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Impact of foreign debts on the economic performance of Pakistan

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I. Introduction

Pakistan is one of the heavily indebted countries in the region, with external debt to GDP ratio standing at 33% until the 2013. Given the current strategy adopted by the government of Pakistan, it seems this ratio is going to increase further. By the end of 2011, total external debts amounted to 61 billion dollar. Recently, the government of Pakistan has inked Extended Fund Facility (EFF) agreement with IMF, by which it shall receive 6.7 billion dollar in the upcoming years.

Besides, the government has signed another 12 billion dollar loan agreement with the World Bank. The 400 million dollar disbursement by the Asian development Bank and the 2 billion dollar Euro bond disbursements are the latest surge in the foreign debt stock of Pakistan. (Dawn, 2013) The government has signed numerous multilateral loan agreements with China and Gulf countries, which are going to increase the external debt liability of Pakistan in the days to come.

These borrowings will have great economic consequences. Apart from substantial rise in debt servicing, the space for fiscal expenditures will be shortened. All the indicators of macroeconomic stability such as inflation, foreign exchange reserves, foreign direct investment, unemployment, private investment and private savings will be affected by these measures. (Saeed, A., 2013)

The academicians are curious to know whether these decisions can lead to fast-paced economic growth as expected by the government, or the money is going to fill the bank accounts of the tiny rich class. What arouses the interest of the academicians on this topic is the fact that some economies like Turkey have registered impressive GDP growth rates through extensive borrowing from the international financial institutions. They want to know whether Pakistan has the capability to tread the path of prosperity by the dint of massive external borrowing or not. This research is aimed at fulfilling the curiosity of the academicians arising from the latest surge in the external borrowing of Pakistan.

Generally speaking, there are two major consequences of foreign debt: debt overhang and crowding out effect. The former states that the governments facing heavy foreign debt live under the fear that they have to meet the debt-servicing obligations, and therefore, these governments are always inclined to increase taxes and reduce fiscal expenditures. As a result of increased taxes and inadequate fiscal expenditures, inflation rises and the saving and investment does not take place. The high inflation and low saving and investment retard economic growth.

The word crowding out effect means that when a chunk of the government revenue is allocated for debt servicing, then little money is left for private investment. The low private investment leads to poor economic growth. (Ezeabasili, N. & Isu, O. & Mojekwu, N., 2010) Besides these two factors, the monetary policy of the country is also affected by the external debt borrowing.

The major question is why governments borrow money from international financial institutions or countries. The primary reasons are the need to bridge budget deficit or to avert balance of payment crisis or to stabilize foreign exchange rate. Countries also need foreign exchange to finance ambitious developmental projects like constructing sea port or building dams. (Husain, I., 1999) Purportedly, Pakistan has borrowed money recently for two main reasons: to meet previous debt obligations and to finance ambitious power projects that need 25 to 26 billion of dollars money for completion.

Having analyzed the factors that prompt external borrowing, the next question is why the countries fail to improve economically despite having massive ready-made capital formation in the form of foreign debts. The major reasons are poorly developed state institutions, culture of corruption, inappropriate use of resources, dampened spirit of self-reliant, and lack of cultural and industrial base to launch a fast-paced economic revival. These reasons are not exhaustive, as more will be explained in the discussion to follow. (Husain, I., 1999)

As of today, numerous studies regarding the impact of external borrowing on economic development of Pakistan have been conducted. Naeem Akram (2011) undertook research on this topic by using the historical data from 1972 to 2009. He found a negative linkage between the external debt stock and the growth rate of per capita income of Pakistan. However, his focus was mainly on two indicators of economic performance: Per capita income growth rate and investment. He ignored the other variables that are extremely important for determining the

economic success of a county. This research is designed to fill that gap by incorporating a wider range of variables that determine economic performance.

The focus of this research is going to be on two major areas: analyzing the historical trend of the impact of external borrowing on economic development of Pakistan using the time series data and discovering the prerequisite economic and social parameters essential for ensuing debt-led economic growth. The purpose of analyzing historical data is to understand the strengths and the weaknesses of the economy of Pakistan, with regard to the impact of external debts.

