

# On the Impact of Reparations Payments for Slavery on Growth and Sustainable Development: Can Reparations Buy Growth?

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## Abstract

Reparation refers to the repairing of damage through the payment of money or through other methods employed by the offending party. This paper adds to the discussion on reparations by relating the effect of foreign aid on economic growth to the effect of reparations payments for slavery on economic growth; thereby providing economic proof for viability of reparations. Previous academic papers on reparations do not support their claims with economic reasoning; rather, they are contented with providing a moral argument. I presented a simple framework where the effect of ODA disaggregated by donor and destination on economic growth was estimated. The findings indicate that ODA, when allocated appropriately, has an economically positive and statistically significant impact on growth and development. Therefore, reparations payments allocated appropriately will likely have economically positive and statistically significant impacts on growth and development. The paper ends with policy recommendations for the recipient country.

## 1 Introduction

Standing in the United Nations country office in Athens, Greece; I was confronted by a general apathy. As I spoke about the negative effects that slavery and colonisation had on the Caribbean, the surrounding diplomats and professionals smiled but did not believe in the need or effectiveness of one of the solutions in question, reparations. I argued the point that reparations, whether sustainable or not, are due to the peoples whom had suffered through colonisation. At the very least, reparations payments would result in some increase in well-being for the receiving populace. This paper seeks to substantiate this claim by using Official Development Assistance (ODA) as a proxy for reparation payments.

Reparation refers to the repairing of damage through the payment of money or through other methods employed by the offending party. The viability of reparations for slavery has recently gained traction in the past 5 years with the formation of a reparations council, directed by Sir Hilary Beckles, a Barbadian historian. The literature on this topic is rather sparse, particularly, the case of reparations between Britain and Jamaica. Nevertheless, the council for reparations became more optimistic when in June 2013, 5228 elderly Kenyans who were brutally mistreated in the 1950 Mau Mau rebellion received payment of approximately USD4,000 from Britain (Blood Money). Similarly, papers that affirm the case for reparations have cited other instances of reparations to bolster their claims. For example, they have cited the reparations that West Germany provided to the Jewish people in the form of a 10-year provision of capital goods to Israel. Additionally, they have cited reparations given to Native Americans, Japanese-Americans and the planters themselves. Though these papers provide a legal and moral argument for payment to the Caribbean people for the atrocities of slavery, they do little to justify the impact of reparations on current economies or how in fact it would be worked into the economy to ensure that it produces a positive impact. Here lies the pertinence of this study. Let me start by saying that aid is always effective in the short term. Using a simple utilitarian perspective, taxing individuals in rich countries in order to reside consumption in poorer countries could be welfare improving even when the effect is confined to raising consumption and even if some aid is wasted. However, the major concern is if this wealth transfer is sustainable; else, this system of foreign aid will never move passed the current nature of dependent developing countries. Similarly, this has implications for a reparations payment

implying that the payment may not lead to a sustained increase in welfare; causing the recipient country to return to the initial level of dependency. The findings of this paper indicate that ODA, when allocated appropriately, is likely to have an economically positive and statistically significant impact on growth and development. Therefore, reparations payments allocated appropriately will likely have economically positive and statistically significant impacts on growth and development.

The question of the effectiveness of foreign aid was not always a central discussion in foreign aid programs. It was initially taken as a given that an international wealth transfer should benefit the recipient. Therefore, foreign aid programs were launched before there was compelling theory or evidence to prove their viability. The stated goal of these programs has always been difficult; to alleviate poverty in all its forms. The programs aimed to accomplish this through targeted aid towards development. Therefore, the unparalleled aid programs that ramped up in the 1960s are an unprecedented economic experiment. Though these programs had great intentions, foreign aid has had a tumultuous history. It is easy to write a selective list of foreign aid stories as a history of disasters. The British ground nuts fiasco which resulted in the Nigerian state-owned Ajaokuta steel mill that cost billions and has yet to produce a single tonne of steel (Easterly, 2006) and the Morogoro shoe factory in Tanzania, built with funds from the World Bank, which has never produced more than 4 per cent of its installed capacity reflect these disastrously ineffective disbursements of funds in the name of foreign aid. (Easterly, 2001) The French colonialists used DDT to combat malaria and typhoid, and built a road to address the region's isolation however, this resulted in a complex chain of events including a deterioration in the land needed to support the livestock, inequality widened and the equilibrium of a traditional society was irreversibly altered.

These experiences with foreign aid programs have led to most of the academic research on aid focuses on one question: "does aid work?" An understanding of aid effectiveness must go beyond the traditional concerns of early development and growth economists. Early literature saw aid as a cash injection into a simple hydraulic system (Keynesian macroeconomics). The literature then moved toward the evaluation of specific projects using cost-benefit analysis. The landmark study by Dollar and Burnside (2000) found that aid has a positive effect on economic growth using GDP as the measure for economic growth. However, this is shown to only be true in the economies in which aid is associated with good fiscal, monetary and trade policies. Certain papers have tried to link aid to other determinants or indicators of economic development and growth. For example, aid may be said to be positively correlated to investment. (Hansen and Tarp, 2000) However, their study is too simplistic, basing the main regression on an artificial aggregated aid total. A more disaggregated analysis; disaggregating aid into areas such as education, health and infrastructure, is needed to ensure the validity of these findings. These simple regressions have been so prolific that (Easterly, 2008) "the regression wars in aid and growth show no sign of ending any time soon." Nevertheless, there remains a lack of consensus on the appropriate controls.

Furthermore, trade theory raises the transfer problem through which a transfer of purchasing power could enrich the donor and leave the recipient worse off. (Rodrik, 2010) This may be triggered as a transfer aggravates the effects of existing distortions; such as subsidy, tax or tariff. However, this effect is often modest given that aid flows are small relative to trade flows.

Corruption has also been shown to play an integral role in where aid is allocated. Though the socially optimal level of corruption is not zero, donors tend to use one strategy when disbursing aid; withholding it where corruption persists. (Pande, 2008) However, in an ideal world, allocation rules would recognise that the forms of corruption and its consequences, differ across societies. Furthermore, aid may lead to social conflict, political instability, coups and civil war, particularly when aid is given to countries that have recently experienced conflict. When aid is fungible, it may increase the risk of regional arms race.

The recent literature has started to follow Boone (1996) looking at relationship between aid and social indicators such as infant mortality and primary enrollment. (Mishra and Newhouse, 2007) (Dreher et al, 2008). It has been shown that an increase in aid positively impacts social indicators. However, the results from Boone (1996) imply that most or all aid goes to consumption, increasing the size of the government, but it has no positive impact on poverty indicators. In other words, while consumption does rise, there is no evidence that the poor benefit from the aid. It is pertinent that once we aggregate aid and income across developing countries, the share of aid flows in the income of the developing world is relatively low. A reasonable rough estimate gives aid as accounting for 1 percent of the income of the developing world.

