Election Cycles and the Allocation of Foreign Aid

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Election Cycles and the Allocation of Foreign Aid

By

Darren Larue

A Major Research Paper
Submitted to the Faculty of Graduate Studies
through the Department of Economics
in Partial Fulfillment of the Requirements for
the Degree of Master of Arts
at the University of Windsor

Windsor, Ontario, Canada

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Election Cycles and the Allocation of Foreign Aid

by

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______________________________________________

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August 8, 2018
Declaration of Originality

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Abstract

In this study, I explore the political budget cycle effect on foreign aid spending on the extensive and intensive margins. I find evidence to support the statement that foreign aid is not neutral to the existence of elections but is in fact manipulated by the incumbent government one year before an election. This study is an improvement from the recent literature in two distinct ways. First, I explore the overall election cycle effect for the different sub-categories of official development assistance (ODA): debt relief, infrastructure, humanitarian aid, multi-sector aid, production aid, program aid, and social infrastructure aid. Second, I look at the compositional changes of total ODA spending one year prior to an election. To avoid endogeneity problems, I focused on donor countries with fixed election dates, making elections exogenous. I included countries without fixed election dates for comparison. I found that some types of assistance have a positive causal donor election cycle effect while others have no significant donor election cycle effect. My results also indicate donor governments shift aid spending to categories that are visible to voters one year prior to an election. The results are robust to the extent that the analysis includes numerous control variables to address the possibility of omitted variable bias.
Acknowledgements

I would like to thank my supervisor Dr. Michael Batu. Without his guidance this paper would not have been possible. His teachings throughout this process have been invaluable. I am not just more confident in presenting my own ideas, but also challenging ideas in the economics community. I also ended every day knowing more than when I began it, and I owe that to him. I will carry this experience with me forever and build upon the knowledge I have learning working along side you. Thank you.

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I would like to say thank you to my second reader, Dr. Arbex, for his feedback.

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1. Introduction

From 2012 to 2016, the current 30 members of the Development Assistance Committee (DAC) have donated over 636 billion (US) dollars of official development assistance (ODA). ODA is any aid flow which is provided by official agencies, including state and local governments, or by their executive agencies, which is for the promotion of economic development and welfare of developing countries as the main objective. ODA can take on the form of debt relief, economic infrastructure aid, humanitarian aid, multi-sector aid, production aid, programme assistance, and social infrastructure aid. There are many circumstances in which a donor government would help the global developing community. For example, in times of emergency disasters, a government could decide to increase humanitarian aid in the form of disaster relief. Another example of aid is the restructuring of debt to strengthen economic ties or promote trade between two countries. Although foreign aid only accounts for a small portion of a donor country’s budget, with DAC members having a 0.7% ODA/GNI target, the study of the determinants of aid flows is crucial in understanding the donor countries’ true intentions. For example, what if the aid flows are not caused by pure altruism, but rather selfishly motivated to accomplish a political agenda at home? In this study, I explore the political budget cycle effect on foreign aid spending on the extensive and intensive margins. I find evidence to support the statement that foreign aid is not neutral to the existence of elections but is in fact manipulated by the incumbent government one year before an election.

---

1 This includes only official flows as reported by the OECD between 2012 and 2016 and it excludes aid given to multilateral agencies such as the UN.
2 GNI: Gross National Income
While politicians and scholars know foreign aid has some tangible benefits such as achieving foreign policy goals and export promotion, a less studied issue is whether politicians use foreign aid as a tool to increase their chances of re-election. A recent paper by Annen and Strickland (2017) looked at the election cycle effect of one sub category of ODA, humanitarian aid, and found a large positive causal election cycle effect. They argued that because disasters that prompt humanitarian aid often receive a lot of media attention, donor governments increase humanitarian aid spending abroad prior to an election to boost support for re-election. In the current paper, I argue that there are three reasons a positive causal effect between foreign aid and election cycles exists. First, voters care about their government’s capacity to influence the world globally. Second, foreign aid can be used as a tool to elevate support from different social communities. For example, using multi-sector aid to promote gender and women’s rights globally may attract voters who value these issues. Finally, foreign aid can be used to accomplish a policy agenda such as trade promotion, which provides economic dividends to the donor country.

In this paper, I improve upon Annen and Strickland’s results by exploring the political business cycle effect on the other 6 categories of ODA: economic infrastructure, debt relief, multi-sector aid, production aid, programme assistance, and social infrastructure aid. In addition, I look at the compositional changes of total ODA spending caused by an upcoming election. To the best of my knowledge, I am the first to look at these compositional changes. By including all categories of ODA spending and the compositional changes caused by an upcoming election, the results presented provide a more holistic and insightful view on the relationship between elections and foreign aid spending.
My results indicate that, on average and for countries with fixed elections, foreign aid increases substantially. For instance, social infrastructure and economic infrastructure registered the biggest increases of 167% and 117% respectively. On the other hand, humanitarian aid increased by only 57% one year prior to an election. More interestingly are the compositional changes in total ODA spending, which shows donor governments shift spending to aid types that are visible to voters and government determined. I define “visible aid” as aid that is easily observable by voters through any form of media and define government determined as an aid type that is not heavily influenced by any type of random event such as a disaster. My results indicate that, for countries with fixed elections, social infrastructure is the most responsive to an upcoming election with its percentage of total ODA spending increasing by 101% and production aid being the least responsive with its percentage of total ODA spending increasing by 33%. When looking at these results for the extensive and intensive margins, they fit well with my hypotheses that: (a) Aid spending, on average, increases one year prior to an election; and (b) On average, visible aid categories crowded out non-visible aid categories one year prior to an election.

