

A Temporal Analysis of Economic Growth and Its Determinants in Pakistan

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Abstract

Economic growth is the desire of every economy. It is one of the most important variables which need to be explored in any economy, especially in economy like Pakistan which is facing extremely depressing development in terms of economics. The potential aim of this research is to find temporal analysis of growth with respect to economic in Pakistan using the data set ranging 1978-2014. Impact of human capital, government consumption expenditure (government size), gross total investment, trade and financial development has been estimated on economic growth. To consider the long term analysis and short term evaluation and analysis, Johansen co integration and error correction model respectively have been used because the data was found stationary at its first difference. When data is found stationary at its first difference, then the technique of ordinary least square (OLS) does not work. Government consumption expenditure, human capital, gross total investment and trade have significant positive the development with respect to financial affairs and development have non-important but positive impact on the development and growth in terms of economics. The policy makers may find this research vital because it discusses the impact of some important economic variables on economic growth..

Key Words

Economic growth, integration, ECM, Pakistan Economics, Financial Development

1 INTRODUCTION

Economic growth is the desire of every economy. It is one of the most important variables which need to be explored in any economy especially in economy like Pakistan which is facing low economic growth. In current study impact of some important economic variables like investment, human capital ,government expenditure (government size),trade and the development with respect to financial

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affairs has been shown on economic growth. Researchers have tried to explore economic growth from many angles.

Many studies show a positive correlation between financial promotion and income growth (Khan et al., 2005; Levine, 2002 and Bajonic, 2012). Similarly, most literature supports a positive association between income growth and income (Beck and Levine, 2004; Anwar and Sun, 2011 and Levine et al., 2000). Human capital is also one of the important factors that can affect income growth. Research has shown a positive correlation between human capital and income growth (Barro, 1991). Government consumer spending (government issues) should be taken into account when analyzing inflation. This literature supports effective dating between these variables (Barro, 1990).

The level of poverty is reduced, social and political institutions are strengthened, the first class of existence continues, the environment is protected and the political situation in the countries high [Easterly (1999)]; Dollar and Kraay (2002a); Fajnzylber, Lederman et al. (2002) and Barro (1996). Barro and Lee (1994) studied the relationship between human capital and income growth and found that there was a positive relationship between these variables. They further contribute to Romer's (1990) endogenously integrated model. This type of surface emphasizes where people's money works. Islam et al. (2013) examine the relationship between income development, income growth, electricity and population in Malaysia. They used data units for the period 1971 - 2009. A long-term relationship between these variables is observed when economic growth is analyzed using electricity growth. Kakar, Khilji and Khan (2011) stated in their research that income growth contributes to income growth through reduced energy consumption in Pakistan.

Omri and Kahouli (2014) analyzed the relationship between the increase in foreign direct investment of electricity for a set of sixty-five countries. They took a dataset from 1990 to 2011 and found an increasing trend for stable trends and produced mixed results for the global commission and the quality department. value and purpose and impact. Christopoulos and Tsionas (2003) stated from their study that there is a long time between income growth and income growth. Longitudinal associations were then predicted using fully adjusted OLS. The data comes from 10 developing countries. They concluded that there is a positive relationship between income promotion and income growth. Al-Yousaf (2002) explains the relationship between income promotion and income growth. Anwar and Sun (2011) find channels of income growth. First of all, the promotion of money makes domestic and foreign money safe with the help of the improvement of the confidence of investors in financial instruments. Second, green applications encourage the use of advanced technology. This whole process is called marginal production (TFP) [also called technological innovation].

Levin et al. (2000) looked at the contribution made by financial managers selling inflation. Gregori and Guidotti (1995) show a long-term effective effect of income growth and income growth, but this varies depending on the region, time and degree of profit. They emphasize the efficiency of capital rather than its volume. There can be a lot of appreciation for the financial performance of the increase, especially in low-income and low-income countries. Ang (2008) conducted a study on the Malaysian economy to determine the relationship between financial development and income growth. He found that an increase in the financial sector translates into

better financial growth by improving financial performance. King and Levine (1993) found a relationship between income promotion and income growth. Wolfe-Rufael (2009) conducted a study of the Kenyan economy to examine the relationship between income development and income growth. It takes information for the period 1966-2005 to use exports and imports as variables. He concluded that the interaction caused between income growth and income growth. Many studies have found a negative relationship between income promotion and income growth.

Ahmad (2013) through his research found that mistakes are due to financial independence and lack of proper management system. Raymond and Inessa (2004) argue that financial incentives allow the transfer of resources to sectors with appropriate opportunities for growth, even though they are dependent on external funding. Peter (2002) describes the effect of inflation on income growth. He used information from 4 economies to conduct his research. These 4 economies include the Dutch Republic (1600-1794), Great Britain (1700-1850), the United States (1790-1850) and Japan (1880-1913). The evidence of these savings in the period mentioned shows that the emergence of the financial sector supports the exchange rate and as a result the financial growth.

