Bonds, Stocks or Dollars? Do Voters Care About Capital Markets in Brazil and Mexico

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Bonds, Stocks or Dollars? Do Capital Markets influence Election Results in Brazil and Mexico?

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Abstract:
How does vote intention in presidential elections vary according to the economic conditions of a country, especially indicators of the financial market? Does the state of the economy, both its fundamentals as well as capital market, affect variation in candidates’ percentage of vote intention in national polls? This paper tests how economic indicators influence vote intention in presidential elections in two emerging markets: Brazil and Mexico. The presidential elections of 1994, 1998, 2002, and 2006 in Brazil and 2000 and 2006 in Mexico are analyzed using all poll returns for each electoral period and corresponding economic data. The paper finds that no theory is capable of explaining results throughout the dataset but partisan explanations and Stokes’ (2001) categories of alternatives to retrospective voting help elucidate vote intention.

Preliminary Version: Do not quote or cite with explicit authorization from the authors.

1. Introduction

This paper aims to build on previous research on vote intention and behavior (Stokes 2001, Alesina et al 1997) to understand how economic and financial data affect vote intention in Brazilian and Mexican presidential elections. Brazil and Mexico are the largest countries in Latin America and have both democratized in recent decades. Both countries have very important emerging markets that have generated enthusiasm as well as crises within other emerging markets. The role of political risk in these markets has been central and drove much of crisis in Mexico in 1994 and Brazil in 1998 and 2002 (Spanakos and Renno, 2009). As Whitehead has argued, risk in emerging markets normally heightens before and after elections (2006). Not surprisingly, not only are financial analysts and policy-makers paying close attention to economic and financial data, increasingly so are voters.

This paper explores the question of whether economic and financial data affect vote intention. Renno and Spanakos (2006) claimed that country risk evaluations, measured by bond spreads, were quite sensitive to poll results in Brazil, but that the inverse was not true: polls did not vary so much because of risk assessment. In a more recent study, comparing distinct countries in Latin America, they find that risk assessments were sensitive in some elections, but not others and that there was no clear pattern that the rise of left-wing parties to government increased risk evaluations (Spanakos and Renno, 2009).

This paper attempts to evaluate, in a comparative perspective, how sensitive vote intentions (vote for left-wing parties) are to the state of the fundamentals of the economy (inflation and unemployment) and financial market indicators (country risk evaluations,
exchange rates) controlling for various international indicators of instability (VIX, commodity prices), Central Bank independence and political variables (party system age, country specific effects and causal heterogeneity by electoral episode). This is, therefore, an initial attempt to measure how the economy and financial markets affect vote intentions in a comparative perspective focusing on emerging markets.

2. Economic Voting in Comparative Perspective

Studies about how the economy affects elections abound and have many ramifications. There are those based on individual level data evaluating pocketbook and sociotropic economic vote; there are studies of aggregate level data investigating how economic outcomes affect government evaluation and vote in the developing and developed world; and there are studies about how financial markets influence government evaluation. On the other hand, there are no studies on how financial markets, controlling for the state of the economy’s fundamentals, influence vote intentions comparing several elections in two developing nations. This present paper attempts to fill this gap.

No single theory can explain the complex relationship between political moments, such as elections, and financial and economic variables. The central claim in this paper is that a combination of global economic conditions, local aspects of the financial market, and the fundamentals of national economies must be considered in explaining variations in vote intention in developing countries. Furthermore, the effects of the distinct explanatory variables will vary by electoral period, depending on clarity of the candidates’ rhetoric and incumbents’ performance.

2A. Partisan Models
While classical partisan models of political economy emphasize how the partisan identity of a government impacts economic indicators in developed countries (Hibbs 1977, Alesina et al 1997), recent contributions analyze developing countries and give more attention to the way electoral periods affect financial markets as opposed to macroeconomic indicators. Using financial market data from 1975-1998 for 78 developing countries, David Leblang (2002) found that speculative attacks are most likely to occur during a Left-wing government and after an election. Vaaler et al, using data from 20 developing countries find that financial markets are most concerned about a shift to the left during elections, but not the reelection of a candidate of the left (Block and Vaaler 2004; Vaaler, et al 2006). These studies seem to confirm the basic premises of partisan theories: 1) that market actors distinguish politicians of the left and the right; 2) once in office politicians justify such distinctions; 3) market actors make investment decisions during electoral periods based upon the ideology of the likely victor.

