U.S.-Backed Coups in Latin America: An Empirical Inquiry

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1 Introduction

Given the public outrage over the possible Russian meddling in the US elections in 2018, a question that naturally arises is: what impact do foreign government-backed regimes have on their local populations? This fits into a larger question that economists have started to explore in the past few decades, i.e. what are the causes and impacts of conflict? This question can be approached from many angles and one of these would be to look at a similar historical case where a foreign government installed leaders to a country, and to examine the long-term impacts of this regime change. A better understanding of the long-term impacts of foreign interventions (military and political) will lead to a better understanding of how to solve some of the important development and political problems faced by countries where foreign powers are involved, as well as provide the answer to whether foreign meddling with the top leadership really even has an impact on the general populous. The vast majority of the existing literature in this area focuses on the general mechanics of conflict (Alesina et al. 1992), such as civil war (Blattman and Miguel 2010), and the nature and causes of such conflicts (Burke et al. 2015). While these are interesting parallel strands of research and will help address the overall question, it does not address the special attention deserved by the impacts of coups. In recent years, there has been a paper written about the short-term impacts of foreign-backed coups (Dube et al. 2011), but it too focuses on these short-term impacts to understand the mechanics and causes of the coups rather than their impact.

For this paper, I look at the case of Latin America during the Cold War period of the 1950s to the early 1990s. This is an event study differences-in-differences analysis comparing the Latin American countries that had a US-backed coup in them with those that did not and compare the long-term impact on income inequality in those countries, of the US-backed coup. Although, we now know through several declassified government documents that the US was also involved in other countries outside of Latin America, a sample of Latin American countries may be much more homogenous than a sample of all the countries in the world and thus focusing on them avoids a certain level of omitted variable bias. An additional reason for looking only at Latin America is that if we want to have a more robust identification strategy, one way we could do that is by constructing an instrument that is based on the value of some indicator from the rest of the world, which will make it exogenous to the model. One possible instrument would be a measure of the intensity of the Cold War. I was unable to find sufficient data to construct this instrument, however it may be possible in the future. Another important fact about this event is that the identification strategy is relatively simple. For the identification strategy to hold, the explanatory variable, US-backed coups, need to be exogenous to the outcome variable, income inequality. Although this is a difficult assumption to make without convincing evidence, I provide some rudimentary evidence in this paper. Although the evidence is far from conclusive, supplementing it with the
fact that the stated reasons for these actions taken to install dictators in Latin American countries was to fight against the Soviet Union’s growing influence in the Americas, a seemingly, purely political reason, we can at least somewhat assert some weak exogeneity of the explanatory variable. In other words, the countries in which the US decided to intervene, should have a rather random distribution of income inequalities, as economic status of the countries was not taken into consideration when deciding such matters. However, as I shall note in a detailed discussion later in the paper, this assumption may still not hold and in fact this assumption not holding true may not have a large impact on the validity of the results.

In much of the conversation in today’s popular media on foreign military interventions, the negative impacts are often cited (National Post 2019). The mechanism through which this negative impact would be hypothesized to work through, is the following:

\[ \text{Coup} \Rightarrow \text{Concentration of Power} \Rightarrow \text{Concentration of Wealth} \Rightarrow \text{Higher Inequality} \]

This mechanism suggests that the US-backed coup will most likely be a military coup that will lead to a dictatorship. This means that power will become concentrated in a few hands and this in turn will lead to a concentration of wealth. This concentration of wealth and the factors of production will lead to a higher income inequality. In my analysis, I do not find any negative impact of US-backed coups on income inequality in the long term as compared to the counterfactual. In fact, I find the evidence seems to suggest that the countries that had US-backed coups became more equal over time than those that did not. I find that on average, a US-backed coup lead to a 6.05% lower income inequality. I will discuss in the results section possible reasons for why this is the result we find. If we assume the worst case where the treatment variable is highly endogenous to the model, we know that the effect above will be an overestimate, which pushes our effect to zero. This is still a substantial result since the effect is still not the negative impact expected based on popular understanding.

