FOREIGN DEBT AND ECONOMIC GROWTH: EMPIRICAL EVIDENCE FROM THE DEVELOPING COUNTRIES

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Abstract- This paper empirically analyzes the relationship between foreign debt and economic growth of developing countries and attempts to estimate debt threshold for every classification of countries by income level and lending categories using linear as well as non-linear models. Our study is the broadest one regarding the coverage (118 developing countries) and time period (1990 to 2015). The empirical results show that foreign debt has a non-linear effect on economic growth regardless of in which income group and lending categories they belong to. The debt threshold is estimated from 30 percent (countries of IDA and Blend category) to 90 percent (countries of upper-middle income group).

Keyword- economic growth, foreign debt, debt threshold, income level, lending category

I. INTRODUCTION

External debt or foreign debt is anoutstanding amount of liabilities, as defined by the International Monetary Fund (IMF), that are owed to nonresidents of an economy. As noted Dogruelet al.(2007), due to the 1980's debt crisis, therelationship between external debt and economic growth in developing countries has caught special attention and the related literatureis increased significantly.

According to the Clements et.al. (2005), the theory suggests that the external debt stock and its service affect growth by discouraging private investment or altering the composition of public spending. Higher external interest payments can increase country's budget deficit, therefore, reducing public savings if private savings do not increase to offset the difference. This, in turn, may either drive up interest rates or crowd out the credit available for private investment, depressing economic growth. Debt services may discourage growth by squeezing the public resources available for investment in infrastructure and human capital.

Moreover, the external debt may have nonlinear effects on growth, either through capital accumulation or productivity growth. According to debt overhang effect hypothesis, an accumulated debt discourages and overhang investment, mainly private investment; as private investors expect an increase in tax by thegovernment to pay the accumulated debt. Serven (1997) argues that high debt creates uncertainties and unstable environment which make the resources are likely to be misallocated and poor quality investments undertaken which slows productivity growth.
On the other hand, taking an external debt generally means an increase in thesupply of financial asset in the economy which enhances financial deepening. From this point of view, some part of the external debt may enhance financial deepening ultimately economic growth.

Generally, theory either previous studies show that debt has significant negative effect on economic growth. Basing on the previous statement, we build following three hypotheses on the relationship between external debt and economicgrowth.

Hypothesis 1. Total external debt has anegative effect on economic growth in developing countries.
Hypothesis 2. This effect is non-linear.
Hypothesis 3. Depending on the income level and lending categories of countries, the debt thresholdmight bedifferent.

In previous studies, debt has a significant negative effect on economic growth. Those results are based on the, at most, 93 developing countries covering 36 years' data. In this study, we analyze most available panel dataset covering 27-years data of 118 developing countries which are classified in three income groups(low-income, lower-middle-income, and upper-middle income) and three lending categories (IDA, Blend, IBRD).
This study consists of three sections. The first section is devoted to the theoretical background and literature review on the relationship betweeneconomic growth and external debt. In sectiontwo, we study the connection between economic growth and external debt applying fixed effects and GMM (Generalized Method of Moments) estimators. In the third section,the estimation results and implications are provided. Finally, it concludes.

II. LITERATURE REVIEW

Debt is one of the sources of financing the capital formation in any economy. Diallo (2007) emphasized that there are two main opposing schools of thought on the economic theory of external debt and growth,

namely the Keynesian and the neoclassical. To the Keynesians, indebtedness does not bring about charges either for future generations or present generations as a result of the investments that it generates. According to this theory, indebtedness, which revives demand, results in a more proportionate increase in investment through the accelerator effect. This, in turn, leads to a rise in production. By contrast, the classical economists consider indebtedness as a future tax and attribute it to the State. It is a negative connotation because to them, public indebtedness hinders capital accumulation and consumption by present and future generations.

The theoretical literature suggests that foreign borrowing has a positive impact on investment and growth up to a certain threshold level; beyond this level, however, its impact is adverse. As indicated in Cohen (1993), the relationship between the face value of debt and investment can be represented as a "Laffer curve": as outstanding debt increases beyond a threshold level, the expected repayment begins to fall as a consequence of the adverse effects mentioned above. The implication is that an increase in the face value of debt leads to an increase in repayment up to the "threshold" level; along the "wrong" side of the debt Laffer curve, on the other hand, increases in the face value of debt reduce expected payments. Given the positive effects of capital accumulation on economic activity, a similar type of Laffer curve between external debt and growth could also be expected, as in Clements et al. (2003).