II. Literature Review

The modern concept of reliance on international financial institutions as a source of economic development started from the Marshall Plan, which was meant to revive war-ravaged economies of the Post-World War Two era. Marshall Plan was a success as the countries like Germany and Japan achieved the heights of economic development as a result of foreign aid. International Bank for Reconstruction and Development (IBRD), which is known as World Bank today, aided their economic development.

From there onward the field of development economics originated. The models of economic development were proposed for developing countries. Those models emphasized on foreign borrowing as a way to spur economic growth. (Econ, 2003)

Linear stage of growth model says if countries use domestic and international savings, they can register rapid economic growth. The word international saving has an important connotation here. It implies that the developing countries like Pakistan should use the savings of international lenders to boost their capital formation and to increase the domestic investment. When this growth model failed to produce intended results, theorists started propagating International dependency theory model, which says that the reason of all the economic ills is external borrowing and the cure lies in internal economic adjustments. (Econ, 2003)Thus, countries like China and India started to rely on their domestic savings more than on international savings to improve their economic performance.

The above two theories represent two divergent viewpoints: one says external borrowing leads to economic success while the other says that it does the opposite. This debate among the theorists suggests that the impact of external borrowing on economic performance cannot be similar across all the social and political settings.

At the time of borrowing money from international sources, four theoretical models are considered: Optimizing Model, non-optimizing model, fiscal space model and distinctive effects model. In the optimizing model, the aim of the borrower is to equalize the benefits arising from the external debt with the cost attached to it. Under the head non-optimizing model, two considerations are kept in mind by the borrower: Growth-cum-debt model and debt dynamics.

The former states that foreign borrowing should be carried out with the sole purpose of boosting economic growth. Under this strategy, excessive borrowing is made part of the economic system on the hope that the growth will follow.

The latter concept stands for undermining the assumptions underlined by the former concept. It says that while borrowing money as part of the overall economic development strategy, various dynamics of debt should not be ignored. These dynamics can have a constraining effect on that strategy, for example, if exchange rate depreciates after borrowing money in foreign currency, then the intended impact of the foreign debt on the economy will be diluted and evaporated. (Arnone, M. & Bandiera, L. & Presbitero, F., 2005)

The last model is based on the notion of distinctive effects. Under this model, the decision of borrowing money is based on the evaluation of the consequences of that step. For example, the effects on monetary policy of the country, fiscal efficiency, inflation, unemployment, investment, exchange rate and the level of uncertainty are gauged before taking the borrowing decision. (Arnone, M. & Bandiera, L. & Presbitero, F., 2005)

By and large the studies conducted so far suggest a negative relationship between external debt borrowing and economic performance. However, this is not the rule. These authors (Pattillo, C.& Poirson, H. & Ricci, R., 2002)have discovered that debt burden does not produce crowding out effect. Simultaneously, Chowdhury (2001) has found a contradictory result, stating that debt servicing reduces investment.

Another study carried out by Faraji Kasidi and A. Makame (2013) states that high external debt leads to reduction in imports. It is pertinent to mention that low imports are perceived as a sign of poor economic performance, because the industry that depends on imported raw materials cannot function properly without imports. The findings of the working paper of the state bank of Pakistan reveal that the major reason behind the poor economic outlook of developing countries is their excessive reliance on foreign debts. It states that external debts cause decline in foreign direct investment and capital formation, the two major drivers of economic growth in these countries.

These studies, though are relevant to the topic of this research, do not provide information on the major areas around which the purpose of this study revolves. As stated above, these areas are "explaining the link between the external debt and economic performance of Pakistan using time series data and using multiple indicators of external debt and economic performance". Secondly, this research intends to identify the preconditions needed to make the appropriate use of foreign debt for rapid economic development.

III. Research methodology

The literal meaning of the research methodology is "the approach adopted to answer the questions of the research". There are two types of approaches: inductive approach and deductive approach. In the inductive approach, the researcher travels from the specific to the general, while in the case of deductive approach, he does the opposite. In simple words, deductive approach is used when some established theories are available, which can be used to draw specific conclusions from them. This method is touted as far more authentic than the inductive method, because the basis of conclusions in this method rests on some established theory.