In section 2 of this paper, I will discuss the relevant literature and how there seems to be a gap in it that this paper attempts to start filling. Following that in section 3, I will describe my econometric model and the techniques I have used to obtain my results in this section, I will also describe my data and its sources in much more detail, and go over the possible issues with the data. Then in section 4, I will state the regression results and discuss possible explanations for the results. This is also where I will discuss evidence from outside of this paper that seems to offer theories for why this is the case. Finally, I will conclude in section 5 with some larger consequences of these results and what needs to be researched in the future to help further our understanding of this new emerging field of research in economics.
2 Literature Review

In recent years, there has been an increasing interest from political economists in conflict and its mechanisms. This has however, mainly been focused on the mechanics of conflicts, with some recent papers looking at the short-term impacts of conflicts, such as Dube, Kaplan and Naidu (2011). There has also been some study of the effects that conflicts have on long term economic indicators such as inequality and per capita GDP. In this section I briefly summarize the questions addressed by these papers and how there seems to be one question that has been left unanswered. This is the question of whether foreign-backed coups have an impact on one of the most important long-term economic indicators, income inequality.

Alesina et al. (1992) looks at a sample of 113 countries over the years of 1950-1982 and analyses whether political instability impacts economic growth (GDP per capita). A focal point of this paper is that the political and economic variables are endogenous and jointly related and this has to be considered when trying to answer such questions. Of course, the political vulnerability of a country (vulnerability to a coup) may be related to some economic variables. As I argue later in this paper, we can make an argument for the exogeneity of the regressors. Although this paper does look at a much wider range of explanatory variables for conflict, beyond just coups, the main outcome variable is GDP per capita and a higher or lower GDP per capita can only
signal a limited amount about the general well-being of a population. In particular, it does not address any impacts on income inequality which I will be looking at in this paper.

Another line of research that has been pursued by Dube et al. (2011) mentioned above, is that of looking at the short-term benefits of coups to corporations that had been nationalized before the coup. This paper looks at countries across the world where there were US-backed coups during the Cold War and looks at whether immediately following the coup the stock prices of corporations previously nationalized by the government, increased or not. The data they use is from declassified US government documents that establish that the CIA undertook either an overt or covert plot to overthrow the existing head of state. This data set includes 22 such documented attempts of coups, among which are countries in Latin America and outside it. This is similar to the data set I will be relying on for my independent variable of US-backed coups. However, there are some omitted countries in this paper and that is because it only looks at those countries that had also “expropriated property from a publicly listed company.” This was an important factor for this paper however in the present paper I do not need this factor since I am not looking at corporations’ data.

Another line of research that currently exists is one that studies the impacts of economic indicators on the possibility of conflict. This is something that is undertaken by Jensen and Sorensen for their paper “Land Inequality and Conflict in Latin America in the Twentieth Century” (2012). The main hypothesis for this paper is that higher inequality leads to more conflict such as revolutions and civil wars. For their outcome variable they use an indicator that measures the number of wars with more than 25 deaths and for their explanatory variable they use an indicator that shows the percentage of land owned by families in a country as a proxy for land inequality, which they claim and show convincingly is a good proxy for income inequality. I will also be using the same land inequality data albeit as the outcome variable in my model. The Jensen-Sorensen paper is looking at a somewhat reverse mechanism to what I am addressing. It also looks at general conflict unlike the present paper which looks at foreign backed coups. This inclusion of internal conflict (in general conflict) is what brings with it a host of possible endogeneity problems. Given that they are looking only at Latin America just as I am, allows them to avoid certain omitted variable biases that may affect their data if it were global; however, it also limits how externally valid their results are. This is a problem that I will also face in my paper since I have also chosen to look only at Latin American countries and their data.

In conclusion, there is a growing amount of research in the area of economics of conflict, but it is still scarce and none of the papers address the issue of the long-term impact of foreign-backed military interventions (coups) on income inequality, which is a more accurate indicator of societal well-being than GDP per capita. Building on the current research, I hope this paper will start the quest to answer key questions in
understanding the mechanisms that have led to the many developmental issues facing many countries.

