Understanding the Relationship Between Debt Financing and Income Inequality in South Asia

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Abstract

This study examines the relationship between debt and inequality in a penal of seven South Asian economies over the period from 1996 to 2014. The study incorporated domestic debt, external debt and debt servicing as debt measures in a single penal model. The control variables are government effectiveness, GDP and trade openness. The study used Least Square Dummy Variable (LSDV) Fixed Effect model, Pooled OLS and Random Effect model with standard diagnostics of Hausman test, Langragian Multiplier test and F-test for model efficiency. The econometric analysis is also supported by standard diagnostic test for serial autocorrelation, heteroskdasticity and multicolinearity. The empirical results of random effect model in the study indicate that debt servicing; domestic debt and external debt are negatively and significantly affecting inequality in south Asia. The study concludes that along with other traditional factors increase in debt indictors are significant in redistributing the income among the public and decrease the inequality. The study suggested that there is need of balanced and effective mechanism to make use of policies regarding debt factors.
Key Words: Inequality, Debt financing, LSDV, South Asia

1. Introduction

Fair income distribution is a significant aspect of social welfare. Countries are striving to bring little changes in equality, because external shocks to economy diminutive these efforts.

Different positions of people within economic distribution (income, wage, wealth) mostly represent economic inequalities. Income inequality is calculated by percentage of income to a percentage of population, and is connected to impression of fairness. Most commonly, income is fairly distributed if rich and poor have same share of country's income. On the other hand, if rich occupy larger share of income compared to population then this will be unfair income distribution.

In developing world, 21st century begins with the challenges of two main and connected issues of large and persistent indebtedness and inequality and worsening poverty. Along with these issues these countries are also facing significant implications for growth possibilities. Non-governmental organizations (NGOs) and anti-globalization movements pressurize financial institutions, International Monetary Fund, world bank and UNDP to relate and connect debt relief with poverty reducing agendas. South Asian economies have widely share growth, but persistent poverty exists in larger amount. Due to this rising social and cultural strains worsen the present encounters and produce new ones.

In the presence of fiscal deficit, government of any nation have two options to finances its budget expenses by implying taxes on output or through borrowing externally or internally, and this taxing the output may have many distortions and create the intergenerational equity and can cause a transfer of resources that tend to undermine growth and increase poverty and inequality.

In case of developing countries, over the year most of them has failed to accumulate adequate possessions to funding their budgets. As a result, they have to face the problem of twin deficit and must rely on public external and domestic debt to finance their development activities. In these resource starved developing world, debt-financed growth has been replaced by a more balanced view of how it affects economic growth, employment, income inequality, poverty and

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wealth. In developed countries' case the higher inequality is closely linked with higher external and internal indebtedness. But, in less developed countries' governments use public debt as an imperative tool to finance its expenditures.

Economic growth can be increased by effective and proficient utilization of resources to achieve macroeconomic goals. However, if the public debt is not properly utilized, it would restrict economic growth and become the biggest curse for the economy.

South Asia has emerged one of the poorest and illiterate regions of the world, having more than 1.65 billon population in which 500 million poor living below poverty line and about 46 percent of the world's illiterate live in the South Asia. This is the region, which has more than 22 percent of the world's population, while having only 1.3 percent of the world's income. It also appears one of the most indebted regions of the world with rising inequalities (World Bank, 2013).

The widening income gap between the rich and the poor has stimulated the need to understand the roots of inequality and poverty, and to construct suitable policies that trim down poverty levels and narrow the income gaps. Fiscal policy can help to tackle the region's rising inequality (ADB, 2014)[1].

Many countries use foreign assistance and public debt to fuel economic growth and to alleviate poverty and inequality. Public debt consists of inside or outside borrowing of a nation over a period wrapping its intact history. It is a stock variable and is a fundamental source to cover the financing gaps of government. Public debt is a doubled-edged blade; on the one hand heavy indebtedness leads to macroeconomic threats and also can slow down economic growth and development. Public debt is one of the major economic issues facing the governments of South countries. There is an inadequate literature on the effects of public debt on the social sector and pro poor and inclusive growth. In addition, the available studies on public debt and economic growth have typically focused on external debt. This study aims at filling this gap by using the most recent data from the period 1996 to 2014 to investigate the impact of domestic, external debt and debt servicing on income inequality in South Asian region.

