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# EXPLAINING THE RISE OF THE LEFT IN LATIN AMERICA



#### Luisa Blanco and Robin Grier

#### **Abstract**

English: Latin American politics has taken a left-hand turn in the last decade, with an increasing number of chief executives hailing from left-of-center parties. We investigate the political and socio-economic factors explaining political ideology of the chief executive in a sample of 100 elections taking place between 1975 and 2007 in eighteen Latin American countries. We find that the commodity booms in agricultural, mining and oil are positively and significantly related to the probability that a country will have a chief executive from a left-of-center political party. However, for oil exports, we observe that this effect only holds for Venezuela. We also show that past political discrimination and government crises are positively and significantly associated with a move to more left-wing chief executives. Openness to trade and having a president from the right in the previous presidential term negatively affects the probability of having a more liberal president, although the effect of trade openness disappears when the incumbent president was a conservative. We also find that when a government crisis occurs during a term with a president from the right, the probability of having a president from the left in the next term increases significantly.

Spanish: La política en Latinoamérica ha tomado un giro a la izquierda en la última década, donde el número de presidentes de la izquierda y centro-izquierda ha incrementado. Este artículo analiza los factores socio-económicos y políticos que explican los cambios en la ideología política de los presidentes elegidos con una muestra de 100 elecciones desde 1975 al 2007 en dieciocho países Latinoamericanos. En este estudio encontramos que la bonanza en el mercado de la materia prima, en específico la agricultura, la minería y el petróleo, tiene una relación positiva con la probabilidad de que un país elija un gobierno de izquierda. Sin embargo, encontramos que en el caso del petróleo, la relación positiva solo existe en Venezuela. También encontramos que la discriminación política y las crisis de gobierno están positivamente relacionadas con un movimiento hacia la izquierda en el poder ejecutivo. La apertura al comercio internacional y haber tenido un presidente de derecha en el término previo a la elección afecta negativamente la probabilidad de que un gobierno de izquierda sea elegido, pero el efecto de la apertura al comercio internacional desaparece cuando hay un gobierno de derecha en el periodo anterior. También encontramos que cuando hay una crisis de gobierno y un presidente de derecha está en el poder, la probabilidad de que gane un presidente de izquierda en las próximas elecciones incrementa.

JEL Categories: D72, P48, P52

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#### **INTRODUCTION**

The left is currently resurgent in much of Latin America, a phenomenon that started over a decade ago and continues to be strong today. In the early 1990s, 64 percent of Latin American presidents were from a right-wing party. In 2005-2008, this number had fallen to 33 percent. In fact, by the beginning of 2009, fifteen out twenty-one Latin American countries had a president from a left or center-left party.<sup>1</sup> Even though grouping all left-wing politicians in the same category obscures some important differences among them, it is clear that the popularity of the left in general has grown immensely in the region.

What is less clear is the reason behind this phenomenon. Some have attributed this "left turn" to the inability of previous governments to meet social, economic, and political expectations, while others argue that left-wing parties have moderated to such an extent that people no longer fear voting for them. In this paper, we investigate the socio-economic and political reasons behind the political ideology of the president in eighteen Latin American countries from 1975 to 2007.<sup>2</sup> We find three main results. First, natural resource abundance has played a significant role in the rise of the left. Agricultural, mineral, and oil exports are all negative and significant in a regression on executive ideology, meaning that a country that experienced an increase on resource exports in one of these sectors was also more likely to elect a president from a left-of-center party. Interestingly, a jackknife exercise reveals that the impact of oil exports on political ideology is driven by Venezuela. Second, past political discrimination

<sup>&</sup>lt;sup>1</sup> The numbers here are based on data from Beck et al.'s (2001) Dataset on Political Institutions. The countries considered are Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Uruguay, and Venezuela.

<sup>&</sup>lt;sup>2</sup> Our unit of analysis is an electoral term, where our dependent variable is the political ideology of the elected president. The independent variables are lagged values in most cases, calculated as the average in the previous presidential term. We provide more discussion of this in the methodology and data section.

and government crises are important factors in determining the ideology of chief executives.<sup>3</sup> The countries in our sample which historically have had more political discrimination and more government crises are also more likely to have left-wing presidents. Lastly, countries which were more open to trade in the previous presidential term are less likely to elect left-wing presidents, although this relationship disappears when the previous president was from a conservative party.

We begin by reviewing the literature on the rise of the left in Latin America and discussing how our paper builds on this work. The next section presents our methodology and data. We go on to discuss the results from our main specification as well as from several robustness tests and present the quantitative effects of the right-hand side variables. The last section concludes.

#### LITERATURE REVIEW

The literature on the Latin American left has identified many different reasons for its popularity in the region. To provide some organization to the myriad hypotheses, we group the main theories into three--economic, political, and social—and discuss them separately below. *Economic factors* 

Murillo et al. (2009) posit a number of economic factors which could constrain the choice set of political candidates, making it more difficult for them to run on a left-wing platform. First, large budget deficits or high debt servicing costs may make it difficult to increase the type of social spending that is typically favored by parties on the left. For instance, the debt crisis of the

<sup>&</sup>lt;sup>3</sup> We agree with Stokes (2009, p. 9), who argues that presidential elections are the most relevant when studying the rise of the left in Latin America. She notes that presidents are likely to have an important effect on policymaking, and that if voters are responding to past economic or political events, or are signaling what kind of policy they would like in the future, then they are most likely to do so in presidential elections. Empirically, she goes on to note that "the distribution of votes" is similar in presidential and legislative elections.

1980s tied the hands of Latin American chief executives and may have forced them to be fiscally conservative. Second, a country may be constrained by debt conditionality if they have an ongoing structural adjustment agreement with the IMF. A previous administration may have promised to rein in social spending or to keep the deficit low in return for IMF loans.

Third, natural resource abundance might affect political ideology because resource exports are associated with greater economic activity and government revenue. Commodity price booms significantly lessen the economic constraints on presidential candidates. Ocampo (2007) argues that Argentina, Brazil, Bolivia, Chile, Ecuador, Peru, and Venezuela benefited the most from the recent positive terms of trade shock. All of these countries have had left-wing chief executives in recent years. Murillo et al. (2009, p. 13) would argue that this is no accident. They cite Fishlow (2006) in arguing that the commodity boom allowed governments to once again increase social spending and "throw off the shackles of the Washington Consensus." Kaufman (2010, p. 26) notes that the current rise in commodity prices has "substantially eased the constraints associated with dependence on volatile flows of external capital and offered new opportunities to pursue populist policies." This effect would be especially pronounced if government revenue depends heavily on the state ownership of natural resources like oil and natural gas (Panizza 2007, Tsafos 2007).