In line with recent literature, I tested my hypotheses by examining the effects of elections in 18 donor countries - 8 with fixed elections, 10 with non-fixed elections - between the years 1995 and 2012. Figure 1 shows total expenditure on each of the sub categories of ODA. Also included in the figure for comparison is the number of elections that occurred each year. The main results focus on the countries with fixed elections making elections completely exogenous. I define a country as one that has fixed elections if the election occurs at a fixed date and the date cannot be changed by a majority of
incumbent elected officials. Fixed elections happen because of institutional constraints (e.g. constitution, laws, regulations, etc).

![Figure 1: Aid Expenditures by Category 1995-2012](image)

Finally, I look at the importance of public opinion on foreign aid spending. For this, I ran a regression using a public opinion value as a country fixed effect on a subgroup of the 18 full sample countries (countries included in the 2013 Eurobarometer survey). Treating this value as a country fixed effect allowed me to capture cross-country variation in public opinion and the effect this has on the overall aid spending on each sub category of ODA. The results indicate that government expenditure on development assistance is higher in countries that report elevated levels of support for foreign aid. The importance of this result will be outlined in Chapter 5.3.
The results I obtain are robust to the extent that I include control variables such as real GDP growth, general budget deficit, and party affiliation, and remain statistically significant. To avoid endogeneity problems with real GDP growth, the general budget deficit, and the amount of foreign aid expenditure, I lagged all control variables by one period. All regressions include donor and year fixed effects, so the election cycle effects come from within-panel variation.

The rest of the paper is organized as follows: section 2 describes this study’s contribution to the literature, section 3 presents the theoretical framework, section 4 describes the data, section 5 presents the donor panel results, and section 6 concludes this paper.

2. Literature Review

Much research has been done regarding donor and recipient specific determinants of aid flows. These studies examine the nexus of recipient characteristics and needs, the donor’s strategic and political interests, and the size of the aid flows. They find that factors such as colonial past, political alliance, trade partners, institutional quality, protection of property rights, population, geographic location, and strategic interests are all major determinants in the amount and type of aid given to a country (e.g. Alesina & Dollar, 2000; Burnside & Dollar, 2000; Classens, Cassimon & Van Campenhout, 2009; Dippel, 2015; Dollar & Levine, 2006; Neumayer, 2003). These influential papers on the determinants of foreign aid flows tend to focus on the recipient determinants. The current paper distinguishes itself from this literature in several respects. First, it shifts focus from recipient determinants of aid flow to the donor countries’ determinants, specifically
elections. Second, this paper looks at all 7 subcategories of ODA spending, outlined by the OECD, individually. Lastly, the most important contribution to the literature this paper provides is the finding that one year prior to an election, incumbent governments alter the composition of ODA spending. My results indicate that, one year prior to an election, the percentage share of total ODA spending increases for types of aid that are visible to voters. To my knowledge, this is the first paper to explore the election cycle effect on the composition of total ODA spending.

Traditionally, literature on the political budget cycle focuses on domestic expenditure and compositional changes caused by an upcoming election (see Brender, 2003; Galli & Rossi (2001); Kneebone & McKenzie, 2001; Khemani, 2004; Drazen & Eslava, 2010; Hanusch & Keefer, 2014). For example, Kneebone and McKenzie (2001) find that Canadian provincial governments tend to increase spending on schools and roads in the year prior to an election. A paper by Garmann (2017) tested whether the political budget cycle depends on levels of fiscal conservatism among voters. He found that pre-election spending is increased only if voters have sufficiently low levels of fiscal conservatism. If voters are highly fiscally conservative, there is no increase in spending. This paper differentiates itself from the main body of political businesses cycle literature by focusing on the effects of an upcoming election on foreign aid expenditures, specifically each of the ODA subcategories. An interesting paper by Faye and Niehaus (2012) looked at political businesses cycles in recipient countries and aid flows to those countries. They found that donors use bilateral aid to influence elections in developing countries; thus, aid is not neutral to the existence of elections in recipient countries. This paper adds to this argument by showing multiple categories of aid, as well as the composition of total ODA
expenditures, are not neutral to the existence of elections in the donor country. A recent paper by Annen and Strickland (2017) shows that elections affect humanitarian aid spending. By exploring the political budget cycle effect on the sub-categories of ODA, this paper echoes their statement that the models of political agency and the election process developed by Barro (1973) and Ferejohn (1986) should include money spent by the incumbent government abroad as well.

The importance of aid to voters has been identified as key determinant of a donor government’s allocation of aid funding. Voters preferences affect not only the quantity, but the quality of aid distributions (Mosley, 1985). Paul Collier, the author of The Bottom Billion (2007), asserts that a key obstacle to aid reform is public opinion in donor countries. He argues that the policies of aid agencies in countries where there is little support for foreign aid are overly risk adverse, causing the delivery of aid to be sub optimal. Paxton and Knack (2011) argue that understanding the determinants of support for foreign aid can help the aid practitioners make better arguments in favor of aid. Improved understanding of foreign aid can help develop education efforts to reduce public opinion as an obstacle to administering effective aid (Paxton & Knack, 2011). It has been found that during times of economic crisis, such as the 2007-2008 financial crisis, there is generally a reduction in aid. For instance, Heinrich, Kobayashi, and Bryan (2015) found that the view that budgetary constraints caused by crises reduce aid is inaccurate because donor governments’ expenditures tend to increase; rather, aid cuts occur because voters place a lower priority on aid. A review essay by Milner and Tingley (2013) looked at foreign aid perception in the United States. They found that public knowledge on the budget share of foreign aid is enormously over estimated. This over estimation of foreign aid spending may
cause voters to change their perspectives on foreign aid during economic crisis and view aid flows as a charity they cannot afford (Heinrich et al., 2015). The evidence presented in this study simply reinforces the arguments of the above authors that foreign aid is subjected to the gauntlet or public opinion, and that public opinion can have both positive and negative implications for aid funding.