3 Data and Methodology

Methodology:
My identification strategy depends upon the exogeneity of the treatment variable. The relationship between the country in which the US supported a military coup relies, as expressed by the US government at the time and later, on the political regime in power in the country i.e. if there was a communist or communist-leaning government or growing socialist sentiment (Blum 2003). This decision-making being based on political factors in addition to the evidence provided by our initial regression estimates makes the exogeneity somewhat convincing. Furthermore, focusing on US coups in Latin America gives us a relatively homogenous set of countries which removes several omitted variables that are related to geography. All of this means that the assignment of “treatment” (US-backed coup) can plausibly be assumed to be pseudo-random in the economic realm and this is the exogenous shock that is being explored here. However, there are some potential endogeneity concerns here. The biggest of these is that the political realm may not be completely divorced from the economic realm. For example, it may be the case that a certain country turned towards socialism and communism because of the economic conditions in it. This is the biggest concern with this identification strategy and one that must be taken into account when analyzing the regression coefficients because it potentially makes the exogenous shock at least partially endogenous. This is something that will be addressed in the results section. However, under the hypothesized mechanism the endogeneity of coups will lead to an upward bias, hence the OLS will overestimate the effect. In other words, the true effect of US-backed coups will be smaller than the estimated effect. So, if the estimated effect is small or statistically insignificant then we can say that the true effect is effectively a zero effect. And if the effects are statistically significant then they are still going to be overestimates. This will be an event study differences-in-differences analysis and the treatment will be the occurrence of a US-backed coup. The null hypothesis is that US-backed coups have no impact on the concentration of power or income equality. The alternative hypothesis is that US-backed coups do have an impact on them.

Data:
The data used in this paper is panel data consisting of 22 countries over 8 time periods. The countries are all of the sovereign nations in Latin America, excluding Belize due to the lack of sufficient data. The time periods go from 1928 to 1998 and there are data points every 10 years for each of the countries. The variables I have
used for this analysis are the following: income equality (negatively correlated with the more commonly used income inequality) as the outcome variable, and US-backed coups as the explanatory variable. The data for income inequality ("familyfarms") is from the "Democratization and Power Resources 1850-2000" dataset and was referenced in the literature review section with the paper by Jensen and Sorensen (2012). Familyfarms measures the percentage of farmland owned by families and "which provide employment to less than 5 people (including family members)." It has been collected into this dataset from handwritten census records. This variable is taken to be a measure of income equality and has been shown by Boix (2008) to be negatively correlated with the Gini coefficient. Gini coefficients are not reliably available for years prior to the 1970s and therefore could not be used in the current analysis. A downside to using familyfarms is that it is only available for 10-year intervals and this means that yearly changes cannot be observed. This may introduce some noise into our estimates and will likely reduce the statistical power. However, this is not the biggest problem because the focus of this paper is on the long-term impacts of such foreign-backed coups. There is also the potential problem of conflating wealth inequality and income inequality, since familyfarms proxy wealth inequality and not income inequality. However, as Achdut (2017) has shown using longitudinal data, wealth and income equality are very closely related. According to her analysis, income inequality tends to be lower than wealth inequality (so income equality should be higher than wealth equality), but they are still quite strongly related so this shouldn’t affect the final results significantly except that any relationship between US-backed coups and familyfarms will likely be an overestimate since familyfarms slightly overestimates income equality. Therefore, the true effect will be lower than our estimate.

The data for US-backed coups comes from the book “Killing Hope: U.S. military and CIA interventions since World War 2” (Blum 2003). A (Post x Coup) dummy variable is used as the treatment, which is 1 in a country that had a US-backed coup only in the years that are after that coup. This is a method used to normalize the different countries’ data to a similar starting treatment year. The criteria for selecting coups from this book was threefold. Firstly, the coup has to be in Latin America (1 of the 22 countries). Secondly, there has to be evidence from confirmed declassified CIA documents or other verified leaks of this coup being US backed. Thirdly, there has to be a change of government (US support for existing military regimes against rebellions is excluded). This gave us a total of 11 coups in 10 different countries (Haiti having 2 instances of such a coup).

The data for concentration of power comes from the Inter-University Consortium for Political and Social Research's (ICPSR) Polity 4 dataset. The concentration of power variable (logpolity2), is based on the polity2 variable in this dataset. This variable rates regimes on a scale of -11 to 11 where -11 is a very autocratic regime and 11 is a very democratic one. I rescaled this variable to run from 0 to 22 and took the log to allow an
analysis of the percent change in income equality as a response to a percent change in regime towards/away from democracy. Therefore, a higher value of the concentration of power variable suggests less concentrated power (i.e. a more equal power distribution). The control variables used are standard fixed effect model variables capturing time-specific and country-specific effects. Summary statistics for these variables are presented in table 1.

