

Growing External Debt and Declining Export: The Concurrent Impediments in Economic Growth among South Asian Countries

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External debts, Economic growth, ARDL, Panel data, South Asia, etc.

ABSTRACT

The existing study has been conducted by checking the growing external debts and economic growth among the South Asian countries. The data in the study was collected every month from 2008 to 2018. Pakistani, India, Bangladesh, Sri Lanka, Nepal & Bhutan were included in the study. Due to the data limitation, Afghanistan and Maldives have been excluded from the study. Due to the panel nature, the study has used the ARDL approach on Mean Group (MG) and Pooled Mean Group (PMG) techniques. Findings of the co-integration test show that the variables have been found significant and rejecting null hypotheses of no long-run relationship. The results support that the factors were found harmonious relationship and also reject the statement of being non-convergent. The findings of the model show that external debt is having a negative relationship with economic growth in the case of South Asian countries both in the case of short-run and long-run relationship in the MG technique. The PMG technique reported positive relationships in the short run and long run but the relationship has been found insignificant in the short-run and significant in a long-run relationship.

INTRODUCTION

For developing countries, economic growth and country development is the most important and significant goal; hence the authorities always mobilize their different resources in this direction. They always acquire every source i.e. investment, external borrowing, etc. through different projects and then used them in the development projects to get growth. Consistent and sustainable economic growth is the most significant factor which always creates worries for the policymakers, especially in the case of developing countries. The developing countries are always facing low economic growth due to higher levels of debts, fiscal deficits especially external debt servicing, and current account deficits (Reinhart *et al.*, 2012). Studies reported that external debts constitute a higher level of ratio in the public debt structure for the developing economies (Atique and Malik, 2012). Reliance on external borrowing can lead to strong shocks for the economy and increasing domestic borrowing can be significant factors for creating financial instability (Panizza *et al.*, 2010) but Todaro and Smith (2006) that developing countries will be only dependent on the external borrowing in the early stages of development as they are not having appropriate capital for investment.

Literature suggested that sustainable economic growth is the most predominant concern for all the

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economies but highly for developing countries. The developing economies are having higher budget deficits, low investments, and increasing current expenditure. In the early stages of development, the developing economies always try to get higher inflows of funds, and external debts always provide bases for the growth and development. Moreover, literature reported that inelastic imports, higher external debts, low exports, higher debt servicing, imbalance flow of capital, fiscal deficits are the factors that are creating a hurdle for the development in developing countries. The situation gets worse when the developing countries go for more borrowing when they are trying to pay their external debt servicing and repayments, this kind of decisions always makes more widen fiscal deficits, and also this creates debt overhang. In most cases, developing countries cut down their development budgets and try to pay their fiscal deficits, and then they face economic disturbance. Literature concluded that external debt is having a negative effect on economic growth and they broadly divided these effects by two theories i.e. liquidity theory and debt overhang theory. These theories support the statement that increasing external debts will lead to having inconsistent economic growth.

The financial analysts consider the higher trend of external borrowing as the most serious threat to economic growth, while the majority of the studies confirm that external borrowing and economic growth is having a long-run relationship. Some of the studies have been conducted on external borrowing and economic growth but these studies have been investigated but they have been conducted in a single dimension and they only examined the causes of the increasing trend of external borrowing. The external debt of Pakistan is 52.43 billion and it has been in the 59th position in the external debts ranking. The external debt in Pakistan is increasing day by day and reports argued that every Pakistan is currently having a debt of 66000 Pkr. The external debt of Pakistan is increasing at 7.6 percent annually (Asghar, 2016). There are different reasons for having higher external debts i.e. imbalance of payment, low exports, and higher imports, fiscal deficits, political instability.

Some of the studies argued that the external debts are having a negative impact on economic growth and this is because of improper allocation of funds rather than investing these funds in the development and effective projects. Several studies have supported the same argument i.e. Schclarek (2004); Saad (2012); Dogruel and Dogruel (2007); Hameed *et al.*, (2008); Karagol (2002); Choonge *et al.*, (2010); Vamvakidis (2007); Chowdhury (2001); Edo (2002) and Pattillo *et al.*, (2004). On a larger proportion, the studies argued that the increasing trend in the external debts is having a negative impact on economic growth.

LITERATURE REVIEW

The literature regarding the nexus among the economic growth and external debts are dividend among two schools of thought. One school argued that external debts are having a positive and significant effect on economic growth OR debts can enhance the growth of the country. These findings can be seen in the studies of Javed and Sahinoz (2005); Sulaiman and Azeez (2012); Bakar and Hassan (2008); Chinaemerem and Anayochukwa (2013); Moreira (2005) and others. The stated studies have argued that the external debts can be found positive factor which can enhance economic growth and having a long-

run relationship between economic growth and external debts.

