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The Role of Financial Development in Economic Growth of Pakistan

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ABSTRACT

This paper examines the role of financial development in economic growth of Pakistan. We have generated financial development index for capturing the financial development in Pakistan, along with financial development we have also chosen some explanatory variables which are closely related to economic growth. We have used annual time series data from 1972 to 2013 and used ARDL model for empirical analysis. The result of our study states that financial development is positively related with economic growth.

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Introduction

The relationship between financial development and economic growth has always remained a matter of great interest for the economist in some recent decades. The objective of all researches which have been conducted on financial development and growth nexus, remained to analyze that either financial development causes and stimulate the economic growth or it deteriorate the economic growth in country.

The stimulus to analyze the relation between the financial development and economic growth is the endogenous growth model, which has stated that there could be a self-sustaining growth without exogenous technological progress and the growth rate can be related to preferences, technology, income distribution and institutional arrangements.

Mckinnon (1973) and Shaw (1973) had made hypothesis that the financial liberalization in the form of return on cash balances could work as a catalyst for the economic growth, further the hypothesis stated that with low or negative rate of real interest could discourage savings which further reduce the availability of loanable funds and it will reduce the growth in country. The model further stated that with the financial liberalization in country the saving could enhanced to a significant level which further mobilizes to investment resulting in higher economic growth.

Many models have emphasized that the development in financial sector in country could enhanced the resource allocation which could enhance the economic growth in country. Pakistan's economy has faced many up and downs in its history. We have seen many regimes in Pakistan and their different policies, it is quite difficult to judge that the policies were wrong or the scenarios of that times.

Soon after the independence, Pakistan's economy had faced uneven development due to the bloodshed and violence during the migration from India to Pakistan and the further problems caused by lack of resources at the time of independence. The first decade of independent Pakistan's was not so well in economic point of view. After 1960 the economy of Pakistan had some improvement, many economic policies was formulated which had been resulted in higher growth rates.

It has also been observed from existing literature that the developed financial sector is so much important for smooth economic progress and performance in a country. Pakistan has wide range of financial institution like specialized banks, commercial banks, national saving schemes and stock market. Such infrastructure could be very much beneficial in stimulating economic growth.

In starting decades of Pakistan the focus of governments had remained on development of commercial banks from private sector and the creation of such institutions which depends on the government too. Soon after 1971 the privatization process had been closed and Bhutto regime had started the nationalization process of private sector. The financial system of Pakistan remained undiversified and less efficient, the financial sector had also seemed to be failed in near past due to heavy loss incurring branches, poor governance, financial services, high intermediation costs and many other factors of that time. After 1990 the government had taken reforms to remove the inefficiencies in financial sector by structural adjustment program and the journey still continue towards developed financial system in Pakistan. It has also observed that the financial reforms which were started in 1990s had resulted in macroeconomic performance like high growth rates, monetary policy, standard of living and many more.

Literature Review

Ramlal and Watson (2006) had conducted a study on financial development and economic growth in CARICOM sub region during a time span of 34 years. They had analyzed that there was two way causality between financial development and economic growth, they had also found that financial development may lower the growth rate too in CARICOM sub. Kemal et al (2007) had conducted a study on financial development and economic growth on a heterogeneous panel of high income countries. They had examined the empirical relationship between financial development and economic growth with a focus on both, direct finance and indirect finance, jointly and separately. They had used Nair and Weinhold methodology and reported two results. They had concluded that

the findings are almost the same as in the study of Lucas (1988) except the activities of stock market.

Jalil and Ying (2008) had examined the financial development and economic growth by using a time series data of Pakistan and China. They had used time series data of 45 years from 1960 to 2005. They had used ARDL model for empirical results. They had concluded that deposit liability ratio (DLR) and credit to private sector (CPS) had shown negative impact on economic growth in Pakistan while positive impact on economic growth in china.

Adamopoulos (2008) had examined the empirical relation between the financial development and economic growth in Ireland. They have used the data from 1965 to 2007. They have had used vector error correction model for the empirical analysis. The study had concluded that the economic growth could have positive impact in stock market development and credit market development, further these factors could influence the industrial positively too which can enhance the economic growth expectedly.

