

THE IMPACT OF MONETARY EXPANSION ON ECONOMIC GROWTH IN PAKISTAN

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***ABSTRACT**-The objective of this research paper is to analyze the impact of monetary expansion on economic growth in Pakistan. We used time series data of past 45 years (1972-2014) for analysis. The selected variables include gross domestic product, money supply, intra industry trade, total enrollment, inflation rate, government expenditure and total number of beds. ARDL model was used to determine long run and short run relationship between variables. The results show that intra industry trade, total enrollment, inflation rate and money supply have positive relationship with GDP while government expenditure and total number of beds have negative relationship with GDP in the long run. The results also show that money supply, intra industry trade, total enrollment, inflation rate and number of beds have positive relationship with GDP while government expenditure has negative relationship with GDP in the short run.*

KEY WORDS: GDP, Money supply, Intra industry trade, Inflation rate.

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1. INTRODTION

1.1 Background of the Study

The purpose of this research study is to determines the impact of monetary expansion on economic growth. Monetary policy has direct relation with economic growth. It is the main tool to control the money supply in the country. The basic aim of monetary policy in many countries is to stabilize the prices, maintain the balance of payment, promote level of employment and accelerate process of development in the economy. Monetary policy determines the process in which central bank regulate money supply and interest rate to boost economic growth and economic stability. the objectives towards achieving the stability and growth of the economy. Monetary policy is also used different tools to control exchange rates, inflation rate and unemployment.

1.2 Objectives of the study:

The main objectives of this research study are outlined as under: -

- (a) To examine the impact monetary expansion on economic growth in Pakistan.
- (b) To check the impact of total enrollment on Pakistan's GDP.
- © To analyze the effect of Intra industry trade on Pakistan's GDP.
- (d).To study the impact of the government expenditure on Pakistan's GDP.
- (e) To determine the impact of inflation rate on GDP of Pakistan.
- (f) To check the impact of health on Pakistan's GDP.
- (g) To measure the impact of money supply on Pakistan's GDP.

1.3. Significance of the study:

This study is very significant in a sense that it deals main with money supply and its impact on economic growth. The monetary

expansion and resultant high inflation rate are a common phenomenon in Pakistan. So it is very important to determine the effects of monetary expansion on Pakistan's economic growth. The results of this study are likely to be useful for policy makers, bankers, financial analysts and heads of financial institutions and enable them to frame policies for better financial management and macroeconomic stability.

1.4. Hypothesis of the study

The hypothesis of the study are given below:-

1.H₀: There is no significant relation between total Enrollment and GDP growth.

H₁: There is a significant relation between total Enrollment and GDP growth.

2.H₀: There is no significant relation between Intra Industry Trade and GDP growth.

H₁: There is a significant relation between Intra Industry Trade and GDP growth.

3. H₀: There is no significant relation between Government Expenditure and GDP growth.

H₁: There is a significant relation between Government Expenditure and GDP growth.

4. H₀: There is no significant relation between Inflation rate and GDP growth.

H₁: There is a significant relation between Inflation rate and GDP growth.

5. H₀: There is no significant relation between Number of beds and GDP

growth.

H₁: There is a significant relation between Number of beds and GDP growth.

6.H₀: There is no significant relation between money supply and GDP growth.

H₁: There is a significant relation between money supply and GDP growth.

2. LITERATURE REVIEW:

Different authors discussed different issues of monetary policy and their results are briefly discussed as follows:

Friedman (1963) stated that monetary policy can maintain long term inflation rate. The main thesis of Friedman is to explain relationship between money supply and inflation rate. His most famous quotation is: "Inflation is always and everywhere is a monetary phenomenon."

Hussein (1986) stated that changes in real money supply adjusted itself by changes of price level in the market. This study elaborated both endogenous and exogenous variables in the context of Pakistan's economy.

