

Elections, Ideology and Experience? Sovereign Bond Investors and Government Change

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Abstract: Elections in developing countries sometimes are accompanied by dramatic movements in sovereign bond markets, especially when left-leaning parties win office. We posit, however, that the “left effect” on sovereign debt market outcomes is not a systematic one: neither elections generally, nor elections with certain partisan outcomes, are associated with significant changes in sovereign financing costs. Rather, especially in developing countries, government ideology is not terribly informative as a heuristic device: governments bearing the same partisan label may implement very different policies. At the same time, however, we suggest that the presence and election of left leaning parties does generate excessive volatility in sovereign bond markets. This volatility, rooted in uncertainty over future policies, is especially pronounced when new governments take office. Volatility has implications for the real economy, as well as for governments’ ability to manage their debt. We test our claims using monthly data on sovereign bond spreads and credit default swap pricing for 74 developing countries from 1994-2015.

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Financial markets often react to elections, both during the campaign and after the results are announced. Elections may generate uncertainty not only about who will win, but also about which coalition will govern; which policies the new government will adopt; and the impact of potential policy changes on the domestic economy. In developing and advanced industrial nations alike, elections have been linked with foreign exchange speculation (Bernhard and Leblang 2006; Eichengreen et al. 1995; Leblang 2002); declines in sovereign credit ratings (Block and Vaaler 2004; Vaaler et al. 2006); increased spreads on sovereign debt (Martínez and Santiso 2003; Block and Vaaler 2004; Vaaler et al. 2005); and heightened stock market volatility (Jensen and Schmith 2005).

Market reactions can be particularly notable in the context of partisan switches. Investors may worry that left-leaning governments will increase government intervention, raise taxes, inflate the economy or even default on sovereign debt. Negative market reactions to such worries may tempt left-leaning governments to make dramatic policy reversals, signaling their commitment to economic orthodoxy to avoid capital flight (Stokes 2001). Reversals call into question the sovereignty of governments, and the voters who support them, vis-à-vis financial markets.

As dramatic as reactions to elections can be, not every election resulting in a left-leaning government or partisan switch brings market turbulence. Indeed, as we demonstrate below, most elections in developing countries are not associated with abnormal stock or bond returns; and negative responses are more common in response to victories by right, rather than left-leaning, candidates. We argue that market reactions to elections and government change are driven not so much by the ideology of the winning party, but by uncertainty about the future course of government policy. This uncertainty, which is most pronounced when new left-leaning governments win office, generates volatility in financial markets. This volatility reflects varying views among investors regarding the future course of government policy; excess volatility disappears over time, as investors' assessments of future policy become more precise. We test this claim using data on elections in 74 emerging markets between

1994 and 2015. Our analyses offer strong support for our claims regarding the conditions under which and the ways in which political events such as elections generate significant bond market reactions.

I. Markets, Elections and Political Risk

Investors in sovereign debt are closely attuned to risks related to default, as well as inflation and exchange rates (Eaton and Gersovitz 1981, Tomz and Wright 2013). Where risk is high, investors demand larger premiums, or they exhibit strong preferences for shorter-maturity and/or foreign currency-denominated bonds (Eichengreen and Hausman 2005). Evaluations of sovereign risk entail consideration of governments' ability, as well as their willingness, to pay. The former typically is associated with macroeconomic fundamentals, including public sector indebtedness, the current account, and reserve holdings. Investors also may reward transparency related to the health of the financial sector, or to economic outcomes more generally (Copelovitch et al 2018, Hollyer et al 2011).

Willingness to pay, on the other, hand, typically is associated with political factors. Investors attempt to assess the conditions under which a government will privilege its external commitments (to debt repayment) over internal incentives to default on or inflate away debt. Along these lines, democratic political institutions may encourage respect for contracts and the rule of law (Stasavage 2003); constrain executive fiscal authority; impose greater audience costs for default (where domestic audiences are assumed to punish default); and facilitate greater transparency of economic data (e.g. Archer et al 2007, Beaulieu et al 2012, Biglaiser and Staats 2012, Cox 2016, Cox and Saeigh 2018, Hollyer et al 2011, North and Weingast 1989, Schultz and Weingast 2003, Tomz and Wright 2013).¹ Other studies identify the importance of country-specific economic outcomes and institutions, such as inflation and fiscal balances, to sovereign risk premiums (Bodea and Hicks 2015, Mosley 2003). And

¹ Recent work, however, suggests that the politics of default also vary within regimes (autocratic as well as democratic; Ballard-Rosa 2016). Note also Ballard-Rosa et al (2018), who argue that the democratic advantage in debt issuance is conditional on global market liquidity.

still other studies note that global and regional factors also affect developing countries' access to and cost of capital (Brooks et al 2015, Gray 2013, Longstaff et al 2011, Ballard-Rosa et al 2018).

Elections and government changes also can affect investors' assessments of willingness and ability to repay debt. Investors may worry that governments will be tempted to engage in pre-election fiscal or monetary expansion (e.g. Block and Vaaler 2004; Hibbs 1977; Vaaler et al 2006). Research in the political business cycle tradition finds that investors' perception of risk increases markedly when the outcome of the election cannot be foretold, and when a left-wing candidate is expected to replace a government of the right (Alesina and Sachs 1988; Bernhard and Leblang 2006; Leblang 2002; Vaaler et al. 2006).² In the former case, outcome uncertainty widens the confidence intervals around investors' expectations of future policy (Freeman et al. 2000, Frot and Santiso 2013, Hays et al 2003, Jensen and Schmith 2005, Kelly et al 2016, Waisman et al 2015).³ This uncertainty may be particularly pronounced in proportional electoral systems, where post-election cabinet formation can be contentious and long-running (Bernhard and Leblang 2006).

In the latter case, where investors are quite confident in their election expectations, differences between candidates generate concerns about future government policies, especially when partisan shifts are significant (Vaaler et al. 2006); when a country has recently undergone regime change (Frye 2010); or when elected officials face few institutional constraints.⁴ Especially in developing countries, where ideological differences may be stark and political institutions weak, investors worry that some left-leaning candidates will implement changes to investment policies, tax rates or public spending, or that left-leaning governments will be less committed to honoring contracts with investors (Campello 2015).

² Evidence for political business cycle effects on sovereign borrowing capacity, however, is somewhat mixed (Ballard-Rosa et al 2018).

³ Freeman et al (2000) point out, though, that the effects of democratic processes on foreign exchange markets are likely mitigated by domestic institutions, including electoral systems and central banking arrangements. Also see Clark et al (2013).

⁴ Fortunato and Turner (2018) find, at the US state level, that when legislatures have greater capacity to enact policy change, their bonds are rated more negatively.

Indeed, changes in the governing party may allow for a resetting of financial market-government relations and a reassessment of government reputation (Tomz 2007, McGillivray and Smith 2008). For politicians and citizens alike, changes in sovereign financing costs can be highly consequential. Governments may find it more difficult to roll over existing debt, or to implement their preferred policies (Mosley 2003). At the extreme, market pressures may lead to sudden stops of capital and sovereign default, and threaten leaders' survival in office (DiGuiseppe and Shea 2016).

At the same time, however, three features of the “market responses to elections” literature motivate our analysis: first, many analyses focus on developed, rather than on developing, countries. But given greater diversity in economic policy outcomes as well as in political institutions in emerging and frontier markets, and governments' greater need for external finance, election dynamics should have a more systematic impact in developing countries. Second, these studies typically do not specify the causal pathways through which elections affect investors' decision-making. Rather, they tend to treat outcome uncertainty and policy uncertainty jointly. Third, these studies focus almost entirely on the level of the interest rate premium on government finance. In contrast, we treat uncertainty regarding future policy as the chief election-related concern among sovereign debt investors; we expect that this uncertainty will be expressed more in terms of volatility – reflecting wider variance in opinion regarding risk – than in terms of levels.

II. When Do Elections Matter?

Financial market reactions to recent elections in developing countries offer a window into how investors assess changes in government. For instance, Mexico's 2018 national election offers a vivid illustration of market turbulence in response to elections, and an ascendant left-leaning candidate. With the incumbent president ineligible for re-election, the campaign featured a contest among newcomers. Andrés Manuel López Obrador (AMLO) campaigned on a leftist, populist and anti-establishment

platform; his party, MORENA, was founded in 2014. AMLO held a large lead in the polls throughout the campaign (see Figure 1), ultimately winning 53 percent of votes, to 22 percent for his closest rival. Some observers compared AMLO with Hugo Chávez, while others argued that AMLO's rhetoric – and his policies – would soften after an election victory. Indeed, in the final weeks of the campaign, AMLO made more conciliatory statements regarding investment and the private sector.

As Figure 1 illustrates, sovereign bond markets reacted markedly to the election campaign: the Mexican spread (versus the EMBI+ index) generally increased between late January and the July 1 election. The volatility in spreads – the final panel – also was substantially greater in the months prior to the election, relative to the second half of 2017. Certainly, other events – including campaign-related violence, with more than 130 political figures killed between September 2017 and June 2018; as well as continued turbulence in US-Mexico political and economic relations – may contribute to these patterns. But bond market investors also appeared motivated by concerns regarding AMLO's planned policies. As the election approached, for instance, Bloomberg News wondered whether AMLO sincerely hoped to work with private sector businesses, or whether he had “merely softened his edges in recent weeks in order to get elected.”⁵

Market responses to the Mexican contest had little to do with outcome uncertainty. Rather, markets reacted to uncertainty about the future content of policies. These policies became increasingly difficult to predict as the campaign progressed: while AMLO was a candidate with historically strong leftist rhetoric, he also demonstrated a willingness to soften his rhetoric and reconsider some of his more radical positions as he took the lead in the polls. Investors had markedly different assessments of AMLO's expected policies, resulting in excessive volatility, as well as higher bond spreads.

⁵ <https://www.bloomberg.com/view/articles/2018-06-29/mexico-election-has-global-market-implications>

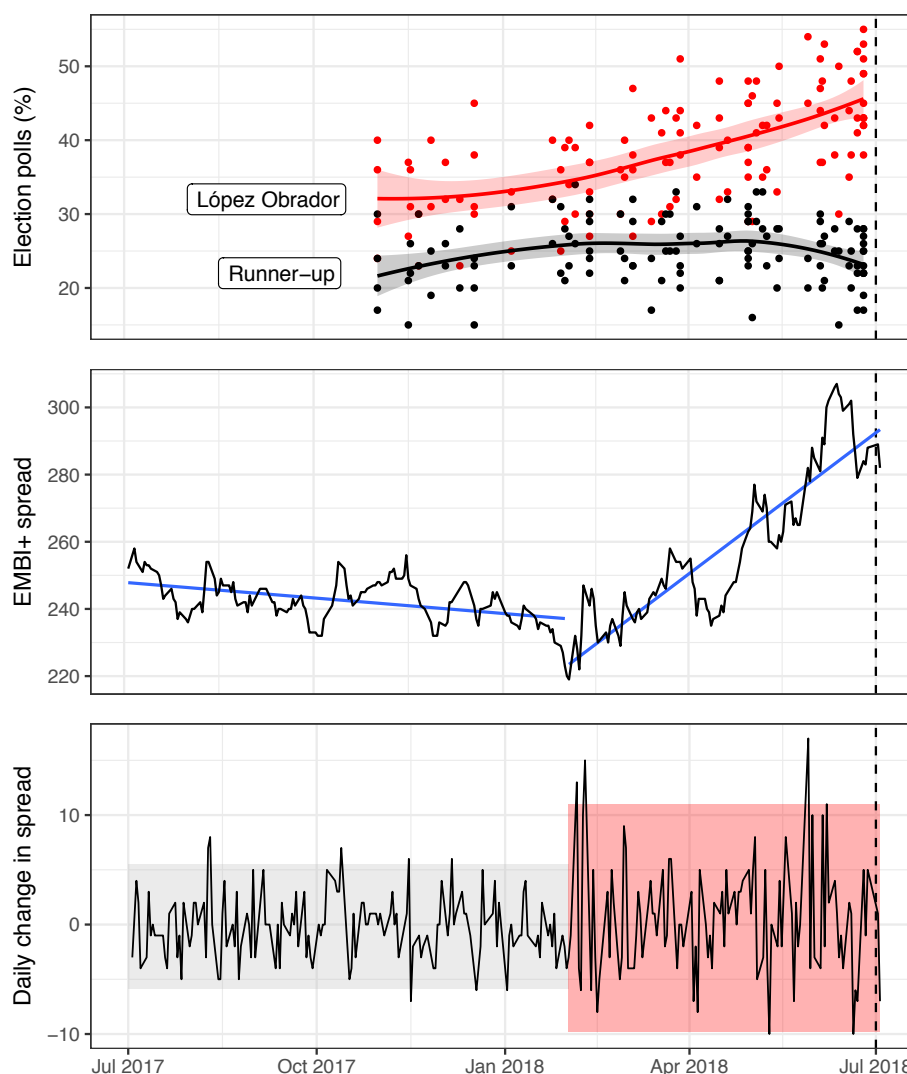


Figure 1. Bond markets and the 2018 Mexican presidential election

Notes: The top panel shows election polls for Andrés Manuel López Obrador, from the left-leaning MORENA party, and for the runner-up (whichever candidate polled at second place at that point). The middle panel shows the daily EMBI+ spread for Mexican sovereign debt. The bottom panel displays volatility – daily changes in the Mexico spread. Shaded areas represent ± 2 standard deviations from the average change during the period.

But with respect to election-generated increases in borrowing costs, Mexico is somewhat unusual. In Tables 1 and 2, we examine the effects of recent elections on developing countries' daily risk premiums (the country-specific bond yield against a U.S. Treasury of comparable maturity) and the pricing of credit default swaps (CDS; a derivative providing insurance against default). The tables

Table 1. Elections, executive turnover, and sovereign bond market reactions

	All elections	Elections with executive turnover	Elections without turnover
Proportion of elections with significant market reaction	27% (32/117)	35% (26/75)	14% (6/42)

Notes: Data on executive turnover are from V-Dem and the Database of Political Institutions. We classify as significant market reactions those cases in which the median abnormal change in the sovereign bond spread (EMBI Global) during the 90 days preceding an election falls outside of the 90% confidence interval constructed from an empirical distribution of median abnormal spread changes in non-electoral periods. The Supplementary Appendix includes further details as well as a similar analysis of CDS pricing.

Table 2. Elections, partisan outcomes, and sovereign bond market reactions

	All elections	Elections with leftist winner	Elections with right or centrist winner	Elections with any partisan switch	Elections with left to right partisan switch	Elections with right to left partisan switch	Elections with leftist incumbent winner (no change)
Proportion of elections with significant market reaction	27% (32/117)	28% (10/36)	47% (14/30)	47% (9/19)	43% (3/7)	50% (6/12)	24% (7/29)

Notes: See Table 1.

summarize an event study of 117 national elections⁶ in 47 developing countries⁷ during the 1995–2016 period. Following Bernhard and Leblang (2006)’s design, we explore the occurrence of median abnormal returns in government bond markets. For each election, we compare the behavior of bond markets in the ninety days prior to the election to the market’s behavior during non-electoral (“normal”) periods.⁸

⁶ We include executive elections in presidential systems and general legislative elections in parliamentary systems in country-years with a Polity IV score of 5 or greater.

⁷ These represent developing countries included in the EMBI Global index, or for which credit default swap pricing data are available. See the Supplementary Appendix for a full list of countries.

⁸ To estimate normal market behavior, we obtain an empirical distribution of median abnormal spread changes during a randomly-chosen, ninety-day non-electoral period (not within six months of an election). For each non-election window, we estimate a model for the daily change in country risk spreads, accounting for various exogenous and systematic correlates of sovereign risk (see the

As Table 1 indicates, only 29 percent of emerging market elections are associated with significant market reactions. Abnormal changes are slightly more likely when the election brings a change of government: one third of elections with executive turnover⁹ are characterized by abnormal returns, compared with 22 percent of elections without turnover. At the same time, Table 2 suggests that ideology often does not generate bond market reactions: of the 41 elections in which left governments emerge victorious, only 27 percent are marked by abnormal returns. Indeed, abnormal returns are more prevalent when centrist or right-leaning candidates prevail (46 percent of elections).

Why might this be? We argue that while investors may use partisan signals as an information shortcut, the utility of this shortcut is often limited. There is significant heterogeneity among political parties and candidates – even within the “left” category – in low- and middle-income countries. More important, the value of ideology as an information shortcut diminishes over time, as government policy decisions better reveal a government’s “type” to investors. As such information renders investors more confident in their ability to predict future government policy, as well as to estimate the prospects for default, they should be less responsive to partisan labels.

Hence, the patterns summarized in Tables 1 and 2 reveal that it is not left governments *per se*, but uncertainty associated with partisan shifts and their resulting policy consequences, that are most likely to evoke significant market reactions. Accordingly, we expect that market reactions will be expressed mostly in terms of volatility – wider variance in opinion regarding risk – than in terms of levels of risk premia. Our theory of conditional risk, developed in the next section, posits that market

Supplementary Appendix for details). The model residuals represent the country-specific variation in daily sovereign spreads. We repeat this process 5000 times to obtain a distribution of abnormal spread changes during non-electoral periods and calculate a 90% confidence interval. We then compare the median abnormal change in the election window to that in non-electoral windows. We count as a significant market reaction those cases in which the median electoral period change falls outside the 90% confidence interval.

⁹ Turnover is defined as a change in the chief executive, regardless of whether it also includes a shift in the ideology of that executive.

participants respond negatively to uncertainty around electoral shifts. These negative responses come not in the form of a consensus on the level of risk under a new government, but instead in the form of speculation and market turbulence. Put differently, uncertainty related to shifts in government ideology reduces consensus among investors on how to price risk. While this volatility may not – depending on the maturity structure of government debt – directly affect government financing costs, it often has negative consequences for the broader economy.