Though very interesting, these studies, as large N studies, are limited by the need to maintain comparability of data (George and Bennett 2005, 19). For example, they face a problem of what Herron calls “magnitude of partisanship,” or how far the distance is between left and right (2000: 327). Investors are unlikely to consider the partisan effect of a Michael Foot or a Tony Blair identical, though statistical analysis labels them both “left.” Similarly, if Castañeda is correct, there should be markedly different responses to Latin America’s moderate, institutionalist left and its radical, populist and anti-institutionalist left (Castañeda and Navia 2007). Moreover, even if the left-right divide can be assumed to be equivalent in large N studies, the analyst must also understand their meaning in terms of the institutionalization of the party system (Mainwaring 1999).
To deal with these issues, a specific variable for party system institutionalization, which conditions the clarity of party’s ideology and “brand names,” is included in the current model (Lupia and McCubbins 2000). Second, the model investigates in detail the role of partisan explanations vis-à-vis other theories through an in-depth discussion of each election. The hypotheses derived from these theories are that left-wing parties should benefit from deterioration in employment and not be so harmed by deterioration in inflation.

2B. Restrospective Economic Voting

The literature on vote choice places a very strong emphasis on economic voting. The argument here is very simple: voters punish and reward incumbents for their performance in office. The main form of holding representatives accountable for their performance in office is for voters to reelect a politician or party based on his or her perception of the current state of the economy. Satisfaction leads to a vote for the incumbent and dissatisfaction the opposition. Hence, the central claim of this literature is that voters focus more on the incumbent performance as reflected by economic conditions, and less on partisan or ideological issues (Fiorina 1981).

Hence, the expectation here is that deterioration in the economy would lead to support of the opposition. If a left-wing party is in the opposition, it will benefit from weaker economic performance: If the left-wing party is the incumbent, it will suffer from weaker economic performance.

2C. Global constraints

New partisan research recognizes the importance of ‘contextual variation,’ specifically that “in small, open economies, domestic policy makers may retain less
autonomy over some policies… than in larger, less-exposed economies” (Franzese 2002, 371). External constraints upon domestic policy-making have long been a concern in Latin America and much of the international political economy literature seems to argue that globalization weakens the role of domestic politics making autonomous policy-making impossible (Cardoso and Faletto 1979, Garrett 1998, Wallerstein 2004).

Susan Strange warned that while “states were once the masters of markets, now it is markets which, on many crucial issues, are the masters over the governments of states” (in Garrett 1998, 787). In his study of capital mobility and development in Latin America Mahon (1996) finds support for the idea of a virtual senate of asset-holders because of constraints they impose on domestic policy and a similar argument is made by Mosley (2003) who argues that investors have a powerful voice in emerging market countries’ political arenas.

Without a doubt, world commodity prices and risk tolerance on global capital markets play a fundamental role in providing constraints and opportunities for emerging markets. Similarly, capital flows into/out of one emerging market are often very influenced by events in another emerging market or in the region as a whole. But contagion is often exaggerated and bondholders do distinguish on the basis of policy choices and investment climates particular to an emerging market. Still, this paper tests whether the global conditions influence domestic politics by including variables that capture the overall level of risk and openness of international markets.

2D. Variations in Vote Calculi

Stokes (2001a) has made a significant effort in comparing how the economy affects vote choice in developing countries by arguing that the impact of the economy on
elections is not as straightforward or evident as it is in the developed world. The main
tenets in the developing world are that a decline in economic performance will encourage
voters to vote for the opposition. Given that elections in developed countries have certain
attributes absent in the new democratic regimes, like alternation in power, strong party
reputations, and clear programmatic proposals by candidates, the choices seem simpler in
more consolidated democratic regimes.

In Latin America, the situation is much more complex since the region has not
only recently witnessed transitions to democracy (still contentious in many countries) but
also lived through very dramatic processes of economic stabilization and reform. The
politics of economic stabilization eventually resolved deep issues like hyperinflation but
generated others such as recession, increased sensitivity to fluctuations in global capital
markets, and stop-and-start economic growth (Ferrari and Spanakos 2009). In such
turbulent economic environments, voters were willing to support politicians who
promised long-term solutions even if generating short-term pain (Stokes 2001a). In other
words, voters often chose incumbents and challenges that could be associated with the
promise of, at least short-term, economic constriction.