Fourth, the effect of openness to trade on the ideology of the chief executive is unclear. If trade is perceived as being beneficial, then there will be more overall support for the candidate that favors trade openness (Baker 2009, Stokes 2009). On the other hand, Cameron (1978, p.71) argues that trade openness means that domestic policies have less effect (for example

<sup>&</sup>lt;sup>4</sup> He does note, however, that not all left-wing chief executives responded in the same way. Some countries, like Venezuela, ramped up government spending by 50%. Others, such as Chile and Uruguay, actually decreased government spending as a percentage of GDP. In addition, the commodity boom sometimes did not take place until after the election, which means that, "these opportunities cannot explain why left governments were voted into office in the first place." (p. 26)

stabilization policy). Since people dislike this, they will push for government policies to compensate for the volatility/insecurity that comes from openness. Greater trade openness may also spur people to demand government policies that promote and subsidize domestic companies (Katzenstein 1985). Because a presidential candidate from the left is more likely to implement these types of policies, openness to trade might increase the probability that a president from the left gets elected. Further, Rodrik (1999) argues that openness might bring economic insecurity, which would lead to greater demand for social protection.

Lastly, macroeconomic indicators like past inflation and economic growth may also determine voter preference. Lora and Olivera (2005) argue that voters may punish incumbent presidents if they served during a period of high inflation, while Stokes (2001) makes a similar argument about poor economic growth. Murillo et al. (2009) cite Panizza (2005) in arguing that the rise of the left in Latin America may be partly due to the fact that conservative governments were in power at a time of economic distress. That is, voters may not be against conservative policies per se, but may instead be reacting to poor economic conditions of the 1980s and 1990s. Biglaiser and Brown (2005) show that left leaning chief executives tended to oppose the types of structural reforms that were common in those decades, which means that voters who are suffering from reform fatigue may be ready for a change.

The empirical relationship between these economic factors and the rise of the left in Latin America are mixed. Murillo et al. (2009) find that budget deficits are not significantly related to the number of votes garnered by left-wing presidential candidates. Unlike they expected, they show that higher debt service actually increases the chance that citizens will vote for left-wing politicians, while IMF loans and commodity price increases are negatively and significantly related to a president's ability to govern from the left. Conservative incumbents are harmed

electorally by high inflation, but interestingly, not by low growth. Debs and Helmke (2010) find similar results, although the coefficient on the interaction term between inflation and conservative incumbent is not statistically significant in their estimation.<sup>5</sup>

#### Political factors

There are three main political factors that could explain the recent popularity of the left in Latin America. First, as the region has gained more experience with democracy, radical left parties that used to be banned from the political arena have now become an institutionalized feature of the political system. As leftist leaders became less enamored with the Soviet example and as the threat of communism decreased, there was less worry among conservatives and voters about the type of policies that leftist chief executives would enact.<sup>6</sup> As Debs and Helmke (2009, p. 18) note, citizens may be more willing to vote for the left than they were before, when they "feared that electing the left was tantamount to triggering a military coup."

Second, the fact that political parties are often weak in the region creates electoral volatility, meaning there may be considerable party turnover at the presidential level.<sup>7</sup> Roberts and Wibbels (1999, p. 575) argue that, "political identities and organizational loyalties are recomposed from one election to the next." As Murillo et al. (2009) and Roberts (2007) note,

<sup>&</sup>lt;sup>5</sup> There is also a simpler model of retrospective voting whereby countries that had conservative presidents in the 1990s will tend to vote instead for the opposition in the 2000s. In this scenario, voters are not necessarily in favor of the left but rather wanting a change in power from the party of the incumbent (see, for example, Panizza (2005), Cleary (2006), Levitsky and Roberts (2008), and Murillo et al. (2009)). Debs and Helmke (2010), however, find no evidence to support this.

<sup>&</sup>lt;sup>6</sup> In addition, the region has become increasingly globalized in the post-WWII period and international capital flows are a strong constraint on the behavior of chief executives. Cleary (2006) argues that conservative sectors of society are much less fearful of the possibility of a left-wing chief executive because of these constraints.

<sup>&</sup>lt;sup>7</sup> Murillo et al. (2009) cite Mainwaring and Scully's (1995) definition of low electoral volatility as "stability in interparty competition."

<sup>&</sup>lt;sup>8</sup> As cited in Murillo et al. (2009).

the lack of a strong party system provides candidates with an incentive to "espouse a more radical, leftist agenda of socioeconomic and political change."

Third, it is possible that the increased popularity of the left is driven in part by increased voter mobilization. Cleary (2006) argues that the rise of the left has occurred in countries with a history of party systems that utilize mass mobilization of the electorate. Examples of this include Argentina, Bolivia, Brazil, Chile, Nicaragua, Peru, and Venezuela. Even if the traditional parties of the left had been excluded from power during military rule, these parties' tradition of mobilizing the poor could have helped them to create bases of power in recent years.

Empirically, neither Murillo et al. (2009) or Debs and Helmke (2010) find statistical support for a significant relationship between age of democracy (or the end of the cold war) and left-party success in the polls. Murillo et al. (2009) test whether greater electoral volatility is related to large changes in presidential ideology and find that the coefficient is actually negative, which means that more volatility is associated with less left-wing chief executives. Debs and Helmke (2010) test the mass mobilization hypothesis and find that it is significant in only one regression. They are skeptical of the causal interpretation of the result and end up dropping the mass mobilization variable in favor of a regression with fixed effects.

#### Social factors

There are two main social factors that could be relevant in the rise of the left: ethnic diversity and high levels of inequality. Ethno-linguistic diversity is very high in countries such

<sup>&</sup>lt;sup>9</sup> Murillo et al. (2009, p. 111).

<sup>&</sup>lt;sup>10</sup> Debs and Helmke (2010) point out that Cleary is building on work by Roberts (2002) that categorizes party systems in Latin America as being either elite-mobilizing or mass-mobilizing (i.e. labor-mobilizing).

<sup>&</sup>lt;sup>11</sup> As Debs and Helmke (2010, p. 231) point out, though, this result may come about because the countries with the most experience with democracy also tend to have parties that govern closer to the center, "two of the oldest democracies, Costa Rica and Colombia, did not elect a pure left government throughout the period."

as Mexico, Bolivia, Ecuador, and Guatemala, where indigenous groups make up a large part of the population. These are also groups that have traditionally been excluded from national policymaking. Ross (2010, p. 22) notes that, "in the mid-1990s, Latin America's minority groups faced more political discrimination, and more economic discrimination, than minority groups in any other world region."<sup>12</sup>

Leftist political movements may also have been sparked by increased mobilization of indigenous populations. Van Cott (2007) argues that indigenous groups have been more likely to make alliances with the left because the left often promotes policies to remedy past ethnic and racial oppression. In addition, Castañeda (1994) argues that the left associates itself with indigenous groups and creates a sense of belonging to a national community.

