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FINANCIAL INTEGRATION AND ECONOMIC GROWTH: INSIGHTS FROM PAKISTAN

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Abstract

This study has analyzed the association between financial integration and economic growth in Pakistan. For achieving the research objective annual dataset of the last 41 years, starting from 1981 to 2021, have been used. To examine the stationarity of series ADF unit root test has been used and on determination of mixed order of integration Autoregressive Distributed Lag Model has been used because the bound testing results have confirmed the presence of long run relationship among the variables. The results of study have shown that in the long run there is a significant inverse relationship among financial integration and economic growth in Pakistan because of reliance on external debts instead of investment inflows. Other explanatory variables have shown expected theoretical relationship with economic growth in Pakistan. The stability of parameters has been checked by Residual Recursive Graphs and the results have shown stability of parameters in our model.

Keywords: Financial Integration, Economic Growth, Government Expenditures**,** Augmented Dickey Fuller test, Autoregressive Distributed Lag Model.

JEL Codes: C10, C12, C13, E20, E22, F40, F4

Introduction

It is generally considered that financial integration is a tool to stimulate the economic growth in the country. This is the reason that many developed and developing countries have started considering the integration of their financial system to stimulate the growth and for that purpose many countries have their financial inclusion strategies. In 2015 Pakistan officially launched its financial inclusion strategy. (SBP, 2015) (Ahmed et al., 2018).

Basically financial integration is the process of integrating the domestic financial system of a country with the financial systems of developed and

developing countries. Financial integration initiates when the concerned authorities in a country allow the movement of capital, commonly known as capital flows, from the domestic markets to international markets. (Levinine, 2005)

Financial integration can lead to the enhancement of economic growth, if channelized properly; the enhancement could be due to the direct and indirect impact of financial integration on economic growth. It can help the development countries in efficient output management and consumption volatility. It has been found in literature that there is greater room for the developing countries to gain from financial integration as compared to developed countries. Theoretically it is due to the sharing of consumption risk via the trade of between the selling of stakes in domestic output and getting the stakes in global output. (Prasad et al., 2003)

It has been observed in literature that the properly channelized financial system can lead to the enhancement of savings in a country, reduction in the cost of capital, diversification of risk, optimal utilization of resources, transfer of better technology and management skills. All the mentioned benefits of integration will finally lead to enhanced economic growth.

Parallel to all the benefits of financial integration there are some hurdles that generally all and particularly developing countries have to face. Out of the total world population about 1.7 billion people do not have access to financial services and majority of the unprivileged population belongs to the developing countries. (Demirgüç-Kunt et al., 2018). Pakistan is also amongst the countries where the population has very less access to financial services. Only 21% of the adult population in Pakistan has formal bank accounts. (Ahmed et al., 2018) Although we are now observing a change due to the money transferring solutions like services of easypaisa, jazz cash, upaisa, HBL connect, and UBL Omni, because all these companies have made the financial services accessible

to common man particularly in the rural part of country. The weak situation of financial integration may decrease the magnitude of the influenceof financial integration on economic growth in country as the strong linkages between financial integration and economic growth are reported Bigirimana& Hongyi (2018), Lenka& Sharma (2017), Sanjaya & Nursechafia (2016).

Objective of Study

The objective of this study is to elaborate the significance of financial integration in economic growth of Pakistan. The time period and selected key variables of the study may have far reaching ramifications and may help the concerned authorities in formulating the policies for the stable growth.

Literature Review

This review of literature covers the number of studies conducted to unveil the impact of financial integration on economic growth in various parts of the world by incorporating time series, panel and cross sectional data. Theoretically it is assumed that financial integration stimulates economic growth and this phenomenon has gained much importance in recent years.

Ali et al., (2020) investigated the connection between financial integration, domestic investment, and economic growth in Pakistan. To assess the stationarity of time series data, they applied the ADF unit root test, while the Johansen cointegration test was used to identify cointegrating factors. Additionally, the vector error correction model was employed to analyze the dynamic relationship among these variables. The findings of the study confirmed a significant causal link between financial integration, domestic investment, and economic growth in Pakistan.

Phutkaradze et al., examined the effect of financial integration on economic growth in Georgia using time series data from 1995 to 2016. The study applied the ordinary least squares (OLS) method to estimate

the results. Their findings indicated that there was no statistically significant relationship between international financial integration and economic growth.

Further, Ahmed et al., (2018) conducted an empirical analysis to assess the impact of financial integration on Pakistan's economic growth using time series data spanning from 1985 to 2017. The study employed the autoregressive distributed lag (ARDL) model to estimate the results. The findings revealed a strong positive correlation between financial integration and economic growth in Pakistan.