This is a considerable challenge to the traditional form of voting in democratic
regimes, which expects ‘retrospective’ evaluations of the economy. To explain the puzzle
of voters’ choice, Stokes and the various authors in her book point out that voters could
employ various other forms of vote calculi (Stokes 2001). Voters could: adopt an
intertemporal perspective, in which hardship in the present was seen as a necessary step
for bonanza in the future; adopt an exonerating posture, in which the current crises was
either be blamed factors external to the incumbent or the opposition was considered
worse; take an oppositionist stance, in that the incumbent is always poorly evaluated, independent of the economy and voters could discount changes in the aggregate economy if they felt that there was a real improvement/worsening in the distribution of wealth and resources (Stokes 2001a).

In their analyses, the theoretical arguments above revert into expectations about how economic indicators, basically inflation and unemployment, should impact incumbent evaluations in the different countries. The main argument is that the traditional expectations of the economic voting literature, that when the economy goes bad, incumbents lose support, might not simply hold in the new democracies studied on Stokes edited volume. Intertemporal calculi will, for instance, lead to the fact that falling economic performance may lead to an increase in support for the government based on the expectation and government justifications that short-term losses will lead to long-term gains. An exonerating posture explains why, sometimes, economic factors may not be associated with government evaluations, as does an oppositionist approach. There is also the possibility that voters will maintain an ideological voting line, even if their representatives are less capable of producing results expected by rational partisan theories (Alesina et al 1997).

Stokes’ typology is employed within the model used to analyze vote intention in Mexico and Brazil. The Mexican case was studied by Jorge Buendia (2001) and he found that Mexico is a classical case of traditional retrospective voting. Brazil was not included in her project, but previous studies have also identified traces of economic voting in Brazil. This paper adds a comparative element and includes new cases and datapoints. It analyzes all poll results in the year of the election for four elections in Brazil and two in
Mexico in order to focus on vote intentions and not on government evaluations and more clearly argue how the economy affects votes. The addition of the 2006 election in Mexico is important given the controversy surrounding it; it was the first election in which the PRI was not an incumbent, and the first election since the 1988 debacle in which the PRD candidate conceivably could have won.

Brazil and Mexico are very interesting cases because they are important emerging markets with recent processes of democratic transition and institution building, and they have both witnessed recent elections in which left-wing parties have fared quite well. Brazil saw the rise of Lula da Silva to government in 2002, backed by a quite unique political party in the Brazilian landscape. The PT is a party with deep social roots tracing back to social movements, labor unions and progressive church groups, the Eclesial Base Communities. Lula da Silva, a typical migrant from the northeast, was the first in his family to receive technical training. His rise to power was a watershed moment in Brazilian history, but one also marked by market unrest at first. As was said, 2002 was an interesting episode of how financial markets and vote for the left could intertwine. Still, Lula no just won the election, but became a favorite of financial market sectors. His 2006 run did not activate the intense reaction of financial indicators that occurred in 2002.

Mexico faced a potentially turbulent election in 2006, but the possible victory of Lopez Obrador, from the left-wing Partido de la Revolución Democrática (PRD), did not generate the same reactions that occurred in Brazil in 2002. The fact that the 2006 elections also saw the astonishing rise in polls of Felipe Calderón from the right-wing Partido Acción Nacional (PAN), who shot out from obscurity to winning a highly contested election.
3. Data and Variables

This paper analyzes variation in vote intention for left-wing parties in Brazil and Mexico using poll results for all polls conducted in the several presidential elections analyzed here. The main dependent variable, therefore, is the percentage of vote intentions for the two main Left-wing parties in Brazil and Mexico: the Partido dos Trabalhadores (PT) in Brazil and the Partido de la Revolucion Democratica (PRD) in Mexico.