Ahmed and Chaudhary (1995) argued that budget deficit is particularly become inflationary in long-run from the banking sector in the economy as there is a strong relationship between inflation rate and money suppl.

Awan (2014) emphasized that money supply is used as a tool to finance budget deficit in developing countries and it results in generation of inflation rate. The developing countries also encourage high inflation rate because it enhances tax revenue in nominal term. However, the

developed countries avoid issuing excessive money supply because they know that it will produce inflation which will in turn enhances miseries of low income segment of the society.

Boweni (2000) said that monetary policy is only one of the main elements of macroeconomic policy and ultimately affects the economy through inters rate. Two main channels of monetary policy are: one is exchange rate that changes with interest rate and second one is interest rate that is changed through demand. Ultimately monetary policy impact economic activity and growth through working of domestic and foreign markets for good and services.

Meenai (2001) has given a historical record of monetary management and a review of monetary policies pursued in the country from 1947 to 2000. He has strongly recommended that Pakistan should discard market based monetary policy and Central bank should play the primary role for promoting development. He has further recommended that Pakistan should de-link from the international financial system by re-profiling its foreign and domestic debt. Most of the recommendations of the author can be termed as ‘thinking.

Aslam and Awan (2018) analyzed the impact of monetary policy on economic growth. They said that the role of monetary policy in stabilization of prices, generation and employment and controlling credit allocation is vital. They further stated that the State Bank of Pakistan has been playing effective role in managing financial system of Pakistan and this is the reason no major financial crisis has occurred in Pakistan during last three decades.

Arby and Hanif (2003) analyzed the moderate concept of stable inflation rates and development process of the country. They used time series data for the period of 1980 to 2002. Their result indicated that significant and long run negative relationship exists between economic growth and inflation rate.

Brumm (2005) explored the relationship between inflation, increase in output and growth in money stock growth. The results indicated that there is statistically positive relationship between aggregate output and inflation. This evidence strongly supports to Friedman's view that inflation is always and everywhere is a monetary phenomenon.

3. DATA AND METHDOLOGY:

3. 1. Research Design:

In this study we used time series data for the period from 1972 to 2015 and collected from economy of Pakistan. The data was collected from World Development Indicators of World Bank, IMF, State Bank of Pakistan and Pakistan Economic survey, 2014-2015. The variables include: gross domestic product (GDP) as dependent variables and intra industry trade, total enrolment, government expenditures, inflation rate, Money supply (M 2) and number of beds in the hospitals as independent variables. We used ADF test for checking stationarity, ARDL Model and Bound Test for determining long run and short run relationship. We also used diagnostic test for checking the problem of autocorrelation.

3. 2. Model specification.

The model of this study is shown as under:-

$$\text{Gross domestic products} = f \left\{ \begin{array}{l} \text{intra industry trade,} \\ \text{total enrollment} \\ \text{goverment expenditure,} \\ \text{inflation rate ,} \\ \text{money supply M2} \\ \text{number of beds in Hospital} \end{array} \right\}$$

In the above model, gross domestic product used as dependent a variable while intra industry trade is a proxy of trade policy, total enrollment is used as proxy of education, Government expenditure as proxy of fiscal policy, Inflation rate is a proxy of nominal prices, money supply as proxy of M2 and Number of beds as indicator of the availability of beds in hospitals of Pakistan. The model is engraved in the following equation:-

$$\ln GDP = \left\{ \begin{array}{l} \text{Intercept} + \alpha_1 \ln IIT + \alpha_2 \ln TERM + \alpha_3 \ln GEX + \alpha_4 \ln INR \\ + \alpha_6 \ln M2 + \alpha_7 \ln NBD + \mu_i \end{array} \right\}$$

The natural log of the variables is taken in the following equation:

$$LGDP = \left\{ \begin{array}{l} \text{Intercept} + \alpha_1 LIIT + \alpha_2 LTERM + \alpha_3 LGEX + \alpha_4 LINR \\ + \alpha_6 LM2 + \alpha_7 LNBD + \mu_i \end{array} \right\}$$