The literature of the relationship between external debt and economic growth in developing countries were increased smoothly after 1980's debt crisis (Theodore, 2009). The debt crisis became a serious macroeconomic problem for many developing countries during that period and had originated from the first oil price shock around 1973 and 1974 (Cline, 1983).

In the second half of the 1990s, high external indebtedness of developing countries has received increased attention from policymakers and public opinion around the world, as one of the main factors contributing limit the development of numerous poor countries, as in Pattilloet al.(2002). According to the Figure 1, the Average External Debt to GDP had been increasing until 1990 and since then started to decline. Numerous empirical studies are issued since this time. The main objective of these studies centered mainly on the external debt impact on economic growth.The result from studies showed that the impact of external debt on economic growth was mostly observed negatively, but a few not (Shabbir, 2013). Particularly, Savvides(1992) found that the ratio of debt to GNP has no statistically significant effect on growth. Some of these studies are stated below.

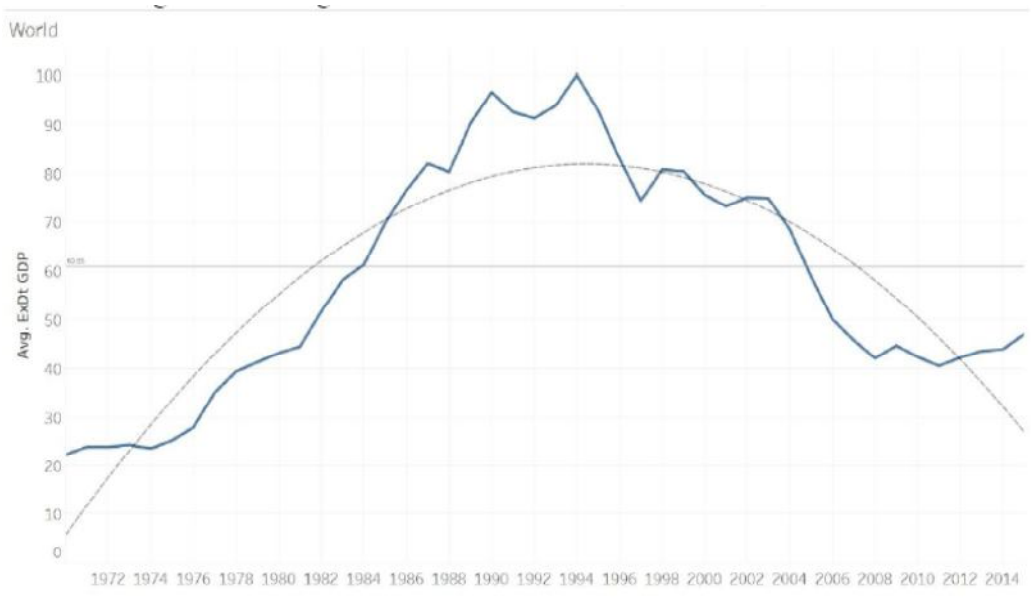


Figure 1. Average External Debt to GDP, worldwide, 1970-2016

Source: authors' calculation

Among the pioneering studies, Geiger (1990) used the lag distributional model to assess the impact of external debt on economic growth for 9 South American countries over a period of 12 years (1974-1986) and found a statistically significant inverse relationship between the debt burden and economic growth.

While analyzing 13 developing countries for a period of 1960-1981 and 1982-1989, Warner (1992) could not find any conclusive evidence whether thedebt has

any negative effect on economic growth or it may have adepressed investment in those developing countries.

Cohen (1993) used a larger data set of 81 developing countries over a period of 1965-1987 and did not find any evidence of a negative relationship between external debt and economic growth.

Chowdhury (1994) attempted to resolve the controversy of cause and effect relationship between external debt and economic growth, by conducting Granger causality tests for Asian and Pacific Countries over a period of 1970-1988. He found that both the public and private external debt has a relatively petite impact on GNP, and both have opposite signs. He found that any increase in GNP leads to a higher level of external debt, but overall external debt does not have any negative impact on economic growth.