### Table 1: Summary Statistics

<table>
<thead>
<tr>
<th></th>
<th>count</th>
<th>mean</th>
<th>sd</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
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<td>FamilyFarms %</td>
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<td>19.98</td>
<td>11.30</td>
<td>2</td>
<td>62</td>
</tr>
<tr>
<td>Treatment</td>
<td>167</td>
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<td>0.40</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>logpolity2</td>
<td>167</td>
<td>1.99</td>
<td>0.92</td>
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<td>3</td>
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<tr>
<td>Observations</td>
<td>167</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Econometric Model:**

The basic econometric strategy being used is that of the event study differences-in-differences analysis. For robustness checks I look at a regression specification containing concentration of power as a second explanatory variable to control for its impact if any. This will further allow us to confirm the validity of our assumption and add strength to the analysis provided.

I estimate the impact of US-backed coups using two different models. First, I test the fixed effects model, and then I test the random effects model. Model 1 is the fixed effects model which controls for both country and year-specific effects. The validity of this model depends on showing that the coefficients of the first equation are insignificant. Model 2 is the random effects model which no longer controls for country-specific effects. The validity of this model depends on the country-specific effects being uncorrelated with the treatment variable. This is because the added assumption in the random effects model is that the country-specific effects are uncorrelated with the explanatory variables. I estimated this using the Mundlak Approach\(^1\). An important thing to note is that the causal estimate \(\beta\) will likely be an overestimate (if the exogeneity is not established).

**Model 1:**

\[
Concentrationof\text{power}_{it} = \alpha + \beta(\text{Post} \times \text{Coup})_{it} + \sum_{i=1}^{21} \eta_i \text{Country}_i + \sum_{j=1}^{7} \theta_j \text{Period}_t + \sigma_{it}
\]

---

\[
\text{Familyfarms}_{it} = \alpha + \beta (Post \times Coup)_{it} + \sum_{i=1}^{21} \eta_i \text{Country}_i + \sum_{j=1}^{7} \theta_t \text{Period}_t + \epsilon_{it}
\]

Model 2:
\[
\text{Familyfarms}_{it} = \alpha + \beta (Post \times Coup)_{it} + \sum_{j=1}^{7} \theta_t \text{Period}_t + \epsilon_{it}
\]

The first equation in Model 1 equation looks at the effect of the treatment on the concentration of power. This is the mechanism through which it should affect income inequality while controlling for time and place fixed effects. The estimates of the coefficients from this equation will be used to provide some evidence to the exogeneity of the explanatory variable. The second equation looks at the impact of the treatment (US-backed coup in post period dummy variable) on the income equality measure (% family farms), while also controlling for time and place fixed effects.

4 Results and Discussion

Tables 2 and 3 below give the empirical results of the difference-in-difference model described above.

**Table 2:** Regressing Concentration of Power with the treatment variable. To establish the exogeneity of the explanatory variable. The important columns to look at are 2 and 4, where 4 establishes this exogeneity for the fixed effects model and 2 establishes it for the random effects model.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>logpolicy2</td>
<td>logpolarity2</td>
<td>logpolarity2</td>
<td>logpolarity2</td>
</tr>
<tr>
<td>Treatment</td>
<td>0.333*</td>
<td>0.155</td>
<td>0.421*</td>
<td>0.0964</td>
</tr>
<tr>
<td></td>
<td>(2.21)</td>
<td>(1.05)</td>
<td>(2.06)</td>
<td>(0.41)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.513***</td>
<td>1.976***</td>
<td>1.655**</td>
<td>1.666***</td>
</tr>
<tr>
<td></td>
<td>(24.51)</td>
<td>(11.35)</td>
<td>(3.35)</td>
<td>(3.56)</td>
</tr>
<tr>
<td>YearFE</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>CountryFE</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>167</td>
<td>167</td>
<td>167</td>
<td>167</td>
</tr>
</tbody>
</table>

* t statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001
Table 3: Regressing FamilyFarms with treatment variable. Column 4 shows the estimates using the fixed effects model and column 2 shows the estimates using the random effects model.