In the same year Bong et al., (2018) examined the influence of financial integration on economic growth in South Asia using panel data analysis. They employed the Generalized Method of Moments (GMM) to estimate the results and utilized the EGLS model to validate the consistency of GMM. Their findings demonstrated that financial integration plays a crucial role in boosting an economy's productive capacity.

Similarly, Saleem (2017investigated the connection between financial integration and economic growth in Pakistan using time series data spanning from 1975 to 2013. To accurately assess financial integration, a financial integration index was developed for further analysis of its effects on Pakistan's economic growth. The findings revealed that financial integration had a notably adverse impact on the country's economic growth.

Khan et al., (2016) examined the effects of foreign direct investment, remittances, and foreign aid on Pakistan's economic growth using time series data from 1985 to 2014. Their study identified a positive relationship between economic growth and both remittances and foreign direct investment, whereas foreign aid was found to have a negative impact on Pakistan's economic growth.

Likewise,, Iqbal et al., (2016) investigated the effect of external debt on economic growth using time series data from 1972 to 2012. Their

research confirmed a substantial negative impact of external debt on economic growth throughout the studied period.

Nosirjon, (2013) conducted a study to explore the relationship between financial integration and economic growth using panel data from 217 countries covering the period from 1970 to 2012. The research employed various estimation techniques, including the VAR model, GMM, OLS, 2SLS, and transformed OLS. Based on their findings, they concluded that nations with higher current account balances benefit more from financial integration.

Farid (2013) investigated the link between financial integration and economic growth in the African region using panel data spanning from 1980 to 2010. The study found that countries more susceptible to international capital flows experienced slower economic growth compared to others. Financial integration was identified as a primary factor contributing to economic instability.

Terrones et al., (2003) analyzed the effect of financial integration on economic growth volatility using panel data covering the period from 1960 to 1999. Their study concluded that financial integration contributes to increased consumption up to a certain threshold. Additionally, they emphasized that developing economies require greater integration into international financial markets to fully leverage the benefits of financial integration through improved risk-sharing.

Methodology

As discussed in the earlier section the financial integration, integration of the financial system in the country, affects the economic growth in different ways. It can significantly affect the economic growth in a country directly as well as through indirect channels. As per the neo classical economist the direct impact of financial impact can enhance economic growth by stimulating the level of domestic investment and savings in the country, such effect is regarded as the direct influence of financial integration on economic growth (Kose et al., 2006). When

financial integration strengthens macroeconomic policies, brings stability in the economic system and improves governance, all these impacts will lead to an increase in the economic growth and this mechanism is known as the indirect impact of financial integration on economic growth in a country.

This paper employed, more or less, same model developed by various researchers including Edison et al., (2002), Mougani (2010), Quinn (1992), Rodrick (1998), Bong and Premaratne (2019), Nosirjon (2013), Jamil et al., (2018), Saleem (2017), Ali et al., (2020). We have analyzed the impact of financial integration, captured by foreign direct investment inward and outward to GDP ratio (Bong and Premaratne, 2019) along with key explanatory macroeconomic variables on economic growth, following the same model with some relevant changes in context with the dynamics of economy of Pakistan.

The general form of our regression model is a follows;

$$GDP = f(FI, GFCE, Exp, Inf)$$

Where FI is the financial integration in Pakistan, GFCE is Government Final Consumption Expenditure, Exp represents exports, and Inf represents the inflation in country measured consumer price index.

The econometric form of our model is as follows;

$$GDP_t = \beta_o + \beta_1 FI_t + \beta_2 GFCE_t + \beta_3 EXP_t + \beta_4 INF_t + \mu_t$$

For the GDP the annual growth rate date has been taken as dependent variable whereas the data of Foreign Direct Investment inward and outward to GDP ratio has been chosen as proxy of financial integration in country, natural log of general government final consumption expenditure has been chosen to represent government expenditures, natural log of exports of goods and services represent exports in data set, inflation is captured by consumer price index and μ_t represents the unexplained variation, commonly known as error term.

This research utilized annual time series data spanning from 1981 to

2021. The data has been obtained from the State Bank of Pakistan, Handbook of Statistics on Pakistan's Economy and the World Development Indicators (WDI).

Hypothesis

By analyzing the theoretical and empirical literature the hypothesis constructed for the study is as follows;

$H_o = Financial\ integration\ do\ not$

$stimulate\ economic\ growth\ in\ Pakistan$

$H_1 = Financial\ integration\ stimulate$

$economic\ growth\ in\ Pakistan$

Results

First step in estimation of parameters is to assess the stationarity of the data set, and only after that any technique can be applied for robust and consistent results.