3. Theoretical Framework

The most important mechanism to hold elected politicians accountable for their policy choices are elections. Based on the idea that incumbents want to secure re-election, Nordhaus (1975) and Tufte (1978) pioneered the literature on “political business cycles.” The idea is that incumbent politicians often employ expansionary fiscal policies before elections to increase their re-election chances. Precisely, a political budget cycle is a periodic fluctuation in a government’s spending policies, which is induced by the cyclicality of elections (Brender & Drazen, 2005). Drazen (2008) offers two explanations on the phenomenon of political business cycles. The first explanation is that voters’ favour low taxes and high government expenditures, and therefore elect incumbents who provide them. The second explanation is that voters respond to good economic conditions by being more likely to vote for the incumbent. Regardless of the explanations, because voters do not observe all government expenditure, there is an incentive for politicians to increase spending in areas that voters can observe (Annen & Strickland, 2017).

For the case of spending on foreign aid, the motivations are slightly different and somewhat complicated. First, voters in the donor country may view the capacity to provide foreign aid as an indicator of the incumbent government’s ability to influence the world
globally (Annen & Strickland, 2017). Second, incumbents can use foreign aid spending to woo votes from certain types of voters. For instance, foreign aid spending intended for the promotion of women’s rights may appeal to voters who care about women’s issues. Third, foreign aid spending can be used to secure better trade deals which accrue economic benefits to a donor country which, in turn, can boost the incumbent’s chances of re-election. These ideas point to the following hypothesis:

**Hypothesis 1: On average, all types of aid increase one year prior to an election.**

The above hypothesis can be empirically tested by running a regression with log foreign aid (‘aid’) as the dependent variable and an election dummy (‘election’) as the main explanatory variable:

\[
\text{aid}_{i,t} = \alpha \times \text{election}_{i,t} + \mu_i + \gamma_t + \epsilon_{i,t},
\]

where \(i\) indexes the donor country, \(j\) indexes the type of aid, and donor and year fixed effects are \(\mu\) and \(\gamma\), respectively. In equation (1), the dummy variables ‘election’ assumes a value of 1 if an election occurred in the previous year. The parameter \(\alpha\) captures the political business cycle effect. On the extensive margin, I expect that the value of \(\alpha\) is positive and statistically significant.

It is possible that the election dummy variable is endogenous to foreign aid. For instance, donor governments may choose the date of their elections to correspond with elevated levels of voter support generated by addressing social issues or the strength of the country’s economy (Annen & Strickland, 2017). If not considered, the endogenous relationship between foreign aid and elections may lead to biased estimates for \(\alpha\). Hence, as in Annen and Strickland (2017), I address the endogeneity problem by running
regressions with two samples: donors with institutionally fixed election dates and donors without fixed election dates.

Donors may increase foreign aid allocated towards activities that are visible to voters, relative to other types of aid (i.e., the less visible ones). On the intensive margin, donors may increase foreign aid to some types of aid that are ‘visually appealing’ to certain groups of voters. Take for example foreign aid towards social infrastructure, which is more visible than debt relief. Foreign aid directed to social infrastructure through the provision of health care, education, water and sanitation, as well as social protection, may appeal to voters who passionately care about these issues. A rational incumbent, therefore, may allocate more aid to social infrastructure and less toward debt relief with the goal to win re-election.

*Hypothesis 2: On average, visible aid categories (i.e. economic infrastructure, multi-sector aid, social infrastructure) crowded out non-visible aid categories (i.e. debt relief, programme assistance) one year prior to an election.*

To test the second hypothesis, I ran the following regression model similar to equation (1):

$$\frac{\text{aid}_{i,t}}{\text{total aid}_{i,t}} = \beta \cdot \text{election}_{i,t} + \mu_t + \gamma_t + \epsilon_{i,t},$$  \hspace{1cm} (2)

My hypothesis is supported if the sign of $\beta$ is positive and significant for aid that is more visible. To address the endogeneity concern, I used the same approach in equation (1) where I used a sub-sample of countries with constitutionally fixed election dates. Elections with fixed dates are clearly exogenous.
4. Data Sources

The data I used on the national elections in donor countries comes from the National Elections Across Democracy and Autocracy (NELDA) database. The NELDA dataset includes information on more than 2,600 election events in 157 countries from 1945-2012 (Hyde and Marinov, 2012). In line with the current literature, I focus on elections where the leader of the country’s government is elected. Annen and Strickland (2017) define these elections as those which “consist of executive elections in presidential democracies and parliamentary elections in parliamentary democracies” (p. 3). The countries included in this sample and the election years are summarized in Table 1.