Inequality may also be important given that Latin America is one of the most unequal regions of the world (Sainz, 2006 and World Bank, 2006). Castañeda (2006) argues that it is natural for the disadvantaged portions of the population in highly unequal societies to support politicians who favor redistributive policies.<sup>13</sup> Krieckhaus (2006) find that democracy in highly unequal societies tends to result in more macroeconomic populism, a platform associated with the radical left.

Kaufman (2009), however, cautions against making the common assumption that the poor are also pro-left. He notes that Latinobarometro surveys find no relationship between income levels and redistributive preferences on an individual level.<sup>14</sup> In a sample of presidential and legislative elections in seventeen Latin American nations from 1985 to 2002, Lora and

<sup>&</sup>lt;sup>12</sup> Ross credits Gurr (2000) for this argument, but notes that, "this has begun to change." See Madrid (2008), Van Cott (2005), and Yashar (2005) for more on the increased political involvement of indigenous groups in Latin America.

<sup>&</sup>lt;sup>13</sup> See also Walker, 2008, Castañeda and Navia 2007, Fishlow 2007.

<sup>&</sup>lt;sup>14</sup> He also notes that it would be hard for inequality levels to explain the variation in left-wing politics in the region. For example, there are the more radical left-wing presidencies of Venezuela, Ecuador, and Bolivia as well as the more moderate governments of Chile, Brazil, and Uruguay. Venezuela, however, does not have a particularly high level of inequality.

Olivera (2005) also report no significant relationship between income inequality and the election of opposition candidates.<sup>15</sup>

Debs and Helmke (2010) argue that the relationship between inequality and the left is more complex than the linear one posited by Castañeda (2006). They construct a game-theoretic model that predicts an inverted u-shape relationship between inequality and the success of the left. At low levels of inequality, the rich are not concerned that politicians will engage in a lot of redistribution. As inequality increases, the median (poor) voter becomes increasingly likely to vote for a left-wing politician who promises redistribution. At very high levels of inequality, rich voters offers bribes to achieve a "minimum willing coalition of voters" to prevent widespread redistribution. Debs and Helmke find supporting evidence that the success of left-wing parties is maximized at intermediate levels of inequality in Latin America. Murillo et al. (2008), find no significant support for the idea that inequality is either linearly or non-linearly related to the rise of the left in the region. However, they use the vote share for left-wing parties as the dependent variable, while Debs and Helmke study the ideology of the chief executive.

Our paper contributes to this literature in several ways. First, we focus on disaggregated commodity exports rather than general measures like overall exports or the current account balance. The relationship between the left and commodity prices is important because if the resurgence of the left is mostly due to a boom in commodity exports, then the staying power of these parties may be compromised. It is well known that commodity export prices are more volatile on average than manufactured exports. If governments are relying heavily on gains from commodity exports to ramp up social spending, then they may find themselves in trouble when

<sup>&</sup>lt;sup>15</sup> Handlin (2007) examines the elections of left-wing chief executives in Chile and Uruguay and finds that most of their support was from the middle class, while Madrid (2008) shows no significant relationship between income and voter preference in the 2006 election of Evo Morales.

commodity prices fall again.<sup>16</sup> In our analysis we also explore how different types of commodities might have different effects on political outcomes.

Second, while other papers have investigated the effect of indigenous movements and inequality on the rise of the left, we also study the role of political discrimination in these countries. It may not be inequality or large indigenous groups that are fuelling the increased popularity in left-of-center parties, but rather people's belief that they have been systematically excluded from the political sphere for many years.

Lastly, our methodology is different from empirical analyses that study the proportion of the total votes that each political party received in the region. Investigating the proportional voting is interesting and useful, but we believe that the ideology of who gets elected is also important. Voters could be casting ballots for left-of-center parties knowing that the party does not have a viable chance to get elected. We want to study elections in which an overwhelming portion of the electorate was in favor of electing a president from a left-wing party. Our analysis builds on previous work that looks at political ideology of the elected president by using the most updated data on political ideology from Coppedge (2010).<sup>17</sup>

#### METHODOLOGY AND DATA

We investigate the economic, political, and social factors behind presidential ideology in a sample of 18 Latin American countries from 1978 until 2007, a period that comprises 100 elections. Our dependent variable is the political ideology of the elected president. Most of the

<sup>&</sup>lt;sup>16</sup> Note that this is not true in every case. Chilean and Brazilian politicians, for example, have moderated spending plans and made sure to smooth large gains in commodity price upswings.

<sup>&</sup>lt;sup>17</sup> Murillo et al. (2009) and Debs and Helmke (2010) also investigate the factors behind which chief executives get elected

<sup>&</sup>lt;sup>18</sup> Note that the panel is unbalanced since election years are different for different countries and the length of presidential terms varies across the region.

independent variables are calculated as the average in the previous presidential term. The countries in the sample include Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela.

We use an ordered probit model because our dependent variable is an ordinal variable that takes on different values depending on the ideology of the chief executive. For robustness, we also explore the estimation of an ordered logit model, where the error term is a random error with a logit distribution (instead of a normal distribution like in the ordered probit). Because observations within countries might not be independent, we use robust standard errors that correct for clustered data by country.

Our first step is to classify chief executives in the region by political ideology over our sample period. We compile the names and political parties of the elected presidents during a specific election year using data from the Political Database of the Americas and Electionworld. Then, we match this information to the Coppedge's data (1994, 2007). Coppedge classifies political parties in Latin America as being either left, center-left, center, center-right, and right. In a few cases, Coppedge categorizes some political parties as personalist when the appeal of the political party is based on charisma, the party is independent of any ideology, or there is a heterogeneous electoral base where support to the presidential candidate comes from groups with different political ideologies. We use Coppedge's (1997) dataset for the elections that take place before 1994 and use the newest version of the dataset provided by Coppedge for elections after

<sup>&</sup>lt;sup>19</sup> Please refer to Coppedge (1997) for a thorough explanation of the methodology used to classify political parties in Latin America. Coppedge (2007) provides a more recent analysis of changes of political parties in Latin America, where his updated version (as of August of 2010) of the data has been checked for accuracy by experts in the field. One characteristic of this dataset is that political parties can be classified in the ideological spectrum differently over time. This is important because there is evidence that political parties evolve in the region.

1994. We use Huber's et al. (2008) dataset for six countries (Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama) that are missing in Coppedge's dataset.