To assess the stationarity of collected time series data, this study employed the Augmented Dickey Fuller (ADF) Test as recommended by Dickey (1981). It is a standardized test amongst others due to its certain properties. Through the survey of literature it is perceived that one of the critical reasons behind a non stationarity in a series is serial correlation and can be removed by including lagged differences. (Afzal et al., 2011; Akram, 2008; Mohsin, 2005; Abbas, 2000; Amjad, 2005)

The hypothesis of Augmented Dickey Fuller test is as follows;

$H_o: \rho = 0\ The\ series\ is\ non\ stationary$

$H_1: \rho < 0\ The\ series\ is\ stationary$

Results of ADF unit root test are given in Table 1.

Table No.1

Variables	ADF Test with Trend and Intercept	
	I(0)	I(1)
GDP	-4.51(0.0008)*	-
FI	-2.74(0.12)	-4.47(0.0010)*
GFCE	-7.72(0.000)*	-

Exp	-1.66(0.749)	-6.50(0.000)*
Inf	-3.07(0.036)*	-

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

The result of the ADF unit root test has shown that there is a different order of integration amongst the series. This implies that OLS is not applicable and the better option in the current scenario is the Autoregressive Distributed Lag method.

ARDL method was first introduced by Persarnan and Shin, 1999; and Persarnan et al. 2001. They had also introduced the concept of Bound testing approach as well which is widely considered as a litmus test that either ARDL method is applicable or not. They had also recommended that if the value of F statistics in bound testing results is greater than the value of I(1) then ARDL method is applicable for robust results otherwise not. ARDL method is comparatively better, if applicable, then Johenson Cointegration because it gives more consistent, unbiased and robust results. Narayan (2005) suggested that for a smaller sample ARDL method produced much better results than the Johanson cointegration. Holicioglu (2004) has suggested that serial correlation among the variables and error term causes problems of endogenity. The bound testing approach has solved the problem of endogenity because it does not have any constant correlation. Pesarnan et al.,(2001) also suggested that ecm coefficient explains the speed of adjustments that much previous shock has been absorbed and correct has been made in disequilibrium. They have suggested that the coefficient of ecm must have a negative sign value between 0 and 1. If ecm fulfils the above mentioned conditions this means there has been convergence in our results. Further Pesarnan et al., (2001) suggested that Recursive Residuals (CUSUM) and Recursive Residuals Square (CUSUM SQ) graphs can be used to check the stability of parameters. The Bound test results are given in Table 2.

Table No.2

Bound Testing Results				
Test Stats	**Value**	**Signif**	**I(0)**	**I(1)**
F Stats	6.27	5%	2.56	2.49

The results of bound test has established that cointegration exist among the variables, as the value of F stats is greater than the value of I(1). The mathematical equation of our model is as follows;

$$\Delta GDP_t = \alpha_0 + \sum_{t=1}^{n} \alpha_1 \Delta GDP_{t-1} + \sum_{t=i}^{n} \alpha_2 \Delta FI_{t-i} + \sum_{t=i}^{n} \alpha_3 \Delta GFCE_{t-i} + \sum_{t=i}^{n} \alpha_4 \Delta EXP_{t-i} + \sum_{t=i}^{n} \alpha_5 \Delta Inf_{t-i} + \beta_1 GDP_{t-1} + \beta_2 FI_{t-1} + \beta_3 GFCE_{t-1} + \beta_4 Exp_{t-1} + \beta_5 Inf_{t-1} + \varphi_t$$

After the bound test the short run results estimated through the ARDL method are given in Table no. 3.

Table No. 3

Short Run Results			
Variable	**Coefficient**		**t-Statistic**
D(FI)	0.73388		1.16006
D(GFCE)	-0.19278*		-4.77746
D(GFCE(-1)	-0.11397*		-4.05609
D(INF)	0.02518		0.221334
ECM(-1)	-0.49465*		-2.69806
R Square	0.674	Adj R Sq.	0.611
DW Stat		2.12	

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

The coefficient of ECM(-1) has shown convergence in our study, it states that 49% of exogenous shock has been absorbed and 49% of previous period's disequilibrium has been corrected. The coefficient of FI is positive but not significant. That means in the short run financial integration is stimulating economic growth but due to its

insignificance the coefficient is not reliable. While current period and previous period's govt. expenditure has enhanced economic growth. Inflation has shown positive but insignificant association with economic growth.