III. Ideology Shifts, Uncertainty and Volatility

Internationally-active investors, who allocate capital across a wide set of countries and across a broad array of assets, tend to rely on heuristics and shortcuts (Mosley 2003). Although investors have access to a large amount of information, they have professional incentives to act quickly, and with short time horizons. Realizing that the variance in government policies and behaviors is greater than in the developed world (Ahlquist 2006),¹⁰ investors seek out various information shortcuts, including a country's category ("emerging" or "developed;" see Brooks et al. 2015) as well as the other countries with which it forms economic agreements (Gray 2013, Gray and Hicks 2014). Investors also face greater difficulty in gathering reliable information in developing (versus developed) countries (Frot and Santiso 2013, Hollyer et al 2011). As a result, foreign investors may take cues from domestic investors, as they assume that the latter are better able to assess country-specific information (Cunha 2017). The use of information shortcuts can generate herd behavior and intensify market movements, but such outcomes represent an individually rational response to professional incentives (Calvo and Mendoza 2000).

¹⁰ Also, Mosley (2003) and Sobel (2002) note that there is greater disagreement among sovereign ratings agencies regarding the creditworthiness of lower-rated borrowers.

Government ideology could serve as one information shortcut for investors. While our analyses of recent elections in the previous section suggest that ideological switches often are *not* associated with significant market reactions, they also hint at an interaction between government ideology and partisan switches. That is, we expect elections that bring new governments to office to generate uncertainty for investors and, as a result, volatility in government bond markets. The outcome of the election itself may be uncertain as the election approaches, but outcome uncertainty normally disappears – except in cases of contested coalition formation (Bernhard and Leblang 2006) – quickly. Uncertainty regarding future government policy (cabinet appointments, the content of future economic policy, and the effects of future policies on macroeconomic outcomes), however, may exist even when election margins are wide. And these types of uncertainty can persist long after the election results are announced (Baker et al. 2016; Kelly, Pastor and Veronesi 2016).

We expect that policy uncertainty will be a marked feature of the post-election environment when elections bring new governments to office. While investors know what to expect if incumbents retain office, they have much less confidence about the economic policy possibilities for new governments (also see Barta and Johnston 2018). Here, government ideology – partisan labels – could be a useful shortcut. As we note above, investors have tended to assume that right-leaning governments will enact market-friendly policies, including monetary restraint, fiscal discipline, trade and financial liberalization and respect for property rights (Garrett 1998, Leblang 2002). At the same time, investors associate left governments with a greater probability of less-market friendly approaches.

While these partisan characterizations are long-standing (Mosley 2003), they can be of limited utility as information shortcuts, especially in developing countries. Investors are aware that, in emerging market countries, there is significant variation in both the campaign period rhetoric and the actual policies of left-leaning candidates and executives. Some left-leaning parties and politicians have embraced market-friendly policies; these shifts toward centrist policies could result from pressures from

external actors; changes in beliefs regarding appropriate economic policies; the preferences of domestic constituents; or some combination of these factors (Campello 2015, Kaplan 2013, Nelson 2014). At the same time, other left parties have advocated policies of state intervention and redistribution or, at the extreme, nationalization of various parts of the economy. These left leaders or parties induce concerns about sovereign default or, more modestly, about eroding future nominal debt repayments via inflation. Particularly (but not only) in Latin America, leftist candidates that have emerged since 1990 have proved to be a rather heterogeneous group (Castañeda 2006).

Therefore, when investors observe an electorally-induced change in government in a developing country, they are unlikely to systematically use government ideology as an information shortcut (which might entail, among other things, charging higher premiums to left-leaning governments). Rather, given the experience of recent decades, investors realize that left-leaning governments are a diverse group: not all fit the mold of Ecuador's Rafael Correa or Venezuela's Hugo Chávez. They therefore do not rush to charge systematically higher risk premiums to left (versus centrist or right) governments. Hence, we do not expect to see a systematic association between government ideology and the level of sovereign risk premium, all else equal.

H1: In emerging market countries, there is not a systematic effect of government ideology on the level of sovereign risk, measured with spreads or credit default swap pricing.

It is worth noting that our expectations hold across the electoral cycle: even in the context of a change in government (when an election leads to a partisan switch), we do not expect a systematic association between ideology and the risk premiums charged to sovereign borrowers. Put differently, even where partisanship might be most useful to investors as an information shortcut, we do not expect it to operate, given the diversity with broad categories ("left" or "right") of governments.

Our expectations are consistent with Spanakos and Renno's (2009) quantitative study of presidential elections in four Latin American countries (1994 to 2007): they find little evidence of an effect of partisanship on sovereign risk. Rather, variation in sovereign risk is explained largely by global factors, as well as by macroeconomic outcomes and domestic institutional structures. Ballard-Rosa et al. (2018) also find no evidence of an effect of partisanship on developing country governments' capacity to issue bonds in primary capital markets. While Vaaler et al. (2006) find, based on presidential elections in 19 developing democracies, that election-related sovereign ratings changes are driven partly by shifts in the expected partisan composition of governments, turnover in government also plays a key role. Similarly, Barta and Johnston (2018) – who focus only on OECD countries – find that newly-elected left executives are more likely, all else equal, to experience negative changes in sovereign credit ratings, even accounting for macroeconomic outcomes.

Looking instead at stock markets, Bechtel (2009) finds evidence that the German stock market reacts favorably to right, and unfavorably to left, governments; these partisan effects are stronger when the economy is weaker. Considering OECD countries more broadly, Sattler (2013) finds that markets do drop significantly after a left government wins office (and increase significantly when right governments are victorious); these effects, however, appear only in political systems with low constraints on elected officials. Frot and Santiso (2013), however, report no evidence – using a sample of 46 developing countries – that equity flows from global investment funds change in response to the ideological profile of newly elected governments.

A similarly mixed pattern emerges as well for other types of markets. For instance, in his analysis of the US presidential election futures market, Fowler (2006) finds that as left candidates' prospects improve, so does anticipated policy risk (proxied by nominal interest rates). This “rational partisan” pattern results from different expectations regarding inflation. And looking at equities at the industry level, Boutchkova et al. (2012) find that labor-intensive

sectors experience greater return volatility when left governments hold office.¹¹ Differences across asset markets in reactions to politics are not surprising: while investors of all stripes care about the overall state of the economy, only investors in government bonds are worried specifically about the government's behavior as a creditor (Mosley and Singer 2008). And with respect to sovereign bonds, mixed findings regarding the "left effect" are consistent with the lack of evidence that left governments are systematically worse for fiscal and monetary performance.

Our predictions regarding the effects of government partisanship on the *levels* of risk premiums contrast with our predictions regarding *volatility* in sovereign bond markets. We suggest that, in the absence of reliable information shortcuts, and especially in the context of partisan switches, elections generate disagreement among investors regarding the future course of government economic policy and the consequences of those policies for economic outcomes. Professional investors may well – because of their time horizons, information access, market niche or investment goals, *inter alia* – have divergent views on how to estimate future policy and investment risk. For instance, Cunha (2017) points to differences in information processing of political events between domestic and foreign investors; while Borio and McCauley (1996) suggest that investors vary in how they process news, as well as in their level of historical knowledge.

As investors become less able, as a group, to form precise expectations regarding future policy, their disagreements generate volatility in asset prices, including sovereign instruments. They may seek to use derivative markets, including credit default swaps, to hedge against policy risk (Arrow and Fisher 1974, Borio and McCauley 1996, Pindyck 1991). While the overall level of sovereign spreads may not move more systematically in one direction or another, the

¹¹ Boutchkova et al (2012) also report a link between foreign elections and the return volatility of export-dependent sectors.

variability of spreads increases (Xiong and Yan 2010). Especially as investors become less confident in their predictions over future policy, volatility intensifies.

While most political economy scholarship on sovereign bond markets has focused on levels, rather than on volatility, volatility also has important consequences. When sovereign markets are more volatile, it is more difficult for government debt managers to issue new debt. Most developing countries roll their debt over on a regular basis, replacing maturing issues with new ones. Rolling over debt in times of market turmoil is typically more expensive; it may require shorter maturities or foreign currency denomination. And at the highest levels of volatility, rollover may be impossible. Indeed, developing country debt managers may try to structure debt so that rollover needs are smaller during election periods, as they worry about these sorts of effects. The Brazilian debt management agency, for instance, pursued such a strategy in late 2001 and during 2002, as they anticipated a contentious campaign, and they worried about the “Lula effect” in primary capital markets.¹²

Moreover, volatility in sovereign bond markets – and the uncertainty over future policy which generates it – can affect other asset markets. In some cases, firms will hedge against the risk of policy change by delaying or reducing investment (Bernanke 1983). The impact of policy uncertainty may therefore fall most heavily on highly leveraged firms and on those with greater exposure to government contracts (Barrero et al. 2017, Baker et al. 2016, Gilchrist et al. 2014). More generally, volatility may be associated with reduced levels of economic activity and declining economic growth (Hassett and Metcalf 1999, Julio and Yook 2012, Kelly et al. 2016). Although we expect that policy uncertainty especially will be a feature of emerging market economies, it is worth noting that after the 2008 global financial crisis, investors in developed countries also exhibited pronounced reactions to uncertainty regarding financial regulation,

¹² Author interview, World Bank Capital Markets division, May 2018.

sovereign debt, and currency stability (Bachman et al. 2013, Baker et al. 2016, Barrero et al. 2017, Berger et al. 2017).

In sum, we expect that market outcomes will reflect greater uncertainty and disagreement among investors when elections produce a switch from a right or centrist incumbent to a left-leaning government. A partisan switch leaves investors to re-evaluate the new government's willingness and ability to repay its existing debt obligations. Lacking information about actual policy behaviors, investors might be tempted to fall back on partisan labels. We expect that investors will disagree on how well these labels predict risk in the case of left-leaning governments. This disagreement among investors will manifest itself in greater volatility: if investors rapidly change their views regarding the level of sovereign risk; or if some investors assume risk is high while others assume it is low, we will observe greater variance in risk premiums and the pricing of credit default swaps.¹³

H2: In emerging market countries, left government is associated, all else equal, with greater volatility in sovereign risk, measured with spreads or credit default swap pricing.

Although studies of sovereign bond markets have given little attention to volatility as an effect of political events, other scholars have linked elections and government ideology with volatility in equity and currency markets. Bernhard and Leblang (2006), for instance, treat stock market volatility as the result of uncertainty regarding cabinet formation negotiations in rich democracies (also see Bialkowski et al. 2008). Similarly, Jensen and Schmith (2005) treat stock market volatility in the run-up to the 2002 election in Brazil as the result of outcome uncertainty: when the polls were closer, investors' expectations regarding the election outcome were more varied. Our focus on volatility also is

¹³ Benton and Philips (2018) point out that, when global factors strongly influence price levels (as they do in many developing countries), country-specific concerns are more likely to appear in the variance term.

akin to Benton and Philip's (2018) examination of Donald Trump's Mexico-related tweets: they view these not as revealing new information to investors about Trump's views toward Mexico, but as affecting investors' views about Trump's level of commitment to specific policies (such as the renegotiation of NAFTA). As such, these communications heighten investors' concerns about their capacity to predict future U.S. policy toward Mexico, increasing volatility in the dollar/peso rate (also see Hays 2003).

Our final expectation is that, as new left governments reveal their policy preferences to investors, the effect of government partisanship on market volatility will diminish. When investors can observe behavioral outcomes, such as fiscal and monetary policies; cabinet and central bank appointments; and trade and investment treaty negotiations, they will more easily reach consensus on the government's type. This also implies that elections that do not generate partisan changes will have few systematic effects on volatility, as the victors have already revealed their type during the previous term. We expect that the effect of time in office will be most pronounced for left governments, as investors perceive greater diversity among left governments and parties.

H3: The effect of left government on sovereign risk volatility is conditional on time in office. It is highest when the government's time in office is lowest.

Our expectations regarding volatility are consistent with analyses that link government turnover with financial market outcomes. In their study of OECD government bond markets, McMenamin et al. (2016) find that market reactions to elections unfold over several weeks. While they take this as evidence against the efficient markets hypothesis, one also could view their findings as evidence that elections can generate uncertainty not only about outcomes, but also about future policies. Indeed, they find that the degree of change in ideological

composition of the government often predicts abnormal returns.¹⁴ Analyzing developing country equity markets, Frot and Santiso (2013) find that leadership turnover (in the context of elections) reduces global fund managers' willingness to invest (also see Vaaler et al. 2006). Fowler (2006) notes, in the context of US presidential elections, that increases in the probability of incumbency generate declines in interest rates.

We suggest that time in office allows investors to update their assessments of left governments' qualities and to increase confidence in their predictions regarding future policy. With time, left governments reveal whether they represent the "old left," advocating more heterodox and less investor-friendly policies, versus the "new left," favoring capital and trade liberalization, business-friendly tax and regulatory policies and sovereign debt repayment. Note that we are not arguing that governments necessarily become more adept at interacting with capital markets, or more inclined to pursue market-friendly policies as their time in office increases (Shea and Solis 2018).

Rather, our claim is that investors become more *confident* in their ability to assess whether a given left government will prioritize domestic interests in default, for interest, over investors' desire for repayment. As politicians' behavior in office provides more information about a left government's type, investors reach a greater consensus on how to price debt, reducing volatility in sovereign borrowing costs. Our argument thus implies that left-leaning governments may be penalized by excessive volatility early in their terms of office. But this effect should decline as leader tenure increases. Government debt managers might anticipate these patterns and, especially in systems with fixed election timing, structure their borrowing to avoid significant debt rollovers immediately after election contests. Moreover, our expectations regarding the conditioning effect of tenure in office apply only to left-leaning governments. Investors assume less diversity on economic policies among right-leaning parties and

¹⁴ McMenamin et al. (2016) do not examine whether the direction of the shift – left versus right – matters for market outcomes.

candidates and, therefore, are less inclined to hold contending views regarding expected government policies.¹⁵

IV. Empirical Analysis

Dependent variable. We assess how sovereign debt investors price political risk and uncertainty in emerging markets – that is, we evaluate Hypotheses 1, 2 and 3 – using monthly data on sovereign risk pricing. We consider the effects of elections, government ideology and time in office on both the levels of sovereign bond-related spreads (the size of the country risk premium) and the volatility of these spreads. Modeling both levels and volatility allows us to better assess the channels through which political outcomes affect investors’ assessments.

We use two market-based sovereign risk measures: emerging-market sovereign bond spreads (EMBI-G) and credit default swap (CDS) spreads. The sovereign bond spread is the difference between a government’s bond yield and the risk-free yield (a US Treasury of comparable maturity). The spread captures the premium demanded by investors for holding the riskier asset. The bond spread sample includes countries that are part of the J.P. Morgan Emerging Markets Bond Index Global (EMBI-G). To be included in the index, a government’s debt instruments must have a minimum outstanding face value of US\$ 500 million; the EMBI-G requires less liquidity in secondary-market trading than do some of the other J.P. Morgan indices (e.g. EMBI+). Given that the EMBI-G includes only dollar-denominated instruments, changes in its value mainly reflect considerations of default risk – as opposed to inflation and exchange rate risk, for example.

The EMBI-G data includes 67 nations, all of which are issuers of dollar-denominated Brady Bonds, Eurobonds, and trade bonds. This set of middle-income developing nations draws from Latin

¹⁵ The recent rise of right-wing populist parties and governments may complicate this assumption for future analyses.

America, Asia, the Middle East, Central and Eastern Europe, and sub-Saharan Africa. The EMBI dataset covers the period from January 1994 to December 2015 (unbalanced), with individual country coverage beginning when the country is added to EMBI-G. The launch of the EMBI indices coincides with the shift toward capital market openness, and toward portfolio market-based government financing, in the developing world.

The benefit of using premiums based on an index – rather than the interest rates on benchmark government bonds, commonly used in studies of developed-country sovereign debt – is that the index aggregates instruments of varying maturities, repayment guarantees (i.e. Brady Bonds), and liquidities. While developed-country governments each issue a comparable benchmark instrument – a domestic currency-denominated bond with a ten-year maturity – developing nations structure their debt in a variety of ways. This diversity of foreign-currency denominated instruments renders straightforward comparisons across instruments (using interest rate differentials) difficult – a problem that is solved by using an index-based measure.

Our second market-based measure of sovereign risk is the price of (or spread on) credit default swap (CDS) contracts on external sovereign debt. CDS contracts are effectively an insurance premium on sovereign default. The CDS is an important type of credit derivative through which investors insure against the risk of default or of restructuring of fixed income investments. In a typical CDS contract, the purchaser of default protection pays a fee to the seller (the insurer) during the term of the CDS contract. If the government defaults or restructures its debt, the seller of the CDS compensates the buyer (Longstaff et al. 2011; Mengle 2007). CDS insurers typically respond to new information more quickly than sovereign ratings agencies; they do not have a direct contractual relationship with the issuing government. CDS markets thus provide a real-time – and consequential – signal of market assessments of political risk (Longstaff et al. 2011). Importantly, turbulence in CDS markets stemming from political risk and uncertainty can be highly and materially consequential for governments. Coudert and Gex (2013), for example, find that speculation in CDS markets – expressed in high and volatile

CDS premia – rose dramatically in the context of the 2008 financial crisis, resulting in significant increases in real borrowing costs for governments.

We obtain CDS prices from Bloomberg and Datastream, which collect market quotations from industry sources for CDS contracts on U.S. dollar-denominated sovereign issues. The universe of emerging-market sovereign CDS prices includes 36 countries. The CDS data covers the period from November 2000 to December 2015; the dataset is unbalanced by country, reflecting different initial dates when CDS contracts first became available for trading. The list of countries included in the analysis with details about the temporal coverage appears in the Supplementary Appendix. Our statistical analyses model both the conditional mean and the variance of bond and CDS spreads. The former allows us to assess our expectations regarding the levels of risk premiums, while the latter serves to test our claims regarding the precision, or certainty, of those expectations. Recall that we anticipate few systematic effects of government ideology on levels, while we expect a relationship (conditional on time in office) between left partisanship and volatility.

