



# **Institutional Quality and Debt Relief: A Political Economy Approach**

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# Institutional Quality and Debt Relief: A Political Economy Approach

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## ***Abstract***

Recent shifts in the global debt relief architecture has meant that countries with superior institutions are often rewarded with increasing aid and debt relief, an incentive for debtor countries to strategically improve their institutions prior to seeking debt relief. This paper contributes to the literature by developing and empirically testing a political economy model of the possible impact of this shift on the motivations of politicians and bureaucrats in debtor countries. The findings suggest that debtor countries have quickly adapted to the shift by strategically improving in key areas of institutional governance prior to applying for debt relief.

***Keywords:*** Debt Relief, Aid, Institutional Quality, HIPC, Development.

***JEL Classification:*** F33; F34; F35; F55; H6

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## 1. Introduction

For much of the 1980s and 90s, the prevailing idea behind debt relief was that a debt burden beyond a certain threshold was counterproductive as it impeded financial flows and discouraged foreign investment, leading to poor or stunted economic growth. Early proponents of this ‘debt-overhang’ theory (e.g. Sachs, 1984; Krugman 1998) argued that large debt obligations act as a tax on investments and policy reforms (and ultimately economic development) since significant portions of the gains from economic adjustment accrue not to the country but to foreign creditors. They therefore urged debt relief for countries with large external debt stocks in order to reduce future debt service obligations. Doing so would not only reduce debt burdens and economic adjustment costs for debtor countries but would also increase future repayments to creditor nations, a win-win situation. Additionally, lower debt service payments would also free up resources to be used by the debtor countries for poverty reduction programmes. Since then, an extensive literature has developed around the debt overhang theory, the primary aim being to examine its existence among developing countries (e.g. Desphande 1997; Claessens 1990; Hansen 2001) and although the results have been mixed, the empirical evidence largely supports the debt overhang hypothesis.

However, Bird and Milne (2003) found evidence that among highly indebted low-income countries, higher levels of external debts were often correlated with higher levels of net resource transfers from official sources. This is supported by Marchesi and Missale (2004) who find that among highly indebted poor countries, the amount of loans they receive increases with their level of multilateral debts. They conclude that creditor countries may be engaging in ‘defensive lending’, where they grant new loans to help cover the debt service falling due on existing loans. Debt relief and aid thus appeared to be given on considerations other than debt stock levels and debt service obligations, contrary to the public rhetoric. In the late 1990s and early 2000s, there was renewed interest in the role of political and governance institutions in economic development. Knack and Keefer (2005) argued that despite the good intentions behind them, good policy prescriptions will almost certainly fail where there are poor institutions such as insecure property rights, inefficient and bureaucratic government machinery and weak rule of law. Burnside and Dollar (2000) also found evidence that foreign aid and debt relief induced growth only in countries that have good institutions. Overall, the emerging consensus was that countries with better institutions often performed better with aid and debt relief.

Consequently, there were calls for aid and debt relief efforts to be explicitly linked to institutional quality in recipient countries (e.g. Asiedu 2003; Michaelowa 2003). These calls appear to have been heeded to some extent as Chauvin and Kraay (2007) find that over the period 1993-2003, more debt relief went to countries with better institutions. Freytag and Pehnelt (2009) find that although institutional quality did not play any significant role in the decision to grant debt relief in the 1990s, it became a significant factor at the beginning of the 21<sup>st</sup> century when creditors began taking institutional quality into account. With increased debt relief going to countries with superior institutions, there appears to be a clear incentive for indebted countries to strategically improve their institutions in order to increase their chances of securing debt relief but this issue remains unexplored in the literature. This paper therefore examines how indebted countries have reacted to this shift by examining whether there is any empirical evidence to suggest that countries may be strategically improving the quality of their institutions prior to seeking debt relief. I present a political economy model of institutional quality improvement for indebted countries and then proceed to test for the probability of improvement. The findings shed light on how this change in the global debt relief architecture has affected the motivations of indebted countries and have important implications for the future evolution of the debt relief architecture and the design of new debt relief initiatives.