Therefore, this study is focused to analyze the role and implications of international and domestic debt in South Asia. Besides, South Asia's tendency of resources outflow from South Asia to other countries, in terms of debt services, is also identified in terms that how it affects income distribution and inequality situation. The debt cycle theory provides a rational for international aid in terms of its contributions to enable recipient countries to enhance economic growth. A country borrows in the first stage, generates additional resources and is able to stand on its own feet in the second stage. However, it continues to borrow in the second stage. In the third stage, the country may emerge as surplus of resources and it can repay the loans (debt cycle theory).[2]

The increases in budget deficits and debt positions in developing countries in response to the Great Recession have sparked an interesting debate on the effects of large changes in fiscal positions and balances on economic activity. The financial crisis of 2007-08 has hit countries and shaken financial systems all over the world. This has led to the implementation of large scale fiscal expansionary interventions and, as a result, to massively increased public debt issuances in the countries. The massive bailouts of the banking system have further burdened fiscal balances and rise considerable concern about fiscal solvency of some countries. Many governments want to keep deficits under control, but rolling back the expansionary measures by cutting spending and raising taxes implies an enormous wealth transfer from tax payers to the financial system. The conduct of expansionary fiscal policies also implies a huge shift in resources among groups which causes worries about growing inequality within countries.

[1] Asian Development Bank. (2014). Asian development outlook 2014: Fiscal policy for inclusive growth.
[2] See Avramovic (1964); Miksell (1968). They define the stages slightly different. See Chaudhary and Ali (1993).

South Asian per capita annual income is the lowest of any region. Within low income is its mal-distribution within countries. Recent trends show that income distribution in South Asia has worsened with growth. The South Asian economy must continue to grow at 10% per annum for reducing poverty; secondly policy interventions are needed to ensure better income distribution which can come from employment growth[1].

2. Literature Review

In Asia, empirical studies find that the returns to education increase with educational attainment and that the relationship has been getting steeper over time. An ADB study (2007) finds that from the mid-1990s to mid-2000s, real wages grew much faster for wage earners with tertiary or higher education than for those with lower educational attainment in India and the Philippines, leading to wider wage differentials. The same study also finds that education is the single most important factor among those variables that were included in analyzing wage inequality.

Prechel (1985) tested a hypothesis that exports and debt as a percentage of GDP increase income inequality. The regression results support the study hypothesis that increases in export and debt increase individual income inequality among sample countries. Analysis further revealed that this relationship is more significant in less developed countries than developed countries.

A study has identified the determinants of income inequality in Korea by using the time series data for the period of 1980 to 2012. Among other measures of inequality such as poverty rate, labor income decile, income quintile ratio and income decile ratio the Gini index was used as a measure of income inequality. Empirical analysis show that trade openness and increase in elderly working age population has positive affect on income inequality while GDP growth and Government spending have insignificant effect. The significant negative estimate for the variable of investment share in GDP confirms that rise in investment decrease income inequality (Lee, Kim &Cin, 2013).

Sarel (1997) developed a cross section empirical framework and provide evidence of how macroeconomic and demographic variables affect income distribution. Rate of change in Gini coefficient has been used for income distribution and total 45 observations were included in cross country OLS regression. The variables which have negative and significant effect on income inequality include higher growth rate of GDP, investment, higher income, improvement in terms of trade and real depreciation. Demographic variables have insignificant relationship with income inequality.

Skare and Stjepanovic examined the relationship between economic variables and income distribution among 200 economies of world. Income distribution is determined by Household classes (decile) based on consumption. According to study results per capita GDP, Labor force, employment, CPI, export and population are such variables which have substantial impact on income distribution.

Rohrs and Winter (2014) analyzed the welfare consequences of public debt reduction in US. Long run and short run welfare effect of public debt depends on income inequality and wealth. Welfare effect of reducing public debt is positive and large than short run in U.S. By reducing debt government raises the amount of capital for production which increase equilibrium wage and thus labor income increase and inequality decrease.