Raj & Chand (2017) examined the economic growth with external debts and import exports in Fiji Island. The study argued that import and export can have a significant contribution to the economic growth of the country from 2000 to 2015. In another direction, Mulder (2009) conducted his work in Latin America and Caribbean countries from 1985 to 2004. The study argued that export has significant but not increased contribution in the economic growth. The stated result is against most of the studies and even in other regions ie. East Asia and in these countries export has been considered as the significant factor in the economic growth.

Ijirsha *et al.*, (2016) analyzed the connection between outside obligation and financial development in Nigeria, over the time frame 1981-2014. The outcomes demonstrated that the obligation stock affected decidedly on monetary development, while the obligation administration affected contrarily on development. This is verified by Adesola (2009), in an examination that explored the impact of outside obligation administration on monetary development in a similar country, over the time frame 1981-2004. The examination uncovered that obligation administration didn't have a negative impact on financial development in the shortrun, yet the impact was fundamentally negative over the long haul.

Hameed *et al.*, (2012) completed an investigation on fare monetary development causality in Pakistan, inside the time frame 1960-2009, using relating causality among the factors. In another examination directed on the economy of Nigeria, Udude and Enyim (2012) reported a long run relationship among the time series factors with the economic development. The discoveries showed since quite a while ago run causality, and a critical negative effect of fare on monetary development.

Chowdhury (1994) endeavored to determine the debate of circumstances and logical results connection between outer obligation and monetary development, by directing granger causality tests for Asian and Pacific Countries over a time of 1970-88. He found that both public and private outside obligation has a moderately little effect on GNP, and both have inverse signs. He found that any increment in GNP prompts a more significant level of outside obligation, however, the overall outer obligation doesn't have any negative effect on monetary development. Gerald (1994) utilized a straightforward neo-old style model to assess whether capital imports can expand yield; and whether there are sufficient fares to meet the outside obligation adjusting in 31 Sub-Saharan African nations. His model recommended that genuine excess accessible for obligation administration might be a lot more modest and may prompt obligation overhang. Besides, Iyoha (1999) utilized regression way to deal with examine the effect of outside obligation on financial development in sub-Saharan African nations assessing a little large scale econometric model for the time frame 1970-1994. He found an opposite connection between obligation overhang, swarming out, and venture accordingly reasoning that outer obligation pushes down speculation through both a —disincentive impact and a —crowding out impact, hence influencing monetary development.

Hameed *et al.*, (2008) investigated the unique impact of outer obligation adjusting, capital stock, and

workforce on the financial development for Pakistan for the time of 1970-2003. They found an unfavorable impact of outside obligation overhauling on work and capital profitability which at last hampers financial development. Butts (2009) examined the causal connection between momentary outside obligation and GDP development rate for 27 Latin American and Caribbean nations over the time of 1970-2003 and found proof of Granger causality in 13 nations.

RESEARCH METHODOLOGY AND MODEL ESTIMATION

The study was conducted to check the role of external debts and declining exports in the economic growth of South Asian countries. The nature of the study is the panel in approach which leads to some estimation techniques for the final selection of recommended models. The data in the study was collected monthly from 2009 to 2020. Pakistani, India, Bangladesh, Sri Lanka, Nepal & Bhutan were included in the study. Due to the data limitation, Afghanistan and Maldives have been excluded from the study. Due to the panel nature, the study has used the ARDL approach on Mean Group (MG) and Pooled Mean Group (PMG) techniques. The study has also used the technique of unit root test for stationary and nonstationary

Unit root and Johansen Co-integration tests have been conducted to estimate the long-run relationship among the external debts and economic growth. The unit root test in the current study has been applied by following the purpose of the test which can be useful in measuring the stationary or non-stationary nature (Engle and Granger, 1987). The unit root test in eh panel data can be estimated by LLC, IPS, and HD tests as recommended by Hadri (2000), Im et al., (2003), and Levin et al., (2002).

The study has another objective of estimating the relationship among the proposed variables. The literature recommends that the co-integration approach can be adopted by following Pedroni (2004). The idea of taking the co-integration model was that there always been exists a long-run harmonious association among these variables and it can be significant for the policymakers. The literature suggested that when the variables are stationary and convergent then it has been argued that they might have a long run relationship. The effect of macroeconomic variables on the economic growth can be used by Pooled Mean Group (PMG) and Mean Group (MG) as proposed by Goswami and Junayed (2006); Pesaran et al., (1999); Lee and Wang (2015); Iwata et al., (2011) and Kim and Lin (2010).