Unfortunately, established theories are not available in all circumstances. Therefore, the use of inductive approach is inevitable in those situations. In this study, inductive approach has been employed, by which scattered evidence regarding the external debt and economic performance of Pakistan has been collected to produce some generalized conclusions. Using this approach was indispensable because there is no established theory or mathematical equation available which can answer the questions of this research.

IV. Research Design

The set of procedures adopted to carry out a research as per its aims and objectives is called research design. Predominantly, this research is based on quantitative analysis being made on historical time series data. The time span of the data starts from 1970 and ends at 2014.

He had also used quantitative statistical analysis to answer questions of his research regarding the impact of external debt on economic performance of Pakistan. (Akram, N., 2001) The primary reason for relying substantially on quantitative data analysis is the topic of this research, which demands explanation of the relationship between the foreign debts and economic performance of Pakistan. The relationship among variables cannot be established precisely, unless quantitative statistical techniques are applied.

Secondly, the research has been carried out to draw conclusions about the capability of the economy of Pakistan to withstand the pressure from the recent surge in the external borrowing by the government of Pakistan. To draw conclusions about the economy of Pakistan from this perspective, the use of historical data is inevitable. To make an appropriate use of the historical data, the application of statistical tools such as regression analysis is imperative. In this way, the strengths and the weaknesses of the economy of Pakistan can be found out.

Qualitative method has also been followed partly; the purpose being is to explain the preconditions of making optimum use of external borrowing for Pakistan. Narrating the pre-requisites for making a proper use of the external borrowing for Pakistan is part of the context of this research.

V. Data collection tools

Secondary sources and primary sources are two data collection tools. The secondary sources contain data which has been recorded already, while primary sources contain data which has never been recorded before.

In this research, secondary data has been used. This data has been taken from State Bank of Pakistan, reports of World Bank, IMF, and the Asian Development Bank of Pakistan. There are two primary reasons of using secondary data: to unearth time series data about the independent and dependent variables defined in this research, and to understand the theoretical framework on the pre-requisites of making the effective use of the external borrowing for Pakistan. The former reason is consistent with the demands of the quantitative analysis, as explained in the research design.

As a matter of fact, secondary data is readily available, as compared to the primary data. This data is most authentic and reliable, because it is prepared free of political considerations and without the pressure of the incumbent government. It is prepared after the tenure of the respective governments has ended, who could mould the economic information in their favor.

Furthermore, secondary data can easily be molded as per the requirements of the research. Similarly, the expenses incurred on acquiring this data are not much.

On the other hand, if interviews and questionnaires are used as part of the primary data collection techniques, then the respondents will be unable to get rid of the political compulsions while answering the questions.

Similarly, the expenses required for data collection are far more than the expenses required for the collection of secondary data.

Regression analysis has been performed on the historical data in this research. Four dependent and two independent variables have been defined. The four dependent variables relate to measuring the economic performance of Pakistan. On the other hand, two independent variables relate to measuring the indebtedness of Pakistan, from the perspective of foreign debt.

The dependent variables have been named as Y1, Y2, Y3 and Y4 respectively. These indicates Foreign direct investment as percentage of GDP, private investment as percentage of GDP, per capita income growth rate and foreign exchange reserves respectively. The reason why Y1 has been chosen is because foreign direct investment is considered a primary indicator of economic success these days. If it is on the rise, it means foreign investors have faith in the macroeconomic stability of the country.

Hence, by determining its relationship with the foreign debts in Pakistan, information about the impact of external debts on the economic performance of Pakistan can be revealed. Similarly, Y2 has been chosen because private investment is a major determinant of economic performance. According to development economic theorists, low private investment is an indicator of poor economic growth, and vice versa. Therefore, if foreign debts increase private investment, it can be accepted that economic performance has improved. As for Y3, the rationale for selection is that per-capita income growth rate depicts standard of living of the populace. For the developing countries like Pakistan, it is considered a major determinant of economic performance. Even the Human Development Index (HDI), a measure used to gauge the quality of living of the countries, uses per capita income growth rate as an indicator of economic success or failure. As far as Y4 is concerned, the common rule is that higher the foreign exchange reserves that a country has, the better will be its economic performance, and vice versa. Thus, its selection as an indicator of economic performance in this research is self-explanatory.