Mirguseinova (2015) empirically analyzed the determinants of income inequality in Spain. In this study for measurement of income inequality Palma ratio which is a ratio of national income

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[1] Based on World Bank Report on inequality, "Confronting rising inequality in Asia", which is available at www.worldbank.org.

shares of top 10 percent of households to bottom 40 percent. GDP per capita, unemployment, private credit and financial development show significant relationship with Palma ratio.

Corruption and size of informal sector are determinant of income distribution. Saha and Kar (2012) conduct a study of Latin America and finds that corruption is not much destructive to inequality in case when country have growing informal sector. This relationship is also explored and found equally persuasive for developing countries of Asia by using panel least square and fixed effect model. Corruption only enhance inequality in the deficiency of shadow economy and converse is true in South Asia.

Esposito et al (2014) conduct a study on lower and middle income countries and examine the effect of different types of spending on income distribution. The study found that only certain types of government spending have negative impact on inequality but total spending positively affect the income inequality and this relationship depends upon other factors including measurement of inequality.

Vulovic et al (2011) studied the role played by taxation and government spending on income inequality in a panel of large panel of countries. study found that the progressive and corporate taxes decrease the inequality while the consumption taxes, excise and custom duties enhance the inequality. Developmental spending decreases the inequality and positively affects the income distribution.

Many of the studies examines the impact of public debt on economic growth and found a non-linear inverted U-shaped relationship but with mixed of results. Marchionne and Parekh (2015) assumes the causality between debt and growth and finds that the results are dependent upon heterogeneity of that relationship. Study finds that the inverted U-Shaped relation changes on the basis of its threshold point depending upon its inequality levels.

A rich literature on the determinants of inequality find the strongly significant and positive effects of inflation on inequality. Poor segment is more prone and affected by adverse impact of inflation because it decreases the disposable income. Poor and middle income groups are mostly dependent on the state resolute incomes which are not fully inflation indexed such as social security benefits, subsidies and direct transfers, therefore, inflation diminutive the real income. On the other hand, rich segment of the society is protected against the negative effects of inflation on income distribution because this segment holds assets instead of cash, having better understanding of inflation and better access to financial mechanisms which evade beside it. (Easterly & Fisher, 2001; Bulir, 2001 & Cornia, 2004).

Globalization is another important determinant of inequality. Migration, capital flows foreign direct investment and trade barriers waning and transmission of technology formed globalization. Trade openness positively impact the inequality, means it is affecting poor segment adversely and is advantegious to rich segment in society by providing them better opportunity (Barro, 2000). Growth and globalisation relationship is connected to increasing overall wellbeing and lowring inequality. But the positive or negative connection among both depend upon the measure that is used for globalisation (Rodriguez & Rodrik, 2001).

3. Methodology and Theoretical Framework

On the basis of theoretical and empirical reviewed literature it is important to develop theoretical framework to make the logical sense between dependent and independent variables relationship that have to empirically examine.

Social welfare can be significantly affected by the debt burdens in any nation. Domestic debt bears relatively high rate of interest than the external debt so largely affects the social welfare. Salti (2010) have examined the effects of domestic debt on income inequality in a panel of cross-country data and found that the domestic debt is connected to higher inequality and these results are consistent for both fixed and random effects. This study uses internal debt as determinant of income inequality and found an essential contributor to inequality by also the

inclusion of public spending. The public debt is a used as saving instrument that mostly kept for income and resource distribution, when this debt is financed the burden falls on the whole tax base to the extent of as much revenues used to financing that debt. But in the context of internal debt that is detained by

internal lender involves the redistribution of resources. The study controlled for the external and total debt, government spending and political conflict. Domestic debt is negatively affected the income inequality and considered as pro poor. Akram (2010) find that domestic debt is negatively correlated with income inequality. This can be inferred that in increasing the incomes of poor people, equality increased and income disparity among rich and poor decrease. This happens when government use fiscal deficit to subsidize the consumption of wage goods and enhance development expenditures on education, health and social sector to benefit poor segment this in turn will decrease income disparity and inequality of resource distribution.