There are 85 election events in this sample, 41% of which are fixed-term elections. The average donor in a non-fixed-term election date country experienced about 5.3 elections during the sample period, and the average donor in a fixed-term election date country experienced about 4 elections. On average, the elections occur 28% of the time for the ODA donor countries.

I obtain the data on Official Development Assistance (ODA) from the OECD’s Development Assistance Committee (DAC) database. This study focuses on the following categories of ODA: debt relief, infrastructure, humanitarian aid, multi-sector aid, production aid, programme aid, and social infrastructure aid. The DAC defines these categories of aid as follows:

- Debt relief is any form of debt reorganization which relieves the overall burden of debt (i.e. debt forgiveness, rescheduling, refinancing).
Infrastructure aid covers assistance for networks, utilities and services that facilitate economic activity.

Humanitarian aid is used for the purposes of disaster prevention and preparedness, reconstruction relief, relief coordination, protection and support services, emergency food aid, and other emergency/distress relief.

Table 1: ODA Countries and Election Frequencies

<table>
<thead>
<tr>
<th>Country</th>
<th>Fixed Election</th>
<th>Election Years</th>
<th>Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Yes</td>
<td>1998, 2004, 2010</td>
<td>3.53%</td>
</tr>
<tr>
<td>Finland</td>
<td>Yes</td>
<td>2000, 2006, 2012</td>
<td>3.53%</td>
</tr>
<tr>
<td>Italy</td>
<td>No</td>
<td>1996, 2001, 2006, 2008</td>
<td>4.71%</td>
</tr>
</tbody>
</table>

Source: National Elections Across Democracy and Autocracy (NELDA) database.
• Multi-sector aid is intended for projects which straddle several sectors, with a concentration on the environment, gender projects and urban and rural development.

• Production aid is applied to all directly productive sectors.

• Programme aid is support for the implementation of macroeconomic reforms (structural adjustment programmes, poverty reduction strategies); general programme assistance (when not allocable by sector).

• Social infrastructure aid covers efforts to develop the human resource potential and ameliorate living conditions in aid recipient countries.

The descriptive statistics for the seven categories of ODA are summarized in Table 2. The data in Table 2 is expressed in million $US. On average, and for the period of study, the largest percentage of total ODA spending is on social infrastructure aid, while program aid is the smallest percentage.

Additional donor variables such as real GDP growth rate and general budget deficit were sourced from the OECD statistics database. Real GDP growth rate is defined as the percentage change in real GDP, while the general budget deficit is defined by the OECD as “gross savings plus net capital transfers (receivable minus payable) minus gross capital formation, followed by the subtraction of acquisitions minus disposals of non-produced, non-financial assets.” This indicator is measured as a percentage of GDP. A positive budget deficit value means the government is in a net lending position providing financial resource to other sectors while a negative budget deficit value means the government is in a net borrowing position requiring financial resources from other sectors. Data for political parties was sourced from ParlGov. The political party’s variable, called party affiliation,
assumes a value of 1 if the government is right-leaning, 2 if center, and 3 if left-leaning. Thus, a higher (lower) value of the party’s variable indicate a left- (right-) leaning parliament. Lastly, I obtained the information on foreign aid importance from the 2013 Eurobarometer survey.

5. Results

5.1 Foreign aid and Elections

Table 3 Panel A presents the regression results for equation (1) using the full sample of countries. In all the regressions, I obtain a positive coefficient for the election dummy variable. This means that, on average, elections increase foreign aid spending in all aid categories one year prior to an election. This is consistent with the hypothesis of foreign aid being affected by political election cycles. All the estimated coefficients for the elections dummy are significant at the 1% level. Of the different types of aid, social infrastructure aid is the most responsive to election cycles while program assistance is the least responsive. The results indicate that foreign aid for social infrastructure increased by
Table 3: Elections and Foreign Aid, Results 1.

Panel A, Full Country Sample

<table>
<thead>
<tr>
<th>Dependent Variables (In log constant USD)</th>
<th>Debt Relief</th>
<th>Economic Infrastructure</th>
<th>Humanitarian Aid</th>
<th>Multi-Sector Production</th>
<th>Program Assistance</th>
<th>Social Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Election Dummy</td>
<td>1.273***</td>
<td>1.370***</td>
<td>1.026***</td>
<td>1.332***</td>
<td>1.272***</td>
<td>0.872***</td>
</tr>
<tr>
<td></td>
<td>(0.331)</td>
<td>(0.283)</td>
<td>(0.241)</td>
<td>(0.264)</td>
<td>(0.254)</td>
<td>(0.247)</td>
</tr>
<tr>
<td>N</td>
<td>286</td>
<td>321</td>
<td>312</td>
<td>320</td>
<td>321</td>
<td>314</td>
</tr>
<tr>
<td>Adj R-Sq</td>
<td>0.663</td>
<td>0.786</td>
<td>0.841</td>
<td>0.790</td>
<td>0.798</td>
<td>0.775</td>
</tr>
</tbody>
</table>

Panel B, Countries with Fixed Elections.

| Election Dummy                           | 0.643       | 0.775*                 | 0.454*           | 0.699*                 | 0.631*             | 0.232                 | 0.985*                |
|                                           | (0.607)     | (0.410)                | (0.249)          | (0.398)                | (0.348)            | (0.352)               | (0.505)               |
| N                                        | 130         | 143                    | 143              | 143                    | 143                | 139                   | 143                   |
| Adj R-Sq                                 | 0.600       | 0.834                  | 0.933            | 0.848                  | 0.855              | 0.820                 | 0.831                 |

Note: All Regressions include Donor and Year fixed effects. Standard errors in parenthesis. Significant levels: *:10%; **:5%; ***1%.
a factor of 5 one year before an election. In contrast, program assistance merely doubles one year before an election.