Main explanatory variables. To assess the effect of ideology on sovereign risk pricing, we classify government partisanship using information from the Database of Political Institutions. Given that most of the countries included in our sample are characterized by presidential (rather than parliamentary) systems, we focus on the ideological orientation of the chief executive, rather than that of the largest legislative party or the governing legislative coalition. Indeed, in many presidential systems, the protection of property rights and sovereign repayment are executive, rather than legislative, decisions (North and Weingast 1989). We generate a dichotomous measure, differentiating between left versus all other (centrist, right-leaning) government types.¹⁶

We expect any effects of left government ideology on sovereign spreads to be moderated by time in office: new governments may experience greater spread volatility, but longer-serving

¹⁶ We check the sensitivity of the results to this coding decision, showing that our estimates are not substantively different if we compare non-right (left and center) to right governments instead.

incumbents will not. For governments of all ideological stripes, time in office may allow more sophisticated interactions with financial markets (as implied by Shea and Solis 2018), and more accurate assessments by investors' regarding governments' type. Hence, we predict that investors' uncertainty regarding their capacity to assess default risk declines over time. As such, we expect a negative relationship between time in office and the volatility of country risk spreads. Additionally, we anticipate that time in office conditions the effect of left governments. The excess spread volatility that affects newly-elected left governments will decline with time in office. Put differently, ideological signals should weigh more heavily in risk perceptions for new governments. The excess volatility of the country spread under left governments should decrease with time in office.

We code a months-in-office variable that tracks the number of months since a government was first elected to office. We include presidential elections in presidential systems and general legislative elections in parliamentary systems, and we use DPI and V-Dem data to identify those elections that produce executive turnover. To more accurately capture the timing of incorporation of new information about default risk into market-determined country spreads, we count a government's time in office from the month in which the government was elected rather than from its first month in office. Sovereign debt investors should update their assessments of default risk the moment the identity of the future incumbent is revealed; country spreads should thus reflect perceived changes in credit risk even before the new government takes office.¹⁷ Moreover, if partisan labels and ideology have any heuristic value for investors, that value should be highest when investors know the ideology of the future government but have not yet observed the government's actions – i.e., in the period between the election and the first months in office. We include a multiplicative interaction between **left government** and **time in office** and expect a negative coefficient on this interaction term.

¹⁷ Because over two thirds of the countries in our sample have presidential, as opposed to parliamentary, systems, there is little concern about uncertainty regarding coalition formation processes extending past the date of the election.

To control for heightened market volatility induced by electoral uncertainty (Hays et al. 2003, Jensen and Schmith 2005, Freeman et al. 2000), our model includes an indicator for electoral periods: we code this as one in the six months prior to and including the election month, and zero otherwise. This indicator captures elections that have the potential to bring about executive turnover – presidential elections in presidential systems and general legislative elections in parliamentary systems. As a robustness check, we also account for close elections, since they involve greater uncertainty.

Empirical model. We assess the interaction of government ideology and time in office using a heteroskedastic regression model of country risk spreads that allows us to explicitly model the spread volatility as a function of political and economic variables in the context of time-series cross-sectional data. The model is given by: $\Delta\text{Country Spread}_{it} \sim N(\mu_{it}, \sigma_{it}^2)$, where the variance of the sovereign spread, σ_{it}^2 , is allowed to vary over time and across countries (Rigby and Stasinopoulos 2005, Smyth 1989). We thus take the realized volatility of the country spread to express market uncertainty. Financial volatility as captured by the variance of asset prices is a common market-based measure of uncertainty (Datta et al. 2017; Berger et al. 2017; Mukherjee and Leblang 2007; Leblang and Bernhard 2006); the volatility of the country spread, in particular, measures investors’ confidence in or disagreements over their expectations of future debt repayment (Borio and McCauley 1996). A higher spread variance reflects bond investors’ greater uncertainty about repayment, while a lower variance indicates greater certainty over the expected probability of default.

The modeling strategy allows us to simultaneously model the conditional mean and conditional variance (volatility) of sovereign spreads, specifying both moments as a function of exogenous variables. We can observe how the interaction of government ideology and time in office, over and above a government’s conventional default risk indicators, affects the volatility of the country spread. We specify the model for the monthly change in the country spread as

$$\Delta \text{Country Spread}_{it} = \beta_1 \text{Left Government}_{it} + \beta_2 \text{Months in Office}_{it} + \beta_3 (\text{Left Government} \times \text{Months in Office})_{it} + \mathbf{X}\boldsymbol{\beta} + \alpha_i + \varepsilon_{it}$$

$$\log(\sigma_{it}) = \gamma_0 + \gamma_1 \text{Left Government}_{it} + \gamma_2 \text{Months in Office}_{it} + \gamma_3 (\text{Left Government} \times \text{Months in Office})_{it} + \mathbf{Z}\boldsymbol{\gamma}$$

where the change in the risk spread and its volatility are both represented as a function of our explanatory variables and a number of relevant controls. In the conditional volatility equation, $\log(\sigma_{it})$ is the standard deviation (logged) of the monthly spread, and γ_k are the parameters of substantive interest to be estimated, which capture the sensitivity of the spread volatility to the political factors of interest. $\mathbf{X}$ and $\mathbf{Z}$ are controls for the mean and volatility equations, respectively, that include indicators of the electoral cycle, sovereign creditworthiness, macroeconomic factors, and global economic conditions; α_i are country-specific intercepts (fixed effects); and ε_{it} is an error term. We cluster the standard errors by country in all estimations.

The multiplicative interaction between left government and months in office captures the conditional relationship between sovereign spreads and government ideology, with time in office moderating the risk premium and the excess spread volatility associated with left partisanship. Whereas left governments prompt higher uncertainty over future default among debt market participants, thus rendering risk spreads more volatile, we expect time in office to mitigate this excess volatility, as investors draw upon evidence from governments' actions to form more precise estimates of the government's type.

Country-level macroeconomic controls. We start with the controls that go into the conditional mean equation. A key element of governments' capacity to fulfill their sovereign obligations is their ability to generate foreign exchange revenue, which can then be applied to debt service. A country's current account balance, inflation rate, and stock of existing debt are important correlates of debt-servicing capacity. We control for the current account balance (scaled to GDP) and the monthly change in the consumer price index. Inflation may be less important to holders of foreign-currency

denominated assets than to investors in assets denominated in domestic currency. The former – on which the EMBI-G is based – are repaid in dollars or euros, rendering them immune to inflation risk. Inflation, however, reduces the capacity of governments to convert local currency to foreign currency to meet their debt obligations; it is also taken as a signal of the overall credibility of macroeconomic policy (Maxfield 1997, Bodea and Hicks 2015).

We include indicators of solvency and external vulnerability. The stock of sovereign external debt should directly affect assessments of creditworthiness. Governments with greater debt burdens must devote a larger share of their resources to debt service. This not only diverts funds from other expenditures, but it also raises the pressure on governments to generate revenue. We use an overall measure of external debt (scaled to GDP) because it is more widely available than measures of debt composition (maturity, currency). We also include the stock of outstanding short-term debt as a proportion of international reserves, which captures vulnerability to risks posed by adverse developments in international capital markets (IMF 2000).¹⁸

In addition, we account for variation in capital account openness. While openness exposes sovereign borrowers to greater pressures from global markets (Brooks 2004; Mosley 2003), it also allows them to access a larger pool of funds (Simmons 1999). More importantly, by allowing investors to remove capital in response to shifting perceptions of risk, capital account openness signals credibility (Bartolini and Drazen 1997). We expect the latter effect to dominate, so that nations with greater levels of openness should have lower and less volatile risk spreads. We use the Chinn-Ito index, which measures the extent of legal restrictions on cross-border financial transactions. Finally, we control for GDP growth. Where growth is higher, investors will be more optimistic in their assessments of sovereign risk. Countries that experience higher rates of growth can be expected to generate higher

¹⁸ Government fiscal balances may also affect default risk: governments that run large and persistent deficits should be perceived as less creditworthy. We do not use a fiscal balance indicator in the analyses, however, as this measure is available for a much more limited set of country-months.

levels of public sector revenue. Moreover, equity and foreign direct investors are more likely to make investments in countries with higher rates of growth (Jensen 2006, Mosley and Singer 2008), thereby improving their general ability to attract foreign capital.

In our analysis, current account balance, external debt, short-term debt to reserves, GDP growth and capital account openness are measured annually, while country spreads are sampled monthly. We linearly interpolate the monthly values when the right-hand side variable is sampled annually. While temporally-aggregated data tends to attenuate parameter estimates, it gives us a more complete coverage of emerging markets. We report alternative estimations using quarterly-sampled data on current account, debt, and GDP growth – with more limited country and temporal coverages – as a robustness check. Those results are reported in the Supplementary Appendix.

Global market conditions. Sovereign borrowers' access to debt also is affected by global capital market conditions. When returns in advanced markets are low, investors become more risk-tolerant, seeking out higher returns in developing-country markets. On the other hand, when returns in developed markets are high, or when financial crises lead to risk aversion (“flight to safety”) among investors, developing countries strive to attract capital (Amstad et al. 2016; Kennedy and Palerm 2014; Forbes and Warnock 2012). Indeed, global financial conditions typically account for a large share of the over-time variation in country risk spreads (Akinci 2013, Longstaff et al. 2011; also see Bartolini and Drazen 1997; Campello 2015). And more recent analyses suggest that the effects of domestic factors on sovereign credit and on financial crises are conditional on global market conditions (Ballard-Rosa et. al 2018; Bauerle Danzman et. al 2017). Accordingly, we account for benchmark U.S. interest rates by including the ten-year constant maturity U.S. Treasury yield. Given the role of the U.S. dollar as well as U.S. Treasury securities as benchmark assets, increases in U.S. rates are typically associated with declines in global liquidity and increased investor risk aversion (Eichengreen and Mody 1998; Kennedy and Palerm 2014). Moreover, U.S. interest rates may indicate shifts in the global business cycle, as well as flight-to-quality dynamics (Longstaff et al. 2011).

Because most institutional investors allocate portfolios across assets as well as across countries, changes in equity markets also can affect pricing in bond markets. Therefore, we also include a measure of risk in global equity markets. We use the price-earnings ratio for the S&P 500 index (Pan and Singleton 2008). As another measure of global market conditions, we include the VIX index, a forward-looking measure of global uncertainty based on the 30-day implied volatility generated from S&P 500 options (also see Longstaff et al 2011). This represents investors' view of short-term volatility in the U.S. market, capturing global uncertainty shocks and investor risk aversion (Forbes and Warnock 2012). Furthermore, we include an index of energy commodity prices; high commodity prices increase the foreign currency revenues of primary exporters and boost their ability to service debt. As such, we might expect commodity prices to affect investors' expectations over default risk. We also control for the global default rate on foreign-currency denominated bonds; again, by affecting investors' overall perceptions of sovereign risk, these should be positively related to country-specific spreads. Finally, we take contagion-based sources of variation in country spreads into account. Existing work shows that country spreads are in part determined by the risk spread of peer countries (Brooks et al. 2015, Eichengreen and Mody 1998, Longstaff et. al 2011). We thus include a regional diffusion term that is calculated as the average risk spread of a country's regional neighbors.

In the volatility equation, we include global and country-level factors identified in the literature as affecting financial market volatility. We include the VIX index to capture global uncertainty, so that our parameter estimates of interest reflect variation in the volatility of country spreads net of global sources of market uncertainty and volatility. We include capital account openness to capture a country's exposure to global volatility shocks.

Results. Table 3 presents the main results from the heteroskedastic cross-sectional time-series models of EMBI and CDS spreads. We report results both for the conditional mean (level) and conditional variance (volatility) of country spreads. Models 1 and 4 show baseline specifications for EMBI and CDS spreads, respectively, in which left government and months in office enter additively.

The remaining models include the multiplicative interaction between left government and time in office, representing the expected conditional relationship between government ideology and country spreads. Models 2 and 5 show baseline specifications with no controls, while models 3 and 6 show fully specified models of EMBI and CDS spreads, respectively.

Overall, the results show that government partisanship affects the volatility of sovereign spreads, but the relationship is moderated by governments' time in office. Across all models in Table 3 (and additional specifications discussed below), we find consistent and robust evidence of an interaction of government partisanship and time in office when it comes to the volatility of EMBI and CDS spreads. The coefficient on the interaction term in the variance equation is statistically significant across multiple estimations. The coefficient sign on the interaction term is consistently negative, indicating that time in office mitigates the higher spread volatility that characterizes market reactions to left governments. The results indicate that while left governments in emerging-market economies often are prone to treatment based on partisan risk cues – in terms of investor uncertainty and market volatility – the consequences of this treatment are typically softened by experience in office, as market participants form more precise beliefs regarding default risk.

Sovereign spreads are considerably more volatile under left governments. This excess volatility, however, is mitigated as left governments acquire experience in office. Over time, the spread volatility under left governments tends to converge to that of right and center governments. Figure 2 shows the interplay of government ideology and time in office in emerging-market countries. The graph shows the predicted volatility of EMBI and CDS spreads under left vs. right/center governments as a function of time in office. Left governments experience higher spread volatility on average, regardless of experience in office. Volatility is especially high under new, unseasoned left governments, but time in office substantially reduces the spread volatility under those governments, making it converge to that of right-wing and center governments. Right and center governments, in contrast, enjoy lower spread volatility

throughout, indicating that bond investors face less uncertainty over the expected probability of default. Moreover, time in office has no discernible effect for right and center governments, as they start from an already low baseline. The results thus show that uncertainty over left governments' risk type can be substantial when it comes to default risk; new left governments with little to no track record in economic policy elicit rapidly and widely changing risk assessments by market participants. But risk premium volatility is attenuated as left governments acquire experience in office. Similarly, the results could be interpreted as showing that the role of leader tenure in reducing bond market uncertainty (see e.g. Shea and Solis 2018) is largely driven by left governments and their excess spread volatility. Experience in office leads to more accurate market assessments of left governments' risk type.

The case of Brazil illustrates these dynamics well. During the 2002 Brazilian election campaign, Workers' Party candidate Luiz Inácio Lula da Silva ("Lula") campaigned to replace the moderate, center-right incumbent President Fernando Henrique Cardoso. As Lula's poll numbers surged, so did the spread between Brazil's benchmark bond yield and U.S. Treasury bonds (Hardie 2006, Jensen and Schmith 2005, Frot and Santiso 2013). Even as the polls tightened, casting into doubt the likely outcome, bond markets recorded large increases in Brazil's sovereign risk premiums, pronounced levels of volatility and heavy outflows of capital, prompting the IMF to step in. Yet, Lula's re-election four years later marked a sharp contrast with the 2002 campaign. Despite another competitive contest, Brazil's interest rate spreads closely tracked the overall bond market index for emerging economies, averaging just 237 basis points in the ten months prior to the election, and volatility remained quite low. While a left-leaning government was again expected to prevail, albeit in a closely-contested race, investors displayed few concerns about this outcome; they had grown familiar with the policies of Lula and his Workers' Party. And investors were willing to accept Lula's progressive social policies, provided they were confident in his commitment to fiscal discipline (Hardie 2006).

The difference in volatility under left and right/center governments is economically relevant. As Figure 2 shows, the volatility (standard deviation) of the monthly change in the EMBI spread under a

right or center government is just over 100 basis points – i.e., a typical monthly variation in bond yields of 1 percentage point), while the volatility under left governments is about 2.6 times higher at about 260 basis points – a typical monthly variation in bond yields of 2.6 percentage points. Therefore, a newly elected left government wishing to issue new debt or rollover existing debt typically sees its potential borrowing costs fluctuate widely from month to month.

Results for the conditional variance equation in Table 3 also show that country risk spreads become more volatile in the run-up to national elections – as indicated by the positive and statistically significant coefficient on the election window variable in the volatility equation for both EMBI and CDS spreads – confirming that the potential for political change heightens uncertainty over future debt repayment. Moreover, we find null results for the effect of elections on the mean spread change, indicating that electoral uncertainty translates into higher volatility in bond markets but not necessarily into higher risk premiums. We also find that the volatility of country spreads increases with global uncertainty and risk aversion, as captured by the VIX, and that financial openness is associated with a lower spread volatility, a result that is consistent with the interpretation that capital account openness signals a credible economic policy.

At the same time, we find no discernible effect of government ideology or time in office on the conditional mean – the level – of country spreads. The results presented in Table 3 show that the coefficient estimates for left government and time in office (and their interaction) are statistically insignificant in all specifications, indicating that the uncertainty over debt repayment associated with left partisan labels operates largely through the spread volatility. Throughout multiple specifications and robustness checks, we find no evidence of an effect of government ideology through the conditional mean of spread changes. In the remaining discussion we thus focus on our central results regarding the volatility of sovereign spreads.