The rest of the paper is structured as follows: section 2 presents a review of the literature on aid, debt relief and institutional quality, highlighting how institutional quality affects the effectiveness of aid and debt relief. Section 3 presents a political economy model of the incentives for institutional improvement for an indebted country whilst section 4 presents the analytical framework and the methodology for the study. The results are presented in section 5 followed by conclusions and associated implications for policy in section 6.

## **2. Institutional quality, aid and debt relief effectiveness**

One aspect of the relationship between aid, debt relief and institutional quality that has interested researchers is the analysis of what the real motivations for aid and debt relief are and whether there is a pattern to this flow. For instance, Alesina and Dollar (2000) investigate whether the pattern of Aid flow is responsive to the variables that make aid effective in reducing poverty or if it is instead dictated by strategic and political considerations. Using data on bilateral aid flows averaged over 5-year periods beginning with 1970-74 and ending with 1990-94, they find that political and strategic considerations significantly influence the allocation of aid from donors to recipients. Particularly, an inefficient, poorly managed, non-democratic and economically closed former colony which is

politically friendly to its coloniser receives more foreign aid than a country that was not a colony with a similar poverty profile but better institutional characteristics. Their results therefore suggest that political factors such as colonial links, strategic alliances, strategic interests and the like have an important influence on which countries get aid.

Neumayer (2002) analyses which factors are important for the allocation of debt forgiveness using data on debt forgiveness over the period 1989-1998 for a sample of developing countries and documents evidence that although more debt forgiveness goes to countries with higher debt levels, countries with good governance indicators do not appear to get more aid than other similar but worse governed nations. Alesina and Weder (2002) investigate this issue further, examining if corrupt governments receive more or less bilateral and multilateral aid and debt relief (after controlling for other determinants of aid flow). They find no evidence that less corrupt governments receive more aid and debt relief, with some donors consistently giving large amounts of aid and debt relief to countries with poor governance indicators. Chauvin and Kraay (2007) use a combination of Tobit and Least Squares regression techniques to examine the cross-country and over-time allocation of debt relief across a sample of 62 low-income developing economies to identify which countries get debt relief and to determine how the incidence and size of debt relief differ from other forms of aid. They find evidence that over the period of 1989-1993, debt relief was higher for countries with poorer institutional indicators. Overall, the literature points to the fact that aid and debt relief are often given for politico-economic reasons that are often unrelated to poverty alleviation in debtor countries.

Although the theoretical justifications for debt relief are well established, the empirical assessment of the effectiveness of debt relief has been fairly recent. In their seminal paper, Chauvin and Kraay (2005) assess whether debt relief over the period 1989 – 2003 reduced debt overhang and freed up resources for development spending for a sample of 62 developing countries. They find that debt relief has had little or no significant impact on the level and composition of public spending in recipient countries. Since then, a plethora of papers have focused on issues around debt relief effectiveness, with researchers examining various aspects of the relationship between debt relief, economic growth and development. For instance Hepp (2005a) examined whether the HIPC initiative and other debt relief programmes of the 1980s and 1990s have had any significant impact on economic growth rates, concluding that in general, the effect of debt relief on economic growth rates has been negligible. Fikru and Getachew (2008) also examine whether debt relief led to economic growth and development using data from 14 HIPC African countries that received debt relief between 1990 and 2001. They find a negative correlation between aid and economic

development in most cases and add that even in cases where there was economic development this could not be explicitly linked to debt relief.

One of the principal aims of debt relief is to free up resources to boost government spending in areas such as health and education so a large swath of the literature has focused on empirically assessing debt relief impact on these social expenditures. For instance, Hepp (2005b) examined the effect of debt relief on per capita health expenditure for a sample of 122 developing countries and concludes that debt relief has had little or no effect on health expenditures, particularly in HIPC countries. However, compared to other developing countries, total health expenditures were higher in HIPC countries, possibly due to the conditions of the debt relief. Dessy and Vancatachellum (2007) also investigate the extent to which past debt relief has contributed to increased social services expenditure using debt relief over the period 1989-2003 and conclude that although debt relief has had a positive effect on social expenditures in health and education, this effect is small and only true for countries that had seen a significant improvement in their institutional governance.