Our dependent variable is ordinal and can take on five different values depending on the ideology of the chief executive. A value of one is assigned to presidents that are associated with a political party from the left, while a value of five is assigned to presidents from right-wing parties (two for center-left, three for center, and four for center-right). Our sample includes 100 observations, and there are only three observations where Coppedge has identified the presidential political party as personalist. We assign a value of three to these observations since this implies ideological neutrality. Table 1 provides the summary statistics of all variables used in the estimation and Table 2 provides a detailed description of the variables and their sources.

We consider several different economic, political, and social factors that could determine what party gets elected at the presidential level. We lag the independent variables, using average values in a previous presidential term to explain the ideology of the current chief executive. The economic factors we include are: the inflation rate, real per-capita GDP growth, trade openness, the debt service as a share of GDP, and commodity exports.<sup>22</sup> As discussed above, inflation and GDP growth are often thought to be key economic determinants of voting. Given the inflationary records of past populist chief executives in the region, we expect that high inflation in the previous period will decrease the likelihood that voters will elect a left-of-center president.

<sup>&</sup>lt;sup>20</sup> Coppedge identifies the following elections as personalist: Ecuador in 1996 and 2002, and Venezuela in 1993.

Note that we only include those observations in which the executive ideology is classified as personalist if we need them for our estimation (observation is in the middle of the sample period for a specific country).

<sup>&</sup>lt;sup>22</sup> We considered including unemployment figures as a potential explanatory variable but the lack of data meant that its inclusion would have halved our sample.

We measure commodity exports with three different variables: average lagged exports per worker of agricultural, mineral, and oil commodities. <sup>23</sup> As discussed above, Latin America is a resource abundant region and commodity booms positively affected export prices of raw materials in the region. If these commodities are state-owned, then the increased export revenues will directly affect government coffers. If they are privately held, tax revenues should rise as firms become more profitable. This leaves the question of why increased commodity revenues would help the left instead of helping politicians from all ideological backgrounds. We believe that there are two reasons for this.

First, Latin America underwent a very painful adjustment during the 1980s, painful enough in fact for the period to be dubbed the "lost decade" for the region. Whatever their ideological background, politicians were forced by high debt servicing to follow very conservative policies that entailed the slashing of government social spending and increased taxes. Commodity windfalls might be especially beneficial for politicians from the left, who can represent a break from the painful past. Voters may reject conservative politicians who campaigned on business-as-usual platforms, especially if government coffers were newly flush. Second, left wing politicians can credibly promise more rents from these commodities than rightwing politicians. They can (and do) promise to nationalize companies (Chavez), demand higher royalty rights (Morales) by renegotiating with foreign companies, or raise export taxes (the Kirchners).<sup>24</sup> Minerals and oil are often directly controlled by the state, which allows the government to redistribute resource rents. Even when the commodity is not in state hands,

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<sup>&</sup>lt;sup>23</sup> Please see Blanco and Grier (2010) for an explanation of how the different resource intensive commodities are classified in different categories.

<sup>&</sup>lt;sup>24</sup> In Venezuela, at least, there has been a long-standing and widespread belief by citizens that their country is fundamentally rich because of oil reserves and the reason most of the population has stayed so poor is that the income from oil is badly distributed. Given this, it is clear why a populist politician from the left who promises to redistribute oil money would be so popular.

however, the government certainly taxes these sectors and we might again expect left-wing candidates to be more successful during commodity booms.

To investigate which political factors are important to chief executive ideology, we include two measures of political instability (the number of revolutions and government crises), the strength of democratic institutions, and political discrimination. A revolution is defined as "any illegal or forced change in the top governmental elite, any attempt at such a change, or any successful or unsuccessful armed rebellion whose aim is independence from the central government." Revolutionary activity may be a strong signal that the voters wish to move away from previous policies. In our sample, most serious revolutionary activity has been from the left. Examples include the FARC in Colombia throughout the period, the FMNL in El Salvador in the 1980s, the Zapatistas in Mexico starting in 1994, and the war between the Contras and the Sandinistas in Nicaragua in the 1980s. If the activity represents widespread anger from voters who feel excluded from the electoral system, then it is possible that such activity will presage a change in the ruling party. If the revolutionary activity alienates mainstream voters with their extremism, however, then citizens may feel safer voting for a more conservative party.

Government crisis is defined as "any rapidly developing situation that threatens to bring the downfall of the present regime - excluding situations of revolt aimed at such overthrow." Many of the political crises experienced during the period of analysis were triggered by negative economic conditions. Examples include, among others, the Argentine financial crisis of 2001 and the Bolivian hyperinflation of the early 1980s. Thus, this indicator is likely to at least

<sup>&</sup>lt;sup>26</sup> We focus on the revolutions and crises variables as measures of political instability since they are indicators of strong distress in the political system, while the indicators such as strikes and demonstrations might not be as strong of a symptom. Coups are also threatening to the political system like revolutions, but in our sample, there are only 6 observations in which there was a coup. For those 6 observations, there was a revolution as well in 5 of the cases. We prefer revolutions instead of coups because in almost half of our sample (41 observations) there was at least one revolution.

partially account for critical economic conditions that would negatively impact government stability. Risk-averse voters might lean more towards conservative candidates after a government crisis if they are seeking stability, unless they feel that the conservative party is to blame for bringing about the situation. We will first investigate the effect that revolutions and government crises have on the ideology of the elected chief executive, and later interact these variables with a dummy equal to one if the previous president was from a right-wing party.<sup>27</sup>

To measure the strength of democratic institutions, we use the average of the polity score in the previous presidential term. The polity score ranges from -10 to 10, where higher values represent stronger democracies. For political discrimination, we include a measure of the average of the political discrimination index. This index varies between zero and four, where higher values represent higher political discrimination. In cases like the election of Evo Morales in Bolivia, the success of the left was largely due to its ability to tap into widespread discontent with elite politics. Much of the indigenous community had been consistently marginalized in the political arena and thus was more likely to vote for a candidate that offered a break from the past.<sup>28</sup>

We also examine whether social factors such as ethno-linguistic diversity and inequality are important to presidential ideology. We measure ethno-linguistic diversity with the ethno-linguistic fractionalization index for each country in 1960. This index represents the probability that two randomly selected individuals from the population belong to different ethno-linguistic groups. Thus, higher values of this index represent higher ethnic diversity. Countries that have

<sup>&</sup>lt;sup>27</sup> The correlation coefficient between revolutions and government crises in our sample is only .17, so it is clear that they are measuring different phenomena.

<sup>&</sup>lt;sup>28</sup> The measure of political discrimination is time-variant for 8 countries in the sample. We should note that we also experimented with including a dummy variable that is equal to one for countries with party systems that rely on mass mobilization. We found that the variable is consistently insignificant and do not report its results for reasons of space.

the highest levels of diversity also have the largest indigenous populations. As we discussed above, if these groups have felt marginalized either economically or politically, it may be easy for left wing candidates to mobilize their support.