The long-run relationship can be used by averaging the parameters for the selected South Asian countries. the PMG and MG techniques can be used in predicting the long-run relationship among the panel variables as by employing the ARDL model in the case when the variables are stationary and convergent (Lee and Wang, 2015).

RESULTS

Unit Root

Variable	at level			1 st difference		
	LLC	IPS	HD	LLC	IPS	HD
Economic Growth	1.03	1.19	2.23	11.02*	7.85*	1.11*
External debt	1.05	1.07	2.10	10.19*	11.55*	1.07*
Import	0.45	0.89	2.99	12.27*	10.01*	1.21*
Export	0.57	0.92	2.01	14.78*	9.87*	1.09*
BOT	1.16	1.11	1.06	16.77*	14.26*	1.12*

The tables show the findings of the unit root test used on the selected parameters. The purpose of using the unit root test was to estimate the nature as stationary and nonstationary. The findings show that the economic growth, external debts, imports, export, and Balance of trade have been found insignificant at levels by taking 5 percent of critical level. The values argued that the data has been found non-stationary at a level. Therefore it is important to test the parameters on the first difference as well. The findings show that the parameters have been found significant at the first difference and rejecting null hypotheses of being non-stationary.

Pedroni cointegration test

<i>Model 1</i>				<i>Model 2</i>			
Variance ratio	Rho statistics	PP statistics	ADF statistics	Variance ratio	Rho statistics	PP statistics	ADF statistics
2.89*	1.57	2.69*	3.10*	3.21*	1.29	3.16*	2.57*

* indicates the rejection of the null hypothesis of non-stationarity and non-cointegration.

Findings of the co-integration test show that the variables have been found significant and rejecting null hypotheses of no long-run relationship. The results support that the factors were found harmonious relationship and also reject the statement of being non-convergent. This means that these variables have been found of indicting the convergence and confirm the tendency of showing the long-run relationship.

Dynamic ARDL (1, 1) Panel Model Estimation Results

Variable	MG		PMG		Hausman Test
	Short-run	Long-run	Short-run	Long-run	Chi-square
<i>lnED</i> ₋₁	-0.67 (-2.16)	-0.72* (-3.11)	1.03 (1.41)	1.44** (6.74)	0.19 (p-value: 0.89)
<i>lnIM</i> ₋₁	0.57 (1.49)	0.48* (2.61)*	0.71 (1.34)	0.87** (7.64)	
<i>lnEX</i> ₋₁	0.61* (3.16)	0.44* (2.79)	0.41 (0.97)	0.67* (2.60)	
<i>lnBOT</i> ₋₁	0.47 (1.73)	0.60** (4.59)	0.39 (1.68)	0.58** (5.74)	
<i>lnEG</i> ₋₁		-0.79*** (-6.45)		-0.83*** (-7.63)	

Note: t-values in parenthesis, *significance at 5 percent, **significance at 1 percent

The table shows the findings of the ARDL approach used on the panel data. The ARDL model has been taken in one lag and it is having panel model properties. This model has been used to check the effect of external debt, import, exports, and BOT on the economic growth of South Asian Countries. MG and PMG technique has been used for both long-run and short-run relationships among the parameters. The findings of the model show that external debt is having a negative relationship with economic growth in the case of South Asian countries both in the case of short-run and long-run relationship in the MG technique. The PMG technique reported a positive relationship in the short-run and long-run but the relationship has been found insignificant in the short run and significant in the long-run relationship. The findings of the PMG model have been found contradictory to the 2nd school of thought who argued that external debt always showed a negative relationship with economic growth. While looking at the MG findings, imports, exports, and balance of trade showed no short-run relationship which all of the factors are having a significant long-run relationship among them with the economic growth.

The findings of the Hausman test showed that the PMG findings showed that the alternate hypotheses have been rejected of being taking the MG estimator. The findings show the insignificant chi-square which is rejecting the null hypotheses of no long-run relationship in the PMG group.

Sensitivity Analysis

The table shows the sensitivity analysis of the ARDL approach. The sensitivity analysis has been used by changing the lag structure used in the previous table ARDL (1,1) and now shifted to ARDL (2,2) to redesign the model. The finding of the robust result was used on the ARDL technique and found that all the variables have shown no short-run relationship among them with the economic growth in the MG estimator while external debt and BOT showed an insignificant long-run relationship with economic

growth in MG results. While the findings of the PMG estimator for the long-run relationship showed that these factors showed a significant long-run relationship among the variables. The overall variance by these estimators is changed from MG i.e. 0.81 while the PMG showed the greater impact of -0.87 and both have been found significant.