It is possible that the results in Panel A are biased because of the endogenous relationship between foreign aid and elections. Hence, I ran a separate regression shown in Table 3 Panel B for equation (1) but only for countries with fixed elections. Notable is the reduction in the size of the estimated coefficient for the election dummy compared to the estimates in Panel A. The reduction in the size of the coefficients suggests that the election dummy variable is upward biased. For instance, the estimated coefficients for social infrastructure in the full country sample is 1.709 and for the fixed election only sample is 0.781. According to the log-level formula \( \% \Delta y = (e^\alpha - 1) \times 100 \), the political business cycle effect on social infrastructure is 452% and 167% respectively. My results for humanitarian aid are similar to the results found by Annen and Strickland (2017) in their study on the political budget cycle effect on humanitarian aid. Both coefficients are positive and significant, but my results indicate a 58% increase in humanitarian aid spending one year prior to an election while their results indicate a 18% increase. Although my results indicate a much higher increase, both results support a positive causal relationship between elections and humanitarian aid. Although debt relief and program assistance lost their statistical significance in the fixed election sample, the coefficients for economic infrastructure, multi-sector aid, and production aid are positive and statistically significant at the 10% level. When looking at the R-squared values in Panel B of Table 3 for estimated coefficients that are statistically significant categories, the model explains over 80 percent of the variation. This result provides evidence on the strength of my hypothesis.
Table 4: Elections and Foreign Aid, Results 2.

Panel A: Full Country Sample

<table>
<thead>
<tr>
<th>Dependent Variables (In log constant USD)</th>
<th>Debt Relief</th>
<th>Economic Infrastructure</th>
<th>Humanitarian Aid</th>
<th>Multi-Sector Production</th>
<th>Program Assistance</th>
<th>Social Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Election dummy</td>
<td>0.889***</td>
<td>1.076***</td>
<td>0.897***</td>
<td>1.130***</td>
<td>1.005***</td>
<td>0.672***</td>
</tr>
<tr>
<td></td>
<td>(0.322)</td>
<td>(0.266)</td>
<td>(0.246)</td>
<td>(0.256)</td>
<td>(0.248)</td>
<td>(0.244)</td>
</tr>
<tr>
<td>Real GDP growth rate</td>
<td>0.492***</td>
<td>0.332***</td>
<td>0.320***</td>
<td>0.370***</td>
<td>0.359***</td>
<td>0.224***</td>
</tr>
<tr>
<td></td>
<td>(0.075)</td>
<td>(0.070)</td>
<td>(0.066)</td>
<td>(0.072)</td>
<td>(0.069)</td>
<td>(0.061)</td>
</tr>
<tr>
<td>General budget deficit</td>
<td>-0.271***</td>
<td>-0.169***</td>
<td>-0.094***</td>
<td>-0.150***</td>
<td>-0.163***</td>
<td>-0.103***</td>
</tr>
<tr>
<td></td>
<td>(0.041)</td>
<td>(0.033)</td>
<td>(0.024)</td>
<td>(0.032)</td>
<td>(0.031)</td>
<td>(0.025)</td>
</tr>
<tr>
<td>N</td>
<td>263</td>
<td>293</td>
<td>285</td>
<td>292</td>
<td>293</td>
<td>287</td>
</tr>
<tr>
<td>Adj R-Sq</td>
<td>0.735</td>
<td>0.822</td>
<td>0.860</td>
<td>0.824</td>
<td>0.834</td>
<td>0.797</td>
</tr>
</tbody>
</table>

Panel B: Countries with Fixed Elections Only.

| Election dummy                          | 0.440       | 0.655*                   | 0.386            | 0.627*                 | 0.497              | 0.141                |
|                                          | (0.531)     | (0.393)                  | (0.242)          | (0.364)                | (0.322)            | (0.358)              |
| Real GDP growth rate                    | 0.467***    | 0.164*                   | 0.127*           | 0.215**                | 0.181**            | 0.009                |
|                                          | (0.132)     | (0.087)                  | (0.066)          | (0.088)                | (0.083)            | (0.071)              |
| General budget deficit                  | -0.264***   | -0.134***                | -0.049***        | -0.049***              | -0.112***          | -0.086***            |
|                                          | (0.051)     | (0.032)                  | (0.016)          | (0.016)                | (0.030)            | (0.024)              |
| N                                       | 123         | 135                      | 135              | 135                    | 135                | 132                  |
| Adj R-Sq                                | 0.697       | 0.856                    | 0.938            | 0.869                  | 0.876              | 0.834                |