As for the use of independent variable x1, the rationale is that if foreign debt to GDP ratio increases, the increase in the external debt stock of the country takes place. This measure is also used by the state bank of Pakistan. Similarly, for x2 which stands for foreign debt to exports ratio, the rationale is that the increase in the ratio leads to a rise in the foreign debt stock of the country.

VI. Baseline Regression models

Multiple regression method has been applied. This will allow measuring the significance of the relationship between the two measures of external debt and one of the economic performance indicators of Pakistan. Regression coefficients have been calculated. Each regression coefficient indicates the degree of dependence of one variable on another. Thus, these regression coefficients have helped in determining the extent of the impact of external debts on the economic performance of Pakistan.

Foreign debt, which is an independent variable in this research, has been sub-divided into two smaller independent variables: foreign debt to GDP ratio and foreign debt to exports ratio. The dependent variables, which represent the economic performance, has been sub-divided into foreign direct investment as percentage of GDP, private investment as percentage of GDP, per capita income growth rate, and foreign exchange reserves. It is worth mentioning that some of these variables were used by Naeem Akram (2011), while doing the research on the same topic. However, the addition of new variables has allowed the researcher to gauge the impact of foreign debt on economic performance of Pakistan from new angles and to see whether the results of Naeem Akram (2011) genuinely capture the ground realities from all possible perspectives. The multiple regression equations of the above mentioned theoretical model are as follows.

$Y1=b1x1+b2x2+a$ $Y2=b1x1+b2x2+a$ $Y3=b1x1+b2x2+a$ $Y4=b1x1+b2x2+a$

x1=Foreign debt to GDP ratio Y1=FDI as % of GDP

x2=Foreign debt to export ratio Y2=Private investment as % of GDP

Y3= Per capita income growth rate

Y4=Foreign exchange reserves in billions of dollars

Time series=1970-2014

VII. Time series analysis

Unit root test means testing whether the time series data is stationary or non-stationary. If the time series data is non-stationary, it means the trends that have been suggested by the measures of the correlation and the regression are likely to change dramatically over a period of time. If the test results state that the time series data is stationary, it means the results calculated from the data today will not change over a period of time. To apply unit root, augmented Dickey–Fuller test has been used in this research, with the significance level of 5% .

The null hypothesis states that the data is non-stationary, whereas the alternative hypothesis states that the data is stationary. Three equations are prepared to test time series: the first has intercept but no trend, the second has intercept as well as trend, and the third has neither intercept not trend. The word trend means the regression coefficient.

The purpose of using this test in this research is to know whether the time series data collected for this research is stationary or non-stationary. Non-stationary data means that the results, regarding the impact of the external debt on the economic performance of Pakistan calculated from this research, will change significantly over a period of time, and hence, predictions about the future cannot be made. On the other hand, if the data is stationary, then predictions about the future can be made reliably. The outcome of the test will determine whether the users of the summary results of this study should trust these results after the passage of some reasonable time or not.

VIII. Summary statistics

Summary statistics entails mean value, maximum and minimum value and the standard deviation value about the variables of the research. It also shows correlation matrix on the relationship among variables of the research. For this research, mean value of FDI as percentage of GDP shows the average amount of FDI that has come to Pakistan from 1970 until today. Similarly, standard deviation indicates the extent to which the value of FDI can deviate from the mean. This has helped in understanding dispersion of different variables such as private investment as percentage of GDP, per capita income growth rate and foreign exchange reserves.