## 1.1 Hypothesis

The present study considers the plausible heterogeneous nature of reparation payments by disaggregating aid's data into different sectors (aid in Education, aid in the productive sector and aid on economic infrastructure) and from different donors (USA, DAC countries and Multilateral organisations) because different types of aid may have different effects on growth. Its results are also specific to the Caribbean. This distinction is important, as it has been shown that colonial history and distance from specific donors such as the United States affect the institutions and policies of a country, which in turn affect the effectiveness of aid. Finally, it makes use of robust econometric techniques, to solve problems such as endogeneity as well as possible biases.

Based on previous papers, it is believed that aid has an insignificant but positive effect on growth and development. Therefore, it is a reasonable assumption that we will find that ODA has a positive effect on the chosen outcome variables. However, it has yet to be agreed upon whether aid has a sustained positive effect. Moreover, there is a lack of synergy between economic articles on aid effectiveness and academic articles on reparations. This paper aims to provide a basis for bringing more economic science to the debate on reparations as requested by Darity and Frank (2003).

## 2 Data and Methodology

The dataset contains annual data on GDP growth rate (GDPR), Gross capital formation (Investment) as a percentage of Gross National Income, CO2 emissions by metric tons per capita (CO2) as indicators of development to be used as dependent variables. The dataset also included aggregate ODA (Totalaid) and ODA disaggregated in the following ways: ODA for education (Education), ODA for economic infrastructure (Economic), ODA for the production sector (Production), ODA from the United States of America, ODA from the OECD Development Assistance Committee (DAC) and ODA from Multilateral groups. This data was provided for a select group of fourteen (14) countries in the Caribbean covering the period 1995 to 2014(see Appendix for the list of countries). ODA data is from the credit reporting system (CRS) on the OECD website while the data pertaining to the indicators of development are from the World Bank World Development Series Databank.

The countries were chosen based on their comparability to Jamaica. The criteria used to choose the countries were: sovereignty, location, level of development and availability of data.

The major issue with this study is that it purports to estimate the effect of an international wealth transfer (i.e. reparations) that have not yet taken place. To do this, it's necessary to find an appropriate proxy for this international wealth transfer. I chose Official Development Assistance because it is similar to what reparations packages have been. ODA is defined as all transfers from official sources with at least a 25 percent grant component in practice is virtually all grants. Boone (1996) shows that during their sample period, the grant component of ODA averaged 93

A major concern that had to be considered when designing this study was the fundamental problem that aid is not randomly assigned. Therefore, simple correlations are uninformative because some country statistics that determine aid allocation are unobservable by econometricians. Therefore, I have chosen to use Instrumental variables. This approach has become exceedingly popular since Boone (1996). In order to investigate the long-run impact of ODA on GDP growth rates, we consider the following equation. We make use of a Two-Stage Least Squares (2SLS) model. The crucial point in a 2SLS model is the choice of an appropriate instrument that sufficiently explains ODA flows but is uncorrelated with the error term in the second stage regression.

The instrument employed is the logarithm of population. Small economies receive more aid than larger economies for political and structural reasons. Certain endogenous growth models predict that large countries grow faster than small countries due to economies of scale. But empirically this does not seem to be a relevant issue. With reasonably free trade, low transport costs, capital mobility and inexpensive communications; it is hard to see how largeness provides any clear benefits. The actual economic success of many small countries reinforces this point. Moreover, population is a good instrument because it has rarely been found to be a robust determinant of growth rates, and has a low posterior inclusion probability in comprehensive Bayesian studies. However, population can affect aid as it has been shown in the "small-country bias" whereby aid intensity tends to be greater for countries with small populations. (Alesina and Dollar, 2000)

Furthermore, in order to remove the likeliness of capturing reverse causality in the model, we

use lagged variables. For aggregate aid and each division of disaggregate aid, we use 1, 2, 3, 5 and 10 year lagged variables. This is done under the assumption that it would take more than a few months for the effects of received ODA to be shown in the indicators. However, due to data limitations, it was not appropriate to create lagged variables greater than 10 years. We run the following econometric model:

$$\text{growth}_{it} = \alpha_{it} + \beta \text{aid}_{it} + \gamma \text{controls}_{it} + \epsilon_{it}$$

, where  $\text{growth}_{it}$  is the GDP growth rate as a percentage of GDP or the gross capital formation as a percentage of gross national income of country  $i$  in period  $t$ ;  $\text{aid}_{it}$  is either aggregate or disaggregate ODA,  $\text{controls}_{it}$  are the control variables and  $\epsilon_{it}$  is the error term. We also use all the control variables as additional instruments. Country and Year fixed effects are run on the 3-year lag variables as these had generally shown the most significant results.

### 3 Results

There are two main outcome variables. The first variable is the annual GDP growth as a percentage of the previous GDP (GDPR). The second is gross domestic capital formation (Investment); which is used to capture the extent of domestic investment. In order to highlight the importance of the heterogeneity of aid flows, we first report the results where we use aggregate data on aid to estimate the pooled sample and then compare them with the results where the data is disaggregated.

Table 1 shows the results from the 2SLS regression of aggregate ODA on GDPR. It suggests a positive correlation between aggregate aid and GDPR. Specifically, it shows that for a USD1 million increase in Total ODA, there will be a 0.0288 percentage point increase in the GDP growth rate after one year, a 0.0280 increase after two years, a 0.0252 increase after three years, a 0.0236 increase after five years and a 0.0424 increase after 10 years. It shows the coefficient of the 1-year lag variable to be significant at the 10 percent level, while the coefficients of the other 4 variables are not significant from zero. There is also a trend downwards up to the 5-year mark and a noteworthy increase in coefficient at the 10-year mark.

**Table 1: Estimate of long-run impact of aggregate ODA on GDPR**

(GDPR)	(1)	(2)	(3)	(4)	(5)	(6)
Aggregate	1 year	2 years	3 years	5 years	10 years	Year FE
Total ODA	0.0288* (0.0172)	0.0280 (0.0174)	0.0252 (0.0154)	0.0236 (0.0152)	0.0424 (0.0294)	0.0264** (0.0135)
Constant	189.4** (86.77)	226.4** (97.07)	221.8** (101.8)	213.2* (120.7)	530.2 (326.8)	
Observations	266	252	238	210	140	238

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2 shows the results of the 2SLS regression of ODA, disaggregated into 3 categories based on its destination, on GDPR. Though no coefficient is significant, they all suggest a positive correlation between ODA and GDPR. Specifically, it shows that for a USD1 million increase in ODA for Education, there will be a 0.128 percentage point increase in the GDP growth rate after one year, a 0.116 increase after two years, a 0.106 increase after three years, a 0.144 increase after five years and a 0.260 increase after 10 years. Following this pattern, the values on the table explain both other variables. The correlations presented are shown to be most modest over the 10-year period for ODA destined for economic infrastructure and greatest for ODA destined for education. The coefficient of ODA destined for the production sector moved similarly to the ODA destined for education; however, for the purpose of comparability, it remained between Education and Economic Infrastructure, though the coefficients were closer to those of Education. The standard deviation for ODA destined for the Production Sector was higher showing it to be less likely to be significant.