<table>
<thead>
<tr>
<th></th>
<th>(1) FamilyFarms</th>
<th>(2) FamilyFarms</th>
<th>(3) FamilyFarms</th>
<th>(4) FamilyFarms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>11.86***</td>
<td>6.054**</td>
<td>12.54***</td>
<td>1.884</td>
</tr>
<tr>
<td></td>
<td>(6.29)</td>
<td>(2.74)</td>
<td>(8.35)</td>
<td>(1.05)</td>
</tr>
<tr>
<td>Constant</td>
<td>17.62***</td>
<td>10.50***</td>
<td>21.13***</td>
<td>12.07****</td>
</tr>
<tr>
<td></td>
<td>(19.42)</td>
<td>(7.77)</td>
<td>(4.93)</td>
<td>(4.18)</td>
</tr>
<tr>
<td>YearFE</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
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<td>CountryFE</td>
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<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>166</td>
<td>166</td>
<td>166</td>
<td>166</td>
</tr>
</tbody>
</table>

* t statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Exogeneity:
Looking at the results of the exogeneity check regressions in table 2, where we regress concentration of power on our treatment variable, the simple OLS regression in column one shows that having a US-backed coup in a country decreases its concentration of power by about 40%. However, we see that our coefficients become statistically insignificant as soon as we introduce time fixed effects. This is an important thing to note since there are trends that run over time and may not be due to our treatment variable and due rather to some other variable that changed over time and affected all the countries. So, without controlling for time fixed effects we might be confounding this trend with our causal effects, which could be due to other factors. The coefficients in column 2 and 4 are both statistically insignificant. This means that under the fixed effects and random effects models, there does not seem to be an endogeneity of the treatment variable. This is strong evidence that under these two models where time effects are being controlled for, we can assume exogeneity of the treatment. This is not however a fool-proof strategy especially if there are other causal mechanisms affecting income inequality.

Fixed Effects:
Looking at the second regression’s estimates, where we regress income equality on concentration of power, we see in table 3 that the OLS yields a statistically significant coefficient, however once we introduce the country and year-specific effects in column 4, the significance disappears. This is likely due to the very small sample size and the large amount of statistical power absorbed by the 21 dummy control variables. Therefore, fitting our data to the most general, fixed effects model we see that we don’t have significant result so we cannot reject our null hypothesis that US-backed coups had no impact on income inequality.
Random Effects:
The random effects model yields the results in column 2, which are highly statistically significant. The effect of US-backed coups we see is that having a US-backed coup increases the income equality in by 6.05% on average in the country. This corresponds to an approximately similar decrease in income inequality. To ensure that the coefficients from this model are not biased, we need to check the assumption that the country-specific fixed effects are unrelated to the treatment variable.

Figure 2: Mundlak Approach results to check the random effects assumption that country effects are uncorrelated with the treatment variable.

```
test mean_coup*xpost
( 1)  mean_coup*xpost = 0

    chi2( 1) =  0.16
  Prob > chi2 =  0.6847
```

To verify this, I used the Mundlak Approach\(^2\), which yielded the results in figure 3. This shows that we do not have sufficient evidence to reject the null hypothesis that the country-specific effects are unrelated to the treatment effect. Thus, the assumption of the random effects model holds and the coefficients estimated are unbiased.

Robustness Checks Specification:
To check for robustness, I ran a few different regressions to try and validate the exogeneity assumption of the difference-in-difference models used.

Table 4: Regressing the main specifications of the paper with an added control for concentration of power

<table>
<thead>
<tr>
<th></th>
<th>(1) Family Farms</th>
<th>(2) Family Farms</th>
<th>(3) Family Farms</th>
<th>(4) Family Farms</th>
</tr>
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<tbody>
<tr>
<td>logpolity2</td>
<td>1.387 (1.48)</td>
<td>0.504 (0.58)</td>
<td>-0.213 (-0.25)</td>
<td>0.105 (0.19)</td>
</tr>
<tr>
<td>Treatment</td>
<td></td>
<td>11.66*** (5.74)</td>
<td>6.100** (2.67)</td>
<td>1.874 (1.04)</td>
</tr>
<tr>
<td>Constant</td>
<td>17.23*** (8.09)</td>
<td>16.66*** (9.08)</td>
<td>10.92*** (4.76)</td>
<td>11.90*** (4.40)</td>
</tr>
<tr>
<td>YearFE</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>CountryFE</td>
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<td>No</td>
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<td>Observations</td>
<td>166</td>
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<td>166</td>
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</tr>
</tbody>
</table>

\(^t\) statistics in parentheses
* p<0.05, ** p<0.01, *** p<0.001

\(\text{See Footnote 1 on page 8}\)
\[ \text{Familyfarms}_{it} = \alpha + \beta(\text{Post} \times \text{Coup})_{it} + \gamma \text{Concentrationofpower}_{it} + \mu_i \]

This specification is used as the robustness check which looks at the mechanism discussed earlier in this paper, which is that US-backed coups impact the income inequality through an increase in the concentration of power. This is to explore whether a change in concentration of power, as an independent variable, is associated in these countries with a change in income equality.