Where:

- LGDP Gross domestic product (national income)
- LIIT Intra Industry Trade (Trade Policy)
- LTERM Total Enrollment (Indicator of Education)
- LGEX Government Expenditure (proxy of Fiscal Policy)
- LINR Inflation rate

LM2	money supply (M2)
LNBD	Number of Beds available in Hospitals
α_i	Coefficients or Elasticity
μ_i	Error Term or Random Variable

The variables and their expected relationships are shown in Table 1:

Table 1. Description of variables and expected sign

Variables	Description	Unit of measure	Expected relation
GDP	Gross domestic product	Pak rupees	Dependent variable
IIT	Intra industry trade	Trade index	Positive
TENROL	Total enrollment	Number	Positive
GEX	Government expenditure	Pak rupees	Positive
INR	Inflation rate	Price index	Positive
NBD	Number of beds in hospital	Number	Negative
M2	Money supply	Pak rupees	Positive

The expected relationship between intra industry trade, government expenditure, inflation rate, total enrollment and money supply is positive with gross domestic product whereas the relationship between gross domestic product and number of beds available is negative.

4. DATA ANALYSIS:

4.1. Descriptive Analysis:

The results of descriptive analysis are shown in table 2:

Table 2: Descriptive statistics

	Mean	Media n	Maxim um	Minim um	Std. Dev.	Skewn ess	Kurto sis
GDP	4465085	1341629	27493105	67492	6953705	2.15	6.83
IIT	1.23	1.20	1.65	0.99	0.13	0.56	3.53
TENR OL	419.94	257.39	1376.45	116.27	401.63	1.34	3.20
GEX	3591157	1573097	12756408	88102	4104213	1.04	2.66
INR	39.98	29.08	141.39	4.97	29.88	0.69	2.21
NBD	75030	76938	130708	35337	27048	0.06	1.83
M2	2154795	824733	9968561	33074	2890055	1.53	4.19

Sources: E views calculate by author.

In this table 2, the value of gross domestic product (GDP) is 4465085 million rupees. The mean value of intra industry trade is 1.22. The value of mean total enrollment is 420. The value of government expenditure is 3591157 million rupees. The mean value of inflation rate is 39.98. The value of number of beds available in a hospital is 75030 while the mean value of money is 2154795.

The maximum value of Gross domestic product is 27493105. The value of maximum of intra industry trade is 1.65. The maximum value of total enrolment is 1376.45. The value of government expenditure is 12756408. The value of inflation rate is 141.39. The value of number of beds is 130708. The maximum value of Money supply is 9968561. The

minimum value of Gross domestic product is 67492. The value of minimum of intra industry trade is 0.99. The minimum value of total enrolment is 116.27. The value of government expenditure is 88102. The value of inflation rate is 4.97. The value of number of beds is 35337. The minimum value Of Money supply is 33074.

The value of standard deviation of gross domestic product is 6953705 million rupees. The value of intra industry trade is 0.13. The standard deviation of total enrolment is 401.63. The value of government expenditure is 4104213 million rupees and value of standard deviation of inflation is 29.88. The standard deviation of number of beds used in hospital is 27048. The value of standard deviation of money supply is 2890055 million rupees.

In table 2, gross domestic product, intra industry trade, total enrollment, Government expenditure, inflation rate, number of beds and money supply are all positively skewed. The value of Kurtosis is measured to analysis the data set is light tailed or heavy tailed relative to a normal distribution. Kurtosis also reflects normal distribution of variables. The value of kurtosis for gross domestic product is 6.83 which shows that the gross domestic product is having Lepto – kurtic distribution. The value of intra industry trade in kurtic Colum is 3.35 which shows that the intra industry trade is having Lepto – kurtic distribution. Total enrolment is 3.20 also show that having Lepto – kurtic distribution. The value of government expenditure is 2.66 which represent that the government expenditure is having Platy – kurtic distribution. The kurtic value of inflation rate is 2.21 is show that inflation rate is having Platy – kurtic distribution. The value of number of beds available in a hospital is 1.83 is show the value is having

Platy – kurtic distribution. The kurtic value of money supply is 4.19 which also represent that money supply is having Platy – kurtic distribution.