Jeremy et al., (2010) proposed a version of cost-effective investment to determine the effect of capital improvement on income growth. Studies show that a country like Uganda can increase its aid production by 140-180% if it can develop one of the best practices in the world in the financial sector. Wu, Hou and Cheng (2010) investigated the effect of financial institutions on financial growth. They used a data set for 13 countries of the European Union for the period 1976-2005. They conclude that there is a long lag between bank inflation, stock market inflation, and income growth. It is concluded that the effect of the increase in income and real production may be small in the long run, but that the higher business provided with the help of commercial banks will improve the income. stay strong. Revealing different things between the financial updates with the increase of money and using information annually for the 1994-2010s for Bolivia.

The main objective of the research is to find out the impact of few important currency changes on income growth. These variables include government Consumption expenditure (government size), trade, human capital, investment and financial development. In first section of the study introduction and brief literature was discussed. In next sections data and methodology, empirical result and discussion and finally conclusion and related policy implication have been discussed.

2. DATA AND METHODOLOGY

Following model has been built to see the impact of financial development, human capital, government expenditure, gross total investment and trade on economic growth.

$$Y_t = \alpha_1 + \alpha_2 FD_t + \alpha_3 SC_t + \alpha_4 SI_t + \alpha_5 GTI_t + \alpha_6 T_t + \mu_t$$

The variables are defined as follows,

Y_t = Economic growth

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FD_t = Financial development

Sc_t = School enrollment (a measure of human capital)

Si_t = Government Size

GTI_t = Gross total investment (a measure of investment)

T_t = Trade

μ_t = Error term

2.1 Data Description:

Time collection statistics were collected for the period from 1978 to 2014. This is an appropriate time period to evaluate time collection and it is also advisable to collect statistics continuously over the period. The characteristics of the key variables used for the estimation scheme are given as follows. For significant improvement, "personal housing credit scores" are used. Gregorio and Guidotti (1995) used the same variable to determine the degree of significant improvement. King and Levine (1993) talk about the need for an economic device that transfers money to the private sector. An economic boom includes both a boom in manufacturing and an improvement in the economic sector. When the financial boom occurred, the income of people inside u. S. improve, suggest financial improvement. Therefore, this study takes "GDP (stable LCU)" as the actual output of real money. Many studies have used this component as an indicator of financial boom (e.g. Ang, 2008; Anwar and Sun, 2011; Bojanic, 2012; Coban and Topcu, 2013; Khan et al., 2005; Rufeal, 2009; Sadorsky, 2010. Shahbaz and Lee, 2012). The interpretation of all changes should be done as a percentage, so everyone records approximately all changes as a log.

2.2 Technique Selection:

Stationarity of all the variables used in the model was checked. All the variables were found non-stationary at level. They were found stationary at their first difference. In such a case ordinary least square (OLS) regression cannot be used because using OLS leads to inconsistent and biased parameter estimates. As all the variables were found stationary at their first difference, so co integration has been used for long run analysis while error correction model has been used for short run analysis.

2.3 Variables:

The table below shows the variables, the associated definitions, explanations and sources

Table 2.1: Variables Explained

Variables	Measurement	Definition	Source
Real output of (measure of economic growth)	GDP (constant LCD) [In Billion]	It shows collective gross value added by all local Manufactures in the country.	WDI (2014)
Intermediary development	Domestic credit for private sector in %age of GDP	It means financial capital granted to private sector	WDI (2014)
Investment	Gross Total Investment (GTI)	All investments made within the country	State bank of Pakistan
Government Size	All final consumption expenditure in %age of GDP	It includes all government expenses on purchase of goods and services.	WDI (2014)
Trade	Trade as a percentage of GDP	All imports and exports of goods and services calculated as a share of GDP.	WDI (2014)
Human Capital	School enrolment, secondary	Overall enrolment in secondary education in all programmes	WDI (2014)

Source: research used different sources to construct the variables

3. EMPIRICAL RESULTS AND DISCUSSION

3.1 Estimation and Interpretation of Model and Instruments Used

First it will be discussed that how the model used and techniques selected are best fit for estimation of coefficients.

3.1.1 Discussion on Model

The data regarding all the variables used in model has been found stationary at first difference. Breusch-goldfrey serial correlation LM test has been used and it is found that $P > 0.05$ which shows that there is no auto correlation. Heteroskedasticity has been tested through Breusch-Pagan-Goldfrey test and it is found that $P (0.8002) > 0.05$ which shows that there is no heteroskedasticity.

For normality test, it has been found that $P (JB) > 0.05$ which confirms the normality. Johanson co- integration test has been applied to test co integration. It has been found that trace statistic (116.2736) > critical value (95.75366) and Max-Eigen statistic (42.20963) > critical value (40.07757). This proves the existence of co integration. According to Granger representative theorem co integration is applied to test the long run relationship.

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If there is co-integration, the long run relationship holds and short -run dynamics can be found by using ECM. All such tests show that instruments used in the model are valid and model is best fit.