IX. Correlation analysis

Correlations

		FDI as % of GDP	Private investment as % of GDP	Per capita income growth rate	Foreign exchange reserves	Foreign debt to GDP ratio	Foreign debt to export ratio
FDI as % of GDP	Pearson Correlation	1	.759**	.304*	.341*	.117	-.493**
	Sig. (2-tailed)		.000	.042	.022	.445	.001
	N	45	45	45	45	45	45
Private investment as % of GDP	Pearson Correlation	.759**	1	.414**	.479**	.365*	-.654**
	Sig. (2-tailed)	.000		.005	.001	.014	.000
	N	45	45	45	45	45	45
Per capita income growth rate	Pearson Correlation	.304*	.414**	1	.516**	.469**	-.626**
	Sig. (2-tailed)	.042	.005		.000	.001	.000
	N	45	45	45	45	45	45
Foreign exchange reserves	Pearson Correlation	.341*	.479**	.516**	1	.752**	-.790**
	Sig. (2-tailed)	.022	.001	.000		.000	.000
	N	45	45	45	45	45	45
Foreign debt to GDP ratio	Pearson Correlation	.117	.365*	.469**	.752**	1	-.700**
	Sig. (2-tailed)	.445	.014	.001	.000		.000
	N	45	45	45	45	45	45
Foreign debt to export ratio	Pearson Correlation	-.493**	-.654**	-.626**	-.790**	-.700**	1
	Sig. (2-tailed)	.001	.000	.000	.000	.000	
	N	45	45	45	45	45	45

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The above matrix shows that correlation among variables of external debt and economic performance is significant at 1% and 5%. This means there is a relationship between external debts and the economic performance of Pakistan. The above matrix also shows the direction and the strength of the relationships between different variables. The value of Pearson correlation coefficient between FDI as percentage of GDP and foreign debt to GDP ratio is .117. This shows that though the positive relationship exists, it is not very strong. This implies that FDI does not increase proportionately to the increase in the external debts of Pakistan.

The value of Pearson coefficient between private investment as percentage of GDP and foreign debt to GDP ratio is .365. In this case, the relationship is positive and relatively strong. As the value of p is less than .05, null hypothesis that there is no relationship between private investment and foreign debts has been rejected, and the alternative hypothesis that there is a relationship has been accepted. Similarly, the values for per capita income growth rate and foreign exchange reserves vis-à-vis foreign debt to GDP ratio are .469 and .752 respectively. This depicts a strong positive relationship between per capita income growth rate and foreign debt to GDP ratio. It can be inferred from the correlation value of .752 that the relationship between foreign exchange reserves and foreign debt to GDP ratio is the strongest of all the relations discussed so far.

X. Multiple Regression

Foreign direct investment as percentage of GDP, foreign debt to GDP ratio and foreign debt to exports ratio

Y1=b1x1+b2x2+a

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.587[a]	.345	.314	.72788

a. Predictors: (Constant), Foreign debt to export ratio, Foreign debt to GDP ratio

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.180	.938		4.457	.000
	Foreign debt to GDP ratio	-.071	.028	-.448	-2.559	.014
	Foreign debt to export ratio	-.004	.001	-.806	-4.608	.000

a. Dependent Variable: FDI as % of GDP

The values of the multiple regression equation have been shown in the table above. The value of b1 is -.071, and the value of b2 is -.004. The regression equation can be re-written as follows.

Y1=-.071x1+-.004x2+4.180

The results show that one percent increase in the foreign debt to GDP ratio leads to a .071% reduction in the dependent variable "foreign direct investment as percentage of GDP" in Pakistan. Similarly, one percent increase in the foreign debt to exports ratio leads to a .004% reduction in the FDI as percentage of GDP in Pakistan. The reliability of the results can be gauged from the value of R square, which is .345 in this case. It states that 34.5% of the variability in the data has been explained by foreign debt to GDP ratio and foreign debt to exports ratio. Strictly speaking, this implies that 34.5% changes in the foreign direct investment in Pakistan can be explained by these two independent variables.