Overall, the conclusion from the literature indicates that aid and debt relief appear to have a largely insignificant effect on economic growth and development outcomes in recipient countries. This is summed up by Doucouliagos and Paldam (2008) who conduct a meta-analysis of 100 papers on aid and debt relief effectiveness, finding that although the effect of aid and debt relief on economic growth is positive, this effect is very small, insignificant and falling over time. Additionally, differences in publication outlet, model specification and data appear to account for the bulk of the differences between reported results.

### **3. The model**

We can develop a political economy model of the utility maximising policy choices of debtor country politicians and bureaucrats. Public choice theory proposes that the utility of a politician crucially depends on the number of expected votes at the next election, which invariably depends on the popularity of the politician. Even in an autocracy, the politician still has to implement policies and programmes aimed at boosting popularity in order to counter the threat of rebellion, coup d'état etc. For bureaucrats, their utility is tied to the size of the budget under their control, prestige and room to make discretionary decisions. Politicians and bureaucrats in debtor countries face a choice between applying for debt relief and paying back their debts. On one hand, debt service uses up resources which could have otherwise been used to increase popularity (and expected votes) through the implementation of development projects or to increase patronage. A

large debt burden also scares off foreign investors who may be apprehensive about the management of the local economy and possible future policies of the government in terms of raising revenue to meet debt repayment obligations. Bureaucrats can also boost their prestige (and term of office) if they are able to negotiate relief on debt stock and future debt repayments. On the other hand, paying back debts on time and under initially agreed-upon conditions increases the credibility of the debtor country, making it easier to borrow in the future and on more favourable terms.

The utility maximisation problem faced by politicians and bureaucrats in the debtor country therefore consists of weighing up the potential gains in votes, popularity or prestige from the use of freed up resources as a result of relief in debt stocks and debt servicing obligations and the potential gains in credibility with creditors from servicing its debts as scheduled. Assuming linear relationships, we can formally express the utility of politicians and bureaucrats in debtor country  $i$  as:

$$U_i = \begin{cases} U + UD_i, & \text{if debt relief is granted} \\ U + UP_i, & \text{if debt is repayed} \end{cases} \quad (1)$$

$$UD_i = \lambda_0 - \lambda_1 R_i, \quad \lambda_0 \geq \lambda_1 > 0 \quad (2)$$

$$UP_i = \phi_0 - \phi_1 R_i, \quad \phi_0 = \phi_1 > 0 \quad (3)$$

Where:

$U_i$  = utility of politicians and bureaucrats in debtor country  $i$

$U$  = utility of politicians and bureaucrats in debtor country  $i$  independent of its debt obligations

$UD_i$  = utility gains from obtaining debt relief

$UP_i$  = utility gains from debt repayments

$R_i$  = risk of losing power ( $0 \leq R_i \leq 1$ )

As defined, the parameters  $\phi_0$ ,  $\phi_1$ ,  $\lambda_0$  and  $\lambda_1$  ensure that  $UD_i(R_i)$  and  $UP_i(R_i) \geq 0$  for all  $R_i$  and that  $UP_i(R_i=1) = 0$ . In order to maximise their utility, politicians and bureaucrats compare  $UD_i(R_i)$  and  $UP_i(R_i)$ . If the risk of losing power is zero, we can expect that the utility from applying for debt relief is higher than the utility from debt repayments i.e.:

$$UD_i(R_i = 0) > UP_i(R_i = 0) \Leftrightarrow \phi_0 > \lambda_0 \quad (4)$$

From equations (2), (3) and (4), it is evident that the optimal choice for debtor country politicians and bureaucrats depends on  $R_i$ . We can calculate the point  $\underline{R}$  at which politicians and bureaucrats are indifferent between the two policy options. At any default risk higher than  $\underline{R}$  they will therefore opt for debt relief.