These countries were selected because of the importance of their markets and because they display a range of partisan and policy orientations, offering a diverse set of situations that can be analyzed. Brazil witnessed a shift towards the left in the period studied. Although Mexico had no governments of the left, the candidate of the left came within 1% point of winning the 2006 elections. The shifts toward the left in the 2002 election in Brazil and to a lesser extent in Mexico 2006 constitute ‘crucial cases’ in evaluating partisan theories (Eckstein 1975, 118). Other observations produce results unexpected by partisan accounts, namely: support for Lula in 2006 coincided with a decrease in risk; yet the reelection Cardoso (Brazil 1998) did (Spanakos and Renno, 2009).

The unique dataset employed here has a cross-sectional time series structure, in which each election (1994, 1998, 2002, 2006 in Brazil and 2000 and 2006 in Mexico) is considered as a panel and the polls are ordered based on their dates of release. The dataset is quite complex because the number of polls in each election year is not identical, hence panels are unbalanced, and the interval between polls in each year is also unequal, hence lags are unequally spaced. The analysis tried to take these factors into
consideration by estimating models that take into account the structure of the data set and avoiding using lagged terms because of the unequal spacing. There is, however, a more significant limitation to the analysis that may attenuate the impact of economic variables on vote intentions in that while vote intention is measured on a daily basis, many of the economic variables are only available monthly. Hence, the values of the economic variables vary much less than that of vote intentions for the left. The ideal dataset would be one with daily data on the economic variables to measure also lags in how long it takes for economic variables to be reflected in oscillation in vote intention. Unfortunately, economic data is not collected with such speed. Financial market data does allow for daily data, but some of the older elections are beyond the period available to financial sector analysts, and thus the authors of this paper, and so for older elections the dataset uses end of the month evaluations for country risk.

The main explanatory variables are derived from the theoretical expectations outlined before. The central indicator of risk is JP Morgan Chase’s EMBI. The EMBI is the price that investors are willing to pay for the sovereign debt of a given country at a specific moment in time. It is the spread of the yield of a sovereign bond relative to that of a US Treasury bond (considered a zero-risk benchmark) of a similar maturity. Increasing in the cost of government borrowing raises the cost of borrowing across the economy, slowing growth and increasing indebtedness. When debt is denominated in foreign currency, this places additional pressures on monetary policy and foreign exchange reserves.

The EMBI is not a pure measure of political risk. First, it reflects the dynamics within international capital markets, which are external to domestic political events.
Second, it is largely determined by the government’s ability to pay its debt which is based on the size (relative to exports), maturity (how long before it must make payments), and composition of debt (if denominated in a foreign currency or linked to some benchmark rate). Finally, the EMBI includes perceptions of willingness to pay debt. Candidates claiming that they will not pay foreign debt while locals are starving (see Lula in the 1980s) or governments that prioritize redistribution of assets over protection of property rights of asset-holders drive up political risk (Chávez since 1998).

Despite these limitations, the EMBI is the benchmark used by bondholders and it is used in a number of political economy studies (Bernard and Leblang 2006, Spanakos and Renno 2006, Spanakos and Renno, 2009). Moreover it is the best available measure of investor perception of sovereign credit risk, and a baseline indicator of general credit risk.

The next set of variables examines the claim that it is vulnerability to external events that may more strongly affect vote choice. The analysis used the level of foreign currency reserves as a proxy for access to foreign (hard) currency and vulnerability to financial crises more generally. This variable was obtained in the International Financial Statistics dataset from the International Monetary Fund and was logged to increase comparability. Since credit risk is what is being investigated and so much Latin American debt has been historically denominated in dollars or linked to the value of the dollar, this indicator is especially important.

In addition to vulnerability to the external environment, it is also important to take into consideration the liquidity of the global market and its appetite for risk. Two variables are included in the model. The Chicago Board Options Exchange (CBOE)
Volatility Index which indicates volatility over a period of 30 days in the S&P 500 is a widely used indicator of risk appetite among investors. Since investors consider global market conditions, the greater the volatility in the S&P 500, the more willing investors should be to purchase higher-risk instruments, such as emerging market bonds.

Additionally, as the export profiles of the economies analyzed earn a significant portion of money from commodities and emerging markets are more likely to receive investment booms when commodity prices increase, a measure of global commodity prices, PALLFNFW, derived from the IMF is used. The PALLFNFW is a combined measure of the price indices for all fuel and non-fuel commodities. This indicator is used because it is the most holistic index of commodity prices and all of the governments analyzed here, to varying degrees, export petroleum and/or natural gas, as well as other commodities.