The bottom line is that external borrowing leads to a fall in foreign direct investment in Pakistan, which means, external borrowing adversely impacts economic performance of Pakistan. This conclusion is consistent with the findings of this author, who concluded in his research that borrowing from external sources causes decline in capital formation and foreign direct investment. (Shabbir, S., 2013)

Private investment as percentage of GDP, foreign debt to GDP ratio and foreign debt to exports ratio

Y2=b1x1+b2x2+a

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.666[a]	.444	.418	2.48983

a. Predictors: (Constant), Foreign debt to export ratio, Foreign debt to GDP ratio

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	17.273	3.208		5.384	.000
	Foreign debt to GDP ratio	-.107	.095	-.181	-1.125	.267
	Foreign debt to export ratio	-.016	.003	-.781	-4.844	.000

a. Dependent Variable: Private investment as % of GDP

Three variables are part of this multiple regression equation. The results in the table show that the value of regression coefficient b1 is -.107 and the value of the regression coefficient b2 is -.016. As a result of the increase of 1% of the foreign debt to GDP ratio, the private investment as percentage of GDP reduces by .107% in Pakistan. Similarly, if foreign debt to exports ratio increases by one percent, private investment as percentage of GDP falls by.016 in Pakistan.

It must be reiterated that private investment has been taken as one of the indicators of economic performance in this research. Since it goes down with the increase in the external borrowing, it can be inferred that external borrowing does not improve the state of private investment in Pakistan. Thus, external borrowing does not render any positive effect on the economy of Pakistan, from the perspective of private investment. To check the validity and reliability of this research, the value of R square has been computed.

This value is .444, which means 44.5% of the variability in private investment of Pakistan is explained by these two independent variables. This value of coefficient of determination is higher than the value of the previous result of the multiple regression equation, implying that this result is more reliable and believable than the previous result.

Surprisingly, this conclusion does not sit well with one of the theories of development economics, called Linear stage of growth model theory. The theory postulates that if international savings are used, domestic investment increases sharply. However, the results of this research show that this is not the case in Pakistan, as the regression coefficients have indicated that Pakistan does not see an increase in private investment in response to the rise in external borrowing. (Econ, 2003)

Instead of the Linear stage of growth model theory, this result tends to confirm the contention of the International dependency theory model, which says domestic investment can be increased by shunning external borrowing and by adopting self-reliant measures. (Econ, 2003)

Per capita Income growth rate, foreign debt to GDP ratio and foreign debt to exports ratio

Y3=b1x1+b2x2+a

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.627[a]	.394	.365	1.98303

a. Predictors: (Constant), Foreign debt to export ratio, Foreign debt to GDP ratio

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	6.830	2.555		2.673	.011
	Foreign debt to GDP ratio	.027	.075	.060	.358	.722
	Foreign debt to export ratio	-.009	.003	-.584	-3.469	.001

a. Dependent Variable: Per capita income growth rate

The values of multiple regression equation have been stated in the table. The above regression equation can be rewritten as:

Y3=.027x1+-.009x2+6.830

This equation shows that if the value of x1 which stands for foreign debt to GDP ratio rises by one percent, the per capita income growth rate shall mount by .027%. Similarly, the equation tells that if x2 which stands for foreign debt to exports ratio rises by one percent, per capita income growth rate will decline by .009%. The value of the coefficient of determination is .394, which means, 39.4% of the variability in per capita income growth rate is explained by these two independent variables.

Overall the results state that the growth rate increases with respect to foreign debt to GDP ratio, but decreases with respect to foreign debt to exports ratio. Debt-cum-growth strategy and debt dynamics come within the domain of non-optimizing development economics model. This result is consistent with the contours of this model, which says: borrowing leads to growth but can be damaging if debt dynamics are not accounted for.

Its analogy with this result is that external borrowing shall increase per capita income growth rate of Pakistan, but if debt dynamics like changes in exchange rates are not considered, Pakistan will have to face declines in per capita income growth rates. (Econ, 2003)

Foreign exchange reserves, foreign debt to GDP ratio and foreign debt to exports ratio
Y4=b1x1+b2x2+a

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.837[a]	.701	.687	1.76396

a. Predictors: (Constant), Foreign debt to export ratio, Foreign debt to GDP ratio