## Figure 1 Theoretical framework of the study
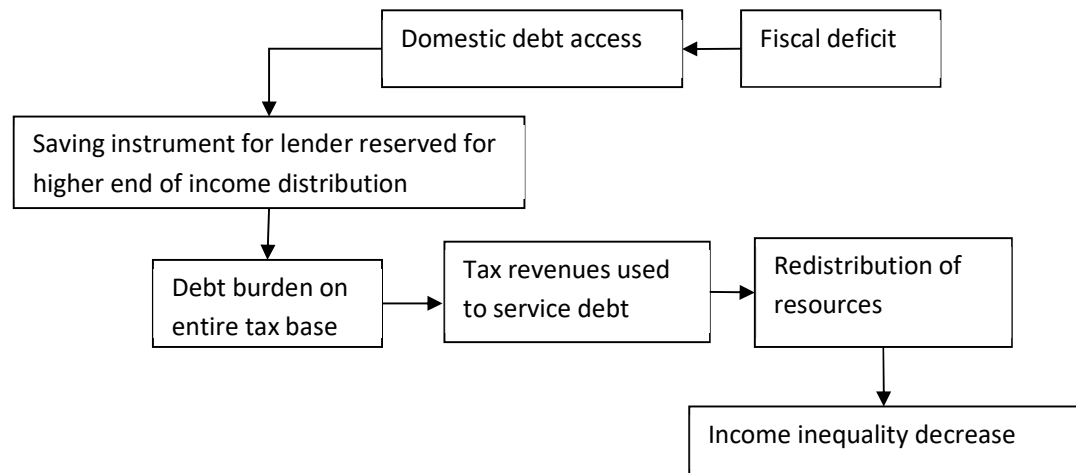

Source: Salti (2010) & Akram (2010)

According to Lee (2002) when government expand social expenditure and redistribute the income, it positively contributes in economy in such a way that poor has easy asses to education, health facilities which are the human capital enhancing activities and contribute in future income equality. But when government have persistent budget deficit and use the expenditure cut especially development expenditure to curtail deficit, leads to income equality. On the other hand, when government increase social spending and efficiently redistribute the income from rich to poor through progressive tax system, hence lower the income inequality. Because the progressive tax system particularly direct taxes enhance the disposable income of the poor people.