$$UD_i(R_i) = UP_i(R_i)$$

$$\lambda_0 - \lambda_1 R_i = \phi_0 - \phi_1 R_i,$$

$$R_i = (\phi_0 - \lambda_0)/(\phi_1 - \lambda_1) \equiv \underline{R} \quad 0 < \underline{R} \leq 1 \quad (5)$$

The default risk  $R_i$  depends on the ability of politicians and bureaucrats to increase popularity (and thus votes) through projects aimed at boosting socio-economic development or patronage. In many indebted countries where government revenue is small, this largely depends on financial resources from reduced debt stocks and debt service obligations, foreign development assistance and aid.  $R_i$  is therefore dependent on factors affecting the probability of successfully applying for and obtaining debt relief such as the level of debt stock, debt service, political stability and institutional quality.

Thus:

$$R_i = f(\text{debt stock, debt service, political stability, institutional quality}) \quad (6)$$

As the empirical literature reveals, countries with a more politically stable environment, superior institutions and (to a lesser degree) higher debt stock and debt service levels are more likely to obtain debt relief, lowering  $R_i$ . Indebted countries therefore have an incentive to improve institutional quality prior to the debt relief application.

#### 4. Analytical framework and methodology

The primary hypothesis is that a country that is about to apply for debt relief will be more likely to improve its institutions as opposed to a country that is not applying for debt relief. To test this, I select 25 countries – all 16 countries that applied for debt relief under the Highly Indebted Poor Countries (HIPC) initiative in the year 2000 (the year with the most enrolments), representing over 40% of all countries in the HIPC programme and 9 non-HIPC countries (see Appendix). The HIPC Initiative was launched in September 1996 by the IMF and World Bank and was aimed at reducing debt burdens of highly indebted countries to sustainable levels through substantial reductions in debt service obligations and commitment to a series of reforms aimed at shifting



resources away from debt servicing toward productive investments in health and education. After a comprehensive review in 1999, the HIPC programme was “enhanced” to increase the number of eligible countries, increase the amount of relief available to each country and to deliver that relief faster. To be eligible to benefit from HIPC debt relief, a country must satisfy four broad conditions: it must be eligible to borrow from the IMF and World-bank, have an unsustainable debt burden, have a track record of good performance on previous IMF and World Bank sponsored programmes and must commit to sustained poverty reduction by developing a Poverty Reduction Strategy Paper (PRSP) through a broad-based participatory process. Once these conditions are met the country is at the decision point and the amount of debt relief required to bring the country’s debt burden to HIPC sustainability thresholds is calculated and the country begins receiving debt relief. Upon the satisfactory implementation of key reforms agreed to at the decision point and the maintenance of macroeconomic stability and further good performance under programmes supported by loans from the IMF and World Bank, the country reaches the ‘completion point’ where it receives any outstanding debt relief agreed to at the decision point. Thus, although a country has to maintain sound economic management and implement institutional reforms in order to reach completion, it is not a requirement to qualify for debt relief at decision point.

All the countries are observed over the period 1996-99 to see if there were any improvements in institutional quality. Three key measures of institutional quality are observed over the period – government effectiveness (GE), government regulatory quality (RQ) and social freedoms (VA). These measures adequately capture government performance and the impact of its policies and are selected as a collective measure of institutional quality largely because the government has a more direct impact on these measures and hence are likely to be the focus of government efforts to impress creditors prior to applying for debt relief. Table 1 details these variables.