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	8.768	2.273		3.857	.000
	Foreign debt to GDP ratio	.221	.067	.390	3.299	.002
	Foreign debt to export ratio	-.010	.002	-.517	-4.371	.000

a. Dependent Variable: Foreign exchange reserves

According to the results shown in the table, the above multiple regression equation can be re-written as follows:
Y4=.221x1+-.010x2+8.768

According to the equation, if foreign debt to GDP ratio is increased by one percent, foreign exchange reserves will rise by .221% in Pakistan. Similarly, if foreign debt to exports ratio is increased by one percent, foreign exchange reserves will go down by .01%. The value of R square is .701, which means 70.1% of the variability in foreign exchange reserves is explained by the independent variables. This is a high percentage, indicating a strong reliability and validity of the results.

XI. Descriptive statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
DI as % of GDP	45	.30	3.90	.7918	.87861
vate investment as % of GDP	45	3.00	16.00	8.3556	3.26243
r capita income growth rate	45	.10	12.00	3.6778	2.48814
reign exchange reserves	45	4.00	17.00	9.4444	3.15188
reign debt to GDP ratio	45	12.00	33.00	22.0444	5.55532
reign debt to export ratio	45	100.00	700.00	416.2222	161.35138
lid N (listwise)	45				

As per the descriptive statistics results, the average value of foreign direct investment as percentage of GDP has been .7918 in Pakistan during 1970-2014. However, the standard deviation of this value is very high, standing at .87861, which indicates that foreign direct investment in Pakistan has fluctuated a lot, and that it has not been consistent. The maximum value of FDI as percentage of GDP has been 3.90, and the minimum value .3. Similarly, the descriptive statistics values of other variables have been shown in the above table.

What is significant is that despite the huge external borrowing by Pakistan, its economic performance indicators such as private investment, foreign direct investment and foreign exchange reserves have not improved substantially over the years. Not only have those indicators been inconsistent, they have also not improved by a reasonable margin if compared to neighboring countries.

XII. Conclusion

The purpose of the research was to explain the impact of external debt on the economic performance of Pakistan, based on the analysis of the historical data about the economy of Pakistan. By doing so, it was purported that the ability of the economy of Pakistan to perform well in future following the recent surge in foreign borrowing by the government of Pakistan will be judged. The conclusions drawn from the research are as follows.

XIII. Result summary

Foreign debts do not improve the state of foreign direct investment in Pakistan. Far from improving, they have caused decline in most of the occasions. Probably, the investors feel that with the increase in the external borrowings, the problems of debt overhang and crowding out effect will emerge, resulting in the shrinkage of the government funds for the development of economic and social infrastructure. Thus, they remain reluctant to bring funds from their native countries to Pakistan for investment.

Another conclusion is that the private investment as percentage of GDP decreases in Pakistan, when external borrowing is made. Though the results have not shown any cut and drive relationship in this regard, the general trend is that private investment is negatively linked to the increase in foreign borrowing by the government of Pakistan.

The third conclusion is that per capita income growth rate improves in Pakistan as a result of external borrowing. However, the growth rate is not substantial enough to be attributed solely to the external borrowing. Rather, the increase in per capita income growth rate may be due to inflation or due to the evolutionary process of the economy of Pakistan. Hence, foreign debts do not improve the economic performance of Pakistan, with respect to per capita income growth rate.

This is a very alarming revelation regarding the economy of Pakistan. The government should be mindful of the fact that its current borrowing-spree would not result in an abrupt rise in the per capita income growth rate. The fourth conclusion about the economy of Pakistan is that external borrowings immediately cause a sharp rise in the absolute amount of foreign exchange reserves in the country.

This discovery regarding the economy of Pakistan has been further highlighted by the fact that ever since the beginning of the external borrowing by the current government of Pakistan, the foreign exchange reserves have increased from a meager 8 billion dollar at the start of 2013 to 13.439 billion dollar today.

There are four preconditions for the effective utilization of the foreign debt as an engine of economic growth for Pakistan. First of all, the institutions, especially the regulatory authorities such as state bank of Pakistan should be strengthened and made autonomous to as far extent as possible. Secondly, corruption should be curbed, because the leakage of money in this way aggravates the adverse impact of the debt overhang and the debt servicing on the economy of Pakistan.