Mehmood (2009) had conducted a study to analyze the impact of financial development on economic growth in Pakistan. They had examined the association between financial development and economic growth Pakistan from 1979 to 2008. They had used ARDL to cointegration model for empirical results. The study had concluded that the economic growth is positively associated with deposit rate and financial development, in long run, have positive impact on economic growth in Pakistan.

Munir et al (2013) had analyzed the financial liberalization and economic growth by adopting cointegration analysis. Their objective of the study was to investigate the empirical linkage between financial liberalization and economic growth, during a time span of 38 years, from 1972 to 2010. They had concluded in their study that financial liberalization and deposit rate had positive relation with economic growth while the lending rate is negatively associated with economic growth.

Sunde (2013) had conducted a study on financial development and economic growth in Namibia. They had used quarterly data in their study Q1 1990 to Q4 2011. they had made and attempt to establish empirical relation between financial development and economic growth, by using multi variate causality test, impulse response function and variance decomposition tests. They had found in their study that in Namibia the financial development had not influenced the economic growth significantly. They had also recommended that the reforms in financial sector of Namibia mainly depend on the competition through licensing of new banks.

Methodology

The objective of our study is to analyze the role of financial development in economic growth of Pakistan. Financial development is not a variable rather a complete and long process of development in financial sector of country. Some of the economists have used proxies for financial development while some have used an index to capture the development in financial sector. In our study we will generate financial development index with an objective to capture the development in financial sector truly. For construction of financial development index we are going to use broad money, narrow money, GDP per capita and credit to private sector. Along with financial development index we will also incorporate the explanatory variables which could be closely related to growth rate. The time series data from 1972 to 2013 will be used in this study. The econometric model of our study is as follows;

$$Y_t = \beta_0 + \beta_1 FD_t + \beta_2 HC_t + \beta_3 TO_t + \beta_4 Rem_t + \mu_t$$

Whereas Y is growth rate, FD is financial development captured by index, HC is human capital (we have used primary school enrollment as a proxy of human capital), TO is trade openness and Rem is Remittances. ADF Unit root test is used to analyze the stationarity of time series data and on the basis of results of unit root test the most suitable technique has been chosen for robust results.

Results

We have started our estimation from ADF Unit root test with an objective to check the stationarity in our time series data and to decide the most suitable technique for robust and significant empirical results. The results of ADF unit root test are as follows;

Table 1

Variables	Critical Values	T Statistics	Probb	Level/Difference
Y	-3.52	-4.29	0.007	Level
FD	-3.53	-4.54	0.004	Level
HC	-2.93	-5.39	0.001	1 st Difference
TO	-1.97	-6.54	0.000	1 st Difference
Rem	-1.94	-6.79	0.000	1 st Difference

As shown in the results of ADF unit root test the order of integration among the variables is I(0) and I(1). On the basis of results we have decided to apply Auto Regressive Distributed Lag for coefficients.

As it is obvious from the results that all the variables are stationary at different order of integration, we have decided to use the ARDL model for short run and long run coefficients. Before apply ARDL technique we have applied the Wald test to check both cointegration and long run relation amongst variables exists or not. As per the value of F statistics calculate by Wald test we came to a conclusion that long run and cointegration exists in our model, as the value of F statistics which is 4.8 with a probability of 0.02, which is greater than the tabulated upper bound value. We can apply ARDL technique if the value of F statistics is greater than the upper bound, if the value of F statistics is greater than lower and less than upper bound means we are in inconclusive stage and still ARDL is applicable.

Table 2

Variables	Coefficient	T Statistics
FD	0.0155	1.71***
HC	0.2075	2.31**
TO	-0.1072	1.15
Rem	0.0287	1.89***
Ecm(-1)	-0.0864	2.21**
R-Squared:0.59		
Durbin Watson: 1.94		

Table 3

Variables	Coefficient	T Statistics
FD	0.17	1.93***
HC	2.40	7.69*
TO	-1.24	-1.35
Rem	0.33	2.91*