Table 1: Variable description and Sources

Indicator	Description and source	Expected effect on dependent variable
<b>Dependent Variable</b>		
<i>IMPROVE</i>	Dichotomous. Equals 1 if country improved in at least two of the three measures of institutional quality between 1996 and 1999 (see Appendix).	
<b>Variable of interest</b>		
<i>HIPC</i>	Dummy. Equals 1 if country joined the HIPC initiative immediately after the observation period (i.e. in the year 2000)	Possibly +
<b>Other control variables</b>		
<i>GDPpc</i>	GDP per capita. Source: World Development Indicators (WDI, 2012)	Could be + or -
<i>GDPpcGrowth</i>	The GDP per capita growth rate (%). Source: World Development Indicators (WDI, 2012)	Could be + or -
<i>ExDebtStock</i>	External debt stock (% of GNI). Source: World Development Indicators (WDI, 2012)	Possibly -
<i>TotalDebtServ</i>	Total debt service obligation (% of GNI) – an indicator of the debt service commitments. Source: World Development Indicators (WDI, 2012)	Possibly -
<i>Africa</i>	Dummy. Equals 1 if country is in Africa	Could be + or -
<i>PolStab*</i>	Political Stability – measures the likelihood that government may be destabilised through unconstitutional or violent means such as a coup d’etat, rebellion or terrorism. Source: World Governance Indicators (Kaufman et al, 2010)	Possibly -
<b>Indicators of Institutional Quality</b>		
<i>GE*</i>	Government Effectiveness – an indicator of the quality of public services and the quality of the civil service as well as the degree of its independence from political pressures. Also measures the quality of policy formulation and implementation and the credibility of government commitment to that process. Source: World Governance Indicators (Kaufman et al, 2010)	
<i>VA*</i>	Voice and Accountability – an indicator reflecting the level of freedom of expression, freedom of association and a free media as well as the extent to which a citizens are able to participate in selecting their government. Source: World Governance Indicators (Kaufman et al, 2010)	
<i>RQ*</i>	Regulatory Quality – Reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development (Kaufman et al, 2010)	

\* normalised, with a zero mean and a standard deviation of one and range from -2.5 to 2.5. Higher values indicate “better” governance/institutional quality.

I use a probit regression model to estimate the probability that a country will improve its institutions prior to seeking debt relief. The estimated model takes the form:

$$P(\text{IMPROVE}^*_{it} = 1 | x_t \beta_t) = F(X_t, \beta_t) \quad (7)$$

Functionally, (1) can be represented as:

$$\text{IMPROVE}^*_{it} = \beta X_i + \phi \text{HIPC}_i + \mu_i \quad (8)$$

$$E[\mu] = 0$$

$$\text{Var}[\mu] = 1$$

Where  $IMPROVE_{it}^*$  is an unobserved latent variable. Empirically, we observe the binary variable  $IMPROVE$  that takes a value of one if there was a positive difference in at least 2 of the 3 indicators of institutional quality between 1996 and 1999 ( $IMPROVE_{it}^* > 0$ ) and zero otherwise ( $IMPROVE_{it}^* \leq 0$ ).  $X$  is a vector of control variables and  $HIPC$  is the explanatory variable of interest - a dummy variable that captures the effect of a country joining a debt relief programme, in this case the HIPC initiative, at the end of the observation period. It takes a value of one if the country joined the HIPC initiative and zero otherwise.  $\mu$  is an i.i.d error term with a normal distribution.

## 5. Results

Two models are estimated to investigate the probability of institutional improvement (Table 2). Model 1 includes the HIPC variable and all other control variables. Consistent with expectations, a country about to join the HIPC initiative shows a higher probability of improving its institutions as opposed to a country that is not joining. GDP per capita and its growth rate are not significant but have the expected negative impact on the probability of improvement. This negative effect is reasonable because countries with higher GDP per capita and faster growth rates are more likely to be better run with lower debt burdens and so are unlikely to exhibit a higher probability for pre-emptive institutional improvement. There is also no significant difference in institutional improvement between African and non-African countries, as captured by the *Africa* dummy. Model 2 includes the HIPC variable and only the control variables most likely to influence government's motivation and political will to pre-emptively improve its institutions. Again, countries that joined the HIPC initiative were significantly more likely to improve their institutions. Additionally, improvements in political stability reduced the probability of pre-emptive institutional improvement and is reasonable since countries that are more politically stable are likely to be better run and hence are likely to have lower debt burdens and consequently require less debt relief. Moreover, the risk of losing power  $R_i$  is considerably less in such countries and so the motivations for institutional improvement are also less.