**Table 2: Estimate of long-run impact of ODA, disaggregated by its destination, on GDP.**

(GDP)	(1)	(2)	(3)	(4)	(5)	(6)
Destination of ODA	1 year	2 year	3 year	5 year	10 year	Year FE
Education	0.128 (0.0795)	0.116 (0.0735)	0.106 (0.0688)	0.144 (0.103)	0.260 (0.188)	0.112* (0.0626)
Economic Infrastructure Production Sector	0.0704 (0.0527)	0.0681 (0.0491)	0.0611 (0.0434)	0.0650 (0.0489)	0.125 (0.0938)	0.062 (0.0380)
Observations	266	252	238	210	140	238

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3 shows the results of the 2SLS regression of ODA, disaggregated by donor, on GDP. Regarding ODA from the United States (US) and Development Assistance Committee (DAC), the coefficients suggest a positive correlation; however, the results suggest a negative correlation between ODA received from Multilateral Organisation and GDP. The results regarding the US were significant. For each donor, the coefficients grew with an increase in the lagged years. Specifically, it shows that for a USD1 million increase in ODA received from the United States, there will be a 0.0207 percentage point increase in the GDP growth rate after one year, a 0.0204 increase after two years, a 0.0206 increase after three years, a 0.0206 increase after five years and a 0.0355 increase after 10 years.

**Table 3: Estimate of long-run impact of ODA, disaggregated by the donor, on GDP.**

(GDP)	(1)	(2)	(3)	(4)	(5)	(6)
Donors	1 year	2 year	3 year	5 year	10 year	Year FE
United States	0.0207* (0.0110)	0.0204* (0.0113)	0.0206* (0.0115)	0.0206 (0.0127)	0.0355** (0.0181)	0.0216** (0.01)
Development Assistance Committee	0.0256* (0.0149)	0.0285 (0.0174)	0.0283 (0.0183)	0.0347 (0.0266)	0.0561 (0.0436)	0.0299* (0.0168)
Multilateral Organisations	-0.151 (0.273)	-0.163 (0.328)	-0.159 (0.319)	-0.0736 (0.0795)	-0.0627 (0.0467)	-0.157 (0.293)
Observations	266	252	238	210	140	238

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 4 shows the results of the 2SLS regression of aggregate ODA on Investment. These results

suggest that there is a positive correlation between ODA and Investment. It is noteworthy that the 3-year and 5-year lagged coefficients are significant at the 5 percent level. This is a trend that we will see in the subsequent regressions. It is further noteworthy because the 10-year lagged coefficients are not significant; debasing thoughts that there is a trend of significance with increasing lag. Specifically, it shows that for a USD1 million increase in ODA for Education, there will be a 0.110 percentage point increase in gross domestic capital formation after one year, a 0.104 increase after two years, a 0.101 increase after three years, a 0.109 increase after five years and a 0.177 increase after 10 years.

**Table 4: Estimate of long-run impact of aggregate ODA on Investment**

(Investment)	(1)	(2)	(3)	(4)	(5)	(6)
AGGREGATE	1 year	2 year	3 year	5 year	10 year	Country FE
Total ODA	0.110 (0.0675)	0.104* (0.0623)	0.101** (0.0517)	0.109** (0.0541)	0.177 (0.108)	0.0227 (0.0249)
Constant	98.25 (251.5)	163.7 (293.8)	-81.91 (280.1)	-389.0 (326.5)	-0.120 (933.6)	
Observations	246	233	220	194	129	220

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 5 shows the results of the 2SLS regression of ODA, disaggregated by its destination, on Investment. These results also suggest a positive correlation between ODA and investment for each category. Similar to the impact of ODA on GDP, the impact of ODA on Investment depends heavily on which sector it is distributed. These results suggest ODA destined for Education has a more significant impact on Investment. Similar to the effect of Education ODA on GDP, the coefficient of the 10-year lag variable is much larger than the other year levels. Moreover, the production ODA remained between both Education and Economic and loosely followed the same trend as the Education ODA. A notable difference is that the effect of the Economic ODA is higher at the 10-year point than the 1-year and 2-year point which is opposite to what was shown for GDP.

**Table 5: Estimate of long-run impact of ODA, disaggregated by its destination, on Investment**

(Investment)	(1)	(2)	(3)	(4)	(5)	(6)
Destination of ODA	1 year	2 year	3 year	5 year	10 year	Country FE
Education	0.422* (0.240)	0.359** (0.180)	0.319** (0.126)	0.433** (0.186)	0.722* (0.387)	0.612 (1.445)
Economic Infrastructure	0.289 (0.254)	0.334 (0.311)	0.252 (0.159)	0.234* (0.123)	0.596 (0.506)	0.087 (0.111)
Production Sector	0.325* (0.185)	0.363* (0.211)	0.270** (0.110)	0.367** (0.177)	0.467** (0.207)	1.037 (4.97)
Observations	246	233	220	194	129	220

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 6 shows the result of the 2SLS regression of ODA, disaggregated by its donor, on Investment. The same discrepancy is present in these results showing that there is a negative correlation between Multilateral Organisations and the outcome variable, in this case, Investment. ODA from the US is shown to have a significant positive impact on Investment whereas though larger, the impact of ODA from the DAC is not significant.

**Table 6: Estimate of long-run impact of ODA, disaggregated by donor, on Investment**

(Investment)	(1)	(2)	(3)	(4)	(5)	(6)
Donors	1 year	2 year	3 year	5 year	10 year	Country FE
United States	0.101** (0.0419)	0.0931** (0.0385)	0.0984*** (0.0365)	0.0924*** (0.0323)	0.114*** (0.0378)	0.823 (0.109)
Development Assistance Committee	0.123 (0.0818)	0.175 (0.150)	0.171 (0.130)	0.290 (0.349)	0.418 (0.583)	0.031 (0.0366)
Multilateral Organisations	-0.520 (1.252)	-0.715 (2.290)	-1.037 (4.278)	-0.319 (0.415)	-0.277 (0.262)	-0.823 (11.346)
Observations	246	233	220	194	129	220

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## 4 Limitations

A main limitation of the data is that the number of observations decreases significantly as the lags increase, reducing the significance of the results and increasing the standard error. This is especially important at the 10-year lag where we can see that the number of observations decreases from around 266 and 246 for GDP and Investment respectively, to 140 and 129 respectively.