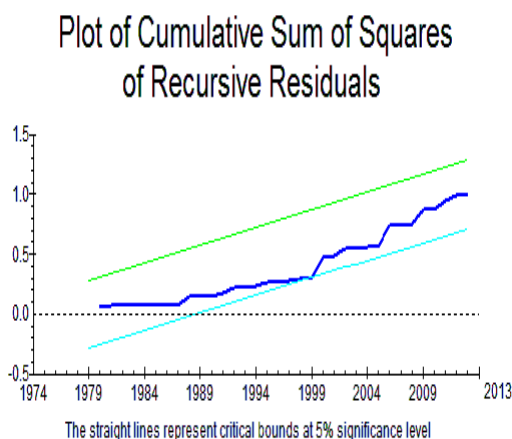
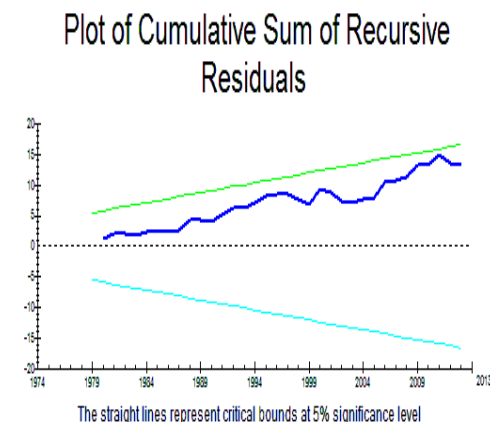
* shows 1% significance level., ** shows 5% significance level., *** shows 10% significance level.

The short run results of our study, given in table 2, have shown that the Ecm(-1) coefficient is negative and statistically significant, it also show the reliability of our error correction results. The coefficient has shown that 8% of previous period's disequilibrium has been corrected, though the correction if

disequilibrium a bit low but it is significant. The first and most important variable financial development, measured by index, have shown a significant positive relation with economic growth in Pakistan. The coefficient of financial development has shown that with 1% increase in financial development the growth in country has increased by 0.01%. Human capital is a factor which has played a very important and crucial role in enhancing the growth in Pakistan. The coefficient of human capital has shown that with 1% increase in it the growth has increased by 0.20%. Trade openness has shown negative but insignificant impact on growth while remittance has shown significant positive relation with growth rate in recent 41 years. The coefficient of remittances has shown that as remittances have increased by 1% they have increased the growth by 0.02%.

The same response of variable continues in long run too, as financial development, human capital and remittances have shown positive relation with growth in Pakistan, and trade openness have shown insignificant negative relation with growth in Pakistan. Unlike short run, in long run the coefficient are greater in our study, the financial development coefficient has shown that in long run 1% percent increase has led to 0.17% increase in growth rate. Human capital remain a most crucial factor in enhancing economic growth in long run too, the coefficient has shown that with a 1% increase in human capital the growth has increased by 2.40%. Trade openness has again shown insignificant negative relation with growth. Remittances has shown significant positive relation with economic growth in long run too, the coefficient has shown the with 1% increase in remittances the growth has increased by 0.33%.

The coefficients of our study are also stable, we have checked their stability by CUSUM and CUSUM Square test, the graphs are given below;



The results of our study are in line with the existing theories, positive relation between financial development and

economic growth is in line with the Mckinnon and Shaw hypothesis and endogenous growth model and so many other researches. The results of human capital and economic growth, which has shown the both of the variables are positively associated, are also in line with the studies of Qadri (2011), Barro (1991), Seren (2001), Umut (2009) and existing theories of human capital. The positive relation between remittances and economic growth is also in line with the studies of Taylor (1992), Fiani (2001), Siddique (2004) and so many other researches. With remittances the purchasing power of sender's family could be increased which enhanced the consumption of their families, savings by their families also increases which then mobilizes to investment which then enhanced economic growth in country.

Conclusion

We have conducted a study to analyze the role of financial development in economic growth of Pakistan. Along with financial development we have also used some explanatory variables which could enhance or decrease growth in country. Our study has shown that financial development has played significant positive role in growth. Further the results of our study has shown that human capital is the most crucial factor which has stimulated the growth in past 41 years, along with human capital the remittance has also played a significant positive role in enhancing growth. On basis of our study we concluded that in Pakistan financial development, human capital and remittances are the factors which have played positive role in enhancing growth of Pakistan, and the government should consider these factors which constituting economic policy.

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