Figure 2
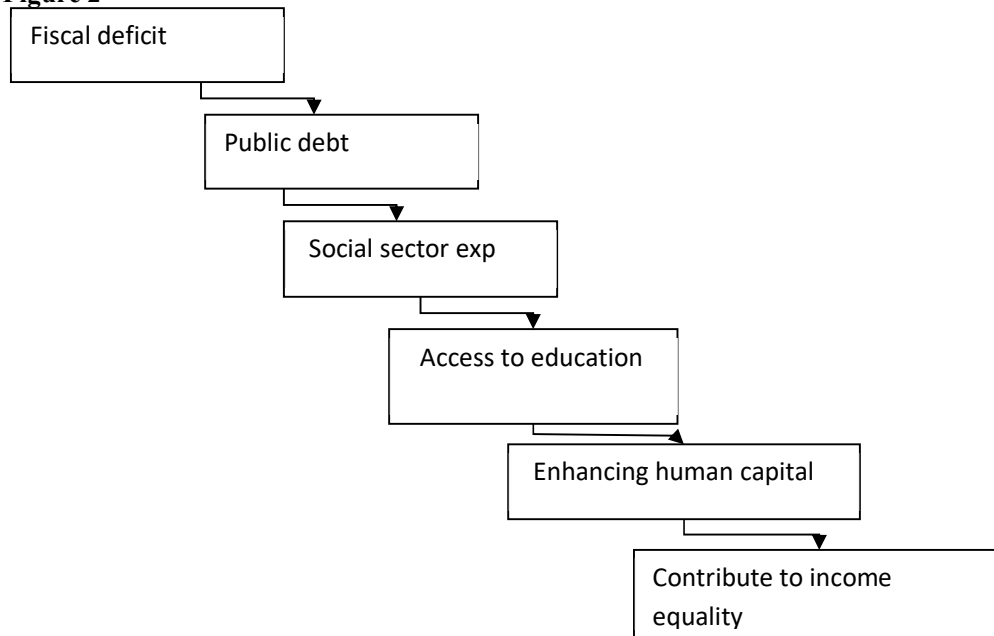
Source: Lee (2002)
Figure 3 External debt and income distribution
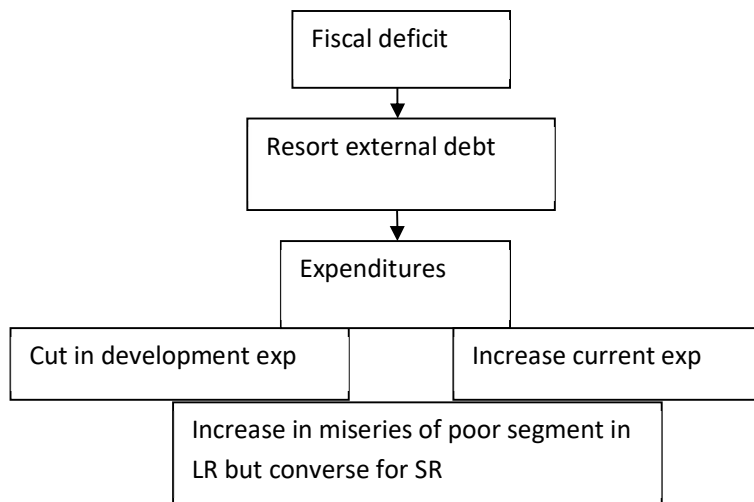
Source: Akram (2013)

Rising inequality and lower relative income may be linked to increased indebtedness. It is the hypothesis that responses to lower relative income may partially explain rising levels of indebtedness. Fiscal policy affects the overall level of resource distribution through many fiscal variables such as public spending, tax revenues, subsidies, deficit and public debt. Salotti and Trecrci (2013) investigate the impact of fiscal policy on income distribution in case of developed countries. In order to capture the overall effect of government on resource distribution this study uses the both flow and stock variables and finds that public spending is effective tool for resource distribution purpose and suggests that debt burdens narrow down the interventions made for equality enhancement.

Figure 4
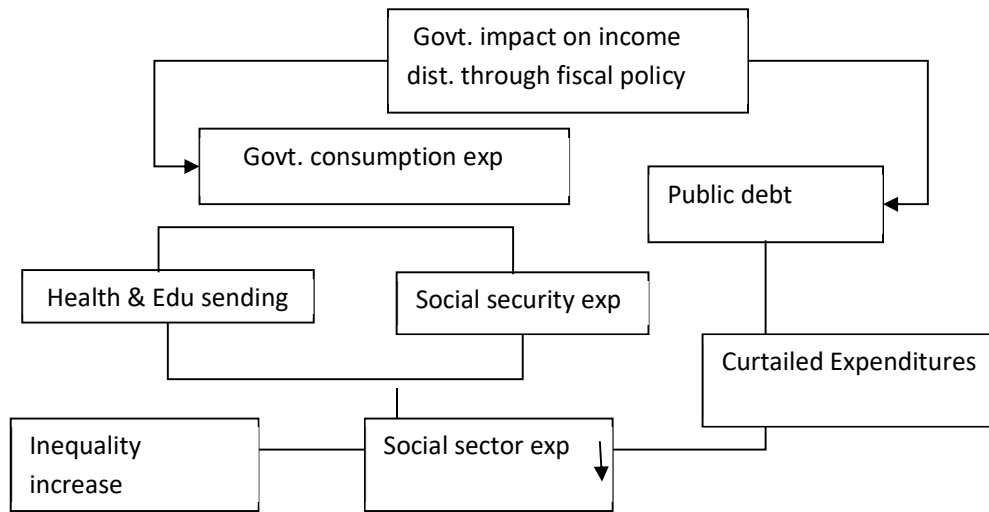
Source: Salotti & Trecroci (2013)

To show the association between public debt and income distribution different research studies has been used. Keeping in view of different research papers, the above theoretical link has been created to show that how income distribution is affected by public debt and debt servicing.