The model also controls for indicators of the fundamentals of the economy, such as Consumer Price Index (CPI) and unemployment. These are the traditionally analyzed economic indicators in the literature and one should expect that deterioration in both of these factors should lead to increased support to left-wing parties, especially unemployment.

Finally, the model attempts to control for political and institutional variables by including an indicator of Central Bank independence measured by the length of tenure of each bank’s president or governor (Cukierman 1992, Cukierman et al. 1992). The expectation is that longer tenure is perceived by investors to mean more independence and therefore should reduce the effect of financial indicators on vote for any party. It also controls for political party system institutionalization, measured as the average age of the
top two governing parties and the main opposition parties or a subset of according to the situation in each country, as defined in the Database of Political Institutions (Beck et al. 2001). This variable is included in the model to control for the inchoate characteristics of certain Latin American party systems, which could weaken the influence of parties and ideology on economic turbulence. The expectation is that older party systems will decrease risk, because it increases the “brand names” of parties. Party system should also condition the uncertainty present in elections in which there are changes towards the left.

4. Analysis

The pooled sample of countries is analyzed using cross-sectional time-series linear models with feasible generalized least squares correcting for AR (1) autocorrelation within panels and heteroskedasticity across panels. Fixed effects by country are estimated to control for other country specific factors that are not modeled. For each individual electoral episode, Prais-Winsten AR(1) regression is used with robust standard errors, correcting serious autocorrelation problems found within panels and for cross-panel heteroskedasticity violation. A lagged term of the dependent variable to control for possible layover effects from one month to the next is also included in the models, when Prais-Winsten regression is insufficient to correct for serial correlation. This is the case of the 2006 Brazilian presidential elections.

Results are presented in tables 1 and 2. Table 1 analyzes the pooled sample and each country separately. The results indicate that vote for left-wing parties in the pooled sample is affected by Consumer Price Index, EMBI, VIX, Central Bank independence, and age of the party system. As inflation worsens, as risk increases and as Central Bank independence increases, vote for the left grows. That is, the left benefits from
deterioration of inflation and risk, and gains when financial institutions become stronger, increasing the credibility of the system. On the other hand, as the international financial environment, measured by VIX, deteriorates, vote for the left also falls. Finally, party age—a proxy for the stability of the party system, has an unexpected effect in that as it increases voters are less likely to vote for the left.

These results, however, vary tremendously by country and by election. In Brazil, EMBI, VIX, and Central Bank independence have similar effects of the combined sample on PT vote, but commodity prices also become influential, reducing the vote for the left. Hence, as this specific indicator improves, a signal that the economy also improves, vote for the left decreases. Finally, in Mexico, only VIX, with a negative effect on vote for the left, has a statistically significant impact on vote for the PRD.

(Table 1 here)

Table 2 explores variations in the effects of the independent variables by election year by using a Prais-Winsten Regression for each of the election years. Again, in Mexico’s elections, economic variables have limited effect on vote for the PRD. The only variables that have a statistically significant impact on vote are political and institutional. The effect of party system age varies from 2000 to 2006 with the former contradicting expectations and the latter conforming. The fact that in 2006 the PRD was a serious contender and in 2000 it was not could explain the variance, as could the further consolidation of the democratic system. The expectation here is that as Latin American political party systems consolidate, parties of the left, which may have had historic interests in undermining the political system, are seen as increasingly viable stakeholders.
within the system. As a result, voters can be confident that a vote for the left means (possible) reform not revolution.

In Brazil, the elections of 1994 and 1998 are combined to estimate feasible generalized least squares with each election as a panel. This was done because the number of cases in each of the separate elections was too small to allow a reliable analysis. In 1994 and 1998, the PT candidate was the runner-up in the elections, but lost both elections in the first (and only) round to Fernando Henrique Cardoso from the Partido da Social Democracia Brasileira (PSDB). The results from these elections are the ones that most closely approximate expectations. That is, as unemployment increased, and as the exchange rate deteriorated, vote intention for the PT increased. In this way, vote intention followed expectations from the classical retrospective economic voting in which the opposition benefits from the worsening of the economy.