The long results of this study are given in table no. 4

Table No. 4

Variables	Coefficient	t-Statistic
FI	-0.69*	-2.199448
GFCE	0.21*	4.266783
EXP	0.16***	1.906296
INF	-0.12	-1.516984

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

The long run results of this study have established a significant negative relationship between financial integration and economic growth in Pakistan. The coefficient explains that 1 percent change in the financial integration will lead to 0.69% decrease in growth. Although this result is not in line with the theory of neo-classical economists and other researchers, there are few reasons which are not allowing financial integration to stimulate economic growth in the country. Financial integration stimulates economic growth through effective government policies and domestic business conditions. It is the dilemma of our country that since independence we have faced problems like corruption, poor corporate and public governance, while less corruption, good corporate and public governance are considered mandatory to attract the foreign investment and equity flows. Due to the non favorable conditions for foreign investments we have to move towards the external debts and that leads to decrease in economic growth. This is the reason that is why financial integration is affecting economic growth negatively.

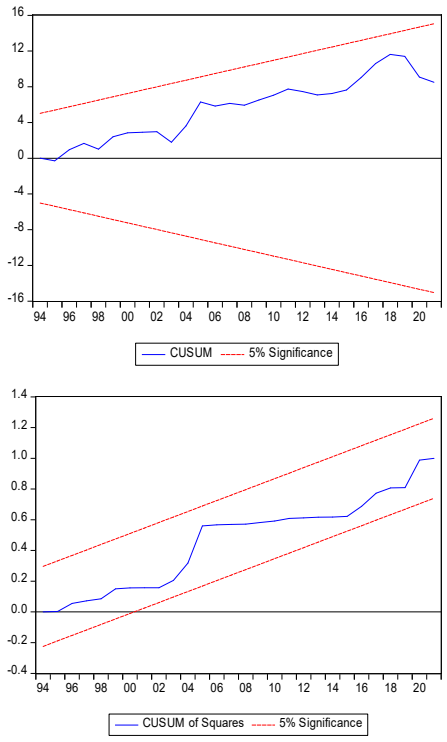
External debts have a significant share in the financial integration as compared to other types of inflows, particularly in the last two decades

and this is one of the most important reasons behind the negative relationship between financial integration and economic growth (Saleem, 2017). There is another reason behind the negative relationship that the people of Pakistan are amongst the countries that are less included in the financial system of the country.

The government expenditures and exports have enhanced the economic growth significantly and the results are in line with the existing theories. Inflation has shown negative but insignificant association with economic growth in Pakistan.

Recursive residuals and Recursive residual square tests are used to check the stability of our parameters. The graphs are as follows.

Residual Recursive Graph



Bothe the graphs have shown stability of our parameters.

Conclusion

This study has examined the impact of financial integration on economic growth along with key explanatory variables. Time series data has been used for the analysis. Our results have shown that till 2021 there exists significant negative association between economic growth and financial

integration due to many reasons but the most important one is reliance on external debts instead of investment inflows. The government expenditures and exports have proven to be the significant factors stimulating economic growth in Pakistan.

Policy Implications

Based on our study, we recommend that authorities may focus on reducing corruption and improving both corporate and public governance, as these factors hinder the positive relationship between financial integration and economic growth. Eliminating these obstacles will enable financial integration to contribute more effectively to economic growth.

Reference

- Abbas, Q., Mujahid Mukhtar, E. (2000). The Role of Human Capital in Economic Growth: A Comparative Study of Pakistan and India. *The Pakistan Development Review, 39(4), 451-473.*
- Afzal, M., Rehman, H. U., Farooq, M. S., Sarwar, K. (2011). Education and economic growth in Pakistan: A cointegration and causality analysis. International Journal of Educational Research, 50(5-6), 321-335.
- Ahmed et al,. (2018). Impact of financial inclusion on economic growth. *Journal of Management Science, Vol VIII(3).*
- Akram, N. (2008). The long term Impact of health on economic growth in Pakistan. *The Pakistan Development Review, 47(4), 487-500.*
- Ali, G., Rahat, A., Shah, SA., (2020). Financial integration, Domestic investment and Growth of Pakistan economy. *Research Journal of Social Sciences and Economic Review, 1(3).*
- Amjad, R. (2005). Pakistan's poverty reduction strategy: Why employment matters. MPRA Paper.
- Bigirimana, M., Hongyi, X. (2018). Research on relationship between financial inclusion and economic growth of Rwanda : Evidence from commercial banks with ARDL approach.