Table 3.1: System Estimates for Economic growth model

Independent Variable	Dependent variable (Economic growth)	
	Long run analysis with P-Value	Short run analysis with P-Value
T	0.192290 (0.0234)	0.083756 (0.1208)
SI	0.305449 (0.0000)	0.055014 (0.2308)
SC	0.409616 (0.0000)	0.572550 (0.1098)
GTI	0.083060 (0.0511)	0.090782 (0.0492)
FD	0.051702 (0.2392)	0.046532 (0.3327)

Source: researcher's own calculations using e-views

3.2 Short Run Analysis of the Model.

1 The P-Value and trade co efficient highlights non-important positive relationship with economic growth.

2 Government size and human capital have non-important positive with growth in terms of economics

3 Gross total investment (GTI) has been used as a measure of investment. It has important impact on the financial and economic growth and the impact is positive. As the data regarding all the variables used in the model has been transformed into log form, so the results will be interpreted in percentage. The result shows that one percent rise in gross total investment will cause 0.090 percent rise in economic growth.

4 The development in terms of financial affairs non-important positive impact on the growth in terms of economics as level of significance is less than p-value.

3.3 Long run analysis of Economic Growth Model

1 Trade is an important variable that actually plays an important role and have positive and important impact on the growth in terms of economic activities in longer run. It is apparent from the results that P-Value (0.0234) is comparatively fewer than the level of importance, hence that highlights that there is important impact on the growth in terms of

economics affairs. The co efficient shows that 1 percent rise in trade will have 0.19 percent, hence in terms of the economic growth there will be positive impact.

2 When we consider the P-Value (0.0000) highlights that economic growth can be significantly impacted by the size of the government. The co efficient shows that one percent rise in government size will push economic growth 0.30 percent up.

3 Human capital (Sc) has got great importance in the context of economic growth. The P-Value (0.0000) highlights that growth in terms of economic is greatly impacted by the factor of human capital. The co efficient shows that 1 percent rise in human capital will cause 0.40 percent rise in economic growth.

4 Gross total investment has been used as a measure of investment. The value of coefficient highlights that 1 percent increase in investment will pushup equal to 0.83 percent.

5 The P-Value (0.2393) and co efficient (0.051702) highlights that there is not a significant impact of financial growth and economic growth, but that relationship is positive.

3.4 Justification of system estimates of the model

In short, all variables have a negative impact on the increase in non-cash income. Capital has an inestimable effect on financial growth. In the long run, proxy exchanges have a positive impact on financial performance.

The final result is in agreement with Levine et al. (2000); Anwar and Sun (2011) and Beck and Levine (2004). Government food spending (government statistics) is linked to fiscal growth. This is consistent with Barro (1990) who researched that integration with software models can have a small impact on financial value, but integration with effective strategies can have an effective impact on profitability. increase in income. Human capital is associated with economic growth, which is consistent with Barro (1991), who analyzed that human capital complements economic growth by creating new products and ideas that support technological and economic change. . Additional investment is real and linked to income growth. These outcomes are also collaborating and tested positive with Beck and Levine (2004) ; and Anwar and Sun (2011).

Financial development leads to build investor's confidence on financial system existing in the country. As a result Investor saves more and invests that money in productive projects. Consequently, incomes of the domestic people improve that causes aggregate demand to rise, which leads an economy to flourish.

4 .CONCLUSION AND POLICY IMPLICATIONS

4.1 Conclusion

The Economic growth is one of the most important variables to consider in any economy. This research contribution provides a temporal assessment of income growth using observed data from 1978 to 2014 in Pakistan. Notes on the time of increase in income. The impact of human capital, input costs (branch size), general

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income, other innovation, and expressed income during financial growth. Public spending on food, human capital, general capital, and representatives have an effective and significant effect, while income promotion has an insignificant effect on income growth. The available literature also supports these results. For the assessment, the events related to all the upcoming entries for the desktop were studied. It turned out that the event had nothing to do with the company, but it became a local company related to its first difference. When events are entered on the desktop before any differences, the ordinary least squares (OLS) method no longer works. Therefore, Johansen's cointegration and error correction (ECM) method was used for the longitudinal and longitudinal analyses. This review is important because it uses the most recent information available. The truth turns into a long form. This is why the translation of changes in percentages is done.

All the important tests like heteroskedasticity, Jarque-Bera normality test and Serial Correlation LM tests of Breusch-Godfrey have been evaluated and tested that data is able to be run co integration and error correction model in a comprehensive manner.

4.2 Policy Implications

Present study has certain policy implications which have been discussed as follows. Financial development, capital of humans, government consumption expenditure, trade, gross total investment, these all indicators are important and leaves a significant and positive impact on the growth with respect to economics. The policy makers may take steps to develop such financial system which would help in financial development. Government consumption expenditure might be enhanced. This is only possible when sufficient revenues will be generated through proper tax system. Policy makers may take steps to increase the volume of trade. Human capital is one of the important variables which has positive and significant link with economic growth. Government may allocate proper funds for the improvement and the enhanced improvements in the capital with respect to humans. Investment and related indicators are also some key economic variables. The study in hand finds that investment has positive link with economic growth. Policy makers may try their best to enhance the volume of investment.

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