4. Econometric Model

Public debt has positive and negative effects on income distribution and inequality along with different macroeconomic variables. Economies face high and persistent budget deficit when the ratio of deficit with respect to GDP increases over the time period especially in long run. To overcome this situation government has three options to reduce the deficit: printing money, borrowing and curtailing expenditure. Each tool has its own consequences e.g. when government use printing money then it adversely affects the economy through inflation, high interest rate and low investment level. On the other hand, when government utilizes borrowing, this option is beneficial for short run but it has many worse consequences. Government agrees to borrow on the terms repayments which generally contain strict rules regulations. Hence in the next fiscal year government used its revenue on debt servicing which creates more expenditures and revenue gap as percentage of GDP this will reduce the further borrowing to finance deficit.

Consequently, government should concern about their public spending plan and they have only one option to reduce deficit by reducing the expenditures (current expenditure), it does not mean that government should reduce their spending by all means. Government should focus on unproductive spending but mostly governments curtailed development expenditure especially expenditure on education and health instead of slashing current unproductive expenditure (Sabir, 2001 & Akram et al., 2011).

In the light of above discussion, we will examine the effect of public debt on inequality with the help of other control variables**.** For analyzing the relationship between dependent and independent variables the functional form of models is written as follows.

Inequality = f (External debt, domestic debt, GDP, debt servicing, government effectiveness, trade openness)

Inequality =   f (DD, EXTD, DSRV, GEF, GDP, TO)
Model: External Debt, Domestic Debt, Debt Servicing and Income Inequality

$$GINI = \alpha + \beta_1(EXTD_{t,i}) + \beta_2(DD_{t,i}) + \beta_3(DSRV_{t,i}) + \beta_4(TO_{t,i}) + \beta_5(GDP_{t,i}) + +\mu_{t,i}$$

Where,

GINI = Gini index is income inequality measure

EXTD = External debt

DD = Domestic debt

DSRV = Debt servicing

TO= Trade Openness

GDP= Gross domestic product

Table 4.1 Definition of variables use in the estimation

Variables	Definition	Unit	Data sources
GINI coefficient		0-100	WDI, WIID
External debt	Public and publically guaranteed external debt as percent of GDP.	As % of GDP	WDI
Domestic debt	All domestically held claims of central government+ all securities issued by central bank	Million US $	IFS
Debt servicing	Debt servicing of public and publically guaranteed external debt	As % of GDP	WDI
Trade openness	(Exports + Imports/ GDP)*100	As percent of GDP	WDI
GDP		Growth rate	WDI

For empirical analysis, this study will have employed inequality as dependent variable. There are lot of measurement methods to measure income inequality. These methods include: variance, mean deviation, standard deviation, coefficient of variation, income quantiles, Theil, Atkinson, Hoover indexes, Palma ratio and others.

By far most commonly used measure is Gini index, that can be utilized for measuring the income inequality in percentage form, it value ranges 0 to 1, 0 for perfect equality and 1for perfect inequality. In coefficient form its value lies between 0 to 100. 0 represents perfect equality (every individual have same share) and 100 is maximum inequality (1 person takes all income).This measure is easy to understand, calculate and also straightforward. Lornez define the inequality through Lornez graph. This graph represents the population quantiles on the basis of income distribution. In graph, on horizontal axis population quantiles amount in cumulative term is plotted and vertical axis total income is plotted. In the graph, 45o line represent perfect equality situation and curve represent the current distribution of income. Gini is calculated through ratio of area between equality line and curve (current distribution of income) divided over total are under equality line(45o) (Charles-Coll, 2001).

Gini coefficient have some limitations to important analysis of inequality, such as, to measure variations in middle of distribution it is highly sensitive and converse is true for top and bottom distributions (Cobham & Sumner, 2013).

For the empirical relationship between public debt and inequality this study will use a panel of South Asian countries and data for the period of 1990-2014. Data will be collected form World Development Indicators (WDI), International Financial Statistics (IFS) and World Income Inequality Database (WIID).