Gerald (1994) employed thesimple neo-classical model to evaluate whether capital imports can increase output and whether there are enough exports to meet the external debt servicing in 31 Sub-Saharan African countries. His model suggested that actual surplus available for debt service may be much smaller and may lead to debt overhang.

lyoha (1999) used asimulation approach to investigate the impact of external debt on economic growth in sub-Saharan African countries estimating a small macro-econometric model for the period 1970-1994. He found an inverse relationship between debt overhang, crowding out and investment thereby concluding that external debt depresses investment through both a "disincentive" effect and a "crowding out" effect, thus affecting economic growth.

Djikstraet al. (2001) reviewed a number of studies on the "debt overhang" hypothesis and concluded that the empirical evidence is incomplete.

Hansen (2002) found that in a sample of 50 developing countries (including 17 HIPCs), the inclusion of three additional explanatory variables (budget surplus, inflation, and openness) leads to thenegative effect of debt service on growth and investment.

Pattilloet al. (2002) found a negative effect of external debt on growth basing on the large panel dataset of 93 developing countries over 1969-1998. Their next study (2004) confirmed the negative effect applying the panel regressions for 61 developing countries over the same period. They employed various estimation methods namely, OLS, IV, fixed effects, differenced GMM, and system GMM, and four debt indicators (Debt to exports, Debt to GDP, NPV of debt to exports, and NPV of debt to GDP) in their two studies. In the second study, they detected that an impact of debt on growth was disparate between low and high levels of debt. At low levels, the effect was generally positive but often not significant. At high levels, there was a large negative significant impact. In addition, the policy environment also affects the debt and growth relationship.

Clements et al. (2003) found that "high levels of debt can depress economic growth in low-income countries". This view is supported by many researchers: Moss et al.(2003)review that a vast literature that addresses high-level debt has negative effects on growth.

Schclarek(2004) investigated the relationship between debt and growth in both developing and industrial countries. For developing countries, they found that lower total external debt levels are associated with higher growth rates and that this negative relationship is driven by the incidence of public external debt, and not by private external debt. For industrial countries, they didn't find any significant relationship between gross government debt and economic growth. They used the system GMM technique, four different dependent variables (GDP per capita growth rate, Total factor productivity growth rate, Capital accumulation growth rate, and Private savings rate) and three debt indicators (Total external debt to GDP, Public external debt to GDP, and Private external debt to GDP) for developing countries. Their dataset consists of a panel of 59 developing and 24 industrial countries with data averaged over each of the seven 5-year periods between 1970 and 2002.

Uzunet al. (2012) analyzed the relationship between external debt and growth rate by panel autoregressive distributed lag (ARDL) model for 19 transition countries over a period of 1991-2009. They chose GDP per capita growth rates as a dependent variable and External debt to GNI and Openness as independent variables. Their estimation results were presented that the debt has anegative effect on growth rate in short run and has apositive effect on thelong run for those transition countries.

Shabbir(2013) found that current stock of external debt would slow down the economic growth and also found a strong inverse relationship between external debt services and growth rate. They observed 70 developing countries for thirty-six years, covered theperiod from 1976 to 2011.

Summarizing the results of the previous studies, debt has a significant negative effect on economic growth. Those results are based on the, at most, 93 developing countries covering 36 years' data.

III. DATA DESCRIPTION AND ESTIMATION METHOD

We applied most available 118 developing economies dataset covering from 1990 to 2015. The data are from various sources. The description for all variables is provided in Table 1