Table 3. Partisanship, time in office, and sovereign spreads
Heteroskedastic regression analysis of EMBI and CDS spreads

	<i>EMBI Spread</i>			<i>CDS Spread</i>		
	(1)	(2)	(3)	(4)	(5)	(6)
DV: ΔSpread						
Months in office	-0.014 (0.026)	-0.019 (0.035)	-0.077 (0.048)	0.002 (0.023)	0.022 (0.026)	0.062** (0.031)
Left government	-7.264 (8.314)	-8.799 (8.963)	-10.635 (9.100)	8.398 (8.989)	13.078 (15.649)	5.824 (4.133)
Months in office $\times$ Left government		0.030 (0.041)	0.042 (0.037)		-0.039 (0.039)	0.036 (0.080)
Pre-election window			-0.556 (4.196)			2.168 (3.748)
Current account balance			-0.991*** (0.230)			-0.131 (0.140)
External debt			-0.270* (0.161)			0.049 (0.075)
Short-term debt/reserves			0.024 (0.017)			-0.001 (0.008)
Economic growth			0.352 (0.584)			0.869*** (0.319)
Δ Inflation			0.040 (0.072)			3.699* (2.172)
Δ Treasury rate			-12.462* (7.513)			-0.760 (6.024)
Δ VIX			4.681*** (0.990)			3.080*** (0.395)
Δ Commodity prices			-0.981*** (0.376)			-0.523*** (0.143)
Δ Equity premium			-0.831* (0.460)			-0.588*** (0.113)
Δ Regional diffusion			0.028*** (0.006)			0.012** (0.005)

Capital account openness	-1.376 (3.283)	1.970 (1.464)
Global default rate	-0.778** (0.329)	0.363 (0.381)

DV: Spread volatility [$\log(\sigma)$]

Months in office	-0.001* (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.004*** (0.001)	-0.004*** (0.001)	-0.003*** (0.001)
Left government	0.210 (0.235)	0.384 (0.243)	0.886*** (0.267)	0.216 (0.376)	0.365 (0.429)	0.559 (0.375)
Months in office $\times$ Left government		-0.003*** (0.001)	-0.005*** (0.001)		-0.002* (0.001)	-0.003*** (0.001)
Pre-election window			0.447*** (0.147)			0.525* (0.275)
Δ VIX			0.027*** (0.006)			0.016*** (0.005)
Capital account openness			-0.269*** (0.069)			-0.548*** (0.066)
Constant	4.962*** (0.148)	4.906*** (0.140)	4.675*** (0.142)	5.205*** (0.296)	5.175*** (0.298)	4.369*** (0.179)
Observations	8519	8519	5988	4476	4476	2679
Countries	67	67	50	36	36	20
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
AIC	108421.25	108082.67	74481.99	56577.47	56503.09	30523.89

Table entries are maximum likelihood estimates for heteroskedastic regression models of EMBI and CDS spreads. Standard errors clustered by country in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

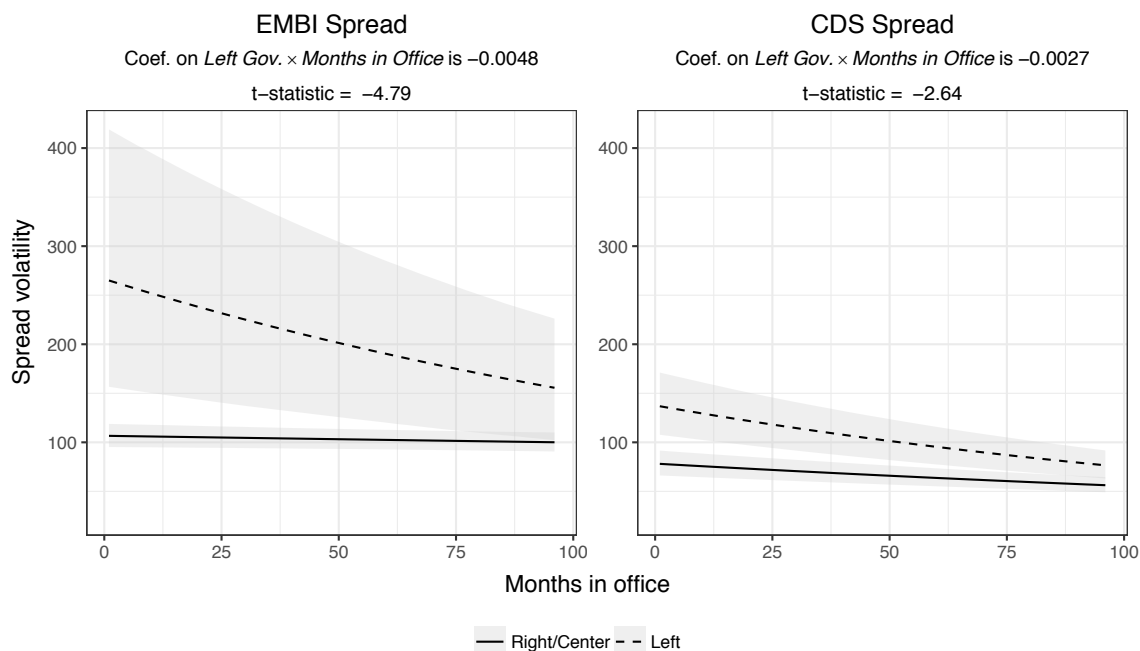


Figure 2. Predicted sovereign spread volatility under left and right/center governments. Volatility is measured as the standard deviation of the EMBI or CDS spread in basis points.

We next consider whether global market conditions moderate the effect of partisanship on sovereign spreads. We expect that reactions to uncertainty about future government policies, especially those implemented by left-leaning governments, will be more pronounced when global liquidity is low. In such situations, proxied by high U.S. interest rates, investors are more risk averse and, we assume, more attuned to possible negative changes in policy. As a result, we expect greater excess spread volatility in response to left governments when U.S. interest rates are high. At the same time, time in office should have a greater mitigating effect on uncertainty under conditions of credit scarcity, as government-market interactions will serve an important role in reducing uncertainty and allowing investors to better discriminate among risk types.

Table 4 (Models 1 and 2) shows results of heteroskedastic regression models of EMBI and CDS spreads that interact left government and months in office with the 10-year constant maturity U.S.

Treasury rate. Global liquidity conditions affect the interaction of partisanship and time in office when it comes to the spread volatility. We find a negative and statistically significant coefficient on *left government* $\times$ *months in office* $\times$ *Treasury rate*, which indicates that in an environment of high interest rates (global credit scarcity), newly-elected left governments face significantly higher spread volatility. Moreover, in a high interest rate environment, time in office has a greater role in reducing market uncertainty. Figure 3 shows that the excess volatility under new left governments, relative to right and center governments, is much higher when interest rates are high; at the same time, experience in office brings steeper reductions in volatility for left governments. The results indicate that left governments in emerging-market economies are most prone to treatment based on partisan labels when global liquidity is low, rendering investors more discriminating with respect to sovereign risk.

Is the excess volatility associated with left governments also contingent on the broader regional or global political context? National partisan shifts sometimes are part of a broader ideological wave. Much has been written, for example, on Latin America's left turn during the 2000s, when the clear majority of countries in the region elected left-of-center governments after a decade of economic reforms under right and center-right governments (Baker and Greene 2011, Kaplan 2013). On the one hand, a regional "left turn" might normalize the left in the eyes of bond investors and narrow investors' uncertainty regarding how typical "left" governments act. Or, by reducing the number of non-left investment options, left waves could attenuate apparent bond market responses to left parties. On the other hand, if the group of left parties is especially heterogeneous, a marked increase in the number of left governments within a region might heighten perceptions of uncertainty.

We test for a moderating effect of regional partisanship trends by interacting the left government and time in office variables with the proportion of left governments in a country's geographic region. Models 3 and 4 in Table 4 show the results for EMBI and CDS spreads, respectively. As with our findings on global financial conditions, we note that the coefficients on the triple-interaction terms are negative and statistically significant, indicating that a higher proportion of

left neighbors augments the effect of partisan labels on the spread volatility. Figure 4 shows that the moderating effect of the regional political context is stronger in the case of CDS spreads. Both for EMBI and CDS spreads, however, volatility under newly elected left governments is greater, and the attenuating effect of time in office is stronger, when there is a higher proportion of left governments in the region. This is consistent with a process by which the greater prevalence of left governments raises the potential for policy diversity among governments (and further reduces the utility of “left government” as a heuristic device). Regional left waves may make it more difficult for investor to know “what kind of left” has taken office in a given country. Moreover, experience in office assumes a more important role in reducing volatility.

**Table 4. Partisanship, time in office, and sovereign spreads:
Is the relationship contingent on U.S. interest rates and neighbors’ partisanship?**

	<i>U.S. Treasury Rate</i>		<i>Left Neighbors</i>	
	<i>EMBI</i>	<i>CDS</i>	<i>EMBI</i>	<i>CDS</i>
	(1)	(2)	(3)	(4)
DV: Spread volatility [$\log(\sigma)$]				
Months in office $\times$ Left government $\times$ Treasury rate	-0.002*** (0.0001)	-0.001*** (0.0001)		
Months in office $\times$ Left government $\times$ Left neighbors			-0.027*** (0.005)	-0.056*** (0.017)
Months in office $\times$ Left government	-0.0002 (0.002)	0.00002 (0.002)	0.003** (0.001)	0.015*** (0.005)
Months in office $\times$ Treasury rate	-0.001*** (0.0001)	-0.0005*** (0.0001)		
Left government $\times$ Treasury rate	0.145 (0.187)	0.173 (0.245)		
Months in office $\times$ Left neighbors			0.008** (0.003)	0.057*** (0.007)
Left government $\times$ Left neighbors			1.273 (1.495)	5.973*** (2.181)
Months in office	0.003** (0.001)	-0.002* (0.001)	-0.003*** (0.001)	-0.020*** (0.002)
Left government	0.405 (0.786)	-0.006 (1.042)	0.552 (0.504)	-1.421 (0.936)
Pre-election window	0.479*** (0.154)	0.619*** (0.203)	0.425*** (0.151)	0.784*** (0.199)
Treasury rate	0.232***	-0.173		

	(0.086)	(0.141)		
Left neighbors			-0.858 (1.147)	-3.891*** (0.783)
ΔVIX	0.021*** (0.005)	0.022*** (0.006)	0.027*** (0.005)	0.017*** (0.005)
Capital account openness	-0.250*** (0.071)	-0.518*** (0.064)	-0.259*** (0.062)	-0.481*** (0.065)
Constant	3.740 (0.369)	4.948 (0.508)	4.932 (0.360)	5.397 (0.264)
Observations	5988	2679	5976	2679
Countries	50	20	49	20
Country Fixed Effects	Yes	Yes	Yes	Yes
AIC	73549.69	30401.75	74098.63	29985.88

Table entries are maximum likelihood estimates for heteroskedastic regression models of EMBI and CDS spreads. Standard errors clustered by country in parentheses. For brevity, only parameter estimates for the volatility component of the model are shown; full estimation results are reported in the Supplementary Appendix.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

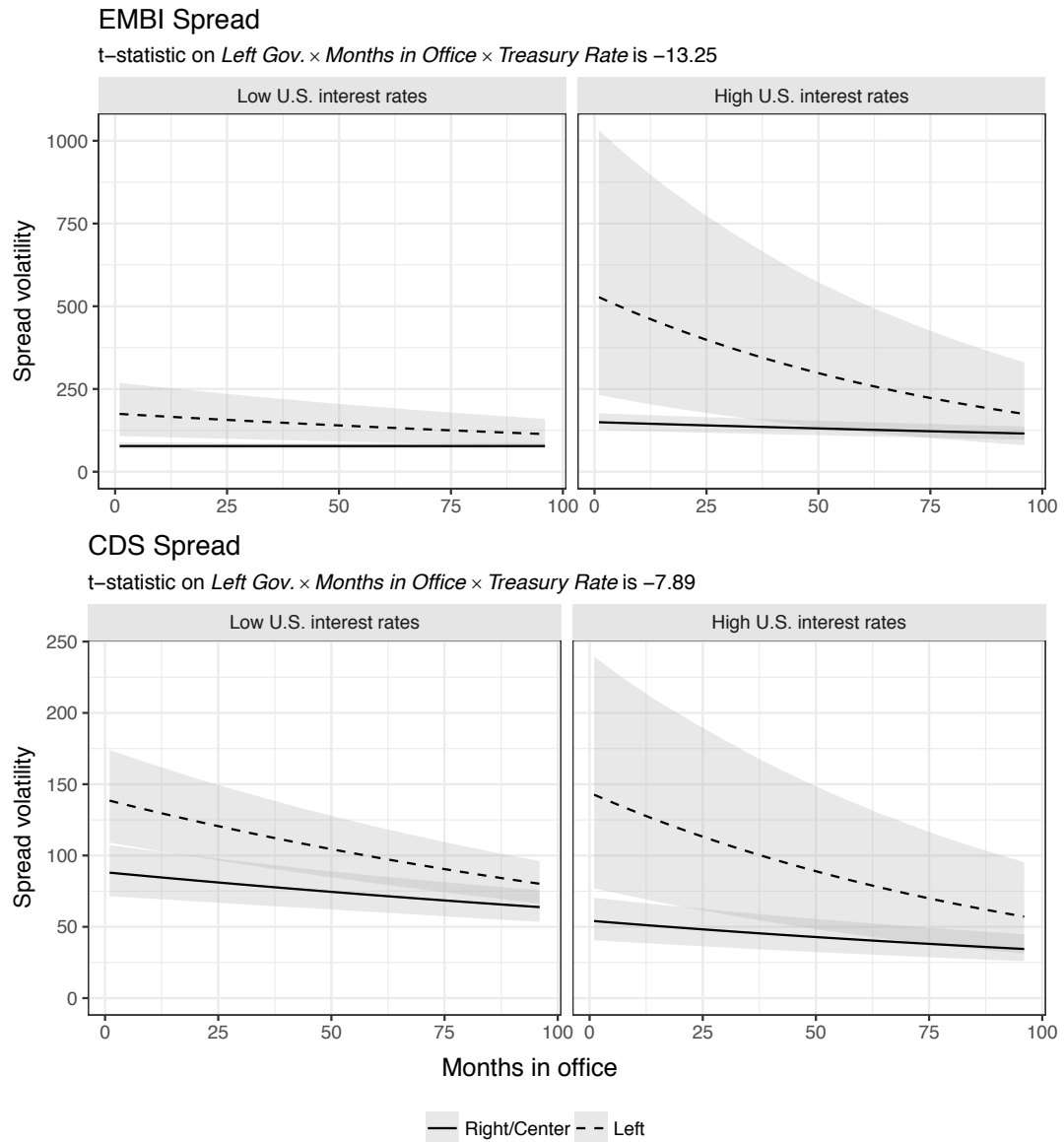


Figure 3. Conditioning effect of global liquidity (U.S. interest rates). Predicted sovereign spread volatility in low and high interest rate environments. Volatility is measured as the standard deviation of the EMBI or CDS spread in basis points. U.S. interest rate is the ten-year constant maturity Treasury rate; low and high rates are the 25th and 75th percentiles in the period under analysis, respectively.

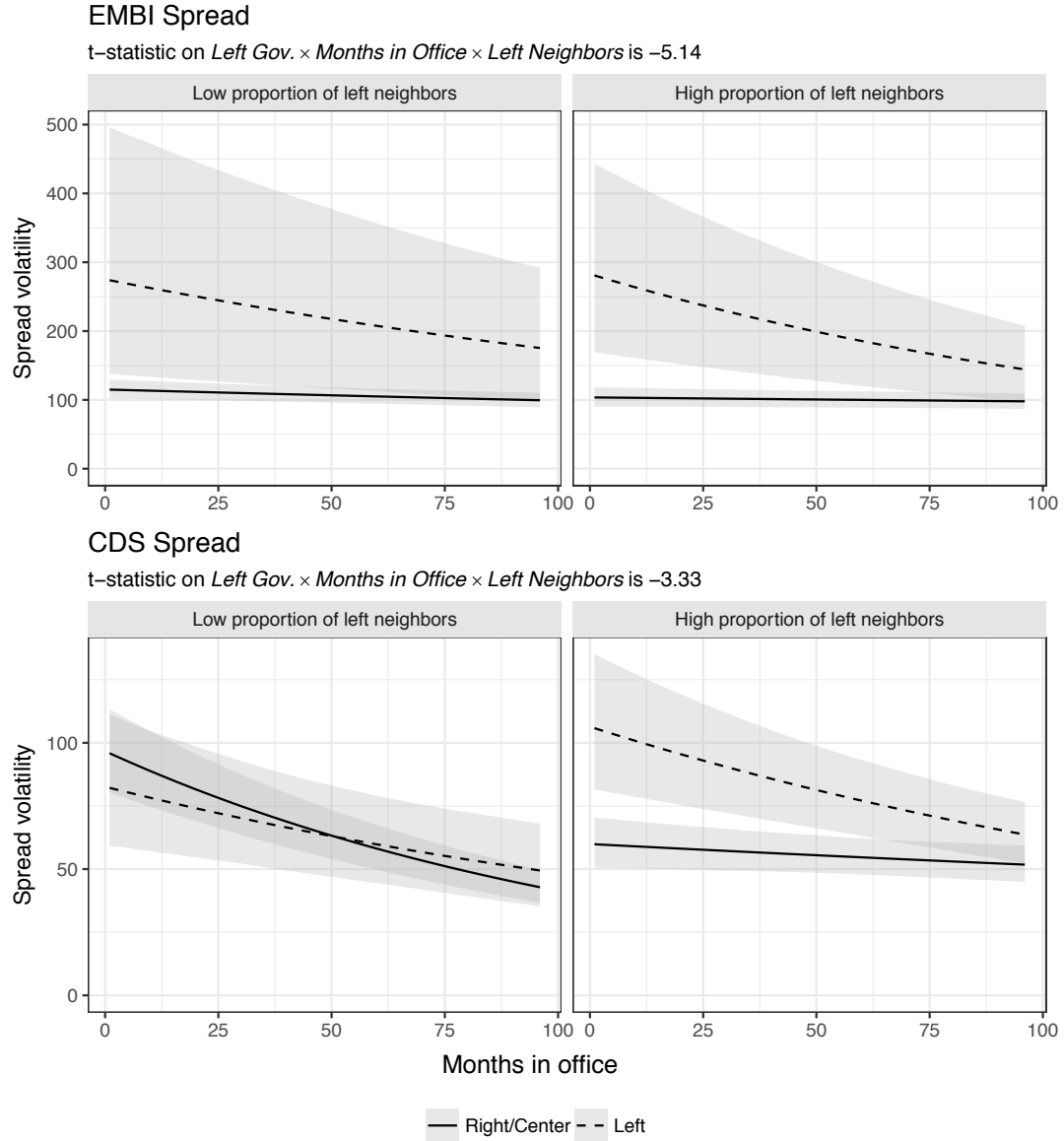


Figure 4. Conditioning effect of neighbors' ideology. Predicted sovereign spread volatility with high and low proportion of neighbors with a left-wing government. Low and high proportions are the 25th and 75th percentiles in the period under analysis, respectively.

V. Robustness Checks

We perform a host of robustness checks, as reported in the Supplementary Appendix. All additional controls described in this section are included both in the mean and volatility equations. We first add controls for domestic political institutions. Regime type and the extent of political constraints

on the executive could affect investors' expectations regarding default risk, as the democratic advantage literature claims (e.g. Beaulieu et al 2012, Cox 2016, North and Weingast 1989, Schultz and Weingast 2003). Similarly, investors may worry less about government ideology in political systems that place greater institutional constraints on individual leaders (Saiegh 2009; Cox and Saiegh 2018; Henisz 2000). Market actors also reward countries whose monetary policy authorities are more insulated from political control (Bodea and Hicks 2015, Bodea and Hicks 2018, Johnson 2016, Maxfield 1997, Shambaugh 2004). Each of these institutional features could affect the pricing of sovereign debt, as well as the extent of uncertainty among investors in the face of government change. We control for indicators of liberal democracy (V-Dem), political constraints (Henisz 2000), and central bank independence (Bodea and Hicks 2015), one at a time, in the mean and volatility equations of country spreads. Our results remain substantively unchanged.