5. Results and Discussions

In order to determine which model is more appropriate for our study (FEM or REM), the HST is carried out. To back up our result, i.e. REM is to be used, the BP-LM test is also performed and the results are shown in tables given below. After having the thorough discussion regarding the methods used in the current study we have reached on the following results. This chapter is about the results with incorporating methodology discuss in the 4th chapter which are Ordinary Least Square Model (OLS), Least Square Dummy Variable Model (LSDV), Random and Fixed Effect Models, we followed Akbar et al. (2011) and Rajasekar & Deo (2014) to estimate the comprehensive results of the current panel study. The analysis started with the simple Descriptive Analysis.

Table 5.1: Descriptive statistics

	INEQ	EXDT	DSRV	DD	GDP	TO
Mean	36.845	40.071	2.7181	1896.88	5.900	67.766
Median	34.090	37.713	2.403	150.570	5.896	48.235
Maximum	62.690	87.565	7.541	28577.2	19.58	204.759
Minimum	28.65	2.896	0.823	0.1930	-3.635	21.551
Std. Dev.	6.646	17.172	1.480	5020.98	3.022	44.705
Obs…	133	133	133	133	133	133

Table 5.1 presents the descriptive statistics of variables used in the empirical analysis, maximum value of inequality index (INEQ) is 62.69 and minimum is 28.65 in the period of analysis. This means there is diversity in inequality among South Asian countries. Domestic debt (DD) is measured in kind of million dollars, where maximum value of DD is 28577.2 in India and minimum is 0.1930 in Maldives. Maximum external debt (EXTD) is recorded at 87.56% of GDP and minimum was recorded at 2.869% of GDP. Mean value of debt servicing (DSRV) is 2.71 and maximum is 7.54 with minimum value of 0.823% of GDP.

Table 5.2: Correlation matrix

	INEQ	EXDT	DSRV	DD	GDP	TO
INEQ	1.0000					
EXDT	-0.0261	1.000				
DSRV	-0.0051	0.0177	1.0000			
DD	0.0140	-0.1166	0.0532	1.0000		
GDP	-0.1603	0.0258	0.0025	-0.0160	1.0000	
TO	0.0216	0.0353	0.0700	-0.0062	0.3176	1.0000

Table 5.2 presents the correlation matrix which determines that correlation between inequality and EXTD, DD and DSRV is week and negative so it is clear that there is negative relationship between the debt indicators and inequality in South Asia but relationship is not very strong one.

Econometric Model Selection

To check which model is appropriate for our study, we use F-test (efficiency test) for models between OLS and Fixed Effect Model (FEM) / Random Effect Model (REM).

$$F_{Groups\ effect} = \frac{(R^2_{fix} - R^2_{pooled})/(N - 1)}{(1 - R^2_{LSDV})/(NT - N - K)}$$

Table 5.3: Redundant Fixed Effects Tests

Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	11.471328	(5,120)	0.0000
Cross-section Chi-square	60.294836	5	0.0000

F-test value is more than 5, which shows that it is highly significant. So we can say that OLS results are not appropriate so we incorporate REM or FEM for appropriate results. However OLS Model is not appropriate for our study.

Table 5.4: Correlated Random Effects - Hausman Test

Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	33.672962	5	0.0000

Table 5.5: Model Selection Tests

Specification Test	P-Value	Tested	Selected Model
F-test	0.000	OLS/FEM	Fixed
Breusch and Pagan	0.000	OLS/REM	Random
Huasman test	0.4761	REM/FEM	Random

Different model selection criteria are pointing out that random effect is present in our model so the study discusses the results of random effect to provide empirical evidence to support hypothesis tested. So the results of only random effect model is considered appropriate to present the findings of the study.