Lastly, we also include a measure of inequality to test whether highly unequal countries have been more likely to elect left wing politicians. Specifically, we use an indicator of resource inequality, the area of family farms as a percentage of the total area of agricultural holdings. This indicator is associated with income inequality and is available for each decade of the same. We lag the variable, using the available share of family farms before the election year.

#### **RESULTS**

#### Baseline Estimations

Column 1 of Table 3 presents the results of estimating our baseline model, where we include all of the variables discussed above. We find mixed evidence that macroeconomic factors are important determinants of presidential ideology. Both lagged per-capita GDP growth and the debt service variable are insignificant.<sup>29</sup> Like Stokes (2009), though, we show that trade openness is positive and significant at the 5 percent level.<sup>30</sup> As trade (as a percentage of GDP) increased in the previous period, so does the probability that the current president's ideology will

<sup>&</sup>lt;sup>29</sup> We tried a measure of government consumption expenditures (as a % of GDP) instead of debt servicing and found that it was also insignificant. Note that Stokes (2009) and Murillo et al. (2008) also find that the level and growth rate of per-capita GDP were not significant predictors of the left's electoral success in Latin America. We experimented with several other measures of economic health and continued to find that they were consistently insignificant. For instance, we created dummy variables for high, medium, and low rates of per-capita GDP growth, were the high (low) dummy was equal to 1 when growth was one standard deviation above (below) the sample mean. We also tried several different measures of poverty incidence, including the percentage of the population living below \$2/day and \$1.25/day.

<sup>&</sup>lt;sup>30</sup> We should note that Stokes (2009) defines the dependent variable differently than us. She studies the vote share of the left relative to the vote share of the right in Latin American presidential elections.

be more conservative. This could imply that voters find it costlier to elect left-wing candidates now that the economy is a bigger player in international markets.<sup>31</sup>

Inflation is significant at the ten percent level, but with the opposite sign as the coefficient on trade openness. A higher inflation rate in the previous presidential terms is correlated with an increased probability that the next president will be from a left-wing party. This result is somewhat counterintuitive because we would expect voters to shy away from electing a left-of-center chief executive if the country is already suffering inflationary troubles.<sup>32</sup> Latin America has a history of high inflation, many periods of which were associated with left-wing regimes and populist policies.<sup>33</sup> It is possible that it is not the inflation rate per se that matters, but whether the inflation occurred under a liberal or conservative regime. Below we experiment with interacting the macroeconomic variables with a dummy variable representing conservative incumbent presidents. This allows us to test if the effect of inflation on presidential ideology differs depending on the ideology of the previous chief executive.

We find significant support for the argument that natural resources exports are positively related to the probability of having a left-wing president. As Column 1 of Table 3 demonstrates, agricultural and oil exports are negative and significant at the one percent level, while minerals are negative and significant at the five percent level. These results support the argument that an

<sup>&</sup>lt;sup>31</sup> We also experimented with including a variable measuring a country's net barter terms of trade, which is defined as "the percentage ratio of the export unit value indexes to the import unit value indexes, measured relative to the base year 2000" (WDI, 2011). We would expect that as the terms of trade improves, individuals are more likely to vote for conservative presidential candidates that support trade openness. We find evidence of that as the variable is positive but only weakly significant at the .10 level.

<sup>32</sup> We constructed three dummy variables representing high, medium and low levels of inflation. The high (low)

<sup>&</sup>lt;sup>32</sup> We constructed three dummy variables representing high, medium and low levels of inflation. The high (low) inflation dummy is equal to one if average inflation is in the triple (single) digits. The medium dummy is equal to 1 for all other levels of inflation. We found no significant relationship between the high and medium dummies and the probability that a left-wing president takes office.

<sup>&</sup>lt;sup>33</sup> To test whether inflation variability matters, we replaced our inflation variable with the standard deviation of inflation and found that it is negative and significant. The coefficients of the other variables kept their original sign and significance levels.

increase in natural resource exports are associated with an increased probability of left-wing success in presidential elections.<sup>34</sup>

Of the different political variables that we control for, revolutions, government crises and political discrimination are all significantly related to the ideology of the chief executive at the five percent level. The coefficient on revolutions is positive, which indicates that countries that experienced political revolutions in the previous electoral period were actually more likely to have a conservative president in the current period. A lot of the revolutionary activity in the region has been from the left-wing and it is possible that this extremism has ended up hurting the left's success at the polls.

Unlike we expected, the coefficient for government crises is negative and significant, indicating that this type of political instability decreases the probability of a conservative government being elected.<sup>35</sup> We had hypothesized that this type of uncertainty might drive voters to prefer more conservative candidates, but it instead increases the possibility that left-wing presidents take office. It is quite possible that the effect of this variable depends on whether the previous president was from the right or left. In the next section, we interact this variable with a dummy variable equal to one if the previous president was conservative.

Political discrimination is negative and significant at the five percent level, indicating that increased political discrimination is significantly related to the probability of a left-wing chief executive. Our measure of the strength of democracy, on the other hand, is insignificantly related to the political ideology of the president.

<sup>&</sup>lt;sup>34</sup> We also tried including natural resource rents instead of resource commodities (data from WDI). We find similar results in that mineral and gas rents are negative and statistically significant at the five and one percent level. However, unlike what we found with oil exports, the results show that the variable measuring oil rents is not significantly related to the dependent variable.

<sup>&</sup>lt;sup>35</sup> As discussed above, our crisis variable measures political crises. To account for periods of crises, we also experimented with a dummy that accounted for periods of negative growth and levels of inflation above 50 percent. We found that when these dummies are included separately in the model they are both insignificant.

We do not find evidence that social conditions are related to the ideology of the chief executive. The coefficients on inequality (measured as the percentage of farm acreage held as family farms) and ethnic fractionalization are insignificant at any conventional level.<sup>36</sup>

In column 2 of Table 3, we re-estimate our model excluding all of the independent variables that were insignificant in column 1.<sup>37</sup> As shown in Column 2, excluding the insignificant independent variables has very little effect on the sign and significance of the remaining variables. We use a scalar measure of fit, the Bayesian information criterion (BIC), to determine whether the restricted model is preferred over the initial model. The BIC for the restricted model is smaller than for the initial model and the difference is significant, thus providing support for using the pared-down model.<sup>38</sup> In this estimation, which is shown in column 2 of Table 3, the significance of inflation increases from ten to five percent. The significance of mineral exports and crises increase from five to one percent, and the size of the coefficients for most variables are of similar magnitude to those shown in column 1 of Table 3.