Variable name	Coverage	Variable description
Dependent variables– Source: WDI Database, WB, 2016		
GDPGrwth	1990-2015	*GDP growth (annual %)*
GDPPrCpGr	1990-2015	*GDP per capita growth (annual %)*
*Control variables related to the income – Source:*WDI Database, WB, 2016		
LnPerCap	1990-2015	Calculated: the log of *GDP per capita (constant 2010 US$)*
FDI_GDP	1990-2015	*Foreign direct investment, net inflows (% of GDP)*
Exp_GDP	1990-2015	*Exports of goods and services (% of GDP)*
GFCF_GDP	1990-2015	*Gross fixed capital formation (% of GDP)*
GovCnsmp_GDP	1990-2015	*General government final consumption expenditure (% of GDP)*
*Control variables related to the financial market – Source:*GFDDatabase, WB, 2016		
BnkCrisis	1990-2011	*Banking crisis dummy (1=banking crisis, 0=none)*
ka_open	1990-2015	*The Chinn-Ito financial openness index.* Source: web.pdx.edu/~ito/Chinn-Ito_website.htm
Control variables related to the labor market – Source: WDI Database, WB, 2016		
PopulGrwth	1990-2015	*Population growth (annual %)*
Unemp_LF	1990-2015	*Unemployment, total (% of total labor force)*
*Control variables related to the rate – Source:*WDI Database, WB, 2016		
Inflation_CPI	1990-2015	*Inflation, consumer prices (annual %)*
Control variables related to the governance – Source: WGI Database, WB, 2016		
WGI_PolStab	1996-2015	*Political Stability and Absence of Violence/Terrorism*
External debt indicator variables – Source: IDS and WDI Database, WB, 2015		
ExDt_GDP	1990-2015	Calculated: *Total external debt stocks (DOD[2]) at current USD* divided by *GDP at current USD*
LnExDt_GDP	1990-2015	Calculated: the log ExDt_GDP
LnExDt_GDPsq	1990-2015	Calculated: square of LnExDt_GDP

Table 1. Variable Description: External Debt and Economic Growth

Descriptive statistics of variables are shown in Table 2.

Variables	Obs.	Mean	Std.dev.	Min	Max
GDPGrwth	2976	3.8785	6.2817	-51.0309	106.2798
GDPPrCpGr	2976	2.1171	6.1145	-50.2301	92.1233
LnPerCap	2976	7.4932	1.0410	4.7518	9.5923
FDI_in_GDP	2926	3.9879	6.3634	-82.8921	89.4760
Exp_GDP	2899	33.5716	18.4697	0.0995	127.5553
GFCF_GDP	2754	21.6422	8.1118	-2.4244	68.0227
GovCnsmp_GDP	2767	14.2892	5.3332	2.0471	50.0000
BnkCrisis	2596	0.0890	0.2848	0	1
ka_open	2893	0.3727	0.3150	0	1
PopulGrwth	3068	1.7007	1.3467	-10.9552	7.9179
Unemp_LF	2875	9.5428	7.0917	0.1000	39.3000
Inflation_CPI	2830	54.3518	704.8446	-35.8367	24,411.0300
WGI_PolStab	1986	-0.4613	0.8564	-2.9741	1.3847
ExDt_GDP	2941	66.7971	92.9269	0.1404	1,846.5500
LnExDt_GDP	2941	3.8490	0.8192	-1.9630	7.5211
LnExDt_GDPsq	2941	15.4853	6.2653	0.0124	56.5666

Table 2. Descriptive statistics

We use income level classifications by World Bankto estimate the threshold level of external debt on growth of those group. The 118 developing countriesare assigned into three income groups and three lending categories(see Table 3).

Lending category	Low-income countries	Lower-middle-income countries	Upper-middle-income countries	Total
IDA	26	24	2	52
Blend	1	11	4	16
IBRD	-	11	39	50
Total	**27**	**46**	**45**	**118**

Table3. Number of countries, by income level and lending categories

Economies are divided into IDA, IBRD, and Blend countries based on the operational policies of the World Bank. International Development Association (IDA) countries are those with low per capita incomes that lack the financial ability to borrow from the International Bank for Reconstruction and Development (IBRD). Blend countries are eligible for IDA loans but are also eligible for IBRD loans because they are financially creditworthy.

The unit root tests are conducted and we employ a Fisher-type unit-root test, which works well with unbalanced panel. The results are shown in Table 4.

Variables	Country No.	Z-statistic	Variables	Country No.	Z-statistic
GDPGrwth	118	-28.665***	ka_open	118	-21.053***
GDPPrCpGr	118	-29.082***	PopulGrwth	118	-29.511***
LnPerCap	117	-16.062***	Unemp_LF	115	-19.659***
FDI_in_GDP	118	-22.609***	Inflation_CPI	118	-28.303***
Exp_GDP	118	-17.895***	WGI_PolStab	118	-16.681***
GFCF_GDP	116	-18.313***	ExDt_GDP	118	-14.936***
GovCnsmp_GDP	115	-20.986***	LnExDt_GDP	118	-13.611***
BnkCrisis	118	-22.334***	LnExDt_GDPsq	118	-13.752***

Note: *** indicates 1% significance level

Table 4. Unit Root Test Results

All variables were stationaryin levels.We employ two estimation methods: panel fixed effects estimation and generalized method of moments (GMM) which is developed by Arellano and Bover(1995) and Blundell and Bond (1998).