Note: All Regressions include Donor and Year fixed effects. Standard errors in parenthesis. Significant levels: *:10%; **:5%; ***:1%.
Table 4 presents the regression results for equation 1 with additional control variables, real GDP growth rate, and general budget deficit. Including real GDP growth is important because income of the donor country is one of the most important determinants of aid. I included general budget deficit as an additional control as this represents the fiscal decisions incumbent governments make. As shown in Panel A, Table 4, including real GDP growth and general budget deficit in the regressions did not change the signs of the estimated coefficients for the full donor sample, and all of the estimated coefficients are significant at the 1% level. However, some of the aid types lost their statistical significance for the fixed election sample. The estimated coefficients that remained statistically significant in the fixed election only sample are for economics infrastructure, multi-sector, and social infrastructure. These coefficients are significant at the 10% level. When looking at real GDP growth, as expected, in the full sample is positive and significant at the 1% percent level; this means that as a country’s real income increases, their foreign aid expenditures increase. For the fixed sample, real GDP growth is still a powerful determinant of foreign aid expenditures with only programme assistance losing all significance. Intuitively, the sign of the general budget deficit is consistent with the notion that as a country’s budget deficit increase, foreign aid expenditures decrease. When comparing the R squared values from Tables 3 and 4, all R-squared values are higher in the latter. The driving force behind this increase is the inclusion of the control variables real GDP growth and general budget deficit. In Table 3 and Table 4, when looking at the most responsive aid type social infrastructure, Table 3’s R-squared value is 0.831 and Table 4’s value is 0.857. These results imply that 83.1% of the variation in social infrastructure
spending is explained by the election cycle while inclusion of the controls in Table 4 increases the explanatory power of the model by merely 2.6% to 85.7%.

It is well known that left-leaning governments have different spending preferences than right learning governments. Beland and Oloomi (2017) investigated whether party affiliation of governors in the United States (Democrat or Republican) has an impact on the allocation of state expenditures. They found that Democratic governors allocate a larger share of their budget to health and education but there was no impact on total spending. Hence, to capture incumbent governments preferences, I included the political party’s affiliation variable in the regressions, and the estimation results are presented in Table 5. Including political party’s affiliation failed to overturn the results in Table 3. The estimated coefficients of the party affiliation variable are positive and significant at the 1% level in both the Panel A, the full country sample, and Panel B, the fixed elections only sample. As mentioned previously, this variable can take on 3 values: 1 if the government is right leaning, 2 if centric, and 3 if left leaning. This implies that political parties that are left leaning spend more on all categories of foreign aid than political parties that are centric and right leaning.

When including party affiliation along with real GDP growth and budget deficits, the resulting election coefficients are all still positive but smaller than those found in Table 3. When including the party affiliation value, social infrastructure remains the most responsive, 111% compared to the results in Table 3, 167%. This decrease, along with an increase in R-squared values, suggests the results in Table 3 are biased due to omitted variables. In Table 3, social infrastructure’s R-squared value is 0.831, meaning the model used explains 83.1% of the variation in social infrastructure spending. In Table 5, the R-
Table 5: Elections and Foreign Aid, Results 3.

Panel A: Full Country Sample

<table>
<thead>
<tr>
<th>Dependent Variables (In log constant USD)</th>
<th>Debt Relief</th>
<th>Economic Infrastructure</th>
<th>Humanitarian Aid</th>
<th>Multi-Sector Production</th>
<th>Program Assistance</th>
<th>Social Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Election dummy</td>
<td>0.883***</td>
<td>1.055***</td>
<td>0.885***</td>
<td>1.120***</td>
<td>0.989***</td>
<td>0.659***</td>
</tr>
<tr>
<td></td>
<td>(0.315)</td>
<td>(0.264)</td>
<td>(0.246)</td>
<td>(0.256)</td>
<td>(0.248)</td>
<td>(0.237)</td>
</tr>
<tr>
<td>Real GDP growth rate</td>
<td>0.467***</td>
<td>0.313***</td>
<td>0.309***</td>
<td>0.360***</td>
<td>0.345***</td>
<td>0.203***</td>
</tr>
<tr>
<td></td>
<td>(0.074)</td>
<td>(0.069)</td>
<td>(0.065)</td>
<td>(0.072)</td>
<td>(0.068)</td>
<td>(0.059)</td>
</tr>
<tr>
<td>General budget deficit</td>
<td>-0.263***</td>
<td>-0.163***</td>
<td>-0.090***</td>
<td>-0.147***</td>
<td>-0.158***</td>
<td>-0.096***</td>
</tr>
<tr>
<td></td>
<td>(0.040)</td>
<td>(0.031)</td>
<td>(0.023)</td>
<td>(0.031)</td>
<td>(0.030)</td>
<td>(0.023)</td>
</tr>
<tr>
<td>Party affiliation</td>
<td>0.002***</td>
<td>0.002***</td>
<td>0.001***</td>
<td>0.001***</td>
<td>0.001***</td>
<td>0.002***</td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
<td>(0.000)</td>
</tr>
</tbody>
</table>

| N                                       | 263         | 293                      | 285              | 292                     | 293                | 287                   | 293                   |
| Adj R-Sq                                | 0.741       | 0.828                    | 0.862            | 0.825                   | 0.837              | 0.809                 | 0.845                 |

Panel B: Countries with Fixed Elections.

| Electon dummy                          | 0.422       | 0.627*                   | 0.368*           | 0.609*                  | 0.476              | 0.134                 | 0.746*                |
|                                          | (0.517)     | (0.364)                  | (0.221)          | (0.357)                 | (0.307)            | (0.311)               | (0.433)               |
| Real GDP growth rate                    | 0.414***    | 0.119                    | 0.098            | 0.185**                 | 0.147*             | -0.039                | 0.303***              |
|                                          | (0.134)     | (0.080)                  | (0.060)          | (0.083)                 | (0.077)            | (0.068)               | (0.111)               |
| General budget deficit                  | -0.266***   | -0.137***                | -0.051***        | -0.114***               | -0.124***          | -0.090***             | -0.154***             |
|                                          | (0.050)     | (0.029)                  | (0.013)          | (0.028)                 | (0.026)            | (0.021)               | (0.035)               |
| Party affiliation                       | 0.002***    | 0.003***                 | 0.002***         | 0.002***                | 0.002***           | 0.003***              | 0.003***              |
|                                          | (0.001)     | (0.000)                  | (0.000)          | (0.000)                 | (0.000)            | (0.000)               | (0.000)               |

| N                                       | 123         | 135                      | 135              | 135                     | 135                | 132                   | 135                   |
| Adj R-Sq                                | 0.708       | 0.878                    | 0.948            | 0.877                   | 0.890              | 0.870                 | 0.878                 |