International Journal of Innovation and Economic Development, 4(1), 7–18.

- Bong, A., Premaratne, G., (2018). Impact of financial integration of economic growth in southeast asia. *Journal of Asian Finance, Economics and Business, 6(1) ,107-119.*
- Demirgüç-Kunt, A., Klapper, L., Singer, D., & Hess, J. (2018). The Global Findex Database 2017 *Measuring Financial Inclusion and the Fintech Revolution.*
- Dickey, D., W. Fuller (1981). Likelihood Ratio Statistics for Autoregressive Time Series with a Unit Roo,. Econometrica, 49, 1057-1072.
- Edison, H. J., Levine, R., Ricci, L., Sløk, T. (2002). International financial integration and economic growth. *Journal of International Money and Finance, 21 (6), 749–776.*
- Farid, S. (2013). Financial integration in African emerging markets. *In African Economic Conference.*
- Halicioğlu, F. (2004). Defense spending and EG in Turkey: an empirical application of new macroeconomic theory. *Review of Middle East Economics and Finance, 2(3), 193-201.*
- Jamil, A., Fatima, K., Ali, N., (2018). Impact of financial inclusion on economic growth of Pakistan. *Journal of Management Sciences, VIII(3).*
- Jibran, K., Ali, A., Hayat, U., Iqbal, A. (2016). Public debt and economic growth in Pakistan: A reassessment. Pakistan Business Review, 18 (2), 307–324.
- Kose, M. A., Prasad, E. S., Terrones, M. E. (2003). Financial integration and macroeconomic volatility. *IMF Economic Review, 50 (1), 119–142.*
- Kose, M. A., Prasad, E. S., Terrones, M. E. (2006). How do trade and financial integration affect the relationship between growth andvolatility? *Journal of International Economics, 69 (1), 176–202.*

- Lenka, S. K., Sharma, R. (2017). Does financial inclusion spur economic growth in India? *The Journal of Developing Areas, 51(3), 215–228.*
- Levinine, R. (2005). Finance and growth: theory and evidence. Handbook of economic growth, 23(5), 865-934.
- Mohsin, A. (2005). Tourist attitudes and destination marketing; the case of Australia's Northern Territory and Malaysia. *Tourism Management, 26(5), 723-732.*
- Mougani, G. (2012). An analysis of the impact of financial integration on economic activity and macroeconomic volatility in Africa within the financial globalization context. *African Development Bank, Tunisia Working Paper No. 144.*
- Narayan, P. K. (2005).The saving and investment nexus for China: evidence from cointegration tests. *Applied Economics, 37(17), 1979-1990.*
- Nosirjon, J., (2013). Financial integration and economic growth. *MPRA Paper no. 55711.*
- Pesaran, M. H., Shin, Y. Smith, R. J. (2001). Bounds testing approachesto the analysis of level relationships. *Journal of Applied Econometrics, 16(3), 289-326.*
- Pesaran, M. H., Shin, Y. (1995). An autoregressive distributed lag modelling approach to cointegration analysis. *Cambridge University Press.*
- Phutkaradze et al., (2019). Financial integration and economic growth: Empirical evidence from Georgia. *European Journal of Sustainable Development 8(2), 232-248.*
- Prasad et al. (2003). Effects of Financial Globalization on Developing Countries: Some Empirical Evidence. *IMF Board Document 2003.*
- Quinn, D. (2003). Capital account liberalization and financial globalization, 1890-1999: A synoptic view. *International Journal of*

Finance and Economics, 8(3), 189-204.

- Rodrick and Arvin Subramanian, (2009). Why did financial globalization disappoint?
- Saleem, SM., (2017). Does financial integration spur economic growth? Evidence from Pakistan. *Journal of Management Sciences, 4(1), 116-130.*
- Sanjaya, I. M., Nursechafia. (2016). Financial inclusion and inclusive growth: A cross-province analysis in Indonesia. *Bulletin of Monetary, Economics and Banking, 18(3), 281– 306.*
- Sarma, M. (2008). Index of financial inclusion. *In Indian Council for Research on International Economic Relations (No. 215).*
- Kose, M. Ayhan, Eswar S. Prasad and Marco E. Terrones. 2003. "How Does Globalization Affect the Synchronization of Business Cycles? ." *American Economic Review*, 93(2):57-62.
- Zafar, S. Z., Siddique, M., Ahmad, H., Khan, T. A. (2016). The economic implications of remittances on economic growth: The case study of Pakistan. *International Journal of Academic Research in Business and Social Sciences, 6 (7), 215–222.*