The regression model is specified as follows:

$$ED_{it} = \beta_x X_{it} + \beta_{EDT} EDT_{it} + \delta_i + \varepsilon_{it}$$

- i and t – country and time, respectively;
- ED – the dependent variables related to economic development (growth rates of GDP, growth rates of GDP per capita);
- X – the set of control variables (related to the education, labor market, financial market, etc.);
- EDT – the external debt variables (log of total external debt to GDP and its square);
- δ – the fixed effect (country);
- ε_it - an idiosyncratic shock and it is assumed ε_it~ iid(0,σ^2), and independent of δ_i and other

independent variables [E(ε_it |X_it,EDT,δ_i)=0]; and serially uncorrelated.

Here we use several types of control variables related to the income, education, financial market, labor market, rates, and governance. The coefficient signs of the control variables are expected as follows:

- The logged per capita is expected to have a negative coefficient due to the convergence effect while the coefficients on foreign direct investment, trade openness, gross fixed capital formation, and terms of trade are predicted to be positive.
- Banking crisis is expected to have a negative while domestic credit to private sector and financial openness index are predicted to be positive.
- Population growth is expected to be positive when the dependent variable is GDP growth, negative when it is GDP per capita growth. Unemployment is awaited to be negative.
- Inflation is predicted to have negative coefficients.
- Finally, according to the previous studies, external debt variable is expected to have a negative sign.

IV. ESTIMATION RESULTS AND ITS IMPLICATION

Table 5 shows the estimation results for linear model which is estimated by fixed effects and system GMMestimators. The most coefficients of control variables are statistically significant andhave the expected (reasonable) signs.

	Model 1		Model 2		Model 3	
	FE	SGMM	FE	SGMM	FE	SGMM
Intercept	11.374***	5.104***	14.094***	0.000	6.432***	0.000
GDPGrwth, lagged		0.247***		0.239***		0.286***
LnPerCap, lagged	-0.586***		-0.575***		-0.568***	
FDI_GDP	0.047***	0.036	0.034*	0.015		
Exp_GDP	0.022***	0.010				
GFCF_GDP					0.136***	0.092***
GovCnsmp_GDP			-0.067***	-0.049*		
BnkCrisis			-2.201***	-2.263***		
ka_open			0.584	0.396		
PopulGrwth	0.301***	0.369***				
Unemp_LF					-0.030*	-0.027
Inflation_CPI	-0.000**	-0.000***	-0.000**	-0.000***		
WGI_PolStab	0.213*	0.073	0.227	0.022		
LnExDt_GDP	**-0.920*** **	**-0.588*** **	**-1.045*** **	**-0.650*** **	**-0.575*** **	**-0.352** **
F statistic p-value	12.196 (0.000)		10.716 (0.000)		14.914 (0.000)	
Observations	1826	1834	1277	1276	1760	1768
Countries	118	118	109	109	112	112
Adjusted R-square	0.124		0.132		0.142	
Instruments		56		45		54
Hansen's p-value		0.058		0.028		0.088
AB test for AR(1)		0.000		0.000		0.000
AB test for AR(2)		0.571		0.551		0.594

Note: ***,** and * indicate 1%, 5% and 10% level of significance, respectively.

Table5. Foreign debt and Economic growth, linear model, all countries

For debt variable, the coefficients have similar signs as previous studies and are significant at the 5 percent level. Particularly, the coefficient of Model 1 estimated by fixed effect is -0.920, on average, indicating that high external debt decreases the growth rate of the economy by 0.920 percentage points for developing countries.

Table 6 shows the estimation results for nonlinear model which areestimated by fixed effects and system GMM model. The signs of control variables' coefficients are similar to previous results.