4.2. Correlation matrix analysis.

Correlation analysis refer the degree of association among each set of two variables. The results of correlation analysis are shown in table 3.

Table 3. Correlation Matrix.

Variables	Gross Domestic Product	Intra Industry Trade	Total Enrolment	Government Expenditure	Exchange Rate	Number of Beds	Money Supply
Gross domestic product	1.000000						

Intra industry trade	0.457659	1.000000					
	3.214472	-----					
	0.0026	-----					
Total enrollment	0.671237	0.371717	1.000000				
	14.78941	2.500549	-----				
	0.0000	0.0167	-----				
Government expenditure	0.781168	0.255868	0.340230	1.000000			
	13.81009	1.652919	25.01828	-----			
	0.0000	0.1064	0.0000	-----			
Inflation rate	0.880399	0.120360	0.738134	0.854495	1.000000		
	11.59361	0.757151	13.54569	22.80683	-----		

	0.0000	0.0535	0.0000	0.0000	-----		
Number of beds available in hospital	0.78034 1	0.32358 4	0.82530 1	0.88280 6	0.869 926	1.0000 0	
	7.79275 3	0.92238 0	9.12708 6	11.7366 2	18.98 481	-----	
	0.0000	0.0823	0.0000	0.0000	0.000 0	-----	
Money supply	0.64567 9	0.38257 2	0.67146 5	0.82590 0	0.534 497	0.8374 0	1.000 000
	27.7965 4	2.58588 4	25.5784 9	27.9286 2	16.39 439	9.5676 7	-----
	0.0000	0.0136	0.0000	0.0000	0.000 0	0.0000	-----

. The results in table 3 show that there is positive relationship between all variables of the study.

4.3. ADF's Unit Root Test:

The ADF's test is used to identify the unit root problems in data set. The results in the table 3 show that all variables are stationer at level 1(1) while government expenditure is stationer at level 1 (0), which means that the variables in this study are stationer at different level and as such we can use ARDL model for data analysis.

Table 4: Augmented Dickey Fuller (ADF) test.

Variables	Test for unit root	Test equation	t-statistics	Probability	conclusion
Gross Domestic Product	Level	Intercept	-1.99	0.52	1 (1)
		Trend and intercept	-2.61	0.92	
	1 st difference	Intercept	-4.77	0.003	
Intra Industry Trade	Level	Intercept	-1.29	0.68	1 (1)
		Trend and intercept	-0.42	0.31	

	1 st difference	Intercept	-6.10	0.000	
Total Enrollment	Level	Intercept	-1.20	0.04	1 (1)
		Trend and intercept	-0.83	0.01	
	1 st difference	Intercept	-4.09	0.002	
Government Expenditure	Level	Intercept	-3.48	0.01	1 (0)
		Trend and intercept	-3.31	0.07	
Inflation rate	Level	Intercept	0.35	0.92	1 (1)
		Trend and intercept	-1.99	0.25	
	1 st difference	Intercept	-4.38	0.03	
Money supply (M2)	level	Intercept	-3.52	0.05	1 (0)
		Trend and Intercept	-5.21	0.007	
Number of Beds	level	Intercept	1.51	0.32	1 (1)
		Trend and intercept	-2.27	0.11	
	1 st difference	Intercept	-4.78	0.002	

Source: E views calculation by Author.

4.4. ARDL Bound Test:

The results of Bound Test are shown in table 4:

Table 5: Bound Test Results

Test	Value calculated	Number of parameters (k)
f-statistic	8.145857	7
Critical bounds value		
Significances	I (0)	I (1)
10%	1.95	3.06
5%	2.22	3.39
2.5%	2.48	3.70
1%	2.79	4.10

Sources. E views calculate by author.