We also test an alternative measure of government ideology. Partisan labels and ideology are notoriously difficult to measure, and comparisons across political systems and over time can be challenging. To check that our results are not sensitive to these measurement decisions, we re-estimate our models using the party ideology scores for Latin American presidential elections from Baker and Greene (2011). While this strategy limits the sample to Latin American countries, it also allows for more accurate comparisons of government ideology across countries and over time. The evidence for Latin America, reported in the Supplementary Appendix, is consistent with our general findings: coefficient estimates for the interaction of partisanship and time in office are negative and statistically significant only in the volatility equation, indicating that new left-wing governments in Latin America induce higher volatility in sovereign debt markets, but time in office tends to reduce this volatility.

Because volatility increases in times of crisis or financial distress, we adjust for the occurrence of sovereign defaults, currency crises, and debt restructuring episodes. The results indicate that the volatility of country spreads is higher if a country has defaulted on its debt or experienced a currency crisis in the previous twelve months; the results for partisanship and time in office remain substantively

unchanged. We further control for the monthly percentage change in the country's exchange rate against the U.S. dollar. While EMBI and CDS spreads capture the risk premium on dollar-denominated debt only, thus avoiding direct concerns about exchange rate risk, exchange rate movements can have indirect effects on credit risk, as a depreciation of the currency will raise the burden of debt in domestic currency terms. We control for sovereign credit ratings, which serve as a summary indicator of creditworthiness, by including the monthly change in country ratings from Standard & Poor's, Moody's, and Fitch (converted to numeric scales). In both tests – exchange rates and credit ratings – the caveat applies that these may be considered intermediate outcomes in our models: political uncertainty is known to affect both a country's exchange rate and its credit rating (Hays et al. 2003; Block and Vaaler 2004; Vaaler et al 2006). While our results remain unchanged, the tests should be interpreted with caution.

We control for close elections, defined as those in which the margin of victory is 5 percentage points or less (and, alternatively, 10 p.p.) – as they involve greater uncertainty. We find mixed evidence that close elections induce a higher spread volatility, and no evidence that they affect the mean change in the country spread. Our main results for the interaction of partisanship and experience in office remain unchanged.

We guard against potential bias arising out of temporal aggregation in some of the right-hand side macroeconomic variables. Current account balance, external debt, and GDP growth are sampled annually in our main models. We test alternative measures that are sampled quarterly. While the country and time coverage is limited, the quarterly data more accurately capture changes in macroeconomic conditions. The results remain substantively unchanged. We also consider the possibility of temporal heterogeneity, or structural breaks, in the effects of interest. We split the sample into pre- and post-2000 (and pre- and post-2005) observations; the results indicate that the relationships we find are invariant to time period. We also replace the Chinn-Ito index of capital account openness with a modified version proposed by Karcher and Steinberg (2013), which corrects for biases in the original

index, with no change in our results. Finally, we adopt a more general approach for dealing with global economic conditions and common external shocks: instead of modeling these shocks by including specific variables that capture global capital cycles, liquidity, and risk aversion, we estimate models with month-year fixed effects. Our findings are robust to these alternative specification choices.

VI. Conclusion

Political economists have long been interested in how the ideological composition of governments affects investors' risk assessments and, ultimately, the capacity of developing countries to access credit from private markets. Many emerging market governments worry about maintaining access to sovereign credit, especially during periods of electoral composition and government change. At the same time, investors – who allocate funds across a range of assets and a large number of countries – seek simplified means of making asset allocation decisions.

We note that government partisanship has long been assumed to serve as an information shortcut for investors (Mosley 2003): all else equal, investors might assume that left governments are more likely to preside over fiscal and monetary expansions and, ultimately, less likely to privilege their commitments to bondholders. Were this the case, left-leaning parties and candidates might have strong incentives to shift toward market-friendly policies, perhaps at the expense of their domestic supporters' interests. Anecdotal evidence suggests that, indeed, investors sometimes react negatively to strong campaign performance and electoral victories by left-leaning candidates and political parties.

We argue, however, that sovereign bond investors do not respond systematically, in terms of the level of risk premiums, to left governments. The diversity in economic policy actions among left-leaning governments in developing countries limits the utility of the partisanship shortcut. As a result, we find no evidence for systematic increases in risk premiums in response to the election or presence of left-leaning governments. At the same time, however, government partisanship can serve to heighten

investors' uncertainty regarding the future course of government policy. This is especially the case when new left governments take office. Given that the partisan shortcut is not informative, and that investors have little basis on which to judge newly-elected left governments, bond markets exhibit significantly greater volatility when governments are new to office. While political economists have tended to focus their attention on levels, rather than on volatility, the latter can significantly affect sovereigns and their citizens. Volatility in sovereign bond markets renders government debt management – especially the rolling over of existing debt – more challenging. This market volatility also may affect the broader real economy, reducing agents' willingness to invest in the private sector.

Future research could investigate further the ways in which political events other than elections – for instance, finance minister or central bank appointments, or debt restructurings and renegotiations – also affect investors' uncertainty regarding government economic policy. Additionally, we might imagine that different types of investors have varying access and reactions to political information. Differences in informational endowments and in the composition of governments' sovereign debt investor bases may therefore generate differences in how exposed governments are to market volatility. While we treat professional investors as a largely unified group in this article, we aim in future research to consider how different types of investors (even within the same subset of capital markets) may respond differently to similar political phenomena. Finally, researchers should pay greater attention to the ways in which government debt managers actively seek to structure the interactions with private investors: in anticipation of tumultuous election campaigns, for instance, debt managers might seek to structure future borrowing to minimize the need to rollover debt during low “time in office” periods. While not all developing countries have the autonomy vis-à-vis markets to insulate themselves from political events, many do; and political economists would do well to pay greater attention to the agency of debtors (and not only creditors) in sovereign markets.

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1. Election Event Study – Supplementary Tables and Figures

To identify broad patterns of sovereign debt market reactions to national elections in emerging-market countries, we conduct an event study of sovereign bond spreads (the yield on sovereign bonds over the yield on U.S. Treasuries of comparable maturity) and credit default swap prices (essentially an insurance premium against default) for 117 national elections in 47 developing countries during the 1995–2016 period. We include presidential elections in presidential systems and general legislative elections in parliamentary systems in country-years with a Polity IV score of 5 or greater. The included countries represent developing countries that make up the EMBI Global index, or for which credit default swap pricing data are available.

Following the strategy of Bernhard and Leblang (2006, Ch. 3), we estimate the median abnormal spread change in the ninety days prior to the election and compare it to a baseline distribution of median abnormal spread changes during non-electoral periods (defined as periods not within 6 months of an election). We first obtain an empirical distribution of median abnormal spread changes during non-electoral periods. For each country, we take a random sequence of 90 consecutive non-electoral trading days. For each of these sequences, we estimate a model for the daily change in the spread that accounts for exogenous and systematic correlates of country risk spreads. The residuals from this model represent the country-specific variation in daily country spreads, that is, the daily abnormal spread changes. We then identify the median abnormal spread change in each sequence. We repeat this process 5000 times to obtain an empirical distribution of median abnormal spread changes in non-electoral periods. This distribution serves as the baseline against which we can compare abnormal market behavior around elections. We compute 90% confidence intervals for each country from these empirical distributions.

In the next step, we calculate the median abnormal spread change in each electoral period (defined as the period of ninety days prior to the election). That is, we estimate the market model again for each electoral period, obtain the residuals, and calculate the median abnormal change during the period. We

then compare the median abnormal spread change in the electoral period to the empirical distribution. If the median change during elections falls outside of the 90% CI, then we classify it as a significant market reaction

We use the following model for the calculation of daily abnormal spread changes:

$$\Delta Spread_t = \beta_0 + \beta_1 \Delta EM_t + \beta_2 \Delta Treasury_t + \beta_3 \Delta Oil_t + \beta_4 \Delta VIX_t + \varepsilon_t,$$

where $\Delta Spread_t$ is the daily change in the country risk spread at time t , ΔEM_t is the daily change in an index of emerging market risk spreads, $\Delta Treasury_t$ is the daily change in the 10-year constant maturity Treasury rate; ΔOil_t is the daily change in oil prices, and ΔVIX_t is the daily change in the VIX index, a forward-looking measure of global uncertainty based on the 30-day implied volatility generated from S&P 500 options.

Tables 1 and 2 in the main text summarize the results for EMBI Global spreads, and Tables A1 and A2 in this appendix summarize the results for CDS spreads. Figures A1 and A2 show the pattern of bond market reactions (EMBIG spreads) over time. Figure A1 compares market reactions in elections that result in executive turnover with elections that do not result in turnover. Figure A2 breaks down bond market reactions by the direction of the resulting switch in partisanship – right to left, left to right, or no change. Figures A3 and A4 show the same analysis for sovereign CDS markets.

Data on executive turnover is from V-Dem (Coppedge et al. 2018) and from the Database of Political Institutions (Beck et al. 2001). Data on executive ideology/partisanship is from the DPI.

Table A1. Elections, executive turnover, and CDS market reactions

	All elections	Elections with executive turnover	Elections without turnover
Proportion of elections with significant market reaction	26% (19/72)	33% (14/43)	17% (5/29)

Notes: Data on executive turnover is from V-Dem and the Database of Political Institutions. We classify as significant market reactions those cases in which the median abnormal change in the CDS spread during the 90 days preceding an election falls outside of the 90% confidence interval constructed from an empirical distribution of median abnormal spread changes in non-electoral periods.

Table A2. Elections, partisan outcomes, and CDS market reactions

	All elections	Elections with leftist winner	Elections with right or centrist winner	Elections with any partisan switch	Elections with left to right partisan switch	Elections with right to left partisan switch	Elections with leftist incumbent winner (no change)
Proportion of elections with significant market reaction	26% (19/72)	29% (5/17)	36% (8/22)	33% (4/12)	17% (1/6)	50% (3/6)	33% (5/15)

Notes: Data on partisanship is from the Database of Political Institutions. We classify as significant market reactions those cases in which the median abnormal change in the CDS spread during the 90 days preceding an election falls outside of the 90% confidence interval constructed from an empirical distribution of median abnormal spread changes in non-electoral periods.

Executive turnover and market reactions

Median abnormal change in EMBIG spread

Significant results highlighted

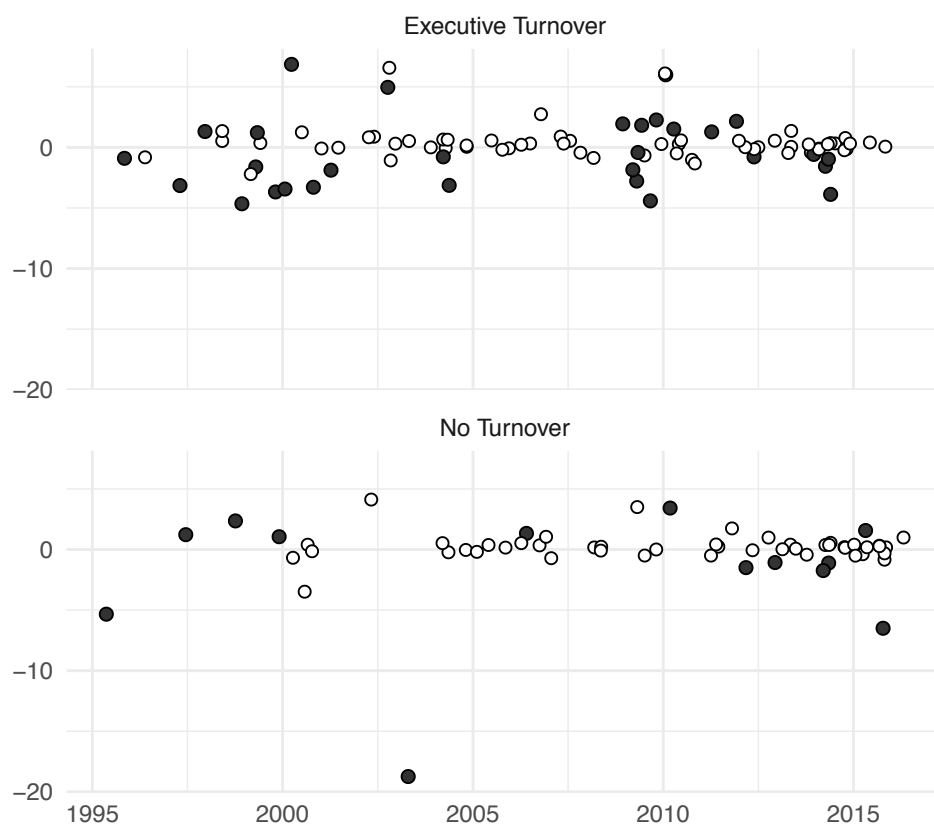


Figure A1. Executive turnover and bond market reactions

Notes: The graph shows the median abnormal change in sovereign bond spreads (EMBI Global) in the 90 days preceding an election. Each point represents a national election in an emerging-market country. Solid black points represent statistically significant median abnormal changes in the spread (defined as those median changes that fall outside of the 90% confidence interval based on an empirical distribution of median abnormal spread changes in non-electoral periods).

Partisan shifts and market reactions

Median abnormal change in EMBIG spread

Significant results highlighted



Figure A2. Partisan shifts and bond market reactions

Notes: The graph shows the median abnormal change in sovereign bond spreads (EMBI Global) in the 90 days preceding an election. Each point represents a national election in an emerging-market country. Solid points represent statistically significant median abnormal changes in the spread (defined as those median changes that fall outside of the 90% confidence interval based on an empirical distribution of median abnormal spread changes in non-electoral periods).

Executive turnover and market reactions

Median abnormal change in CDS spread

Significant results highlighted

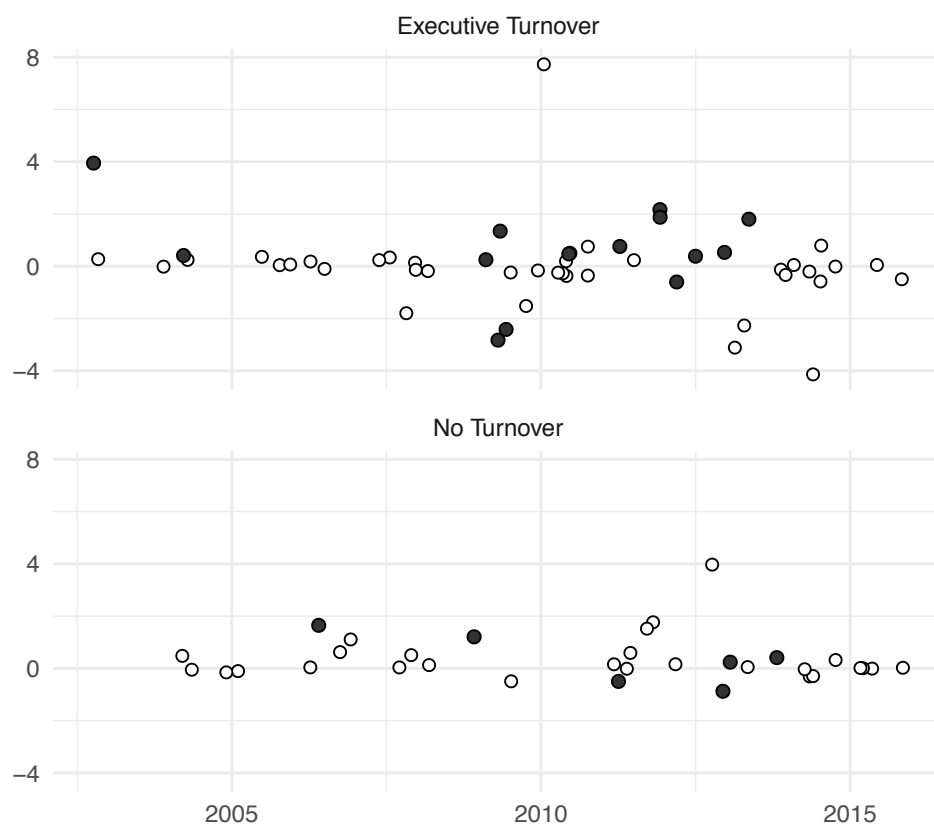


Figure A3. Executive turnover and CDS market reactions

Notes: The graph shows the median abnormal change in sovereign CDS spreads in the 90 days preceding an election. Each point represents a national election in an emerging-market country. Solid black points represent statistically significant median abnormal changes in the spread (defined as those median changes that fall outside of the 90% confidence interval based on an empirical distribution of median abnormal spread changes in non-electoral periods).