Column 3 of Table 3 shows the estimates from the pared-down model using an ordered logit estimator. As mentioned before, the ordered probit assumes a normal distribution of the error term, while the ordered logit assumes a logistic distribution. By exploring the ordered logistic model we are taking into consideration the possibility that the error term takes a different distribution. As expected, the coefficients of the ordered logit model, shown in column 3 of

<sup>&</sup>lt;sup>36</sup> We also used Solt's (2009) GINI coefficients, which are based on gross and net income and vary over time., but they were consistently insignificant in our estimations. Time-invariant averages of GINI coefficients, whether measured with land or income data, produced similarly insignificant results. We also explore possible nonlinear effects of inequality using the resource inequality variable in our ordered probit model. We find that the probability of a president from the left being elected is maximized at medium levels of inequality, a result similar to that found by Debs and Helmke (2010). The nonlinear effect of inequality is not robust to using alternative indicators of inequality.

<sup>&</sup>lt;sup>37</sup> When using MLE in small samples, one must be cautious about the consistency and efficiency of the results. Indeed, Long (1997) suggests having at least 10 observations per parameter when using MLE.

<sup>&</sup>lt;sup>38</sup> The BIC for the restricted and initial model are 324.47 and 340.44, respectively. The difference is equal to 15.97, providing strong evidence that the restricted model is preferred.

Table 3, are larger than those of the ordered probit and the sign and significance of most of the coefficients stays the same. While the significance of crises decreases from the one percent level to the five percent level, the significance of trade openness and revolutions falls from the five percent level to the ten percent level.

#### Robustness Tests

For robustness purposes, we explore in this section whether our previous results are robust to several modifications. First, we include decade dummy variables to test for any time-varying factor that we have failed to capture. The results, presented in Column 4 of Table 3, are very similar to those reported in column 2 of Table 3. All the variables in the baseline model continue to be significant at the one and five percent level, and the dummy for the 2000s decade is negative but only marginally significant at the 10 percent level. The reason why we observe this marginal effect for the 2000s decade dummy might be related to the fact that macroeconomic stability has become a very valuable public good for voters, which has forced leftist presidents to implement policies that are more appealing to the center-left than to the left. An example of a president from the left who has adjusted his agenda for the sake of macroeconomic stability is Lula in Brazil. By taking a less radical approach, leftist candidates have increased their probability of being elected in the last decade.

Second, we explore using a different categorization of chief executive ideology. Instead of a five-category dependent variable, we collapse the different groups into three categories: left-of center, center, and right-of-center. Five categories in the dependent variable may be asking a lot of the data and reducing the number of categories helps alleviate this problem. Lumping categories together also help dealing with the difficulty to make clear distinctions

among categories that are closely related such as left and left of center categories. Some could argue that distinguishing between these two, or between right and center-right, could be problematic. Column 5 of Table 3 presents the results of this estimation. In general, most of our results are very similar to those of the pared down model in column 2, Table 3. Trade openness and revolutions, which previously were significant at the five percent level, are now significant at the ten percent level. All the other indicators are significant at the one and five percent level.

Third, we test whether there is a pendulum effect occurring in presidential elections in the region by including a dummy variable called *Right* that is equal to one if the previous president was from a conservative party and zero otherwise.<sup>39</sup> This allows us to test if voters are more likely to vote for a left-of-center presidential candidate when the incumbent president was from a conservative party. We also interact *Right* with the macroeconomic variables. It is possible that the effect of macroeconomic shifts in the previous presidential term will have a differential effect depending on whether the incumbent chief executive was from a conservative party. The results, shown in Column 1 of Table 4, indicate that trade openness, commodity exports (agricultural, mineral, and oil), revolutions, crises, and political discrimination are still statistically significant and have the same sign as previous estimations.

The coefficient on *Right* is positive and significant at the five percent level, meaning that countries that had right wing presidents in the last presidential term are more likely to have right wing presidents in the current term as well. However, the interaction between *Right* and trade openness is negative and significant at the five percent level, and the size of the coefficient erases the previous effect of openness on presidential ideology. Like Stokes (2009), we show

<sup>&</sup>lt;sup>39</sup> All of our right-hand side variables are lagged one presidential term. In the case of the right dummy, it is also lagged in that it is equal to 1 when there was a right president in the previous presidential term. Including this new variable causes the number of observations to fall from 100 to 82 because the data to construct this dummy is the same as the data we use to construct the dependent variable.

that when the previous president was from a conservative party, the effect of lagged trade openness on the ideology of the current president no longer matters.<sup>40</sup> We also find that the interaction term between *Right* and inflation is negative and statistically significant at the five percent level. This result indicates that higher levels of inflation in a previous presidential term matters when the incumbent was conservative. If the previous president was conservative and failed to maintain price stability, voters are more likely to elect a left-wing president in the current term.

Fourth, we also interact the *Right* dummy with the revolution and government crisis variables. The coefficient on revolutions and revolutions\**Right* are both insignificant, indicating that the effect of this type of political instability on the ideology of the current chief executive does not depend on the ideology of the previous one. Revolutions increase the probability of a left-wing president being elected, whether or not there was a conservative party in office in the previous period. The effect of government crises on our dependent variable, however, does depend on the ideology of the previous officeholder. The coefficient on crises\**Right* is negative and significant, indicating that conservative parties are punished when there was a crisis during their presidential term.

Fifth, we explore whether previous economic reform significantly affects the probability of a left-wing president being elected. Latin American countries adopted serious reform after the debt crisis and reduced state intervention in the economy. Among other policies, trade was opened to foreign competition, state enterprises were privatized, and governments balanced their budgets. These types of reforms are typically known as the Washington Consensus. As Easterly

<sup>&</sup>lt;sup>40</sup> Stokes (2009), using a different dependent variable than us, finds that low inflation under previous conservative regimes is positively predicts the left's vote share relative to the right. We, however, do not find any evidence that the ideology of the previous president can significantly explain the left's electoral outcomes in the subsequent election.

et al. (1997) point out, by the end of the 1990s, there was widespread disappointment about the results that these reforms had yielded.

It is quite possible that the unfulfilled promises of these reforms could explain the rise of the left in the region in the 2000s. To measure how deep these reforms really were, we use an index constructed by Lora (2001) that measures trade and financial liberalization, tax and labor reforms, and privatization. Column 3 of Table 4 presents the results of including this index in our baseline model. The coefficient on the reform variable is negative and marginally significant at the .10 level, indicating that previous reform efforts are associated with more left-wing presidents in the current period.<sup>41</sup>

Finally, we evaluate the stability of our coefficients and test whether our findings are driven by any outlier. We employ a Jackknife approach and estimate our baseline model excluding one country at the time. Table 5 shows the distribution of the jackknife coefficients. We find that the significance of oil exports per worker goes away once we exclude Venezuela from the sample. This is interesting since it shows that the importance of oil exports on political ideology seem to matter only for a large oil exporter like Venezuela.