Dynamic ARDL (2, 2) Panel Model Estimation Results

Variable	MG		PMG		Hausman Test
	Short-run	Long-run	Short-run	Long-run	Chi-square
<i>lnED</i> ₋₁	-0.47 (-1.76)	-0.41 (-1.51)	0.82* (2.97)	1.12* (4.61)	0.27 (p-value: 0.72)
<i>lnIM</i> ₋₁	0.49 (2.01)	0.52* (2.77)*	0.54 (1.40)	0.61** (4.70)	
<i>lnEX</i> ₋₁	0.24 (1.61)	0.57* (3.14)	0.30 (1.46)	0.40* (3.41)	
<i>lnBOT</i> ₋₁	0.47* (2.64)	0.36 (1.17)	0.35 (1.12)	0.42* (2.78)	
<i>lnEG</i> ₋₁	-0.81*** (-7.04)		-0.87*** (-9.49)		

Note: t-values in parenthesis, *significance at 5 percent, **significance at 1 percent

Although more significant results have been found in MG estimator as compared to the previous model and the finding of PMG results remains significant. The selected control variables have been found significant in the PMG estimators in the long run while these factors showed insignificant in the short run in the MG estimators.

Structural Stability Analysis

Variable	All Periods (2008Q1: 2018Q4)		Period 1 (2008Q1: 2012Q4)		Period 2 (2013Q1: 2018Q4)	
	Coefficient	Asymptotic t-statistic	Coefficient	Asymptotic t-statistic	Coefficient	Asymptotic t-statistic
Intercept	1.01	0.87	0.47	1.13	0.52	0.76
<i>ED</i> ₋₁	0.65*	2.56	0.17*	2.13	0.46*	3.78
<i>IM</i> ₋₁	0.59*	3.49	0.22*	2.98	0.36*	4.53
<i>EX</i> ₋₁	0.63*	2.76	0.24*	2.07	0.38*	3.79
<i>BOT</i> ₋₁	0.57*	4.67	0.19	1.83	0.36**	6.81
<i>EG</i> ₋₁	0.37*	2.09	0.14*	2.47	0.22**	5.79

Note: t-values in parenthesis, *significance at 5 percent, **significance at 1 percent

The table shows the findings for the structure stability test which can be used to estimate whether these factors are having a long relationship and either this relationship is sustained over the selected period. This can be used by taking the coefficient values of the along with the t-value. The technique has been adopted from the study of Lee and Yu, (2010); Lee (2004), and Yu et al., (2008). The model can estimate the sustained relationship among the selected two time periods and the overall period as well. The findings of the overall period show that the factors of external debt and control variables have shown significant and sustained relationship in the overall period. The same findings can be seen in the first and second periods. These factors have shown a significant relationship among the factors and this significance of relationship has been found sustained in the selected period.

CONCLUSION

The developing countries are always facing low economic growth due to higher levels of debts, fiscal deficits especially external debt servicing, and current account deficits. The developing economies are having higher budget deficits, low investments, and increasing current expenditure. In the early stages of development, the developing economies always try to get higher inflows of funds, and external debts always provide bases for the growth and development. The financial analysts consider the higher trend of external borrowing as the most serious threat to economic growth, while the majority of the studies confirm that external borrowing and economic growth is having a long-run relationship. Unit root and Johansen Co-integration tests have been conducted to estimate the long-run relationship among the external debts and economic growth. The unit root test in the current study has been applied by following the purpose of the test which can be useful in measuring the stationary or non-stationary nature. The idea of taking the co-integration model was that there always been exists a long-run harmonious association among these variables and it can be significant for the policymakers. The long-run relationship can be used by averaging the parameters for the selected South Asian countries. The PMG and MG techniques can be used in predicting the long-run relationship among the panel variables as by employing the ARDL model in the case when the variables are stationary and convergent. Findings of the co-integration test show that the variables have been found significant and rejecting null hypotheses of no long-run relationship. The results support that the factors were found harmonious relationship and also reject the statement of being non-convergent. The findings of the model show that external debt is having a negative relationship with economic growth in the case of South Asian countries both in the case of short-run and long-run relationship in the MG technique. The PMG technique reported a positive relationship in the short-run and long-run but the relationship has been found insignificant in the short run and significant in a long-run relationship.

RECOMMENDATIONS AND FUTURE DIRECTIONS

It has been recommended from the findings that the existing economies are related to the second school of thought that external debt growth is showing a negative impact on economic growth. It has been argued that the countries should take borrowing but utilize them in progressive and profitable developmental projects. The authorities should ensure the effective use of funds and no corruption of taking and investment of funds.

In the future, the study can be used in taking the external debts relating to their interest rate. The interest rate on the debts can be examined as the countries take debts on the different interest rates from different sources.

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