VEC error terms to be normally distributed, serially uncorrelated, and homoscedastic stability test was applied to test the stability of the model. Inverse characteristic roots are helpful to determine the stability of the VEC model. If the characteristic

roots lay within the circle then the estimated parameters are supposed to be stable. The VECM block exogeneity test was applied and results of the test are reported in the Table 4.

Table 4: Granger Causality Test Results

Variables	$D(G_t)$	$D(P_t)$	$D(C_t)$	$D(M_t)$	$D(F_t)$	$D(S_t)$
$D(G_t)$		5.8368*** [0.0540]	0.1704 [0.9183]	9.5235*** [0.0086]	2.1056 [0.3490]	6.1074** [0.0472]
$D(P_t)$	12.7367* [0.0017]	-	0.9273 [0.6290]	4.8160*** [0.0900]	14.1354* [0.0009]	5.2129 [0.0738]***
$D(C_t)$	0.7038 [0.7033]	0.0207 [0.9897]	-	4.7616 [0.1023]	12.2816* [0.0022]	0.5818 [0.7476]
$D(M_t)$	10.5081* [0.0052]	0.1470 [0.9291]	1.6639 [0.4352]	-	2.3393 [0.3105]	3.7018 [0.1571]
$D(F_t)$	6.0193** [0.0493]	0.2964 [0.8622]	3.5176 [0.1722]	6.3778*** [0.0925]	-	0.3820 [0.8261]
$D(S_t)$	7.2544** [0.0266]	0.4865 [0.7841]	1.5368 [0.4638]	1.7795 [0.4108]	1.6911 [0.4293]	-
$\sum \chi^2$ (df =10)	9.2695** [0.0301]	9.2695 [0.5067]	9.5991 [0.4763]	27.4112* [0.0022]	44.0293* [0.0000]	27.5955* [0.0021]
ECT(-1)	-0.8546** (-3.3775)	-0.2126 (-0.7759)	-0.0124 (-0.3499)	0.0895 (1.4998)	-0.3845 (-1.9742)	0.1243 (1.4033)

Source: Authors
Values in the [ ] are Chi-squared values at 2 df and values in ( ) are t-values.
****(**) significant at 0.01 and 0.05 level respectively. ***significant at 0.10 level.***

The causality test results show than there is bidirectional causality between growth and inflation rate. A moderate inflation rate is an incentive for the investors and business. But higher levels of inflation hamper economic growth. Higher inflation rates shake the investors' confidence in the economy by increasing the uncertainty and risks involved in the investment project. On the other hand, a low level of growth means low income levels. Low income results in lower level of consumption and saving. Lower consumption thereby decreases the aggregate demand of the economy and the growth of the economy is low. Higher levels of economic growth mean higher income of the household and higher levels of consumption and savings. There is no causality between credit to private sector and economic growth. The bidirectional causality between economic growth and deposits at the banks has been found. This bidirectional causality may be due to the fact that increase in the GDP growth increases incomes of the households in the economy. Developed financial sector attracts this increased income saving deposits at the banks. Increased deposits thereby make available the financial resources for investment in the economy.

The unidirectional causality runs from foreign direct investment to economic growth. This may be because of the inflows of financial resources coupled with the technology transfer from industrialized countries to the developing world. Moreover, FDI is an important conduit for the import of technology, innovative and managerial skills. The inflows of FDI, in the recipient economy, may increase competition and, therefore, increased competition amongst the firms increases the efficiency of the firms. There is bidirectional causality between savings and economic growth in Pakistan economy. Higher levels of saving, in the economy, increase the supply of loanable funds in the economy. Increased loanable financial funds stimulated investment and thereby growth in the economy. The increased income levels in the economy, in turn, further stimulated savings in the economy.

3. CONCLUSIONS

The present study is an attempt to explore the impact of financial development on economic growth in Pakistan economy. Time series data for the period of 1972-2011 has been used for the analysis. After finding the all of the time series to be integrated of order one, Johansen cointegration technique has been applied to find out long run equilibrium relationship between the financial development and growth. Moreover, VECM based on Granger causality test is applied to examine the direction of causality. The causality is bidirectional between financial development variables and economic growth except credit of the banking sector to private sector. There is no casual association between credit and economic growth. There is bidirectional causality between growth and saving. Foreign direct investment, an important variable to have positive impact on growth of the recipient economy, has unidirectional causality with growth in Pakistan economy. The speed of adjustment is very high as the coefficient of the error correction term is -0.85 and it is statistically significant. The long run causality from the financial development variables to growth is confirmed.

Since all of the financial sector variables have growth stimulating impact in the Pakistan economy so a well-established and modern financial sector would help in stimulating the economic growth of the Pakistan economy. For a sustained and long run growth of the economy, it is necessary that economic policies should be focused on the establishment of modern financial institutions. Improvement in the banking sector and well-managed functioning of stock market would help in betterment of the financial sector development. Financial markets have their impacts on external financial resources available to the firm. The facilitation in the investment process would help to materialize the dreams of higher investment and growth in the economy. Moreover, promotion of microfinance facilities may be an important policy tool to promote investment in the small and medium enterprises. The simplification of procedures in the process of microfinance would help in increasing the scope and range of the microcredit facilities. The specific trainings regarding the judicious and effective use of microcredit can be helpful in stimulating investment and growth of the economy. A prudent, pragmatic and sustained macroeconomic agenda focused on the macroeconomic stability in the economy would be helpful. Enhancement of corporate governance and risk management in financial system and channeling of credits from non-performing to performing or real sectors of the economy would help the Pakistan economy to grow.

This study elaborated the causality between the financial sector indicators with the performance of economy i.e. growth rate of GDP. There exist bidirectional causality between all the variables of interest except foreign direct investment that witnessed unidirectional causality from financial sector to economic growth. Although financial sector is dominated by the savings and investment, credit provisioning, financial sector reforms and strategies but most of the economies are financial resource deficient. They heavily depends on the net external resource inflows either in the form of foreign private investment or debt. The present study focused on investment variables but didn't address the issue of indebted economy and credit rating of the economy. The study directs the further look into the causality of financial sector and growth if an economy is highly indebted and it must be compared with that of low debt to GDP ratio including the dummy of financial soundness indicators.

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