#### Quantitative Effects

We calculate the quantitative effect of the variables that have a robust effect on presidential ideology. Using the estimates of our baseline model shown in Column 2 of Table 3, we calculate the marginal effect of an independent variable on the probability that a specific

<sup>&</sup>lt;sup>41</sup> We were curious whether the Lora's reform index was perhaps correlated with trade openness or even commodity exports. We tested and found that the correlation between it and these other indicators is never higher than 0.22. Including the reform index in the specification while excluding the other variables yields very similar results. The coefficient on the index continues to be marginally significant at the ten percent level.

outcome is observed. Table 6 presents the marginal effect of each independent variable on the probability of a given category of political ideology in the political spectrum.

The marginal effect of inflation on the probability that a president from the left (y=1) is elected is equal to 0.00002, while the probability that a president from the right (y=5) is elected decreases by 0.00005. For the marginal effect of resource dependence on political ideology of the executive, we find that an increase in the exports of natural resource commodities of one unit (one US dollar per worker) increases the probability that the president is from a left-wing (y=1)party by 0.0002 for agricultural exports and by 0.0001 for mineral and oil exports. On the other hand, we observe that an increase of one unit of agricultural, mineral, and oil exports reduces the probability that a president from the right (y=5) is elected by 0.0006, 0.0003, and 0.0002, respectively. In the case of revolutions, we find that an increase in revolutions by one unit decreases the probability that a president from the left (y=1) is elected by 0.03, but increases the probability that a president from the right (y=5) is elected by 0.08. Crises seems to show a larger effect in the opposite direction of revolutions, where an increase in crises by one unit increases the probability that a leftist president is elected by 0.07, but decreases the probability that a president from the right is elected by 0.16. For political discrimination we find that an increase in the index by one unit raises (lowers) the probability that a president from the left (right) is elected by 0.02 (0.04). 42 It is interesting that countries that are more dependent on the agricultural sector have more of a tendency to elect left-of-center chief executives. While higher agricultural exports might lead to greater government revenues, it may also be the case that some left-wing presidents make a concerted effort to woo rural voters (Olper, 2007, Moreno-Brid and Pauvanovic, 2009).

<sup>&</sup>lt;sup>42</sup> Here we refer to probabilities, which can be interpreted in percentage terms. For example, a 0.02 increase in probability can be interpreted as a 2 percent increase.

#### **CONCLUSION**

We examine various economic, political, and social reasons for the increased election of left-of-center chief executives and find that three factors are important. First, commodity exports in agriculture, mining, and oil are all positively and significantly related to the probability of a left-wing candidate becoming president. This result has important implications for the staying power of these governments. When commodity prices drop, they will need to seek other sources of revenue to maintain funding for social programs. While it seems clear that natural resource abundance in the region will continue to play a key role in political outcomes, it is important to note that the importance of oil exports only seems to matter for Venezuela.

Second, we find evidence that past political discrimination is an important factor behind the rise of the left, a finding that supports arguments that left-wing parties have been able to tap into widespread and deep discontent over voters' feelings of political marginalization. We show that trade openness also matters for presidential ideology, but only if the previous president was not a conservative. More open countries are less likely to elect a left-wing chief executive, unless the previous president was from a conservative party, in which case openness has no effect on the ideology of the current chief executive.

We also find that government crises matter for the political ideology of the chief executive, but only when a crisis occurs during the tenure of a conservative president. That is, conservative presidents are punished electorally when there was a crisis on their watch, while left-wing presidents are not. This result indicates that an unstable political environment is likely to provide an environment where individuals are more likely to vote for the left candidate.

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Table 1. Summary Statistics

	Mean	Std. Dev.	Min	Max	Obs
Political Ideology (1-5)	3.1100	1.2135	1.0000	5.0000	100
Political Ideology (1-3)	1.0300	0.9040	0.0000	2.0000	100
GDP growth	2.9154	2.6571	-6.7483	8.8779	100
Trade openness	55.4412	29.0464	15.2069	179.0501	100
Inflation	158.4711	520.9700	-6.7719	3221.9300	100
Debt service (GDP share)	6.3644	2.5861	1.5888	13.6377	100
Reform	0.4629	0.1106	0.2723	0.6945	96
Agricultural exports	199.5386	169.0007	10.4396	797.1879	100
Mineral exports	36.9975	85.3414	0.0048	551.2698	100
Oil exports	134.5553	331.6333	0.0068	1723.7670	100
Revolutions	0.2760	0.4899	0.0000	2.5000	100
Crises	0.2315	0.3826	0.0000	2.2500	100
Democracy	6.1187	4.1433	-7.0000	10.0000	100
Political discrimination	2.5073	1.0397	0.0000	4.0000	100
Ethnic fractionalization	0.4405	0.1851	0.1689	0.7396	100
Resource inequality	26.5600	9.6686	5.0000	54.0000	100

Table 2. Variables Description and Sources

Variable	Description and Source
Political ideology indices	Index of political ideology of chief executive, ranges from 1 to 5 (1=left, 2=center-left, 3=center, 4=center-right, 5=right). We also construct an index with 3 categories (1=left and center-left, 2=center, 3=right and center-right). Source: Authors' construction using data from Political Database of the Americas (2009), Electionworld (2009), Coppedge (2007), and Huber et al. (2008).
Real GDP growth (High and Med)	Average growth rate of real GDP. The high (low) dummy is equal to one when growth is at least one standard deviation above (below) the sample average. Source: WDI (2010).
Trade openness	Average of trade (exports plus imports) as a share of GDP. Source: WDI (2010).
Inflation (Std.dev)	Average (and standard deviation) of the inflation rate using the GDP deflator. Source: WDI (2010).
Debt service	Average total debt service on external debt (current US dollars) as a share of GDP. Source: Authors' construction using WDI (2010).
Reform	Average of reform index, which is available between 1985 and 1999. We use the earliest available average for observations before 1985, and the latest available average for observations after 1999. Index not available for Panama. Source: Lora (2001).
Commodity exports	Average exports of agricultural, mineral and oil commodities per worker. Source: UNCOMTRADE (2010)
Revolutions and Crises	Average number of revolutions, defined as "any illegal or forced change in the top governmental elite, any attempt at such a change, or any successful or unsuccessful armed rebellion whose aim is independence from the central government." Average number of government crises, defined as "any rapidly developing situation that threatens to bring the downfall of the present regime - excluding situations of revolt aimed at such overthrow." Source: CNTS (2011).
Democracy score	Average of the Polity2 score. Source: Marshall and Jaggers (2010).
Political discrimination	Average of the index of political discrimination, time variant for some countries, but invariant for others. Source: MAR (2010)
Inequality (resource)	The area of family farms as a percentage of the total area of holdings (10-year frequency). Use the available value before the presidential term. Source: Vanhanen (2003)

Ethnic Time-invariant index. Source: Alesina et al. (2003)

fractionalization

Right dummy Equal to 1 if the previous president was from the right (center-right and

right), 0 otherwise. Source: Authors' construction using the political

ideology indices.