Random Effect Model
The result of random effect model confirms the significance of domestic debt, external debt and debt servicing to affect inequality level in south Asian countries. The results are presented in table 6

Table 6: Random effect model (Selected model)

Dependent Variable: INEQ				
Method: Panel EGLS (Cross-section random effects)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXDT	0.0702**	0.0301	2.3298	0.0214
DSRV	-0.9857***	0.3351	-2.9413	0.0039
DDM	-0.0161*	9.14E-05	-1.7568	0.0814
GDP	0.1611	0.1465	1.0995	0.2736
TO	0.0813***	0.0118	6.8677	0.0000
C	30.5542***	1.4961	20.4214	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.000000	0.0000
Idiosyncratic random			4.769300	1.0000
Weighted Statistics				
R-squared	0.394560	Mean dependent var		36.84508
Adjusted R-squared	0.370724	S.D. dependent var		6.646269
S.E. of regression	5.272280	Sum squared resid		3530.211
F-statistic	16.55298	Durbin-Watson stat		0.167589
Prob(F-statistic)	0.000000			

Random effect model determines that all the debt indictors e.g. EXTD, DD and DSRV are negatively and significantly affecting INEQ in South Asia. The coefficients of EXTD and DD are very small but the diagnostics are suggesting that the effect is significant so we can consider the results to reject null hypothesis in favor of alternative hypothesis that there is significant impact of debt on inequality. The negative signs of debt indicators suggest that with increase in debt will leads to increase in redistribution and that will further reduce the income inequality in the economies with higher debt ratios.

Table 5.7: Cross Section Effects

Country Code	Country Name	Effect
1	Bangladesh	-5.1768
2	Bhutan	10.071
3	India	-8.8838
4	Maldives	2.5290
5	Nepal	1.039
6	Pakistan	-3.3149
7	Sri Lanka	3.7355

Diagnostic Tests

In order to ensure more reliable results and to remain in line with econometric norms, we have performed tests for Autocorrelation and Heteroscedasticity. We have shifted to heteroscedasticity using the following assumptions:

H_0: Have heteroscedasticity; H_1: Do not have heteroscedasticity (Homoscedasticity)

Table 5.8: Test for Autocorrelation

$F(1,19)$	Prob> F	Implication
9.735	0.198	no autocorrelation

Serial correlation test indicates that probability value is 0.198 which indicates there is no autocorrelation present in the penal data set.

Table 5.9: Heteroscedasticity Test

Chi^2	Prob> Chi^2	Implication
24.95	0.0001	there is no Heteroscedasticity

According to the p-value, which is less than 0.05, we reject the null hypothesis and find that there is no presence of Heteroscedasticity in our panel for South Asia.

Table 5.10: Multicollinarity test

Variable	VIF	1/VIF
EXTD	4.81	0.208
DSRV	3.51	0.285
DD	2.45	0.408
TO	1.75	0.572
GDP	1.74	0.574

The value of VIF of all variables greater than 1 and less than 5 except IM, which shows that variables are moderately correlated, In other words moderated multicollinarity exists between the variables. All the variables have less than 10 value of VIF, due to this there is no need for further investigation.

The study's findings about the hypothesis which is empirically examined in penal of 7 South Asian countries shown very similar results with the previously conducted studies. We cannot neglect the importance of debt in affecting the inequality in South Asian countries.

Conclusion

The determinants of the levels and dynamics of inequality constitute an important topic in open economy macroeconomics. Different theoretical models have different predictions about the factors underlying inequality dynamics and about the signs and magnitudes of the relationships between unequal distribution of income and debt indictors. Different approaches to testing the empirical implications of multiple theories, either directly or indirectly, are therefore of considerable interest. Recently many studies have developed the link between debt and inequality argued that with other traditional determinants of inequality the debt infectors are also very significant drivers of income inequality.

This study examines the relationship between debt and inequality in a penal of seven South Asian economies over the period from 1996 to 2014. The study incorporated domestic debt, external debt and debt servicing as debt measures in a single penal model. The control variables are government effectiveness, GDP and trade openness. The study used Least Square Dummy Variable (LSDV) Fixed Effect model, Pooled OLS and Random Effect model with standard diagnostics of Hausman test, Langragian Multiplier test and F-test for model efficiency. The econometric analysis is also supported by standard diagnostic test for serial autocorrelation, heteroskdasticity and multicolinearity.

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