Overall, the results of these regressions don’t provide sufficient evidence to reject our null hypothesis, that US-backed coups had no impact on income inequality through an increased concentration of power. If anything, these regressions confirm that the relationship between the treatment variable and the outcome variable remain statistically significant even when controlling for concentration of power, i.e. if concentration of power is the only means through which US-backed coups are supposed to impact income inequality, then this shows the exogeneity of it. This means that the research hypothesis (alternative hypothesis) cannot be confirmed with this analysis and more research needs to be done to address the many concerns that have been stated in this section to get a clearer understanding of whether foreign-backed coups do have an impact on income inequality. However, one thing seems to be evident from this analysis and that is that the direction of the impact does not seem to be negative.

**Discussion:**

Looking at the results of our regressions above, we see that the random effects model does seem to give us statistically significant results for the impact of US-backed coups on income inequality. However, there are some possible issues in these results that need to be discussed as well as some theories as to why we got positive coefficients where popular media would suggest a negative relationship. The first thing to notice is that although we got statistically significance positive coefficients, we need to account for the fact there is the possibility of some omitted variable bias. As discussed earlier any omitted variables are likely making us overestimate our coefficients. And so, we have either no omitted variable bias and a positive coefficient, or omitted variable bias which leads to a smaller or zero coefficient. Both cases are contrary to what popular media would suggest (as discussed in the introduction).

If we take the worst-case analysis where there is large omitted variable bias that is unaccounted for, that leaves us with a zero effect. There are two possible explanations for this. Firstly, it may be that the US-backed coups really did not have any impact on the income equality in any systematic and meaningful way. Secondly, it may be that due to the noisy nature of the present data, we are not able to capture the amount of variation needed to find the true relationship between our variables.

Looking at the problems in the data first, it is quite clear that there are a number of limitations in our dataset. First of all, we are looking at a very small sample size of just 22 countries. With a sample that small there is often a much higher probability of a
few “freak” results. A second, limitation to the data is that data points exist with 10-year gaps between them. This introduces a lot of noise into the data because the patterns observed will not be very smooth and these can also lead to results that seem like outliers when they are in fact part of a trend. This is a limitation of the data that is currently available. Latin American countries do not have more reliable sources of income (in)equality data for the pre-1970s time period. A more reliable way to proxy the income inequality is to look at certain data that has been historically collected as part of the census that took place every 10 years. For this analysis, that was the familyfarms data that was a correlate of income equality. Now, although Boix (2008) and others have shown a strong correlation between this variable and income inequality, it does not negate the existence of all omitted variables. For example, there may be omitted variables that impact wealth and not income. Our results could also be slightly underestimated because familyfarms underestimates the true variable of interest, income equality, as was discussed in the data description section.

Another problem with the dataset is the polity2 index used as an estimate for concentration of power. There is a possible issue with using this as a proxy for concentration of power. Although it is a complex index that is built up using many dimensions and factors, it is at the end of the day an index that expresses regime type on a continuum and once again while regime type is correlated with the concentration of power, it is not a perfect relationship and this can also introduce a certain degree of noise in our results.

A final issue relating to the data is that given our small sample size and our small number of entries for each country, it is a big concern that the econometric model used is the wrong one. Using an event study differences-in-differences analysis is very accurate when looking at large datasets and large numbers of data points; however, working with our data it may be more accurate to work with a different econometric technique. As was discussed in the literature review above, Dube et. al (2011) get around this problem by using the “Fama French four factor model”, however this is a model that can only be used when working with asset pricing data.