It remains difficult to estimate the actual effect of ODA due to its fungibility. This refers to the fact that many governments modify their spending depending on where ODA is directed. For example, if ODA is allotted to education to increase resources in that area from current levels, the government may remove the amount of that ODA package in their spending allocation and put it elsewhere, leaving education with the same level of resources, just with a different source of funding. Therefore, the intended impact would be lost and may be seen in another industry, if the government reallocated funds, though the ODA went to education. However, the data available has not linked ODA allocation with government spending to identify these areas of interest.

Furthermore, the way to achieve sustained economic development remains an enigma making this study susceptible to the omitted-variable bias problem. Therefore, though we do see a clear correlation between ODA and development measured by Gross Domestic Capital Formation and the Gross Domestic Product growth rate, the community of researchers still do not have a full understanding of the determinants of growth. Therefore, it is likely that this study has not controlled for all determinants that may have had an impact on the development of the countries studied. This would suggest that the results we have may not only reflect the effect of ODA on economic development but rather the effect of some third factor may have also been estimated in the regressions.

Lastly, although the level of disaggregation is an improvement over previous studies, the sectors considered are still broad and therefore the problem of aggregation bias remains a concern.

## 5 Discussion

Commentary on foreign aid often takes the view that “Fail again, Fail better”. They assume aid does not have negative effects. However, though this study suggests ODA has a positive effect on these countries, some values may not be significant from zero since aid can undermine accountability, weaken the development of state capacity, worsen corruption and even lead to conflict; resulting in a weaker economy captured by the outcome variables. This negative impact is evident in the results regarding aid from Multilateral. Though these results were not significant, they suggested that aid coming from multilateral organisations may have had a negative impact on economic growth likely through the methods discussed above. Note that this study only deals with the Wider Caribbean region.

Overall, my empirical results suggest a positive correlation between ODA and the outcome variables. Moreover, the coefficients of the outcome variable, Investment, were much more significant at every level than GDP, indicating that ODA has a significant impact on gross domestic capital formation. This substantiates our hypothesis; moreover, it suggests that ODA, depending on the donor and its destination, may have a sustained impact. Though this does not disprove other studies that found that most aid funds consumption; which is not an ideal way to gain sustainable growth, it provides a basis to show that aid does also increase Investment and depending on the donor and destination of the aid, the rate of investment also changes.

From a foreign aid perspective, my findings emphasize the need to structure aid packages to achieve optimal results in order to make it possible that the recipient countries may be able to achieve a level of development that would no longer require aid packages from more developed countries. This goal would almost seem obvious to the casual observer of aid flows; however, the current structure of the aid system does not have an overall positive impact on development which is worrying because it implies that this system of dependence will continue. This is in part due to the fact that many donors do what is in their own interest rather than funneling aid into sectors shown to give better and more sustained results for the recipient country such as education. From this perspective, a reform of donor practices would be necessary to combat the ineffectiveness of aid that we currently see. There also remains an argument between conditionality and ownership of the policy agenda. Khan and Sharma (2003) emphasize the need for the domestic constituency to be willing to support and defend a set of reforms.



However, from a reparations perspective, the conditions will likely be internally imposed. Therefore, the upcoming policy recommendations are for the recipient government rather than the reparations payee and in this way, are not affected by the issues of conditionality. It is important to note that reparations payments would likely follow the pattern of current aid in which there would be a commitment by the ex-colonial power that would be disbursed over time.

The main challenge a country is likely to face directly before receiving reparations is developing a budget for the use of these funds. It is a constant fear that these funds may be squandered and result in the country returning to a place of dependence once the fund has been depleted. Foreign aid programs by the US provide a reasonable framework for these policies. Table 3 and Table 6 show that the ODA from the US has had a sustained positive impact on economic growth in the Wider Caribbean. Meyer (2014) provides information showing that a major push for the effectiveness of US ODA is due to the War on Drugs which requires good institutions in the Wider Caribbean to help in the anti-narcotics struggle. To accomplish this, the US has used conditionality, ensuring that countries have certain country-specific policies in place before disbursing aid. For example, it was required that certain governments take effective steps to address border security, corruption, increasing government revenues, strengthen the rule of law and investigating and prosecuting security force personnel credibly alleged to have violated human rights. These are ways to promote good institutions and should be applied to the recipient's country's situation in order to ensure reparations have the desired impact.

Furthermore, table 2 and 5 give compelling evidence for reparations payments to be largely put into increasing resources for and the impact of education at all levels. Since brain drain remains an issue for many countries in the wider Caribbean, it may be useful to use a bonding program that makes it necessary for persons studying to a certain level to work in the origin country before leaving so that the effect of this investment may be captured in the economy.

Finally, it is increasingly evident that 'trickle down' economics is not effective at promoting development. Angeles and Neanidis (2009) relate growth to aid and find the marginal benefit of aid to be lower in countries with substantial settlement by Europeans. European settlement has been associated with powerful elites with little concern for the poor. Therefore, appropriate social programs such as universal health-care, housing programs and employment schemes should be initiated in order to ensure that the welfare of most citizens are positively impacted by the payments.

## 6 Conclusion

The aim of this paper is to relate the effect of foreign aid on economic growth to the effect of reparations payments for slavery on economic growth and provide economic proof of the validity of reparations. As previously stated, many academic papers on reparations do not support their claims with economic reasoning; rather, they are contented with providing a moral argument. For example, Hall (2014) suggests appropriate forms of reparations such as: debt relief, poverty eradication, market access, agriculture and food security, transfer of technology and infrastructural development. However, she does not employ economic science making it difficult to verify the plausibility of these suggestions.

I presented a simple framework where the effect of ODA disaggregated by donor and destination on economic growth was estimated. The findings indicate that ODA, when allocated appropriately, has an economically positive and statistically significant impact on growth and development. Therefore, reparations payments allocated appropriately will likely have an economically positive and statistically significant impact on growth and development. I further provide policy recommendations substantiated by trends in Foreign Aid.

To improve on this study, it would be interesting to link the donor to the destination of the donor's ODA. For example, to evaluate whether ODA from the US destined for education has a greater impact than ODA from the EU destined for education within the same country or region.