Partisan shifts and market reactions

Median abnormal change in CDS spread

Significant results highlighted

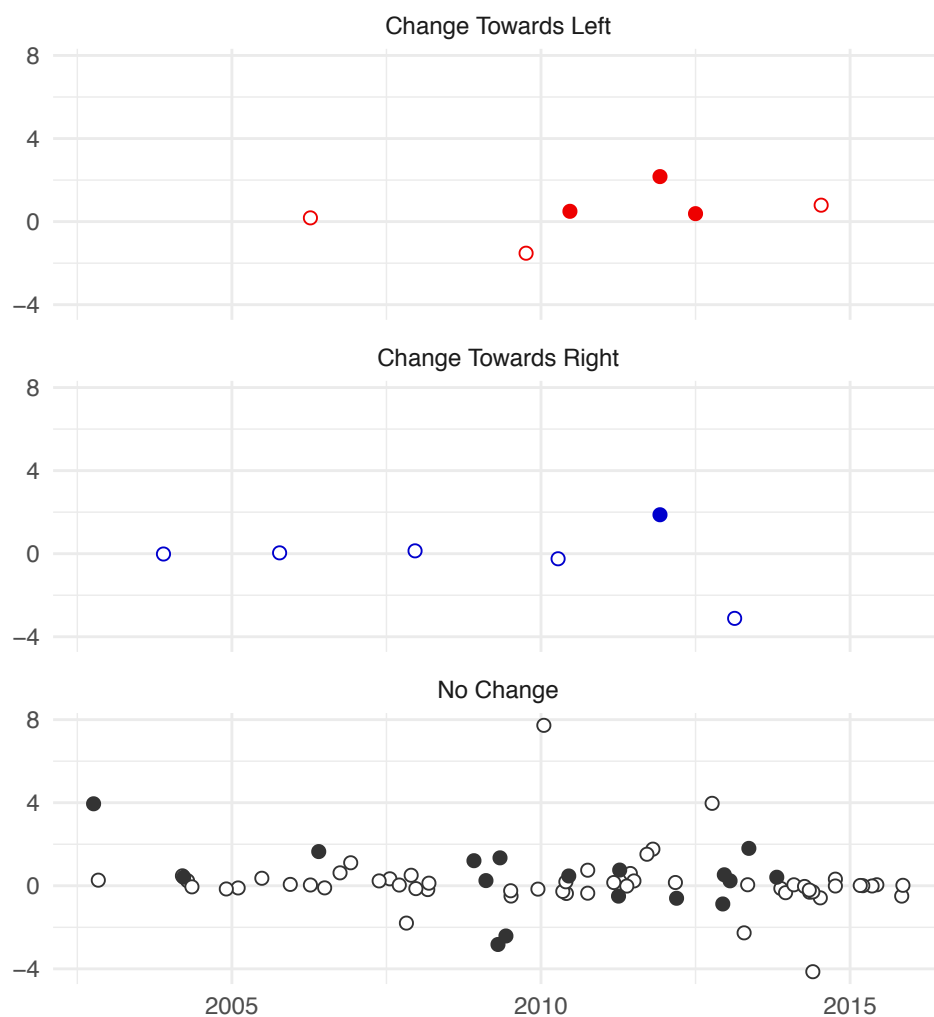


Figure A4. Partisan shifts and CDS market reactions

Notes: The graph shows the median abnormal change in sovereign CDS spreads in the 90 days preceding an election. Each point represents a national election in an emerging-market country. Solid black points represent statistically significant median abnormal changes in the spread (defined as those median changes that fall outside of the 90% confidence interval based on an empirical distribution of median abnormal spread changes in non-electoral periods).

2. Data Sources and Definitions

Table A3. Sources and definitions

<i>Variable (alphabetically)</i>	<i>Source/Definition</i>
Capital account openness	Source: Chinn and Ito (2008) and Karcher and Steinberg (2013). Indexes of capital account openness compiled from the IMF's <i>Annual Reports on Capital Exchange Restrictions</i> . Lower scores represent more severe restrictions on the payment and receipt of capital. The index is calculated such that the series mean is zero.
Central bank independence	Source: Bodea and Hicks (2015). Level of central bank independence based on the Cukierman, Webb, and Neyapti (1992) index. The CBI index ranges from 0 to 1, with 1 representing the most independent central bank.
CDS spread	Source: Datastream and Bloomberg. The sovereign CDS spreads are mid-market indicative prices for five-year CDS contracts. In all cases, the CDS contract references the sovereign (as opposed to a central bank or some other entity). The monthly data are for the last trading day of the month.
Close election	Source: Varieties of Democracy (V-Dem) (Coppedge et al. 2018). Close elections are those in which the margin of victory is 5 percentage points or less (or 10 p.p. or less), calculated from the vote share of the largest and second-largest party in the lower chamber in parliamentary systems, and from the vote share of the winning candidate and the runner-up in presidential systems.
Commodity prices	Source: World Bank Commodities Price Data (The Pink Sheet). Monthly index of energy commodities.
Currency crisis	Source: Laeven and Valencia (2013). Dummy variable indicating whether a country has experienced a currency crisis in the past 12 months.
Current account balance	Source: World Development Indicators/World Bank (annual); International Financial Statistics/International Monetary Fund (quarterly). Balance on current account (sum of net exports of goods, services, net income, and net current transfers) as percentage of gross domestic product.
Debt restructuring	Source: Cruces and Trebesch (2013). Dummy variable indicating whether a government has announced a restructuring of its debt in the past 12 months.
EMBI spread	Source: Datastream and Bloomberg. Spread between the country's representative yield and the US Treasury yield of comparable maturity. The index is the J.P. Morgan Emerging Markets Bond Index (EMBI) Global. This index covers US dollar-denominated Brady Bonds, Eurobonds, and trade bonds issued by sovereign and quasi-sovereign entities. Some instruments have low liquidity (in contrast to the EMBI+ index, which has stricter criteria for inclusion). The index is weighted by size of debt issued. We use the stripped spread (stripped of any collateral effects). The stripped spread reflects only changes in the value of the bond itself, while the non-stripped (blended)

	spread would also capture changes in the value of the collateral, such as a Treasury bill.
Equity premium	Source: Global Financial Data. As a proxy for the equity premium, we use the price-earnings ratio for the S&P 500 index (see e.g. Longstaff et al. 2011).
Exchange rate	Source: Bank of International Settlements (BIS). Exchange rates expressed as units of the local currency per US dollar.
External debt	Source: International Debt Statistics/World Bank (annual); Quarterly External Debt Statistics/World Bank (quarterly). Total external debt stocks to gross national income. Total external debt is debt owed to nonresidents repayable in currency, goods, or services. Total external debt is the sum of public, publicly guaranteed, and private nonguaranteed long-term debt, use of IMF credit, and short-term debt. Short-term debt includes all debt having an original maturity of one year or less and interest in arrears on long-term debt.
GDP growth	Source: World Development Indicators/World Bank (annual); International Financial Statistics/International Monetary Fund (quarterly). Rate of change in gross domestic product.
Global default rate	Source: Bank of Canada, Database of Sovereign Defaults (see Beers and Mavalwalla 2017). Annual global rate of default on foreign currency-denominated sovereign bonds.
Inflation	Source: International Financial Statistics/International Monetary Fund. Monthly rate of change in consumer price index.
Left government	Source: Database of Political Institutions 2015 (Beck et al. 2001). Ideology of the executive branch. Original coding (EXECRLC) has three categories: left, right, and center. Variable is recoded as a dichotomous indicator of left government (left = 1, center or right = 0).
Liberal democracy	Source: Varieties of Democracy (V-Dem) (Coppedge et al. 2018). Liberal democracy index. From the V-Dem codebook: “The liberal principle of democracy emphasizes the importance of protecting individual and minority rights against the tyranny of the state and the tyranny of the majority. The liberal model takes a “negative” view of political power insofar as it judges the quality of democracy by the limits placed on government. This is achieved by constitutionally protected civil liberties, strong rule of law, an independent judiciary, and effective checks and balances that, together, limit the exercise of executive power. To make this a measure of liberal democracy, the index also takes the level of electoral democracy into account.”
Months in office	Source: Own coding based on election dates, leadership turnover, and time in office data from the Database of Political Institutions 2015 (Beck et al. 2001) and V-Dem (Coppedge et al. 2018). Number of months the chief executive has been in office.
Party ideology score (Latin America only)	Source: Baker and Greene (2011). Party ideology scores for all Latin American presidential elections. Each candidate or party is assigned an ideology score that ranges from 1 (farthest right) to 20 (farthest left).

Political constraints	Source: Henisz (2000). The Political Constraint Index (POLCON) estimates the feasibility of policy change (the extent to which a change in the preferences of any one actor may lead to a change in government policy). We use the POLITICAL CONSTRAINTS index.
Pre-election window	Source: Own coding based on data on election dates from the Database of Political Institutions, 2015 (Beck et al. 2001) and V-Dem (Coppedge et al. 2018). Dummy variable coded 1 in the six months before an election (election month included), and zero otherwise.
Short-term debt/reserves	Source: International Debt Statistics/World Bank. Short-term debt includes all debt having an original maturity of one year or less and interest in arrears on long-term debt. Total reserves include gold. Annual frequency.
Sovereign credit rating	Source: Standard & Poor's, Moody's, and Fitch. Monthly long-term foreign-currency credit rating for sovereign issuers converted to a 0-21 numeric scale, with higher values indicating better ratings.
Sovereign default	Source: Laeven and Valencia (2013). Dummy variable indicating whether a country has defaulted on its sovereign debt in the past 12 months.
U.S. Treasury rate	Source: H.15 Federal Reserve Statistical Release (Historical Data)/Federal Reserve Economic Data (FRED). Long-term U.S. Treasury rates based on the ten-year constant maturity Treasury yield.
VIX index	Source: Yahoo Finance. Forward-looking measure of global uncertainty based on the 30-day implied volatility generated from S&P 500 options; represents investors' view of short-term volatility in the US stock market.

3. Summary of the Data

Table A4. Countries and periods covered in the analysis

<i>Country</i>	<i>Period covered</i>	
	<i>EMBI spread</i>	<i>CDS spread</i>
1 Algeria	Apr 1999 - Feb 2003	
2 Angola	Nov 2012 - Dec 2015	
3 Argentina	Jan 1994 - Nov 2015	Jul 2005 - May 2015
4 Armenia	Nov 2013 - Dec 2015	
5 Azerbaijan	May 2012 - Dec 2015	
6 Belarus	Oct 2010 - Sep 2015	
7 Belize	Apr 2007 - Dec 2015	
8 Bolivia	Dec 2012 - Dec 2015	
9 Brazil	May 1994 - Dec 2015	Nov 2001 - Dec 2015
10 Bulgaria	Aug 1994 - Dec 2013	Dec 2000 - Dec 2014
11 Chile	Jun 1999 - Dec 2013	Sep 2003 - Dec 2013
12 China	Apr 1994 - Dec 2015	Feb 2003 - Dec 2015
13 Colombia	Mar 1997 - Dec 2015	Feb 2003 - Dec 2015
14 Costa Rica	Sep 2012 - Dec 2015	
15 Côte D'Ivoire	May 1998 - Oct 2015	
16 Croatia	Sep 1996 - Dec 2014	Feb 2003 - Dec 2014
17 Cyprus		Nov 2009 - Jul 2013
18 Czech Republic		Jul 2008 - Apr 2014
19 Dominican Republic	Dec 2001 - Dec 2015	
20 Ecuador	Mar 1995 - Dec 2015	
21 Egypt	Aug 2001 - Dec 2015	
22 El Salvador	May 2002 - Dec 2015	
23 Estonia		Oct 2008 - Dec 2015
24 Ethiopia	Jan 2015 - Dec 2015	
25 Gabon	Jan 2008 - Dec 2015	
26 Georgia	Jul 2008 - Dec 2015	
27 Ghana	Nov 2007 - Dec 2015	
28 Greece		Nov 2006 - Aug 2014
29 Guatemala	Jul 2012 - Oct 2015	
30 Honduras	May 2013 - Dec 2015	
31 Hungary	Feb 1999 - Dec 2015	Jun 2003 - Dec 2015
32 India	Nov 2012 - Dec 2015	
33 Indonesia	Jun 2004 - Dec 2015	Oct 2005 - Dec 2015
34 Iraq	May 2006 - Dec 2015	
35 Israel		Jun 2006 - Oct 2015
36 Jamaica	Nov 2007 - Dec 2015	
37 Jordan	Feb 2011 - Dec 2015	
38 Kazakhstan	Jul 2007 - Apr 2015	Apr 2006 - Mar 2014

39	Kenya	Aug 2014 - Dec 2015	
40	Latvia	Oct 2012 - Dec 2015	Oct 2008 - Mar 2014
41	Lebanon	May 1998 - Dec 2014	Jun 2008 - Apr 2013
42	Lithuania	Dec 2009 - Dec 2015	Oct 2008 - Mar 2014
43	Malaysia	Nov 1996 - Dec 2015	Apr 2002 - Dec 2015
44	Mexico	Jan 1994 - Dec 2015	Nov 2001 - Dec 2015
45	Mongolia	Jun 2012 - Dec 2015	
46	Morocco	Jan 1998 - Dec 2015	
47	Mozambique	Dec 2013 - Dec 2015	
48	Namibia	Dec 2011 - Dec 2015	
49	Nigeria	Jan 1994 - Mar 2015	
50	Pakistan	Jul 2001 - Dec 2015	
51	Panama	Aug 1996 - Dec 2015	Dec 2003 - Dec 2015
52	Paraguay	Mar 2013 - Dec 2015	
53	Peru	Apr 1997 - Dec 2015	Nov 2003 - Dec 2015
54	Philippines	Jan 1998 - Dec 2015	Feb 2003 - Dec 2015
55	Poland	Nov 1994 - May 2015	Jul 2002 - May 2015
56	Qatar		Feb 2009 - Nov 2013
57	Republic of Korea	Jan 1994 - Apr 2004	Feb 2003 - Dec 2015
58	Romania	Mar 2012 - Dec 2015	Jan 2004 - Dec 2015
59	Russian Federation	Jan 1998 - Dec 2015	Apr 2001 - Dec 2015
60	Senegal	Jun 2011 - Dec 2015	
61	Slovakia	Sep 2013 - Dec 2015	Feb 2008 - Dec 2015
62	Slovenia		Oct 2008 - Dec 2015
63	South Africa	Jan 1995 - Dec 2015	May 2002 - Dec 2015
64	Sri Lanka	Dec 2007 - Dec 2014	
65	Thailand	Jun 1997 - Mar 2006	Feb 2003 - Dec 2015
66	Trinidad and Tobago	Sep 2013 - Dec 2015	
67	Tunisia	Jun 2002 - Dec 2015	
68	Turkey	Jul 1996 - Dec 2014	Mar 2001 - Dec 2014
69	Ukraine	Jun 2000 - Dec 2015	Sep 2004 - Apr 2015
70	United Republic of Tanzania	Jun 2013 - Oct 2015	
71	Uruguay	Jun 2001 - Dec 2015	
72	Venezuela	Jan 1994 - Dec 2015	Feb 2003 - Dec 2015
73	Viet Nam	Dec 2005 - Dec 2015	Jun 2006 - Jul 2013
74	Zambia	Nov 2012 - Jan 2015	

Table A5. Summary statistics

<i>Variable</i>	<i>N</i>	<i>Mean</i>	<i>St. Dev.</i>	<i>Min</i>	<i>Max</i>
EMBI spread	10,665	488.72	592.09	-3.50	7,078.00
Δ EMBI spread	10,596	-0.91	133.18	-5,493.23	3,307.00
CDS spread	5,120	276.29	516.96	3.43	6,581.50
Δ CDS spread	5,081	0.02	171.25	-5,464.22	3,460.03
Months in office	9,820	72.54	109.52	1	492
Left government	9,692	0.30	0.46	0	1
Pre-election window	11,862	0.08	0.27	0	1
Current account balance	10,374	-1.65	7.27	-43.77	33.18
External debt	7,928	50.53	32.12	4.13	231.99
GDP growth	10,735	3.74	4.03	-14.81	33.74
Short-term debt/reserves	7,674	67.22	132.39	0.00	1,297.13
Inflation	10,783	11.45	90.68	-23.90	4,452.97
Δ Inflation	10,705	-0.44	16.36	-571.76	408.31
GDP growth (quarterly)	6,617	4.30	16.24	-26.65	388.24
Current account balance (quarterly)	7,546	-1.80	13.09	-215.27	117.71
External debt (quarterly)	5,650	80.85	111.86	0.00	974.08
Treasury rate	11,862	3.45	1.41	1.50	7.96
Δ Treasury rate	11,862	-0.01	0.21	-1.11	0.65
VIX	11,862	19.47	7.97	9.51	59.89
Δ VIX	11,862	-0.02	4.46	-15.28	20.50
Commodity prices	11,862	80.30	37.23	15.93	173.43
Δ Commodity prices	11,787	0.12	6.10	-62.65	44.92
Equity premium	11,799	25.22	16.96	13.50	123.73
Δ Equity premium	11,734	-0.01	4.41	-25.91	41.18
Global default rate	10,759	45.88	4.61	37.38	53.81
Regional diffusion (EMBI)	11,531	3,613.51	2,598.70	7.02	13,012.43
Δ Regional diffusion (EMBI)	11,445	4.48	640.82	-6,435.00	12,944.11
Regional diffusion (CDS)	9,710	1,318.43	1,402.59	3.43	9,843.76
Δ Regional diffusion (CDS)	9,622	-4.49	624.93	-5,524.22	5,683.23
Capital account openness	9,558	0.27	1.43	-1.90	2.37
Exchange rate	11,465	646.30	2,697.73	0.05	68,827.50
Δ Exchange rate	11,465	25.81	2,707.45	-22.33	289,900.00
Left neighbors	9,933	0.29	0.14	0.11	0.65
Party ideology score (Latin America)	2,595	-11.18	5.05	-18.50	-2.00
Standard & Poor's rating	7,425	13.07	3.60	0	21
Δ Standard & Poor's rating	7,413	-0.003	0.36	-8	8
Moody's rating	7,406	13.14	3.62	0	21

Δ Moody's rating	7,389	-0.002	0.25	-7	4
Fitch rating	7,128	13.11	3.68	0	21
Δ Fitch rating	7,110	-0.003	0.34	-6	9
Liberal democracy	11,003	0.46	0.23	0.05	0.87
Political constraints	10,539	0.48	0.27	0.00	0.85

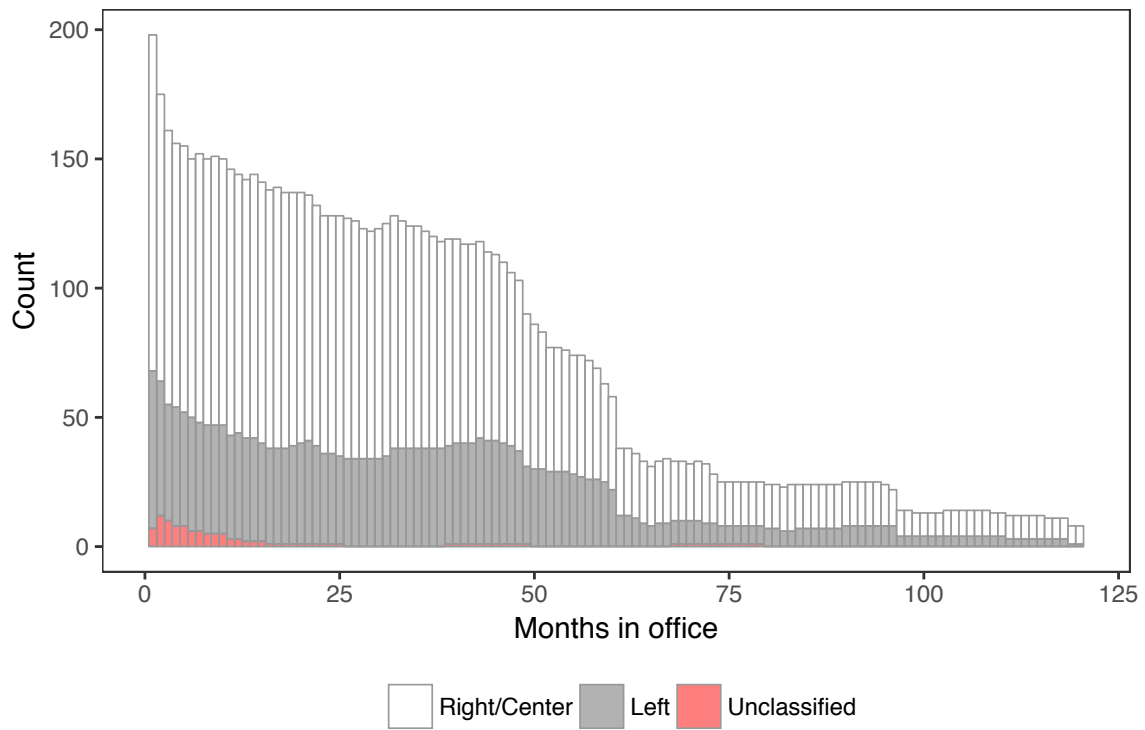


Figure A5. Distribution of months in office by partisanship/ideological orientation of the chief executive

4. Main Analysis – Full Results

A note on estimation and interpretation of the heteroskedastic model of country spreads

Our heteroskedastic regression model of country risk spreads allows us to evaluate hypothesis about the role of government change, partisanship, and experience in office – as well competing explanations – in driving volatility in sovereign debt markets. The heteroskedastic model allows the volatility of the monthly spread to vary across countries and over time, thus permitting us to assess whether variation in country-level and common external variables explains variation in the volatility of the monthly spread. The parameters of the heteroskedastic model are estimated using maximum likelihood and can be interpreted like the parameters in a GARCH model.