Table 5 show the Bound test result show the existence of long run relationship between dependent and independent variables F test is examine the test statistic, number of parameters used are seven and two critical values is used upper bound value is I (1) and lower bound value is I (0). In this model critical value is 1%, 2.5%, 5% and 10%. If the F statistic value is greater than 1 or all over the critical value is upper critical value.

The value of calculated F statistic is given in table 4. The f – statistic value is 8.14. Calculated value is 8.14 is compare all upper critical values the value of F – statistic value is greater than all upper critical bound value. Thus, null hypothesis has no long run relationship and is rejected. It is confirmed that long run relationship exist among variables at 1 percent of upper critical value of 4.10.

4.5 Estimation of ARDL Model:

The results of ARDL Model are shown in Table 6:

Table 6: ARDL Model results

Variables	Coefficient	Standard Error	T-statistic	Probability
GDP (-1)	0.270	0.132	2.05	0.050
IIT	15.44	31.52	0.49	0.626
TENROL	0.2940	2.475	0.11	0.90
TENROL (-1)	1.746	2.652	0.65	0.51
TENROL (-2)	-3887.0	1351.6	-2.87	0.018
GEX	-0.984	.60453	-1.62	0.116
GEX (-1)	0.0661	.9103	0.07	0.943
GEX (-2)	-2.02	.67355	-3.00	0.006
INR	24.03	11.18	2.14	0.042
INR (-1)	97.01	44.5	2.18	0.039
NBD	149.43	47.33	3.15	0.004
NBD (-1)	-184.39	48.57	-3.79	0.001
M2	6.55	1.10	5.95	0.000
M2 (-1)	-13.30	2.16	-6.15	0.000
M2 (-2)	12.90	2.04	6.30	0.000
R – Squared	0.92819	F-statistics		11.92819
Adjusted R – Squared	0.88071			
DW – statistic	2.20501			
Select model: (1, 0, 2, 2, 1, 1, 2)				

The results of ARDL model show that Gross domestic product of last year is positively related with gross domestic product of current year. The probability value is 0.050 and t – statistic value is 2.05, which shows that gross domestic product is statistically significant at 1 percent level of last year. Intra industry trade of current year is positively related with gross domestic product, while t value is 0.49 and probability value is 0.626 which shows that statistically insignificant relationship. Total enrollment of last two years was positively related with gross domestic product. t – statistic value is 0.11 while probability value is 0.90, which shows variables are associated positively and statistically significant at 1 percent level. Total enrollment impact of last year had positive effect on gross domestic product. The t – statistic value is 0.65 while p – value is 0.51 which shows that total enrollment and gross domestic product has statistically insignificant relationship. Total enrollment of current year is negatively related with gross domestic product the t - value is -2.87 and p – value is 0.018, showing highly significant.

Government expenditure of last two years was negatively related with gross domestic product. The t – value is -1.62 and p – value is 0.1116 which demonstrated that government expenditure is last two years is statistically insignificant. Government expenditure in last year is positive related with gross domestic product, the value of t – statistic is 0.07 while p – value is 0.914, showing statistically insignificant relationship between two variables. While government expenditure impact of current year is negative, the value t – statistic is 3.00 while p – value is 0.006 which is highly significant.

The last year impact of Inflation rate on gross domestic product is positive and t – statistic value is 2.14 and p – value is 0.042 which is indicated that inflation rate and gross domestic product has statistically significant association at 5 percent level. Inflation rate of current year impact is positive on gross domestic product, while the value of t – statistic is 2.18 and p – value is 0.039, showing 5 percent significant level.