## 7 References

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## 8 Appendix

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List of Countries

**Antigua and Barbuda**

**Belize**

**Costa Rica**

**Cuba**

**Dominica**

**Dominican Republic**

**Guatemala**

**Haiti**

**Honduras**

**Jamaica**

**Nicaragua**

**Panama**

**Saint Lucia**

**Saint Vincent and the Grenadines**

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<b>VARIABLE</b>	<b>OBS</b>	<b>MEAN</b>	<b>STD. DEV.</b>	<b>MIN</b>	<b>MAX</b>
<b>GDPR</b>	280	3.326735	3.310178	12.03602	13.3764
<b>INVESTMENT</b>	259	24.2937	7.629886	7.014275	47.04574
<b>TOTALAID</b>	280	175.9236407	227.225481	0.38	965.466
<b>TOTALAIDFROMUS</b>	280	39.3139154	76.1240811	0	582.263
<b>TOTALAIDFROMDAC</b>	280	120.485511	166.868159	0.58	942.749
<b>TOTALAIDFROMMULTILATERALS</b>	280	85.0690502	144.007445	0	867.312
<b>EDUCATION</b>	280	15.9709	25.02722	0	188.363
<b>ECONOMIC</b>	280	30.56567	60.23089	0	360.35
<b>PRODUCTION</b>	280	20.23215	29.59605	0	239.077
<b>LOGPOP</b>	280	14.25148	1.960675	11.13238	16.58907

**Table 7: OLS Regression of Total ODA on GDPR**

GDPR (OLS)	1-year lag	2-years lag	3-years lag	5 years lag	10-years lag
Total Aid	0.003 (1.19)	0.003 (1.01)	0.003 (1.14)	0.004 (1.49)	-0.008 <u>(2.07)*</u>
Crime Control	0.212 (0.29)	0.090 (0.12)	-0.113 (0.13)	-0.102 (0.11)	0.879 (0.68)
Government Effectiveness	-1.605 <u>(1.99)*</u>	-1.364 (1.62)	-1.402 (1.59)	-1.292 (1.32)	-0.948 (0.78)
Arable Land	-0.080 <u>(2.09)*</u>	-0.083 <u>(2.10)*</u>	-0.075 (1.78)	-0.076 (1.67)	-0.104 (1.93)
Year	-0.091 <u>(2.44)*</u>	-0.097 <u>(2.36)*</u>	-0.100 <u>(2.22)*</u>	-0.104 (1.85)	-0.357 <u>(3.45)**</u>
Distance from US /miles	-0.000 (0.33)	-0.000 (0.37)	-0.001 (0.62)	-0.001 (0.53)	0.002 (1.26)
Rule of Law	0.465 (0.49)	0.387 (0.39)	0.819 (0.71)	0.697 (0.56)	-2.218 (1.21)
Urban Population	0.062 <u>(4.01)**</u>	0.062 <u>(3.86)**</u>	0.062 <u>(3.68)**</u>	0.065 <u>(3.54)**</u>	0.084 <u>(3.68)**</u>
_cons	182.760 <u>(2.47)*</u>	194.901 <u>(2.38)*</u>	203.139 <u>(2.25)*</u>	209.120 (1.87)	713.746 <u>(3.44)**</u>
R <sup>2</sup>	0.11	0.11	0.11	0.12	0.21
N	266	252	238	210	140

\*  $p < 0.05$ ; \*\*  $p < 0.01$ **Table 8: OLS Regression of ODA to Education on GDPR**

GDPR (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Education	0.007 (0.67)	0.001 (0.13)	-0.013 (1.16)	-0.006 (0.39)	-0.024 (1.19)
Crime Control	0.299 (0.41)	0.060 (0.08)	-0.205 (0.24)	-0.053 (0.06)	0.718 (0.55)
Government Effectiveness	-1.461 (1.75)	-1.325 (1.50)	-1.796 (1.90)	-1.407 (1.37)	-1.383 (1.12)
Arable Land	-0.084 <u>(2.18)*</u>	-0.083 <u>(2.08)*</u>	-0.073 (1.73)	-0.076 (1.63)	-0.120 <u>(2.18)*</u>
Year	-0.097 <u>(2.51)*</u>	-0.096 <u>(2.23)*</u>	-0.083 (1.76)	-0.098 (1.70)	-0.327 <u>(3.10)**</u>
Distance from US /miles	-0.000 (0.42)	-0.000 (0.48)	-0.001 (0.71)	-0.001 (0.61)	0.002 (1.62)
Rule of Law	0.387 (0.41)	0.427 (0.42)	0.952 (0.83)	0.642 (0.51)	-2.329 (1.25)
Urban Population	0.063 <u>(4.06)**</u>	0.063 <u>(3.89)**</u>	0.063 <u>(3.73)**</u>	0.065 <u>(3.53)**</u>	0.086 <u>(3.72)**</u>
_cons	196.488 <u>(2.54)*</u>	195.306 <u>(2.26)*</u>	169.111 (1.79)	198.599 (1.72)	651.096 <u>(3.09)**</u>
R <sup>2</sup>	0.10	0.10	0.11	0.11	0.19
N	266	252	238	210	140

**Table 9: OLS Regression of ODA to the Economic Infrastructure on GDP**

GDP (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Economic Infrastructure	-0.001 (0.26)	0.003 (0.58)	-0.001 (0.20)	-0.004 (0.64)	-0.012 (1.31)
Crime Control	0.207 (0.28)	0.118 (0.15)	-0.183 (0.21)	-0.115 (0.12)	0.607 (0.46)
Government Effectiveness	-1.666 <u>(1.99)*</u>	-1.239 (1.43)	-1.449 (1.58)	-1.474 (1.44)	-1.381 (1.12)
Arable Land	-0.083 <u>(2.16)*</u>	-0.083 <u>(2.10)*</u>	-0.072 (1.71)	-0.074 (1.61)	-0.120 <u>(2.18)*</u>
Year	-0.087 <u>(2.25)*</u>	-0.101 <u>(2.38)*</u>	-0.096 <u>(2.05)*</u>	-0.097 (1.71)	-0.342 <u>(3.29)**</u>
Distance from US /miles	-0.000 (0.38)	-0.000 (0.48)	-0.001 (0.76)	-0.001 (0.69)	0.002 (1.55)
Rule of Law	0.434 (0.45)	0.361 (0.36)	0.928 (0.80)	0.801 (0.64)	-2.025 (1.10)
Urban Population	0.063 <u>(4.07)**</u>	0.062 <u>(3.87)**</u>	0.063 <u>(3.72)**</u>	0.065 <u>(3.54)**</u>	0.089 <u>(3.83)**</u>
_cons	176.266 <u>(2.28)*</u>	204.960 <u>(2.41)*</u>	195.847 <u>(2.09)*</u>	197.727 (1.74)	682.304 <u>(3.27)**</u>
R <sup>2</sup>	0.10	0.10	0.11	0.11	0.20
N	266	252	238	210	140