Note: All Regressions include Donor and Year fixed effects. Standard errors in parenthesis. Significant levels: *: 10%; **: 5%; ***: 1%.
squared for social infrastructure is 0.878, meaning this model explains 87.8% of the variation in social infrastructure spending. This increase in explained variation is a direct result of the inclusion on Real GDP growth, the general budget deficit, and party affiliation. These three controls only account for 4.7% of the variation in social infrastructure spending. When comparing the R-squared values from Table 4 and Table 5 for social infrastructure, 0.857 and 0.878 respectively, it really highlights the importance of including the political party’s preference in the model. These values indicate that party affiliation explains 2.1% of variation in social infrastructure spending, almost the same amount as real GDP growth and the general budget deficit combined. All R-squared values are greatest in Table 5 because inclusion of the three controls increases the explanatory power of the model.

5.2 Elections and Visible Aid

Table 6 reports the estimated coefficients for equation (2), which estimate the compositional changes to ODA spending caused by an upcoming election:

\[
\frac{\text{aid}_{i,t}}{\text{total aid}_{i,t}} = \beta * \text{election}_{i,t} + \mu_i + \gamma_t + \epsilon_{i,t}, \quad (2)
\]

When looking at the full country sample presented in Panel A, one can observe that all the coefficients are positive with program assistance losing all significance and debt relief only appearing significant at the 10% level. More interesting are the results from the sample of countries with fixed elections presented in Panel B. All coefficients remain positive, but a significance drop across all forms of aid occurs with debt relief and humanitarian aid losing all significance compared to the full country sample. Also notable
### Table 6 Elections and Visible Aid

#### Panel A: Full Country Sample

<table>
<thead>
<tr>
<th></th>
<th>Debt Relief</th>
<th>Economic Infrastructure</th>
<th>Humanitarian Aid</th>
<th>Multi-Sector Production Program Assistance</th>
<th>Social Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Election dummy</td>
<td>0.468*</td>
<td>0.782***</td>
<td>0.463***</td>
<td>0.704***</td>
<td>0.645***</td>
</tr>
<tr>
<td></td>
<td>(0.244)</td>
<td>(0.133)</td>
<td>(0.156)</td>
<td>(0.127)</td>
<td>(0.121)</td>
</tr>
<tr>
<td>N</td>
<td>280</td>
<td>281</td>
<td>275</td>
<td>281</td>
<td>281</td>
</tr>
<tr>
<td>Adj R-Sq</td>
<td>0.280</td>
<td>0.756</td>
<td>0.685</td>
<td>0.735</td>
<td>0.735</td>
</tr>
</tbody>
</table>

#### Panel B: Countries with Fixed Elections

<table>
<thead>
<tr>
<th></th>
<th>Debt Relief</th>
<th>Economic Infrastructure</th>
<th>Humanitarian Aid</th>
<th>Multi-Sector Production Program Assistance</th>
<th>Social Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Election dummy</td>
<td>0.379</td>
<td>0.466**</td>
<td>0.169</td>
<td>0.471**</td>
<td>0.282*</td>
</tr>
<tr>
<td></td>
<td>(0.384)</td>
<td>(0.201)</td>
<td>(0.205)</td>
<td>(0.187)</td>
<td>(0.163)</td>
</tr>
<tr>
<td>N</td>
<td>126</td>
<td>126</td>
<td>126</td>
<td>126</td>
<td>126</td>
</tr>
<tr>
<td>Adj R-Sq</td>
<td>0.158</td>
<td>0.799</td>
<td>0.785</td>
<td>0.816</td>
<td>0.473</td>
</tr>
</tbody>
</table>

Note: All Regressions include Donor and Year fixed effects. Standard errors in parenthesis. Significant levels: *:10%; **:5%; ***1%.
is the reduction in size of the coefficients from Panel A to Panel B. As with Table 3, this coefficient reduction suggests upward endogeneity bias. As stated before, endogeneity bias may exist in the full country sample because a donor country, which does not have an institutionally fixed election, may choose the date of their elections to correspond with elevated levels of voter support generated by addressing social issues or the strength of the country’s economy (Annen & Strickland, 2017).

These results are in line with my hypothesis that incumbent governments manipulate the composition of total ODA spending and shift aid spending to areas that are visible to voters and can provide economic dividends to the donor country and do not depend on emergency situations. In other words, one year prior to an election, aid that is visible to voters has a higher percentage share of ODA spending.

When looking at the percentage of total ODA spending changes, Social Infrastructure is the most responsive in both the full sample and fixed election sample, 193% and 101% respectively. In the fixed sample, production assistance is the least responsive to an upcoming election, 33%. These numbers indicate that the percentage of total ODA spending allocated to social infrastructure doubles one year prior to an election while production assistance percentage share of total ODA increases by only 30 percent.