	Model 1		Model 2		Model 3	
	FE	SGMM	FE	SGMM	FE	SGMM
Intercept	5.682***	-0.261	9.177***	1.754	2.154	-2.328*
GDPGrwth, lagged		0.239***		0.233***		0.281***
LnPerCap, lagged	-0.592***		-0.596***		-0.573***	
FDI_GDP	0.054***	0.042	0.043**	0.022		
Exp_GDP	0.026***	0.012				
GFCF_GDP					0.138***	0.094***
GovCnsmp_GDP			-0.067***	-0.050**		
BnkCrisis			-2.071***	-2.184***		
ka_open			0.625*	0.425		
PopulGrwth	0.318***	0.390***				
Unemp_LF					-0.029*	-0.028
Inflation_CPI	-0.000**	-0.000***	-0.000**	-0.000***		
WGI_PolStab	0.110	-0.009	0.172	-0.027		
LnExDt_GNI	**2.343*** **	**2.007*** **	**1.761** **	**1.445***	**1.853*** **	**1.492** **
LnExDt_GNIsq	**-0.451*** **	**-0.360*** **	**-0.375*** **	**-0.280** **	**-0.333*** **	**-0.253*** **
F statistic	12.953 (0.000)		10.797 (0.000)		15.026 (0.000)	
Observations	1826	1834	1277	1276	1760	1768
Countries	118	118	109	109	112	112
Adjusted R-square	0.136		0.139		0.149	
Instruments		57		46		55
Hansen's p-value		0.020		0.022		0.032
AB test for AR(1)		0.000		0.000		0.000
AB test for AR(2)		0.603		0.555		0.600

Note: ***, ** and * indicate 1%, 5% and 10% level of significance, respectively.

Table 6.Foreign debt and Economic growth, non-linear model, all countries

The number of countries and instruments are reported with GMM estimation results. We collapse instruments to reduce its number when estimating system GMM. The Arellano-Bond (AB) tests and Hansen's test are reported the reliability of estimation.

The result shows that the debt variable has a significant positive effect on growth while the square of debt variable has a significant negative effect. Since debt has nonlinear effect on growth, we attempted to estimate a threshold level of debt for several groups of countries and the results are presented in Table 7-11.

Threshold level	20%	30%	40%	50%	60%	70%
LnExDt_GNI	0.990*	-0.044	-0.411	-0.534**	-0.464**	-0.584***
F statistic	3.757 (0.000)	5.768 (0.000)	6.455 (0.000)	8.138 (0.000)	10.651 (0.000)	12.784 (0.000)
Observations	231	581	841	1020	1219	1371
Countries	39	83	94	105	111	116
Adjusted R-square	0.216	0.159	0.13	0.139	0.154	0.165

Table 7. Threshold level, all countries

Threshold level	20%	30%	40%	50%	60%	70%
LnExDt_GNI	0.044	-1.195*	-1.275**	-0.997*	-0.738	-0.525
F statistic	1.580 (0.102)	1.455 (0.086)	2.596 (0.000)	3.752 (0.000)	4.498 (0.000)	5.660 (0.000)
Observations	78	275	413	516	623	699
Countries	19	46	54	62	65	67
Adjusted R-square	0.108	0.037	0.082	0.109	0.115	0.133

Table 8. Threshold level, IDA and Blend lending categories countries

Threshold level	20%	30%	40%	50%	60%	70%
LnExDt_GNI	0.951	0.279	0.006	-0.228	-0.171	-0.493**
F statistic	3.644 (0.000)	5.700 (0.000)	8.222 (0.000)	8.593 (0.000)	10.327 (0.000)	11.829 (0.000)
Observations	172	347	504	625	746	853
Countries	22	44	50	57	61	65
Adjusted R-square	0.262	0.238	0.248	0.219	0.224	0.226

Table9. Threshold level, IBRD and Blend lending categories countries

Threshold level	20%	30%	40%	50%	60%	70%
LnExDt_GNI	4.260	-1.096	-2.781*	-2.344*	-2.497**	-2.287***
F statistic	1.836 (0.075)	1.790 (0.035)	2.100 (0.006)	2.230 (0.003)	2.236 (0.002)	3.088 (0.000)
Observations	46	154	203	222	254	283
Countries	11	23	25	26	26	27
Adjusted R-square	0.229	0.081	0.094	0.100	0.101	0.146