\*  $p < 0.05$ ; \*\*  $p < 0.01$

**Table 10: OLS Regression of ODA to the Production Sector on GDPR**

GDPR (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Production Sector	-0.005 (0.58)	0.007 (0.80)	-0.004 (0.41)	-0.011 (0.88)	-0.010 (0.64)
Crime Control	0.180 (0.25)	0.087 (0.11)	-0.181 (0.21)	-0.039 (0.04)	0.729 (0.56)
Government Effectiveness	-1.768 <u>(2.08)*</u>	-1.142 (1.29)	-1.529 (1.63)	-1.549 (1.51)	-1.373 (1.07)
Arable Land	-0.084 <u>(2.17)*</u>	-0.080 <u>(2.01)*</u>	-0.074 (1.75)	-0.083 (1.76)	-0.117 <u>(2.10)*</u>
Year	-0.083 <u>(2.14)*</u>	-0.103 <u>(2.44)*</u>	-0.094 <u>(2.01)*</u>	-0.096 (1.68)	-0.334 <u>(3.16)**</u>
Distance from US /miles	-0.000 (0.41)	-0.000 (0.49)	-0.001 (0.76)	-0.001 (0.57)	0.002 (1.54)
Rule of Law	0.477 (0.50)	0.396 (0.40)	0.931 (0.81)	0.613 (0.49)	-2.082 (1.12)
Urban Population	0.063 <u>(4.08)**</u>	0.062 <u>(3.85)**</u>	0.063 <u>(3.73)**</u>	0.067 <u>(3.60)**</u>	0.088 <u>(3.77)**</u>
_cons	168.765 <u>(2.17)*</u>	209.020 <u>(2.47)*</u>	191.073 <u>(2.04)*</u>	193.887 (1.71)	666.555 <u>(3.15)**</u>
R <sup>2</sup>	0.10	0.11	0.11	0.11	0.19
N	266	252	238	210	140

\*  $p < 0.05$ ; \*\*  $p < 0.01$

Table 11: OLS Regression of ODA from US on GDPR

GDPR (OLS)	1-year lag	2-years lag	3-years lag	5-years lag	10-years lag
Donor (United States)	-0.001 (0.17)	-0.001 (0.26)	0.002 (0.50)	0.001 (0.26)	-0.000 (0.03)
Crime Control	0.214 (0.29)	0.016 (0.02)	-0.089 (0.10)	-0.023 (0.02)	0.747 (0.56)
Government Effectiveness	-1.607 <u>(1.99)*</u>	-1.352 (1.60)	-1.420 (1.60)	-1.303 (1.32)	-1.137 (0.92)
Arable Land	-0.084 <u>(2.16)*</u>	-0.084 <u>(2.09)*</u>	-0.070 (1.66)	-0.072 (1.57)	-0.110 <u>(2.01)*</u>
Year	-0.089 <u>(2.40)*</u>	-0.093 <u>(2.27)*</u>	-0.102 <u>(2.23)*</u>	-0.105 (1.84)	-0.343 <u>(3.12)**</u>
Distance from US /miles	-0.000 (0.40)	-0.000 (0.49)	-0.001 (0.72)	-0.001 (0.67)	0.002 (1.46)
Rule of Law	0.389 (0.40)	0.401 (0.40)	0.953 (0.83)	0.743 (0.59)	-2.070 (1.10)
Urban Population	0.064 <u>(3.95)**</u>	0.064 <u>(3.82)**</u>	0.061 <u>(3.48)**</u>	0.064 <u>(3.38)**</u>	0.086 <u>(3.68)**</u>
_cons	181.121 <u>(2.43)*</u>	189.348 <u>(2.30)*</u>	207.597 <u>(2.27)*</u>	213.189 (1.87)	683.391 <u>(3.11)**</u>
R <sup>2</sup>	0.10	0.10	0.11	0.11	0.19
N	266	252	238	210	140

\*  $p < 0.05$ ; \*\*  $p < 0.01$ 

Table 12: OLS Regression of ODA from OECD DAC on GDPR

GDPR (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Donor (OECD DAC)	0.000 (0.12)	0.003 (0.90)	-0.001 (0.47)	-0.002 (0.55)	-0.005 (1.31)
Crime Control	0.239 (0.33)	0.130 (0.17)	-0.196 (0.23)	-0.096 (0.10)	0.747 (0.57)
Government Effectiveness	-1.617 <u>(2.00)*</u>	-1.449 (1.71)	-1.373 (1.55)	-1.259 (1.28)	-1.011 (0.82)
Arable Land	-0.084 <u>(2.15)*</u>	-0.088 <u>(2.19)*</u>	-0.071 (1.66)	-0.071 (1.55)	-0.108 <u>(1.99)*</u>
Year	-0.090 <u>(2.42)*</u>	-0.100 <u>(2.42)*</u>	-0.095 <u>(2.07)*</u>	-0.098 (1.71)	-0.336 <u>(3.22)**</u>
Distance from US miles	-0.000 (0.33)	-0.000 (0.14)	-0.001 (0.87)	-0.001 (0.81)	0.002 (1.05)
Rule of Law	0.395 (0.41)	0.299 (0.30)	0.974 (0.84)	0.783 (0.63)	-1.931 (1.04)
Urban Population	0.063 <u>(4.03)**</u>	0.062 <u>(3.84)**</u>	0.063 <u>(3.74)**</u>	0.065 <u>(3.54)**</u>	0.088 <u>(3.80)**</u>
_cons	182.955 <u>(2.45)*</u>	201.737 <u>(2.45)*</u>	193.700 <u>(2.11)*</u>	198.745 (1.75)	670.986 <u>(3.21)**</u>
R <sup>2</sup>	0.10	0.11	0.11	0.11	0.20
N	266	252	238	210	140

\*  $p < 0.05$ ; \*\*  $p < 0.01$

Table 13: OLS Regression of ODA from Multilateral Organisations on GDP

GDP (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Donor (Multilateral Organisations)	-0.004 (1.50)	-0.004 (1.39)	-0.005 (1.73)	-0.007 (2.28)*	-0.005 (1.31)
Crime Control	-0.019 (0.03)	-0.254 (0.32)	-0.509 (0.58)	-0.358 (0.38)	0.712 (0.55)
Government Effectiveness	-1.447 (1.78)	-1.195 (1.41)	-1.234 (1.39)	-1.108 (1.14)	-1.091 (0.89)
Arable Land	-0.078 (2.04)*	-0.076 (1.90)	-0.067 (1.58)	-0.071 (1.57)	-0.117 (2.14)*
Year	-0.073 (1.89)	-0.077 (1.79)	-0.074 (1.57)	-0.074 (1.30)	-0.329 (3.15)**
Distance from US /miles	-0.000 (0.48)	-0.001 (0.60)	-0.001 (0.88)	-0.001 (0.78)	0.002 (1.49)
Rule of Law	0.478 (0.50)	0.575 (0.57)	1.052 (0.92)	0.716 (0.58)	-2.326 (1.25)
Urban Population	0.062 (3.97)**	0.061 (3.75)**	0.060 (3.56)**	0.061 (3.36)**	0.084 (3.62)**
_cons	148.820 (1.93)	156.248 (1.83)	152.358 (1.62)	152.402 (1.34)	657.695 (3.13)**
R <sup>2</sup>	0.11	0.11	0.12	0.13	0.20
N	266	252	238	210	140