The amount of foreign debts should be allocated in those industries, which have higher potential of generating foreign exchange reserves in future than the other industries. The money needed for debt servicing should be earned from these industries. This will remove the worries regarding the repayment of the loans. Not only would this improve balance of payment, it will make the economy of Pakistan self-reliant.

The government should also ensure a stable exchange rate so that the economy could be made free of the vagaries of the exchange rate fluctuations. The most important precondition for making effective use of the foreign debts is that government should plan systematically and rigorously before embarking on any borrowing plan.

XIV. Future Recommendations

For future research on this topic, it is suggested that foreign debt to exports ratio as a measure of external borrowing of Pakistan should not be used. This measure cannot truly reflect the magnitude of the external borrowing of Pakistan, because exports are very volatile in Pakistan. Sometimes, the ratio may indicate that the external borrowing has increased, where as the actual reason behind the increase in the ratio may have been the fall in the amount of exports . Therefore, this measure can distort the results, making it very difficult to draw any conspicuous and certain conclusion from the statistical analysis.

On the contrary, debt-servicing as percentage of annual revenues of the country should be used next time as a measure of external borrowing. It is because debt-servicing is going to take away the substantial portion of the annul budgetary revenue of Pakistan in future, and therefore, its relationship with economic performance indicators such as private investment, foreign direct investment and per capita income should be determined.

Per-capita income growth rate should also be not used as a measure of economic performance in the context of external borrowing. This is because the per capita income growth rate is bound to increase due to exogenous factors, and delineating a link between external borrowing and per capita income growth rate can be very difficult as well as misleading.

References

[1] Husain, I., 1999. Pakistan: The economy of an elitist state. Pakistan: Oxford University Press.

[2] Saeed, A., 2013. The economy of Pakistan. 3rd Ed. Pakistan: Oxford University Press.

[3] Dawn, 2013. Pakistan: Impact of foreign debts. Available online at:< http://www.dawn.com/news/777619/pakistan-impact-of-foreign-debts>[Retrieved 6 June, 2014].

[4] Akram, N., 2001. Impact of Public Debt on the economic growth of Pakistan. Available online at:< http://pide.org.pk/psde/25/pdf/AGM27/Naeem%20Akram.pdf> [Retrieved 6 June, 2014].

[5] Ezeabasili, N. & Isu, O. & Mojekwu, N., 2010. Nigeria's External Debt and Economic Growth:

[6] An Error Correction Approach. International journal of Business and management. 6(5), 156-170.
Arnone, M. & Bandiera, L.& Presbitero, F., 2005. External Debt Sustainability: Theory and Empirical Evidence. Available online at:< http://dipartimenti.unicatt.it/dises-wp_rossa_05_33.pdf>[Retrieved 6 June, 2014].

[7] Ahmad, E., 2011. A Qualitative Analysis of Pakistan's External and Internal Debt. The Lahore Journal of Economics. 16, 123-157.

[8] Shabbir, S., 2013. Does External Debt Affect Economic Growth: Evidence from Developing Countries. Available online at:< http://www.sbp.org.pk/publications/wpapers/2013/wp63.pdf>[Retrieved 6 June, 2014].

[9] Kasidi, F. & Makame, A., 2013. Impact of External Debt on Economic Growth: A Case Study of Tanzania. Advances in Management & Applied Economics. 3(4), 59-82.

[10] Econ, 2003. Introduction to Development Economics. Available online at:< http://econ.la.psu.edu/~bickes/LectDevEcon.pdf>[Retrieved 6 June, 2014]. Pattillo, C.& Poirson, H. & Ricci, R., 2002. External Debt and Growth. IMF Working Paper, No. 02/69.
Chowdhury, A. R., 2001. External Debt and Growth in Developing Countries: A Sensitivity and Causal Analysis. WIDER Discussion Paper No. 2001/95 .

[11] Clements, B.& Bhattacharya, R. & Nguyen, T. Q., 2003 . External Debt, Public Investment, and Growth in Low-Income Countries. IMF Working Paper No. 03/249 .