Table10. Threshold level, low-income countries

Threshold level	20%	30%	40%	50%	60%	90%
LnExDt_GNI	2.117**	1.030**	0.771**	0.313	0.200	-0.485**
F statistic	2.850 (0.000)	6.313 (0.000)	8.816 (0.000)	8.404 (0.000)	9.749 (0.000)	11.135 (0.000)
Observations	123	236	341	429	491	647
Countries	16	28	33	39	41	45
Adjusted R-square	0.259	0.342	0.346	0.285	0.291	0.265

Table 11. Threshold level,upper-middle income countries

Table 7 reports that threshold level is 50 percent which indicates that if debt-GDP ratio exceeds 50 percent, debt effect to growth diverts from positive to negative. This estimate is for all countries, however, if we take into account classification of countries (by income level and lending category) the threshold would be different.

For instance, threshold level is 30 percentfor countries of IDA and Blend lending category while it is 70 percent for IBRD and Blend lending category countries. For the low-income countries the threshold level is only 40 percent but 90 percent is for the upper-middle income countries.

In order to check the robustness of the estimation results, we replace GDP per capita growth (GDPPrCpGr) instead of GDP growth (GDPGrwth). Those results confirm the relations between debt and growth; however, they are not reported here to save space .

CONCLUSION

In this paper, we investigate the relationship between external debt and economic growth. For this purpose, we collect most available 118 countriesdebt dataset along with standard control variables and build linearfixed effect as well as dynamic panel models. Our estimation results support the hypothesis that total external debt has a negative effect on economic growth in developing countries.

we estimate non-linear models in order to address the second question of our study. We find that total debt has nonlinear effect on growth.

Third, we estimate threshold level of debt-GDP ratio for all countries along with for different classification (be income level and lending category) of countries. For all countries the threshold level was 50 percent but it varies from classification to classification. The level was 30 percent for IDA and Blend lending categories countries when it was 90 percent for upper-middle income countries. Those results support our third hypothesis.

These empirical result imply that debt does not impede economic growth when appropriate threshold level is maintained. And authority should take care of this facts to retain economic growth.

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APPENDIX

Appendix 1. Classification of countries

Low income countries(27)	Lower-middle income countries (46)	Upper-middle income countries (45)
IDA (52)		
Afghanistan; Benin; Burkina Faso; Burundi; Central African Republic; Chad; Comoros; Congo, Dem. Rep.; Ethiopia; Gambia, The; Guinea; Guinea-Bissau; Haiti; Liberia; Madagascar; Malawi; Mali; Mozambique; Nepal; Niger; Rwanda; Senegal; Sierra Leone; Tanzania; Togo; Uganda (26)	Bangladesh; Bhutan; Cambodia; Cote d'Ivoire; Djibouti; Ghana; Honduras; Kenya; Kosovo; Kyrgyz Republic; Lao PDR; Lesotho; Mauritania; Myanmar; Nicaragua; Samoa; Solomon Islands; Sudan; Syrian Arab Republic; Tajikistan; Tonga; Vanuatu; Yemen, Rep.; Zambia (24)	Guyana; Maldives (2)
Blend (16)		
Zimbabwe (1)	Bolivia; Cabo Verde; Cameroon; Congo, Rep.; Moldova; Mongolia; Nigeria; Pakistan; Papua New Guinea; Sri Lanka; Vietnam (11)	Dominica; Grenada; St. Lucia; St. Vincent and the Grenadines (4)
IBRD (50)		
-	Armenia; Egypt, Arab Rep.; El Salvador; Guatemala; India; Indonesia; Morocco; Philippines; Swaziland; Tunisia; Ukraine (11)	Albania; Algeria; Angola; Argentina; Azerbaijan; Belarus; Belize; Bosnia and Herzegovina; Botswana; Brazil; Bulgaria; China; Colombia; Costa Rica; Dominican Republic; Ecuador; Fiji; Gabon; Georgia; Iran, Islamic Rep.; Jamaica; Jordan; Kazakhstan; Lebanon; Macedonia, FYR; Malaysia; Mauritius; Mexico; Montenegro; Panama; Paraguay; Peru; Romania; Russian Federation; Serbia; South Africa; Thailand; Turkey; Venezuela, RB (39)

Note: The number in the parenthesis indicates the number of countries that belong to that classification.