However, the same result was not seen in terms of inflation. As inflation increased, the less likely voters were to vote for the PT. This is expected because both in 1994 and 1998, but more clearly in the latter, the incumbent administration, closely associated to the control of inflation through the Real Stabilization Plan, adopted an exonerating posture claiming that the rise of inflation was not its responsibility. It also could argue that Lula had no viable alternative to the government’s plan. On the contrary, the PSDB government claimed credit for drastically reducing inflation in Brazil and, further, that they were the best equipped to maintain inflation levels low, especially in a deteriorating international environment. The negative effect of the VIX variable on vote for the left confirms this interpretation.
The age of the Party System also behaves as expected: the older the system, the more likely to support the PT. This was particularly evident in analysis of the 2002 elections in which reporters argued that the PT had ‘evolved’ from a political party of ‘pure opposition’ to a more ‘pragmatic reformer.’ Cynics, particularly after the various corruption scandals that plagued the first Lula administration, argued that the PT had in fact become exactly like all the other parties. Regardless, it is clear that voters saw the democratic and capitalist system of Brazil less at risk from a PT presidency in 2002 and 2006 than they had in earlier elections.

The variables that measure risk, both domestic and country-specific, the EMBI and global and international, VIX, have similar effects to that of the entire sample. Increases in domestic risk increase the likelihood of voting for the left: the logic of deteriorating economic conditions applies here too. The higher the risk, the more likely one is to vote for the left (in all cases except 2006 the opposition). However, as the risk in the international environment increases, the less likely voters are to support the left. This is related to the rhetoric of the then incumbent PSDB party that economic turbulence, especially in 1998, was caused by international economic crises and that the Cardoso administration was the most capable to confront the crises.

In 2002, when Lula da Silva from the PT won the elections, the only variables correlated with vote for the left in Brazil are those related to the international environment. Both commodity prices as well as international risk decrease the likelihood of voting for the left. Again, a risky international environment hurts the vote for the left.

Finally, in 2006, two distinct models are estimated, one in which a lagged dependent variable is included to attenuate problems of serial correlation, quite high in
this panel. As unemployment increases, vote intentions for the PT are negatively affected. As inflation and the EMBI increase, the more likely voters are to support the PT. These results are hard to explain, because they show that voters are not necessarily punishing the incumbent party for increases in inflation and risk, but are on unemployment. A possible explanation is that left-wing supporters care only about reducing unemployment even if this leads to increases in inflation, which does follow expectations of the partisan hypotheses. Another possible explanation is that Lula was indeed successful in reducing inflation and country risk during his first mandate far more than many had expected. As a result, even if these numbers increased, the increase was slight compared to expectations and the events of 2002.

(table 2 here)

5. Conclusions

The analysis shows that the effect of the economic variables on vote for left-wing parties varies tremendously by the characteristics of the election. In Mexico, economic performance has not been influential in affecting vote intentions for the PRD. Political and institutional variables seem more important in Mexico. At the same time, in the absence of an incumbent government of the left to analyze, and with only two presidential elections occurring during its ‘democratic period,’ it is difficult to make any generalizable claims about the Mexican case.

In Brazil, the effects of economic variables are more tangible. There is partial support for hypotheses based on the traditional economic vote as well as hypotheses related to partisan explanations. PT voters in Brazil care about unemployment which follows the partisan model in that issues of development and employment are more
important for left-wing party supporters than other factors. Interestingly, voters behave as though there is a Philips Curve (Stokes 2001) in avoiding the left when inflation increases in 1994 and 1998 but they are less affected in 2006 once inflation is largely under control (Spanakos and Renno 2006).

Overall, there is considerable causal heterogeneity by election, which signals that voters employ distinct vote calculi in the different elections, depending on economic conditions and what party is the incumbent. The complexity of economic conditions in Latin America, even post-stabilization plans, still requires combining distinct explanations on how the economy affects vote intentions. This is especially important because the viable presidential candidates in Brazil and Mexico are from political parties with long histories and relatively deep levels of institutionalization, something that is not found in other countries in the region. That vote intention is so complicated in even these cases suggests that it may be equally so across the region and that truly no single theory explains all cases adequately.
References:


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Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
Table 2: Prais Winsten Coefficients for Vote for Left-Wing Parties by Elections: Brazil and Mexico.