5.3 Aid Importance

I included a regression using Aid Importance as the explanatory variable to show the effect of voter’s preference on foreign aid spending decisions. In this regression, due to the low overlap between the 18-country sample used in previous regressions and the countries where this survey was distributed, I could not separate fixed election countries
from the full sample. Instead, I grouped all overlapping countries together into a single sample. There is a possibility of an endogenous relationship between policy and public preferences which may cause bias in the estimated coefficients. In this analysis, I am not concerned with the magnitude of the estimated coefficients but rather the sign of the estimated coefficients as this represents the relationship between voters’ preferences and foreign aid spending. I derived this variable from the 2013 Eurobarometer survey. This survey included the following statement and question:

B. EU DEVELOPMENT AID AND MILLENIUM DEVELOPMENT GOALS

The EU provides development aid to assist certain countries outside the EU in their fight against poverty and in their development. EU development aid consists of the aid provided by both the European Commission and the national Governments of the EU Member States.

QB1

*In your opinion, is it very important, fairly important, not very important or not at all important to help people in developing countries?*

Respondents were required to answer a Likert scale that had 5 points: very important, important, not very important, not at all important, and DK. The results were presented as a percentage of total respondents for each of the four importance levels. To generate my aid importance variable, I grouped the very important and fairly important respondents together and used this percentage value as the fixed effect for each country that took part in the survey and is part of the 18-country sample.
### Table 7 Aid Importance and Foreign Aid

Full Country Sample

<table>
<thead>
<tr>
<th></th>
<th>Debt Relief</th>
<th>Economic Infrastructure</th>
<th>Humanitarian Aid</th>
<th>Multi-Sector Production Program Assistance</th>
<th>Social Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Importance</strong></td>
<td><strong>-8.381</strong>*</td>
<td><strong>4.169</strong>*</td>
<td><strong>7.923</strong>*</td>
<td><strong>2.329</strong></td>
<td><strong>0.799</strong></td>
</tr>
<tr>
<td></td>
<td>(2.054)</td>
<td>(1.589)</td>
<td>(0.830)</td>
<td>(1.418)</td>
<td>(1.096)</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>286</td>
<td>321</td>
<td>312</td>
<td>320</td>
<td>321</td>
</tr>
<tr>
<td><strong>Adj R-Sq</strong></td>
<td>0.677</td>
<td>0.796</td>
<td>0.843</td>
<td>0.793</td>
<td>0.804</td>
</tr>
</tbody>
</table>

Note: All Regressions include Donor and Year fixed effects. Standard errors in parenthesis. Significant levels: *:10%; **:5%; ***1%. 
The results are summarized in Table 7. The results indicate that countries where voters place higher importance on foreign aid spend more on foreign aid. I found that only economic infrastructure and humanitarian aid are positive and significant at the 1% level, while debt relief is negative and significant at the 1% level. All other forms of aid were not found to be significant. The results are presented to demonstrate that foreign aid levels are directly related to public preferences on aid flows. The explanation to this could have something to do with the public’s perception and understanding of foreign aid. Public perception about foreign aid and what foreign aid is tends to fall into economic infrastructure and humanitarian aid categories (e.g. building bridges and emergency food aid) while other forms of aid such as programme assistance are unbeknownst to the general populace. An incumbent government looking at results from the Eurobarometer survey knows about this skewed perception towards visible aid and knows that if they want to increase support for re-election, they must act in a way to show voters they pursue policies consistent to their preferences.

The results from this regression are in line with the work from Heinrich, Kobayashi, and Bryant (2015) who looked at public opinions and foreign aid cuts in economic crises. They argue that during times of economic crisis, public opinion about helping the global poor changes and that the levels of aid are overestimated and seen as a form of charity. Extending their results that voters’ perception of aid impacts government aid decisions and combining the results I found support a causal relationship between voter’s aid attitudes and government foreign aid spending decisions. As such, an incumbent government may take advantage of voters overestimating the values of foreign aid and increase aid spending in visible areas to increase support for re-election.
6. Conclusion

This paper provides insights into the political determinants of debt relief, economic infrastructure aid, humanitarian aid, multi-sector aid, production aid, programme assistance, and social infrastructure aid from the donor countries’ perspective. The empirical analysis in this paper supports the theory that foreign aid is not neutral to the existence of elections. Rather, several categories of ODA see substantial increases on the extensive margin one year prior to an election. On the intensive margin, the composition of aid is also not neutral to the existence of elections. One year prior to an election, the percentage of visible aid, with respect to total ODA spending, increases substantially relative to non-visible aid. This result provides evidence of a crowding out effect of visible aid prior to an election. For the analysis on the extensive and intensive margins, I focus on countries with fixed elections making elections clearly exogenous. Lastly, this analysis includes regressions on voter’s preferences towards development aid. It shows that countries spend more on foreign aid when their populace places higher importance on aid spending.

Further research on the election cycle effect on ODA spending should include more data. For example, the country sample could be expanded to include all 30 DAC members, as well as expanding the time periods to include more elections. Another avenue for further research is to look at technological advancement in how voters receive information and the election cycle effect on foreign aid (e.g. pre vs post broadband internet adoption, pre vs post wide spread social media adoption) to see if these social changes affect the election cycle effect on foreign aid. Finally, the inclusion of a dyadic panel analysis of bilateral aid...
and development of a formal theoretical model to explain the results found in this paper would help enrich the results.
References


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