All variables are estimated as the average of their value in the presidential term previous to the election year, unless stated otherwise. Averages are calculated with available observations.

Table 3. Determinants of Political Ideology of the Executive in Latin America

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	(1)	(2)	(3)	(4)	(5)		
GDP growth	0.0053						
	(0.0449)						
Trade openness	0.0064**	0.0062**	0.0096*	0.0078**	0.0048*		
	(0.0030)	(0.0031)	(0.0055)	(0.0039)	(0.0029)		
Inflation	-0.0002*	-0.0003**	-0.0005***	-0.0004***	-0.0004***		
	(0.0001)	(0.0001)	(0.0002)	(0.0001)	(0.0002)		
Debt service	-0.0287						
	(0.0656)						
Agric. exports	-0.0038***	-0.0032***	-0.0059***	-0.0032***	-0.0044***		
	(0.0009)	(0.0006)	(0.0012)	(0.0007)	(0.0007)		
Mineral exports	-0.0016**	-0.0017***	-0.0027***	-0.0014**	-0.0019***		
	(0.0007)	(0.0006)	(0.0010)	(0.0006)	(0.0007)		
Oil exports	-0.0012***	-0.0012***	-0.0023***	-0.0012***	-0.0010***		
	(0.0003)	(0.0003)	(0.0005)	(0.0003)	(0.0003)		
Revolutions	0.4357**	0.4230**	0.6252*	0.6547***	0.6405*		
	(0.1934)	(0.1858)	(0.3217)	(0.1781)	(0.3595)		
Crises	-0.7605**	-0.8879***	-1.4645**	-0.8750**	-1.2120***		
	(0.3232)	(0.3205)	(0.6243)	(0.4040)	(0.4055)		
Democracy	0.0015						
	(0.0251)						
Pol. discrimination	-0.2744**	-0.2729**	-0.4844**	-0.3408**	-0.3487***		
	(0.1335)	(0.1231)	(0.2128)	(0.1396)	(0.1084)		
Ethnic diversity	-1.0360						
	(1.0928)						
Inequality	0.0057						
	(0.0106)						
1980s dummy				-0.1542			
				(0.5378)			
1990s dummy				0.0496			
				(0.5305)			
2000s dummy				-0.9551*			
•				(0.5469)			
Log-Likelihood	-131.1	-132.3	-132.0	-126.3	-87.1		
Chi Square	264.10	60.90	60.36	131.10	77.00		
Pseudo R <sup>2</sup>	0.13	0.12	0.12	0.16	0.168		

Robust standard errors in parenthesis; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. All estimations include 100 observations. Columns 1, 2, and 4 show ordered probit estimates, and Column 3 shows ordered logit. Columns 1, 2, 3 and 4 use the executive ideology index with values 1-5, and Column 5 uses values 1-3.

Table 4. Determinants of Political Ideology of the Executive in Latin America

	(1)	(2)	(3)
Trade openness	0.0180**	0.0078**	0.0112
•	(0.0081)	(0.0036)	(0.0069)
Inflation	-0.00001	-0.0002	-0.0002
	(0.0002)	(0.0002)	(0.0002)
Agricultural exports	-0.0026***	-0.0028***	-0.0031***
	(0.0009)	(0.0008)	(0.0008)
Mineral exports	-0.0020***	-0.0018**	-0.0011
	(0.0008)	(0.0009)	(0.0008)
Oil exports	-0.0015***	-0.0016***	-0.0015***
	(0.0003)	(0.0003)	(0.0002)
Revolutions	0.4071***	0.5600	0.5595***
	(0.1476)	(0.3976)	(0.1927)
Crises	-0.7341**	-0.4814	-0.6818**
	(0.3530)	(0.3357)	(0.3060)
Pol. discrimination	-0.2682**	-0.3040***	-0.3063**
	(0.1339)	(0.1156)	(0.1379)
Right dummy	1.4948**	0.3908	
	(0.7131)	(0.4576)	
Right*trade	-0.0228**		
	(0.0101)		
Right*inflation	-0.0006**		
	(0.0002)		
Right*revolution		-0.0357	
		(0.4355)	
Right*crises		-1.3577**	
		(0.6846)	
Reform			-2.5987*
			(1.4356)
Observations	82	82	96
Log-Likelihood	-102.7	-104.20	-124.6
Chi Square	149.40	157.20	132.10
Pseudo R <sup>2</sup>	0.17	0.16	0.14

Robust standard errors in parenthesis; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. All columns show ordered probit estimates and use the executive ideology index with values 1-5.

Table 5. Jackknife Coefficient Distributions

	Mean	Std. Dev	Min	Max	Sig
Trade openness	0.0063	0.0012	0.0037	0.0085	16
Inflation	-0.0003	0.0001	-0.0003	-0.0002	17
Agricultural exports	-0.0032	0.0002	-0.0037	-0.0027	18
Mineral exports	-0.0018	0.0009	-0.0053	-0.0014	18
Oil exports	-0.0012	0.0003	-0.0015	-0.0002	17
Revolutions	0.4247	0.0647	0.3425	0.5978	18
Crises	-0.8964	0.1204	-1.3037	-0.7368	18
Political discrimination	-0.2770	0.0425	-0.3522	-0.1668	18

Last column indicates the number of cases in which the coefficient is significant at least at the 10 percent level (out of 18 cases).

Table 6. Marginal Effect of Independent Variables (using model in Table 3, Column 2)

_dy/dx					
	Pr(y=1)	Pr(y=2)	Pr(y=3)	Pr(y=4)	Pr(y=5)
Trade openness	-0.0005	-0.0019	-0.00004	0.0013	0.0011
Inflation	0.00002	0.0001	0.000002	-0.0001	-0.00005
Agricultural exports	0.0002	0.0010	0.00002	-0.0007	-0.0006
Mineral exports	0.0001	0.0005	0.00001	-0.0003	-0.0003
Oil exports	0.0001	0.0004	0.00001	-0.0003	-0.0002
Revolutions	-0.0314	-0.1287	-0.0027	0.0877	0.0750
Crises	0.0659	0.2701	0.0056	-0.1842	-0.1575
Political discrimination	0.0203	0.0830	0.0017	-0.0566	-0.0484