\*  $p < 0.05$ ; \*\*  $p < 0.01$

Table 14: OLS Regression of Total ODA on Investment

Investment(OLS)	1-year lag	2-years lag	3-years lag	5-years lag	10-years lag
Total Aid	0.007 (1.41)	0.001 (0.11)	0.004 (0.84)	0.013 (2.66)**	0.012 (1.87)
Crime Control	-9.075 (6.43)**	-9.871 (6.71)**	-11.386 (7.29)**	-11.825 (7.59)**	-15.051 (7.06)**
Government Effectiveness	6.695 (4.21)**	6.987 (4.30)**	7.357 (4.47)**	7.225 (4.34)**	3.938 (1.88)
Arable Land	0.097 (1.28)	0.115 (1.50)	0.168 (2.15)*	0.161 (2.06)*	0.178 (1.93)
Year	0.011 (0.15)	0.037 (0.47)	0.099 (1.17)	0.254 (2.65)**	-0.224 (1.26)
Distance from US /miles	0.007 (4.06)**	0.007 (3.74)**	0.006 (3.09)**	0.006 (3.25)**	0.009 (3.37)**
Rule of Law	1.154 (0.63)	1.708 (0.90)	3.438 (1.65)	3.258 (1.58)	8.561 (2.76)**
Urban Population	-0.162 (5.11)**	-0.176 (5.43)**	-0.197 (6.03)**	-0.209 (6.33)**	-0.213 (5.10)**
_cons	-6.219 (0.04)	-56.040 (0.35)	-177.094 (1.05)	-490.336 (2.56)*	466.106 (1.30)
R <sup>2</sup>	0.38	0.39	0.42	0.47	0.54
N	246	233	220	194	129

\*  $p < 0.05$ ; \*\*  $p < 0.01$



**Table 15: OLS Regression of ODA to Education on Investment**

Investment (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Education	0.052 <u>(2.63)**</u>	0.056 <u>(2.80)**</u>	0.064 <u>(3.14)**</u>	0.059 <u>(2.35)*</u>	0.013 (0.38)
Crime Control	-8.511 <u>(6.01)**</u>	-9.255 <u>(6.35)**</u>	-11.191 <u>(7.32)**</u>	-11.965 <u>(7.64)**</u>	-14.837 <u>(6.87)**</u>
Government Effectiveness	7.797 <u>(4.82)**</u>	8.203 <u>(4.96)**</u>	9.158 <u>(5.37)**</u>	8.663 <u>(4.96)**</u>	4.447 <u>(2.08)*</u>
Arable Land	0.084 (1.12)	0.102 (1.35)	0.170 <u>(2.22)*</u>	0.212 <u>(2.69)**</u>	0.194 <u>(2.04)*</u>
Year	-0.042 (0.55)	-0.036 (0.44)	0.024 (0.28)	0.215 <u>(2.18)*</u>	-0.248 (1.36)
Distance from US /miles	0.007 <u>(3.88)**</u>	0.006 <u>(3.68)**</u>	0.005 <u>(2.91)**</u>	0.005 <u>(2.53)*</u>	0.008 <u>(3.11)**</u>
Rule of Law	0.858 (0.47)	1.417 (0.76)	3.297 (1.61)	3.934 (1.88)	8.261 <u>(2.61)*</u>
Urban Population	-0.159 <u>(5.07)**</u>	-0.173 <u>(5.43)**</u>	-0.196 <u>(6.10)**</u>	-0.216 <u>(6.54)**</u>	-0.220 <u>(5.22)**</u>
_cons	101.622 (0.67)	91.620 (0.56)	-27.543 (0.16)	-408.366 <u>(2.07)*</u>	516.894 (1.42)
R <sup>2</sup>	0.39	0.41	0.44	0.46	0.52
N	246	233	220	194	129

\*  $p < 0.05$ ; \*\*  $p < 0.01$

**Table 16: OLS Regression of ODA to Economic Infrastructure on Investment**

Investment (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Economic Infrastructure	0.023 <u>(2.93)**</u>	0.024 <u>(2.91)**</u>	0.025 <u>(2.91)**</u>	0.020 (1.89)	0.003 (0.16)
Crime Control	-8.577 <u>(6.11)**</u>	-9.102 <u>(6.22)**</u>	-10.756 <u>(6.94)**</u>	-11.578 <u>(7.33)**</u>	-14.821 <u>(6.82)**</u>
Government Effectiveness	7.883 <u>(4.90)**</u>	7.956 <u>(4.89)**</u>	8.453 <u>(5.10)**</u>	8.341 <u>(4.79)**</u>	4.367 <u>(2.04)*</u>
Arable Land	0.095 (1.28)	0.101 (1.33)	0.161 <u>(2.09)*</u>	0.182 <u>(2.33)*</u>	0.190 <u>(2.01)*</u>
Year	-0.052 (0.68)	-0.033 (0.40)	0.032 (0.37)	0.233 <u>(2.38)*</u>	-0.239 (1.32)
Distance from US /miles	0.007 <u>(3.92)**</u>	0.007 <u>(3.75)**</u>	0.006 <u>(3.04)**</u>	0.006 <u>(2.95)**</u>	0.008 <u>(3.18)**</u>
Rule of Law	0.664 (0.36)	1.094 (0.59)	2.804 (1.36)	2.806 (1.34)	8.109 <u>(2.58)*</u>
Urban Population	-0.165 <u>(5.27)**</u>	-0.177 <u>(5.56)**</u>	-0.200 <u>(6.23)**</u>	-0.216 <u>(6.49)**</u>	-0.221 <u>(5.23)**</u>
_cons	122.117 (0.80)	84.276 (0.52)	-42.315 (0.24)	-446.709 <u>(2.28)*</u>	498.401 (1.37)
R <sup>2</sup>	0.39	0.41	0.44	0.46	0.52
N	246	233	220	194	129

\*  $p < 0.05$ ; \*\*  $p < 0.01$

**Table 17: OLS Regression of ODA to the Production Sector on Investment**

Investment (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Production Sector	0.027 (1.64)	0.038 <u>(2.27)*</u>	0.048 <u>(2.87)**</u>	0.008 (0.41)	0.023 (0.88)
Crime Control	-8.851 <u>(6.24)**</u>	-9.651 <u>(6.65)**</u>	-11.147 <u>(7.26)**</u>	-11.887 <u>(7.48)**</u>	-14.821 <u>(6.88)**</u>
Government Effectiveness	7.648 <u>(4.59)**</u>	8.109 <u>(4.83)**</u>	8.912 <u>(5.24)**</u>	7.683 <u>(4.33)**</u>	4.883 <u>(2.21)*</u>
Arable Land	0.099 (1.32)	0.128 (1.68)	0.190 <u>(2.47)*</u>	0.190 <u>(2.32)*</u>	0.206 <u>(2.16)*</u>
Year	-0.022 (0.29)	-0.010 (0.12)	0.040 (0.47)	0.257 <u>(2.61)**</u>	-0.259 (1.43)
Distance from US /miles	0.007 <u>(4.05)**</u>	0.007 <u>(3.74)**</u>	0.006 <u>(3.08)**</u>	0.006 <u>(2.86)**</u>	0.008 <u>(3.06)**</u>
Rule of Law	0.681 (0.37)	1.501 (0.80)	3.044 (1.48)	3.306 (1.57)	8.126 <u>(2.60)*</u>
Urban Population	-0.164 <u>(5.18)**</u>	-0.179 <u>(5.60)**</u>	-0.204 <u>(6.32)**</u>	-0.216 <u>(6.41)**</u>	-0.225 <u>(5.31)**</u>
_cons	61.766 (0.40)	38.590 (0.24)	-59.424 (0.35)	-493.924 <u>(2.51)*</u>	539.653 (1.48)
R <sup>2</sup>	0.38	0.41	0.44	0.45	0.53
N	246	233	220	194	129