Total number beds available in a hospital last year shows positive impact on gross domestic product because t – statistic value is 3.15 while p – value is 0.004 which shows that number of beds is statistically highly significant. Number of beds of current year impact is negative on gross domestic product while t – statistic value is -3.79 while p – value is 0.001 which demonstrated that number of beds and gross domestic product is statistically highly significant.

Money supply two year before had been positive impact on economic growth and t – statistical value is 5.95 while p –value is 0.000, which is statistically highly significant. Money supply of last year impact was negative on gross domestic product having t – statistic value is -6.15 and p – value is 0.000. Money supply and gross domestic product statistically highly significant. Money supply and gross domestic product of current year having positive relation. The t – statistic value is 6.30 while p – value is 0.000. Money supply current year is statistically highly significant.

4.6. ARDL long run results:

The long run results of ARDL Model are shown in Table 7:

Table 7: ARDL long run results

Variables	Coefficient	Standard Error	T-Ratio	Probability
IIT	14.47	3.08	4.81	0.003
TENROL	2.26	1.11	2.02	0.056
GEX	-4.04	0.78	-5.16	0.000
INR	60.03	15.24	3.93	0.001
NBD	-48.04	18.63	-2.57	0.017
M2	8.46	1.10	7.67	0.000
Select model: (1, 0, 2, 2, 1, 1, 2)				

Source: E views calculation by Author.

The results in table 7 shows that if one-unit increase in intra trade will likely to increase GDP by 14.47 percent in the long run. Similarly, if one-unit increase in the total enrollment of students it will likely to enhance GDP by 2.26 percent. If one-unit increase in Government expenditures, it will likely to decrease GDP by -4.04 percent because most of government expenditures in Pakistan are non-development and non-productive. However, one unit increases in inflation rate will likely to cause increase in GDP by 60.03 percent. It means inflation rate has significant positive relationship with GDP. However, number of beds in the hospital has negative relationship with GDP. If one-unit increase in number of beds in the hospitals it will likely to decrease GDP by -48.04 percent. It shows that the workers are suffering health problems and are unable to participate in productive activities. Money supply has significant impact on gross domestic product because t – statistic value is 8.46 and p – value is 0.000. It shows that if one unit increase in money supply it will increase GDP by 8.4 percent in the long run.

4.7 ARDL short run results:

The short run results of ARDL Model are shown in Table 8:

Table 8: ARDL short run results.

Variables	Coefficient	Standard error	T-Ratio	Probability
D (IIT)	39.8	31.5	0.49365	0.625
D (TENROL)	32.370	12.922	0.5050	0.018
D(TENROL(1)	3887.0	1351.6	2.8758	0.007
D (GEX)	-0.98487	0.602.02453	-1.6291	0.114
D (GEX (1))	2.0226	.67355	3.0029	0.005
D (INR)	59.9820	27.9130	2.1489	0.040
D (NBD)	149.4368	47.3307	3.1573	0.004
D (M2)	6.5578	1.1009	5.9566	0.000
D (M2 (1))	-12.9050	2.0463	-6.3066	0.000
ecm (-1)	-0.72758	0.13226	-5.5010	0.000
Select model: (1, 0, 2, 2, 1, 1, 2)				

Source: E views, calculation by Author.

The results in table 8 show that intra industry trade, total enrollment have positive relationship with GDP in the short run because they have positive values. If one unit increases in intra industry trade and total enrollment, it will likely to cause increase in GDP by 39.8 percent and 32.37 percent respectively. Similarly, one-unit increase in inflation rate will likely to case increase in GDP by 2.02 percent in the short run. Total number of beds in Hospital also has positive relationship with GDP as one unit increases in number of beds will likely to have positive impact on GDP by 14.9 percent. Likewise, one-unit increase in money supply will

likely to cause increase in GDP by 6.5 percent in the short run. However, Government expenditures have negative relationship with GDP in Pakistan because one unit increases in Government expenditures will likely to cause decrease in GDP by 0.9 percent in the short run.