The major concern with the research design is with the identification strategy. As was mentioned earlier, it is possible to argue that the political realm is not really independent of the economic realm. This would mean that our explanatory variable, US-backed coups, is endogenous to our system and that would be problematic. However, since we have found no statistically significant relationship between US-backed coups and income equality, it may be argued that it is at least partially independent and perhaps does not influence it in any way. In future research, this might be something to be addressed with a better research design, perhaps involving an IV regression method, provided an appropriate instrument can be found. One possible instrument would be a variable that captures the intensity of the cold war in the rest of the world and using that to construct a predicted cold war intensity for Latin American countries.
Looking at the other possible explanation for the zero results, the actual absence of a relationship between US-backed coups and income equality, we do see some potential evidence for this. Michael Hayden, a former NSA and CIA director, stated in a 2018 interview, “There’s an iron law of physics with regard to covert influence: you never create fractures. The only way you can make covert influence work is to identify pre-existing fractures, then worsen them and exploit them…” (Hayden 2018). This is an important point that may help us understand why there seems to be a zero relationship between US-backed coups and income equality. Latin America has historically been a very politically unstable region with the vast majority of the countries experiencing many domestic military coups over the decades. This is an important contextual detail which needs to be considered in our case because perhaps as Director Hayden said, the Latin American countries were already very fractured in many ways and the US-backed coup acted just like any other domestic coup in its impact on the local population. Perhaps a US-backed coup was good because it got rid of some of these fractions by establishing a stronghold of power and this may be an explanation of the positive coefficients. A strong piece of evidence showing the largely destabilized nature of Latin America can be seen in the “Coup d’état dataset” compiled by Jonathan Powell and Clayton Thyne (2011) that shows that since 1950, Latin America has experienced 145 coups of which 48.3% were successful. The vast majority of these occurred in the time period between 1950 and 1990. That is a staggeringly high number of coups especially since there are only 22 countries in the whole region. This is one of the likely theories, if it is in fact the case that US-backed coups had a zero impact on the income equality in the countries where they happened.

A surprising finding of the results of our stage 2 regressions is that all of the coefficients on the treatment term are positive. This means that having a US-backed coup is associated with a more equal income distribution. This is an interesting finding since according to the mechanism described at the beginning of this paper, it would be expected that these coefficients are negative. There are two possible explanations for this. Firstly, it could just be a insignificant especially given the general positive trend over time for income equality. However, this is unlikely the best explanation of this, especially given that the cross-sectional regression specification also shows a positive coefficient and also that the coefficients are highly significant. Perhaps what is going on is related to what Dube et al. (2011) found in their analysis of the short-term impacts of US-backed coups. As stated in the literature review section, they found that previously nationalized corporations experienced short term rises in their stock prices in the aftermath of a coup. Taking this into account and the historically fragile nature of the Latin American political landscape, it might be that a US-backed coup reduced inequality by a small percentage because in the conditions that existed prior, the conditions that people were in were much worse. This is not to say that these now-privatized corporations operating in Latin American countries were providing well-paying
jobs that helped to reduce income inequality, but rather this is to say that prior to their privatization there had been so much inefficiency that the conditions for most people were a lot worse. This is however just a possible explanation for the positive coefficients, and at the end of the day we also have to consider the possibility of a zero true coefficient due to omitted variables bias.

5 Conclusion

In this paper, I conducted an event study differences-in-differences analysis using Cold War-era, US-backed coups in Latin America with a random effects model. This yielded statistically significant coefficients that were positive. On average I found that having a US-backed coup in your country lead to a 6.05% increase in income equality (6.05% decrease in income inequality). We do have to keep in mind the concerns of possible endogeneity of the treatment variable so it is possible that this number is overestimating the true impact of US-backed coups, but nevertheless the effect seems to be positive or zero, contrary to popular belief.

In attempting to shed light on the study of conflict, this paper has discovered many more questions that need to be answered and many variables that need better sources of data. Among these is the need to find a better historical variable to proxy and measure income inequality that is available as an annual recording. Another is the wider question of whether foreign interventions have similar or different effects from domestic-based interventions. There also needs to be work done on similar questions using a good instrument appropriate for this study which will allow us to circumvent the problems of endogeneity entirely.

The final thing to address is the question of external validity. Since, this paper looked only at one geographical region and found statistically insignificant results, it is difficult to claim anything about the region in question let alone a more general claim about the whole world. There needs to be more research into this and perhaps a cleverer (IV) research design will enable us to identify the causal effects of foreign interventions on a more general scale in the future.
References

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