\*  $p < 0.05$ ; \*\*  $p < 0.01$ **Table 18: OLS Regression of ODA from US on Investment**

Investment (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Donor (United States)	0.025 <u>(2.96)**</u>	0.015 (1.72)	0.010 (1.19)	0.014 (1.58)	0.004 (0.36)
Crime Control	-8.334 <u>(5.88)**</u>	-9.368 <u>(6.31)**</u>	-11.060 <u>(6.94)**</u>	-11.284 <u>(6.97)**</u>	-14.718 <u>(6.71)**</u>
Government Effectiveness	6.295 <u>(4.00)**</u>	6.677 <u>(4.11)**</u>	7.155 <u>(4.33)**</u>	7.080 <u>(4.16)**</u>	4.247 <u>(2.00)*</u>
Arable Land	0.107 (1.44)	0.121 (1.59)	0.176 <u>(2.25)*</u>	0.181 <u>(2.31)*</u>	0.189 <u>(2.02)*</u>
Year	0.006 (0.09)	0.026 (0.33)	0.087 (1.02)	0.239 <u>(2.44)*</u>	-0.256 (1.37)
Distance from US /miles	0.007 <u>(4.02)**</u>	0.007 <u>(3.79)**</u>	0.006 <u>(3.08)**</u>	0.006 <u>(3.03)**</u>	0.008 <u>(3.18)**</u>
Rule of Law	2.234 (1.20)	2.358 (1.23)	3.885 (1.84)	3.725 (1.77)	8.298 <u>(2.61)*</u>
Urban Population	-0.174 <u>(5.51)**</u>	-0.182 <u>(5.62)**</u>	-0.202 <u>(6.14)**</u>	-0.219 <u>(6.55)**</u>	-0.221 <u>(5.24)**</u>
_cons	3.601 (0.02)	-35.143 (0.22)	-154.100 (0.90)	-459.868 <u>(2.34)*</u>	533.075 (1.43)
R <sup>2</sup>	0.40	0.40	0.42	0.45	0.52
N	246	233	220	194	129

\*  $p < 0.05$ ; \*\*  $p < 0.01$

**Table 19: OLS Regression of ODA from OECD DAC on Investment**

Investment (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Donor (OECD DAC)	-0.001 (0.26)	-0.003 (0.51)	-0.009 (1.60)	0.003 (0.50)	0.012 (1.79)
Crime Control	-9.170 <u>(6.41)**</u>	-9.997 <u>(6.76)**</u>	-11.792 <u>(7.54)**</u>	-11.798 <u>(7.41)**</u>	-14.853 <u>(6.97)**</u>
Government Effectiveness	6.848 <u>(4.27)**</u>	7.126 <u>(4.34)**</u>	7.708 <u>(4.67)**</u>	7.402 <u>(4.36)**</u>	3.926 (1.87)
Arable Land	0.100 (1.29)	0.123 (1.58)	0.191 <u>(2.43)*</u>	0.178 <u>(2.24)*</u>	0.182 (1.97)
Year	0.018 (0.24)	0.045 (0.55)	0.126 (1.47)	0.254 <u>(2.56)*</u>	-0.259 (1.45)
Distance from US /miles	0.007 <u>(3.72)**</u>	0.006 <u>(3.40)**</u>	0.005 <u>(2.41)*</u>	0.006 <u>(2.97)**</u>	0.009 <u>(3.59)**</u>
Rule of Law	1.084 (0.58)	1.836 (0.96)	3.919 (1.87)	3.148 (1.49)	8.050 <u>(2.60)*</u>
Urban Population	-0.162 <u>(5.09)**</u>	-0.176 <u>(5.44)**</u>	-0.198 <u>(6.08)**</u>	-0.215 <u>(6.41)**</u>	-0.219 <u>(5.27)**</u>
_cons	-17.930 (0.12)	-69.596 (0.43)	-228.863 (1.34)	-488.393 <u>(2.47)*</u>	534.791 (1.49)
R <sup>2</sup>	0.37	0.39	0.43	0.45	0.53
N	246	233	220	194	129

\*  $p < 0.05$ ; \*\*  $p < 0.01$ **Table 20: OLS Regression of ODA from Multilateral Organisations on Investment**

Investment (OLS)	1-year lag	2-year lag	3-year lag	5-year lag	10-year lag
Donor (Multilateral Organisations)	-0.003 (0.49)	-0.008 (1.44)	-0.013 <u>(2.48)*</u>	-0.009 (1.78)	-0.004 (0.61)
Crime Control	-9.272 <u>(6.39)**</u>	-10.475 <u>(6.92)**</u>	-12.431 <u>(7.83)**</u>	-12.222 <u>(7.70)**</u>	-14.879 <u>(6.90)**</u>
Government Effectiveness	6.893 <u>(4.29)**</u>	7.306 <u>(4.48)**</u>	7.831 <u>(4.79)**</u>	7.602 <u>(4.52)**</u>	4.349 <u>(2.06)*</u>
Arable Land	0.099 (1.30)	0.128 (1.67)	0.191 <u>(2.46)*</u>	0.180 <u>(2.30)*</u>	0.182 (1.94)
Year	0.026 (0.33)	0.073 (0.88)	0.164 (1.88)	0.295 <u>(2.99)**</u>	-0.227 (1.25)
Distance from US /miles	0.007 <u>(3.94)**</u>	0.006 <u>(3.61)**</u>	0.005 <u>(2.83)**</u>	0.006 <u>(2.90)**</u>	0.008 <u>(3.20)**</u>
Rule of Law	1.065 (0.58)	2.007 (1.06)	4.010 (1.94)	3.272 (1.57)	7.937 <u>(2.52)*</u>
Urban Population	-0.163 <u>(5.12)**</u>	-0.180 <u>(5.56)**</u>	-0.205 <u>(6.31)**</u>	-0.218 <u>(6.56)**</u>	-0.221 <u>(5.25)**</u>
_cons	-33.299 (0.22)	-125.156 (0.76)	-305.044 (1.75)	-567.508 <u>(2.88)**</u>	476.318 (1.31)
R <sup>2</sup>	0.37	0.40	0.43	0.46	0.52
N	246	233	220	194	129

\*  $p < 0.05$ ; \*\*  $p < 0.01$