Table 2: Probit Estimates

Variable	Model 1			Model 2		
	Coefficient	Std. Err	P-Value	Coefficient	Std. Err	P-Value
<i>C</i>	2.289	3.322	0.490	-0.151	1.132	0.894
<i>ExDebtStock</i>	-0.011	0.016	0.509	-0.016	0.136	0.241
<i>TotDebtServ</i>	-0.332	0.463	0.474	-0.133	0.185	0.473
<i>PolStab</i>	-1.493	1.309	0.254	-1.745	1.057	0.099**
<i>HIPC</i>	4.905	2.609	0.060**	4.588	2.320	0.048***
<i>GDPpc</i>	-0.001	0.006	0.835			
<i>GDPpcGrowth</i>	-0.575	0.596	0.334			
<i>Africa</i>	-1.744	1.541	0.257			
<i>Log likelihood</i>	-5.587			-6.726		
<i>LR <math>\chi^2</math> (7;A)</i>	21.495		0.003	19.22		0.000

\*\*significant at 5%; \*\*\*significant at 1%

The level of external debt stocks and debt service are not significant but have the expected negative effects on the probability of pre-emptive institutional improvement. Consistent with the theoretical and empirical literature (Alesina and Dollar, 2000; Alesina and Weder, 2002; Chauvin and Kraay, 2007), countries with large debt stocks and debt service obligations are likely to be poorly run and lack many of the preconditions necessary for institutional improvement. Consequently, the higher a country's debt stock and debt service, the less likely it is to be able to improve its institutions, although it may have the political will to do so.

## 6. Conclusion and policy implications

Recent shifts in the global aid and debt relief architecture has meant that countries with superior institutions tend to be rewarded with increasing aid and debt relief. This presents a clear incentive for indebted countries to strategically and pre-emptively improve their institutions prior to seeking debt relief. However, very little is known about what effect this shift has had on debtor countries, particularly on their motivations and political will towards the improvement of their institutions. This paper presents a political economy model of the possible impact of this shift on the motivations of politicians and bureaucrats in debtor countries by relating institutional quality to debt relief through the default risk of losing power and proceeds to empirically test the primary hypothesis of the model. The findings suggest that debtor countries have quickly adapted to the shift in the global aid and debt relief architecture towards rewarding superior institutions by strategically improving in key areas of institutional governance prior to applying for debt relief. Countries applying for debt relief under the HIPC initiative were much more likely to strategically improve their institutions compared to countries not applying for debt relief. By tying debt relief to institutional improvement, it appears that creditors have succeeded in reinforcing the political

will and motivations of politicians and bureaucrats in debtor countries to improve their institutional and governance environments. This is good news for policy makers involved in the design of aid and debt relief programmes but tighter controls may be necessary to ensure that these purported improvements are real and not merely cosmetic, aimed at ‘gaming’ the system.

## APPENDIX: Sample Countries

country	GE*	RQ*	VA*	Improve	HIPC
Angola	0	0	1	No	No
Argentina	0	0	0	No	No
Benin	1	0	1	Yes	Yes
Brazil	1	0	1	Yes	No
Cameroon	1	1	0	Yes	Yes
Chile	0	0	1	No	No
Gambia	1	1	1	Yes	Yes
Guinea	1	1	1	yes	Yes
Guinea-Bissau	1	0	1	Yes	Yes
Honduras	1	1	1	Yes	Yes
Kenya	0	1	0	No	No
Madagascar	0	1	1	Yes	Yes
Malawi	1	1	1	Yes	Yes
Mauritania	0	1	0	No	Yes
Nicaragua	1	1	0	Yes	Yes
Niger	1	1	1	Yes	Yes
Nigeria	1	1	1	Yes	No
Peru	0	0	1	No	No
Rwanda	1	1	0	Yes	Yes
Sao Tome and Principe	0	0	1	No	Yes
Senegal	0	1	1	Yes	Yes
South Africa	0	1	0	No	No
Tanzania	1	1	1	Yes	Yes
Zambia	1	1	0	Yes	Yes
Zimbabwe	0	0	0	No	No

\*Equals 1 if there was an improvement between 1996 and 1999, otherwise 0.

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