4.8. Diagnostic Test:

In econometric model it is very necessary to verify the autocorrelation. To check out the autocorrelation problem applying the Breusch–Godfrey serial correlation LM test. The result of Breusch–Godfrey serial correlation LM test is shown in table 9. The data in the table shows there is no autocorrelation in the model because the value of F-statistics is 0.17 while p-value is 0.67.

Table 9: Serial correlation LM test

Breusch - Godfrey Serial Correlation LM Test.			
F-statistic	0.171743	Prob. F(1, 17)	0.6768
Obs*R-squared	0.356841	Prob, Chi-Square(1)	0.47526

Source: E views calculation by Author

5.CONCLUSIONS:

The purpose of this study was to determine the impact of monetary expansion on economic growth in Pakistan during the period, 1972 to 2015. Previous studies on this topic did not include education, health, trade and monetary policy and their relation with gross domestic product. We used ADF test to check stationarity among variables. We used ARDL Model and Bound Test to check long run relationship between variables while we used Error Correction model to determine short run relationship. Diagnostic test was carried to check autocorrelation problem between variables. Gross Domestic Product (GDP) was our dependent variable

while independent variables include intra industry trade which was taken as a proxy of trade policy for determining the values of imports and exports. Another independent variable was total enrollment which was a proxy of education. Government expenditure was used a proxy of fiscal policy to be taken as development and non- development expenditure. Inflation rate is a proxy of consumer price index while total number beds available in a hospital is a proxy of health. Our econometric results show that there is positive relationship between gross domestic product (GDP) with intra industry trade, total employment, total enrollment, while government expenditure and money supply are negatively related with gross domestic product (GD). Correlation analysis showed that intra industry trade, total enrollment, government expenditure, total number of beds and money supply have moderate level of relationship with GDP. Inflation rate and money supply and total enrollment has also had moderate relationship with GDP. Inflation rate, total number of beds, total enrollment, money supply and total number of beds have high degree of association with GDP whereas total enrollment, government expenditure, inflation rate total number of beds and money supply with intra industry trade and government expenditure with total enrollment had been low degree of association. The results of Granger causality test show Bi – directional causal relationship between government expenditure and gross domestic product, number of beds and gross domestic product, money supply and gross domestic product, total enrollment, government expenditure and total number of beds while other variables have uni-directional causal relationship. The results of ARDL model showed that

intra industry trade, total enrollment, inflation rate and money supply have positive significant relationship with the gross domestic product of Pakistan in the long run while government expenditure and total number of beds have negative relationship with Pakistan's GDP in the long run. The elasticity of gross domestic product with intra industry trade is 14.47, total enrollment is 2.26, with government expenditure is -4.04, with inflation rate is 60.03, the elasticity with respect to number of beds is -48.04 and with money supply is 8.46. In the short run, the results show that variables such as intra industry trade, total enrollment, total employment, inflation rates, total number of beds in hospitals and money supply have significant positive relationship with GDP whereas government expenditures has negative association in the short run..

6. POLICY IMPLICATIONS:

On the basis of results following recommendations are below.

- ▶ Government should make policies that enhance to GDP, employment opportunities, investment and productivity.
- ▶ Inflation is blessings for Pakistan's economy if it remains in single digit. Low rate of inflation may create more investment opportunities and reduce unemployment from Pakistan.
- ▶ In Pakistan, major issues are still political instability, corruption, terrorism and energy and these discourage the foreigner investors. The government should provide securities and friendly business environment to foreign investor to increase their investment.
- ▶ The government should improve the education system and provides a technical education to improve capabilities and also increase the growth of the economy that upgrades the standard level of our population.

► Pakistan's government should take steps to create a better employment situation by opening new industries, factories at different places and offering work to skilled people. Another way, is founding schools, colleges, universities and also research institutes to create employment.

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CONTRIBUTION OF AUTHORS AND CONFLICT OF INTEREST

This research work was conducted in collaboration between two authors.

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