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Lag Vote Left</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.55</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.10)***</td>
</tr>
<tr>
<td>Unemployment</td>
<td>3.06 (2.64)</td>
<td>0.52 (0.35)</td>
<td>1.68 (0.37)***</td>
<td>4.94 (3.56)</td>
<td>-6.17 (5.51)</td>
<td>-6.92 (3.37)**</td>
</tr>
<tr>
<td>Consumer Price Index</td>
<td>-3.60</td>
<td>-0.99</td>
<td>-0.97</td>
<td>8.25</td>
<td>7.13</td>
<td></td>
</tr>
<tr>
<td>Exchange Rate</td>
<td>3.89 (9.04)</td>
<td>(3.35)</td>
<td>(0.27)***</td>
<td>(2.06)</td>
<td>(6.33)</td>
<td>(3.83)*</td>
</tr>
<tr>
<td>EMBI</td>
<td>-0.01 (0.01)</td>
<td>-0.03 (0.08)</td>
<td>0.01</td>
<td>0.00</td>
<td>0.13</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.07)*</td>
</tr>
<tr>
<td>palfnfw</td>
<td>0.17 (0.30)</td>
<td>-0.13 (0.09)</td>
<td>0.23</td>
<td>-0.58</td>
<td>0.15</td>
<td>0.21</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>(0.13)</td>
</tr>
<tr>
<td>VIX</td>
<td>-0.12 (1.27)</td>
<td>-0.12 (0.38)</td>
<td>-0.56</td>
<td>-0.29</td>
<td>-0.58</td>
<td>-0.12</td>
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<td>(0.12)</td>
</tr>
<tr>
<td>Central Bank</td>
<td>0.49</td>
<td>0.14</td>
<td>0.09</td>
<td>3.58</td>
<td>-1.12</td>
<td>-1.78</td>
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<td>Independence</td>
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<tr>
<td></td>
<td>(0.20)**</td>
<td>(0.64)</td>
<td>(0.46)</td>
<td>(2.15)</td>
<td>(1.98)</td>
<td>(1.28)</td>
</tr>
<tr>
<td>Party System Age</td>
<td>-4.27</td>
<td>9.33</td>
<td>6.11</td>
<td>3.33</td>
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<tr>
<td></td>
<td>(2.46)*</td>
<td>(3.20)***</td>
<td>(2.07)***</td>
<td>(6.65)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>83.72</td>
<td>21.14</td>
<td>-65.11</td>
<td>44.96</td>
<td>-1,284.25</td>
<td>-1,038.97</td>
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<td>(92.38)</td>
<td>(335.01)</td>
<td>(45.76)</td>
<td>(173.95)</td>
<td>(1,039.17)</td>
<td>(606.99)*</td>
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<td>Observations</td>
<td>95</td>
<td>73</td>
<td>38</td>
<td>60</td>
<td>45</td>
<td>44</td>
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<tr>
<td>R-squared</td>
<td>0.25</td>
<td>0.47</td>
<td>0.87</td>
<td>0.14</td>
<td>0.71</td>
<td>0.89</td>
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</tbody>
</table>

Standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

1 It is measured in terms of basis points (bps) where 100 basis points is the equivalent of 1 percent.

2 When there is greater liquidity, interest in investing in emerging markets, or when commodity prices are high, investors will be less exacting. Perception that certain other countries or regions are ‘hot,’ can reduce market demand for the debt of a particular country and increase ‘risk.’ Similarly, internal dynamics of capital markets can punish one country for the failures of another, ironically even if the former is seen as relatively successful. This was the case in 2001, when traders who lost money or could not sell Argentine debt sold Brazilian debt to cover their losses, increasing Brazil’s EMBI.

3 The dependent and independent variables were tested for unit root problems using the Dickey-Fuller test and detected problems only in the CPI variable. Given that it did not present consistent effects on EMBI, it does not appear to be a substantial problem. A violation of homoskedasticity was detected in the pooled sample using the Breusch-Pagan/Cook-Weisberg test for heteroskedasticity as well as a problem of first order
correlation using the Wooldridge test for autocorrelation in panel data. This was correct by using Cross-sectional time-series FGLS regression for the pooled data and Prais-Winsten AR(1) regression for country-specific analysis.

Unfortunately, due to collinearity problems, this variable was dropped in the 2002 elections.