In our model, investors' disagreements over their assessments of sovereign risk – and the changes in their assessments over time – are captured on a month-to-month basis, as implied by the monthly frequency of the country spread data. Modeling market volatility at the monthly level involves trade-offs. We expect markets to incorporate new information or react to events at a faster pace; the monthly data misses some of that daily (and intra-day) action. At the same time, our hypotheses are about investors' learning processes with respect to slower-moving policy variables. Most of our right-hand side variables are sampled at monthly, quarterly, or annual intervals, and daily spreads would be too noisy for inferences on the variables of interest.

The potential downside of sampling spreads monthly is that some of the dynamics of interest are attenuated: the monthly data misses some large movements in spreads that would be captured by daily data, and therefore our estimates likely understate the amount of volatility in country spreads, especially in periods of higher volatility. This probably works against us and makes our estimates conservative.

Table A6. Partisanship, time in office, and sovereign spreads (full results)

Heteroskedastic regression analysis of EMBI and CDS spreads

	<i>EMBI Spread</i>			<i>CDS Spread</i>		
	(1)	(2)	(3)	(4)	(5)	(6)
ΔSpread						
Months in office	-0.014 (0.026)	-0.019 (0.035)	-0.077 (0.048)	0.002 (0.023)	0.022 (0.026)	0.062** (0.031)
Left government	-7.264 (8.314)	-8.799 (8.963)	-10.635 (9.100)	8.398 (8.989)	13.078 (15.649)	5.824 (4.133)
Months in office $\times$ Left government		0.030 (0.041)	0.042 (0.037)		-0.039 (0.039)	0.036 (0.080)
Pre-election window			-0.556 (4.196)			2.168 (3.748)
Current account balance			-0.991*** (0.230)			-0.131 (0.140)
External debt			-0.270* (0.161)			0.049 (0.075)
Short-term debt/reserves			0.024 (0.017)			-0.001 (0.008)
GDP growth			0.352 (0.584)			0.869*** (0.319)
Δ Inflation			0.040 (0.072)			3.699* (2.172)
Δ Treasury rate			-12.462* (7.513)			-0.760 (6.024)
Δ VIX			4.681*** (0.990)			3.080*** (0.395)
Δ Commodity prices			-0.981*** (0.376)			-0.523*** (0.143)
Δ Equity premium			-0.831* (0.460)			-0.588*** (0.113)

ΔRegional diffusion	0.028***	0.012**
	(0.006)	(0.005)
Capital account openness	-1.376	1.970
	(3.283)	(1.464)
Global default rate	-0.778**	0.363
	(0.329)	(0.381)

Spread volatility [$\log(o)$]

Months in office	-0.001*	-0.001	-0.001	-0.004***	-0.004***	-0.003***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Left government	0.210	0.384	0.886***	0.216	0.365	0.559
	(0.235)	(0.243)	(0.267)	(0.376)	(0.429)	(0.375)
Months in office × Left government		-0.003***	-0.005***		-0.002*	-0.003***
		(0.001)	(0.001)		(0.001)	(0.001)
ΔVIX			0.027***			0.016***
			(0.006)			(0.005)
Capital account openness			-0.269***			-0.548***
			(0.069)			(0.066)
Pre-election window			0.447***			0.525*
			(0.147)			(0.275)
Constant	4.962***	4.906***	4.675***	5.205***	5.175***	4.369***
	(0.148)	(0.140)	(0.142)	(0.296)	(0.298)	(0.179)
Observations	8519	8519	5988	4476	4476	2679
Countries	67	67	50	36	36	20
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
AIC	108421.25	108082.67	74481.99	56577.47	56503.09	30523.89

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A7. Partisanship, time in office, and sovereign spreads – global conditions (full results)
Is the relationship contingent on U.S. interest rates and neighbors' partisanship?
Heteroskedastic regression analysis of EMBI and CDS spreads

	<i>U.S. Treasury Rate</i>		<i>Left Neighbors</i>	
	<i>EMBI</i>	<i>CDS</i>	<i>EMBI</i>	<i>CDS</i>
	(1)	(2)	(3)	(4)
ΔSpread				
Months in office × Left government × Treasury rate	0.018 (0.014)	-0.004 (0.007)		
Months in office × Left government × Left neighbors			-0.111 (0.325)	-1.837 (2.335)
Months in office × Left government	-0.002 (0.056)	-0.024 (0.104)	0.069 (0.132)	0.663 (0.779)
Months in office × Treasury rate	-0.004 (0.011)	0.008* (0.005)		
Left government × Treasury rate	-5.365* (3.101)	-1.069 (1.550)		
Months in office × Left neighbors			-0.065 (0.141)	0.079 (0.173)
Left government × Left neighbors			0.629 (64.308)	143.786 (138.879)
Months in office	-0.041 (0.030)	0.074** (0.031)	-0.048 (0.077)	0.040 (0.055)
Left government	6.379 (8.211)	9.999 (7.985)	-8.783 (38.512)	-65.084 (57.936)
Treasury rate	2.551 (1.879)	-2.148 (1.496)		
Left neighbors			0.963 (13.226)	18.228* (10.995)
Pre-election window	1.796 (3.756)	4.598 (3.181)	-1.076 (4.138)	-3.797 (4.605)
Current account balance	-0.821*** (0.299)	-0.163 (0.117)	-1.027*** (0.257)	-0.034 (0.155)
External debt	-0.262** (0.115)	0.054 (0.085)	-0.275* (0.157)	0.045 (0.046)
Short-term debt/reserves	0.024* (0.012)	-0.004 (0.010)	0.024 (0.018)	-0.004 (0.004)
GDP growth	0.777 (0.498)	0.805** (0.400)	0.509 (0.561)	0.743*** (0.249)
ΔInflation	0.224 (0.244)	3.639* (1.902)	0.035 (0.067)	4.217** (1.803)
ΔTreasury rate	-9.577 (7.853)	2.434 (4.574)	-15.360** (6.148)	1.292 (4.150)
ΔVIX	3.581*** (0.790)	2.738*** (0.573)	3.653*** (1.214)	2.976*** (0.256)
ΔCommodity prices	-0.959***	-0.442***	-0.529	-0.437***

	(0.283)	(0.108)	(0.410)	(0.092)
Δ Equity premium	-0.478	-0.435***	-0.550	-0.424***
	(0.469)	(0.143)	(0.508)	(0.090)
Δ Regional diffusion	0.026***	0.015**	0.029***	0.012***
	(0.004)	(0.007)	(0.006)	(0.004)
Capital account openness	-0.409	2.978***	-1.579	2.639*
	(2.040)	(0.978)	(3.550)	(1.470)
Global default rate	-0.939*	0.492	-0.709*	0.381
	(0.496)	(0.377)	(0.393)	(0.340)

Spread volatility [$\log(\sigma)$]

Months in office $\times$ Left government $\times$ Treasury rate	-0.002***	-0.001***		
	(0.0001)	(0.0001)		
Months in office $\times$ Left government $\times$ Left neighbors			-0.027***	-0.056***
			(0.005)	(0.017)
Months in office $\times$ Left government	-0.0002	0.00002	0.003**	0.015***
	(0.002)	(0.002)	(0.001)	(0.005)
Months in office $\times$ Treasury rate	-0.001***	-0.0005***		
	(0.0001)	(0.0001)		
Left government $\times$ Treasury rate	0.145	0.173		
	(0.187)	(0.245)		
Months in office $\times$ Left neighbors			0.008**	0.057***
			(0.003)	(0.007)
Left government $\times$ Left neighbors			1.273	5.973***
			(1.495)	(2.181)
Months in office	0.003**	-0.002*	-0.003***	-0.020***
	(0.001)	(0.001)	(0.001)	(0.002)
Left government	0.405	-0.006	0.552	-1.421
	(0.786)	(1.042)	(0.504)	(0.936)
Treasury rate	0.232***	-0.173		
	(0.086)	(0.141)		
Left neighbors			-0.858	-3.891***
			(1.147)	(0.783)
Δ VIX	0.021***	0.022***	0.027***	0.017***
	(0.005)	(0.006)	(0.005)	(0.005)
Capital account openness	-0.250***	-0.518***	-0.259***	-0.481***
	(0.071)	(0.064)	(0.062)	(0.065)
Pre-election window	0.479***	0.619***	0.425***	0.784***
	(0.154)	(0.203)	(0.151)	(0.199)
Constant	3.740	4.948	4.932	5.397
	(0.369)	(0.508)	(0.360)	(0.264)
Observations	5988	2679	5976	2679
Countries	50	20	49	20
Country Fixed Effects	Yes	Yes	Yes	Yes
AIC	73549.69	30401.75	74098.63	29985.88

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

5. Robustness Checks

Domestic political institutions (Table A8). We control for indicators of liberal democracy (Coppedge et al. 2018), political constraints (Henisz 2000), and central bank independence (Bodea and Hicks 2015), one at a time, in the mean and volatility equations of country spreads. Our main results remain substantively unchanged.

Capital account openness (Table A9). We test the robustness of the results to an alternative measure of capital account openness. We replace the Chinn-Ito index of capital account openness with a modified index proposed by Karcher and Steinberg (2013), which corrects for biases in the original index. We find no change in our results.

Government partisanship/ideology (Table A14). We test an alternative measure of government ideology. Partisan labels and ideology are notoriously difficult to measure, and comparisons across political systems and over time can be challenging. To check that our results are not sensitive to these measurement decisions, we estimate our models using the party ideology scores for Latin American presidential elections from Baker and Greene (2011). While this strategy limits the sample to Latin American countries, it also allows for more accurate comparisons of government ideology across countries and over time. The evidence for Latin America is consistent with our general findings: coefficient estimates for the interaction of partisanship and time in office are negative and statistically significant only in the volatility equation, indicating that new left-wing governments in Latin America induce higher volatility in sovereign debt markets, but time in office tends to reduce this volatility.

Close elections (Table A10). In our main specifications, we control for electoral periods (the 6 months prior to an election, including the election month), as we expect electoral uncertainty to induce higher volatility in country spreads. Indeed, our results show that the volatility of EMBI and CDS spreads is higher in the six months before an election than during non-electoral periods. As a

robustness check, we further assess whether excess market volatility observed during electoral periods is driven by close elections, whose outcomes are less predictable to sovereign debt investors. We define close elections as those in which the margin of victory is 5 percentage points or less – and, alternatively, 10 p.p. or less. We use data from V-Dem (Coppedge et al. 2018) on the vote share of the largest and second-largest party in the lower chamber for parliamentary systems, and on the vote share of the winning candidate and the runner-up in presidential systems. We find mixed evidence that close elections induce a higher spread volatility, and no evidence that close elections affect the mean change in spreads. Our main results for the interaction of partisanship and time in office remain unchanged.

Financial crises (Table A11). Because volatility increases in times of crisis or financial distress, we adjust for the occurrence of sovereign defaults, currency crises, and debt restructuring episodes. We use data on episodes of sovereign default and currency crises from Laeven and Valencia (2013) and data on debt restructurings from Cruces and Trebesch (2013). These three variables capture whether a country has experienced a debt crisis, currency crisis, or debt restructuring in the past 12 months. The results indicate that the volatility of country spreads is higher if a country has defaulted on its debt or experienced a currency crisis in the previous twelve months; the results for partisanship and time in office remain substantively unchanged.

Exchange rate (Table A12). We use data from the Bank for International Settlements (BIS) to control for the monthly percentage change in the country's exchange rate against the U.S. dollar. While EMBI and CDS spreads capture the risk premium on dollar-denominated debt only, thus avoiding direct concerns about exchange rate risk, exchange rate movements can have indirect effects on credit risk, as a depreciation of the currency will raise the burden of debt in domestic currency terms. Our main results are robust to that adjustment (but see below for a caveat).

Sovereign credit ratings (Table A13). We control for sovereign credit ratings, which serve as a summary indicator of a country's creditworthiness, by including the monthly change in country ratings from Standard & Poor's, Moody's, and Fitch (converted to numeric scales). In both tests –

exchange rates and credit ratings – the caveat applies that these can be interpreted as intermediate outcomes in our models: political uncertainty is known to affect both a country’s exchange rate and its credit rating (Hays et al. 2003; Block and Vaaler 2004; Vaaler et al 2006). While our results remain unchanged, the tests should be interpreted with caution.

Quarterly macroeconomic data (Table A15). We guard against potential bias arising out of temporal aggregation in some of the right-hand side macroeconomic variables. Current account balance, external debt, and GDP growth are sampled annually in our main models. We test alternative measures that are sampled quarterly. Quarterly data on the current account and GDP growth are from the IMF’s International Financial Statistics; quarterly data on external debt are from the World Bank’s Quarterly External Debt Statistics. While the country and time coverage of quarterly data is limited, they more accurately capture changes in macroeconomic conditions. The results remain substantively unchanged.

Month-year fixed effects (Table A16). We adopt a more general approach for dealing with global economic conditions and common external shocks: instead of explicitly modeling these shocks by including specific variables that capture global capital cycles, liquidity, and risk aversion, we estimate models that capture common external shocks through month-year fixed effects. Our findings are robust to this alternative specification choice.

Temporal heterogeneity (Table A17). We consider the possibility of temporal heterogeneity, or structural breaks, in the effects of interest. We split the sample into pre- and post-2000 (and pre- and post-2005) observations; the results indicate that the relationship is invariant to time period.

Table A8. Controlling for domestic institutions

Heteroskedastic regression analysis of EMBI and CDS spreads, controlling for regime type (V-Dem liberal democracy index), political constraints (Henisz 2000), and central bank independence (Bodea and Hicks 2015)

	<i>DV: EMBI spread</i>			<i>DV: CDS spread</i>		
	<i>Liberal democracy</i>	<i>Political constraints</i>	<i>CBI</i>	<i>Liberal democracy</i>	<i>Political constraints</i>	<i>CBI</i>
	(1)	(2)	(3)	(4)	(5)	(6)
ΔSpread						
Months in office × Left government	0.007 (0.026)	0.030 (0.025)	0.039 (0.047)	0.042 (0.072)	0.050 (0.086)	0.130 (0.110)
Months in office	-0.025 (0.027)	-0.059* (0.032)	-0.071* (0.038)	0.054 (0.033)	0.060* (0.031)	-0.006 (0.028)
Left government	-6.166 (6.064)	-10.622 (7.975)	-11.870* (6.654)	4.195 (4.065)	5.769 (5.093)	-5.424 (6.716)
Election window	-3.294 (4.656)	-0.519 (4.391)	0.484 (5.344)	1.924 (3.539)	2.230 (3.755)	8.914* (5.320)
Liberal democracy	-9.807 (13.495)			-42.532 (35.980)		
Political constraints		-9.934 (6.468)			-0.395 (9.290)	
Central bank independence			-13.320 (21.095)			23.037 (18.422)
Current account balance	-0.821*** (0.205)	-0.855*** (0.191)	-1.060*** (0.324)	-0.166 (0.134)	-0.063 (0.151)	-0.062 (0.155)
External debt	-0.280 (0.174)	-0.326** (0.144)	-0.407** (0.181)	0.037 (0.101)	0.071 (0.079)	-0.380 (0.242)
Short-term debt/reserves	0.030 (0.022)	0.029* (0.015)	0.101*** (0.033)	-0.00002 (0.010)	-0.003 (0.008)	0.136 (0.121)
GDP growth	0.382 (0.485)	0.040 (0.543)	0.510 (0.596)	1.063*** (0.346)	1.126*** (0.355)	1.097** (0.426)
ΔInflation	0.049 (0.110)	0.052 (0.068)	-0.106 (0.146)	4.119* (2.272)	3.324 (2.188)	2.155 (2.412)
ΔTreasury rate	-12.950** (5.982)	-9.885 (6.786)	-20.834** (9.136)	-1.897 (5.288)	-0.471 (5.793)	0.146 (6.218)
ΔVIX	4.800*** (1.072)	4.734*** (0.875)	4.357*** (0.983)	3.106*** (0.410)	3.087*** (0.396)	2.692*** (0.469)
ΔCommodity prices	-0.956** (0.395)	-0.923** (0.360)	-0.678* (0.398)	-0.581*** (0.201)	-0.523*** (0.150)	-0.385*** (0.142)
ΔEquity premium	-0.757 (0.501)	-0.658* (0.386)	-0.413 (0.434)	-0.549*** (0.113)	-0.567*** (0.105)	-0.451*** (0.125)
ΔRegional diffusion	0.030*** (0.006)	0.028*** (0.006)	0.030*** (0.006)	0.011** (0.005)	0.012** (0.005)	0.017*** (0.005)
Capital account openness	-0.473	-1.510	-0.628	1.479	1.760	1.987

	(1.858)	(3.209)	(2.623)	(1.627)	(1.583)	(2.303)
Global default rate	-0.539*	-0.818**	-0.652	0.261	0.313	0.098
	(0.326)	(0.337)	(0.523)	(0.393)	(0.392)	(0.503)
Constant	47.436	70.883	72.544	-13.437	-45.524	-27.690
	(24.098)	(31.806)	(45.114)	(32.272)	(26.001)	(43.571)

Spread volatility [$\log(\sigma)$]

Months in office × Left government	-0.003***	-0.003***	-0.005***	-0.002*	-0.003**	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Months in office	-0.001*	-0.002***	-0.0003	-0.003***	-0.003***	-0.003***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Left government	0.744**	0.777***	0.528*	0.320	0.543	1.094**
	(0.307)	(0.270)	(0.298)	(0.433)	(0.390)	(0.471)
ΔVIX	0.030***	0.028***	0.030***	0.016***	0.016***	0.014***
	(0.005)	(0.005)	(0.006)	(0.005)	(0.005)	(0.004)
Capital account openness	-0.261***	-0.256***	-0.326***	-0.598***	-0.553***	-0.511***
	(0.070)	(0.061)	(0.064)	(0.081)	(0.073)	(0.074)
Election window	0.382**	0.412**	0.426**	0.411	0.535*	0.905***
	(0.133)	(0.134)	(0.203)	(0.285)	(0.275)	(0.320)
Liberal democracy	0.805			0.810		
	(0.802)			(0.779)		
Political constraints		-0.717			0.044	
		(0.469)			(0.514)	
Central bank independence			1.242**			1.841***
			(0.569)			(0.698)
Constant	4.384	4.984	3.933	4.053	4.358	2.921
	(0.290)	(0.199)	(0.301)	(0.306)	(0.216)	(0.634)
Observations	5791	5933	5177	2569	2667	2420
Countries	50	50	48	20	20	19
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
AIC	71801.29	73372.78	63659.53	29346.27	30371.15	27589.68

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A9. Comparing measures of capital account openness

Heteroskedastic regression analysis of EMBI and CDS spreads, controlling for alternative measures of capital account openness (Chinn and Ito 2008, Karcher and Steinberg 2013)

	<i>Chinn-Ito KA Index</i>		<i>Karcher-Steinberg KA Index</i>	
	<i>EMBI</i>	<i>CDS</i>	<i>EMBI</i>	<i>CDS</i>
	(1)	(2)	(3)	(4)
ΔSpread				
Months in office × Left government	0.021 (0.036)	0.049 (0.081)	0.088 (0.062)	0.104 (0.173)
Months in office	-0.054 (0.044)	0.059* (0.031)	-0.049 (0.072)	0.135*** (0.046)
Left government	-9.445 (8.582)	5.688 (4.242)	-9.495 (15.503)	4.761 (7.248)
Pre-election window	-1.479 (4.322)	2.266 (3.636)	-3.197 (8.302)	8.375 (9.131)
Current account balance	-0.939*** (0.226)	-0.069 (0.149)	-1.502*** (0.397)	0.182 (0.206)
External debt	-0.266* (0.161)	0.067 (0.080)	-0.530** (0.238)	0.095 (0.243)
Short-term debt/reserves	0.024 (0.017)	-0.003 (0.008)	0.072** (0.032)	-0.001 (0.034)
GDP growth	0.279 (0.583)	1.105*** (0.319)	0.368 (0.759)	1.285** (0.549)
ΔInflation	0.043 (0.073)	3.480 (2.158)	0.013 (0.095)	2.581 (2.577)
ΔTreasury rate	-12.444* (7.496)	-0.397 (5.986)	-20.185*** (6.069)	-0.928 (7.738)
ΔVIX	4.708*** (0.985)	3.080*** (0.393)	4.709** (1.937)	2.259*** (0.624)
ΔCommodity prices	-1.005*** (0.379)	-0.522*** (0.143)	-0.715 (0.591)	-0.343*** (0.095)
ΔEquity premium	-0.865* (0.460)	-0.570*** (0.106)	-0.407 (0.566)	-0.309* (0.168)
ΔRegional diffusion	0.028*** (0.006)	0.012** (0.005)	0.025*** (0.005)	0.029*** (0.007)
Capital account openness	-1.300 (3.270)	1.629 (1.615)	-2.256 (4.123)	-0.689 (3.032)
Global default rate	-0.716** (0.342)	0.305 (0.380)	-0.759 (0.716)	0.575 (0.655)
Constant	62.715* (32.235)	-44.606* (24.294)	57.524 (46.551)	-82.965** (38.498)

Spread volatility [log(σ)]

Months in office × Left government	-0.005***	-0.003***	-0.006***	-0.004***
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Months in office	(0.001) -0.001	(0.001) -0.003***	(0.001) -0.001	(0.001) -0.003***
Left government	(0.001) 0.890*** (0.266)	(0.001) 0.557 (0.374)	(0.001) 0.943*** (0.265)	(0.001) 0.780** (0.312)
Δ VIX	0.027*** (0.006)	0.016*** (0.005)	0.029*** (0.007)	0.017*** (0.005)
Capital account openness	-0.266*** (0.069)	-0.549*** (0.066)	-0.260*** (0.080)	-0.511*** (0.066)
Pre-election window	0.445*** (0.146)	0.525* (0.275)	0.571*** (0.167)	0.989*** (0.304)
Constant	4.669*** (0.141)	4.369*** (0.178)	4.874*** (0.162)	4.460*** (0.183)
Observations	6042	2679	3867	1687
Countries	51	20	34	20
Country Fixed Effects	Yes	Yes	Yes	Yes
AIC	75135.18	30520.68	49226.13	19560

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A10. Controlling for close elections

Heteroskedastic regression analysis of EMBI and CDS spreads, controlling for close elections. Close elections are defined as those in which the winning margin of the elected candidate or party is less than or equal to 5 percentage points or, alternatively, 10 percentage points). In presidential systems, we use the difference in vote shares between the candidate eventually winning office and the runner-up; in parliamentary systems, we use the difference in vote shares between the largest and second largest party. Data on vote shares from V-Dem (Coppedge et al. 2018).

	<i>Close election = 5 p.p. margin</i>		<i>Close election = 10 p.p. margin</i>	
	<i>EMBI</i>	<i>CDS</i>	<i>EMBI</i>	<i>CDS</i>
	(1)	(2)	(3)	(4)
ΔSpread				
Months in office × Left government	0.024 (0.034)	0.018 (0.032)	0.046 (0.073)	0.048 (0.075)
Months in office	-0.060 (0.044)	-0.054 (0.042)	0.044 (0.034)	0.046 (0.033)
Left government	-7.577 (8.620)	-7.830 (8.057)	4.222 (5.249)	4.539 (5.032)
Pre-election window	-1.952 (4.875)	1.661 (5.687)	0.577 (3.762)	0.318 (3.947)
Close election	0.110 (11.403)	-3.817 (6.867)	-19.961 (22.634)	-11.014 (7.511)
Pre-election window × Close election	1.339 (15.084)	-3.538 (12.169)	31.753 (25.574)	21.306 (15.795)
Current account balance	-0.947*** (0.230)	-0.977*** (0.236)	-0.117 (0.137)	-0.107 (0.137)
External debt	-0.241 (0.148)	-0.227* (0.138)	0.013 (0.115)	0.020 (0.109)
Short-term debt/reserves	0.020 (0.017)	0.019 (0.016)	0.002 (0.011)	0.001 (0.011)
GDP growth	0.254 (0.508)	0.274 (0.536)	1.066*** (0.319)	1.057*** (0.331)
ΔInflation	0.022 (0.051)	0.011 (0.051)	3.770* (2.085)	3.483 (2.157)
ΔTreasury rate	-13.553* (7.534)	-12.066 (7.902)	0.610 (5.586)	0.341 (5.689)
ΔVIX	4.659*** (0.966)	4.677*** (0.972)	3.121*** (0.395)	3.122*** (0.401)
ΔCommodity prices	-0.985*** (0.378)	-1.000*** (0.381)	-0.532*** (0.154)	-0.518*** (0.148)
ΔEquity premium	-0.834* (0.443)	-0.823* (0.439)	-0.588*** (0.098)	-0.597*** (0.103)
ΔRegional diffusion	0.029*** (0.006)	0.029*** (0.006)	0.012** (0.005)	0.012** (0.005)
Capital account openness	-0.635 (3.126)	-1.107 (3.153)	2.201 (1.501)	2.151 (1.498)

Global default rate	-0.735** (0.332)	-0.718** (0.347)	0.135 (0.375)	0.163 (0.376)
Constant	64.360** (30.908)	61.875* (31.699)	-17.486 (26.311)	-23.894 (25.808)
Spread volatility [$\log(\sigma)$]				
Months in office $\times$ Left government	-0.005*** (0.001)	-0.005*** (0.001)	-0.002** (0.001)	-0.002*** (0.001)
Months in office	-0.001 (0.001)	-0.001 (0.001)	-0.003*** (0.001)	-0.003*** (0.001)
Left government	0.919** (0.266)	0.912** (0.265)	0.414 (0.380)	0.461 (0.372)
Δ VIX	0.025** (0.006)	0.025*** (0.006)	0.016** (0.006)	0.016*** (0.005)
Capital account openness	-0.266*** (0.066)	-0.266*** (0.067)	-0.543*** (0.065)	-0.545*** (0.065)
Pre-election window	0.184 (0.129)	0.223 (0.143)	0.174 (0.216)	0.232 (0.208)
Close election	-0.354*** (0.098)	-0.272 (0.190)	0.574 (0.362)	0.418 (0.306)
Pre-election window $\times$ Close election	0.949*** (0.337)	0.724* (0.416)	0.384 (0.619)	0.366 (0.523)
Constant	4.666** (0.140)	4.669** (0.142)	4.390** (0.182)	4.378** (0.184)
Observations	6042	6042	2679	2679
Countries	51	51	20	20
Country Fixed Effects	Yes	Yes	Yes	Yes
AIC	75032.23	75071.67	30409.25	30439.94

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A11. Controlling for financial crises and debt restructurings

Heteroskedastic regression analysis of EMBI and CDS spreads, controlling for episodes of sovereign default, currency crisis, and debt restructuring. The variables indicate whether a country has experienced a sovereign default, debt restructuring or currency crisis in the past 12 months. Data on financial crises are from Laeven and Valencia (2013) and data on debt restructurings are from Cruces and Trebesch (2013).

	<i>Dependent variable</i>			
	<i>EMBI</i>	<i>EMBI</i>	<i>EMBI</i>	<i>EMBI</i>
	(1)	(2)	(3)	(4)
ΔSpread				
Months in office × Left government	-0.168*	-0.100	-0.040	-0.150
	(0.094)	(0.131)	(0.154)	(0.111)
Months in office	0.058	-0.093	-0.094	0.047
	(0.122)	(0.186)	(0.188)	(0.127)
Left government	4.063	-3.096	7.027	2.983
	(8.898)	(22.047)	(24.853)	(9.857)
Pre-election window	-0.655	25.015	23.009	-1.445
	(13.834)	(15.781)	(17.350)	(12.889)
Current account balance	-1.826**	-1.729	-2.112***	-1.835**
	(0.931)	(1.074)	(0.777)	(0.902)
External debt	-0.619**	-0.619	-0.736**	-0.577*
	(0.296)	(0.393)	(0.317)	(0.315)
Short-term debt/reserves	0.077	0.069	0.087*	0.074
	(0.049)	(0.063)	(0.051)	(0.052)
GDP growth	0.857	1.168	-0.927	0.505
	(0.823)	(1.117)	(1.089)	(0.816)
ΔInflation	-0.272***	-0.282***	-0.178	-0.224***
	(0.045)	(0.075)	(0.136)	(0.045)
ΔTreasury rate	-34.620***	-35.143**	-29.132**	-31.960***
	(12.395)	(14.057)	(13.388)	(12.144)
ΔVIX	6.663***	6.426***	6.455***	6.608***
	(1.434)	(1.865)	(1.530)	(1.350)
ΔCommodity prices	-2.465***	-3.209***	-3.121***	-2.420***
	(0.745)	(1.138)	(1.012)	(0.711)
ΔEquity premium	0.988	1.448	1.204	0.771
	(1.127)	(1.403)	(1.279)	(1.074)
ΔRegional diffusion	0.019***	0.019**	0.016**	0.018***
	(0.007)	(0.009)	(0.008)	(0.007)
Capital account openness	1.401	-9.250	-8.492	0.669
	(3.218)	(10.153)	(8.984)	(3.389)
Global default rate	-4.083***	-5.495***	-4.606***	-3.987***
	(1.174)	(1.681)	(1.573)	(1.263)
Sovereign default	380.031			600.404*
	(238.654)			(330.374)
Debt restructuring		10.948		29.291
		(21.480)		(19.916)

Currency crisis			-83.188**	-26.074
			(33.199)	(28.032)
Constant	203.157***	340.549***	299.521***	199.686***
	(68.410)	(101.678)	(95.400)	(71.778)
Spread volatility [$\log(\sigma)$]				
Months in office $\times$ Left government	-0.002**	-0.003**	-0.002	-0.002*
	(0.001)	(0.001)	(0.001)	(0.001)
Months in office	-0.002**	-0.003***	-0.003***	-0.002*
	(0.001)	(0.001)	(0.001)	(0.001)
Left government	0.129	0.607	0.465	0.140
	(0.253)	(0.490)	(0.460)	(0.264)
Δ VIX	0.025***	0.023***	0.027***	0.025***
	(0.007)	(0.006)	(0.006)	(0.007)
Capital account openness	-0.196***	-0.216*	-0.207*	-0.189***
	(0.065)	(0.117)	(0.118)	(0.067)
Pre-election window	0.418**	0.508***	0.626***	0.418**
	(0.164)	(0.172)	(0.191)	(0.166)
Sovereign default	2.186***			2.031***
	(0.148)			(0.190)
Debt restructuring		-0.885***		-0.199
		(0.319)		(0.239)
Currency crisis			0.635**	0.321
			(0.284)	(0.268)
Constant	4.595***	4.946***	4.928***	4.591***
	(0.142)	(0.247)	(0.260)	(0.147)
Observations	991	991	991	991
Countries	28	28	28	28
Country Fixed Effects	Yes	Yes	Yes	Yes
AIC	11855.49	12518.65	12476.53	11851.03

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A12. Controlling for exchange rates

Heteroskedastic regression analysis of EMBI and CDS spreads,
controlling for monthly changes in the exchange rate against the US dollar

	<i>Dependent variable</i>	
	<i>EMBI spread</i> (1)	<i>CDS spread</i> (2)
ΔSpread		
Months in office × Left government	0.023 (0.035)	0.059 (0.066)
Months in office	-0.063 (0.047)	0.053* (0.030)
Left government	-12.624 (9.381)	6.140 (3.738)
Pre-election window	-1.029 (4.536)	2.915 (3.877)
Current account balance	-0.823*** (0.214)	-0.086 (0.122)
External debt	-0.297** (0.135)	0.051 (0.077)
Short-term debt/reserves	0.025* (0.013)	0.0005 (0.008)
GDP growth	0.545 (0.532)	1.089*** (0.275)
ΔInflation	-0.179 (0.133)	2.856 (1.849)
ΔExchange rate	3.218** (1.380)	4.151*** (0.759)
ΔTreasury rate	-12.516* (6.922)	-8.465 (6.040)
ΔVIX	4.242*** (0.855)	2.415*** (0.520)
ΔCommodity prices	-0.690** (0.319)	-0.180 (0.180)
ΔEquity premium	-0.494 (0.342)	-0.485*** (0.114)
ΔRegional diffusion	0.027*** (0.006)	0.010** (0.004)
Capital account openness	0.392 (3.354)	1.502 (1.479)
Global default rate	-0.931** (0.363)	0.752** (0.377)
Constant	77.849**	-69.282***

	(35.082)	(22.946)
Spread volatility [$\log(\sigma)$]		
Months in office $\times$ Left government	-0.004*** (0.001)	-0.002** (0.001)
Months in office	-0.001 (0.001)	-0.004*** (0.001)
Left government	0.590* (0.350)	0.528 (0.376)
Δ VIX	0.028*** (0.006)	0.016*** (0.005)
Capital account openness	-0.323*** (0.056)	-0.562*** (0.067)
Pre-election window	0.452** (0.177)	0.503* (0.258)
Constant	4.674*** (0.141)	4.374*** (0.185)
Observations	5758	2679
Countries	49	20
Country Fixed Effects	Yes	Yes
AIC	70658.22	30380.18

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A13. Controlling for sovereign credit ratings

Heteroskedastic regression analysis of EMBI and CDS spreads, controlling for monthly changes in the long-term foreign-currency sovereign credit rating

	<i>DV: EMBI spread</i>			<i>DV: CDS spread</i>		
	<i>ScP</i>	<i>Moody's</i>	<i>Fitch</i>	<i>ScP</i>	<i>Moody's</i>	<i>Fitch</i>
	(1)	(2)	(3)	(4)	(5)	(6)
ΔSpread						
Months in office × Left government	0.003 (0.024)	0.006 (0.024)	-0.006 (0.027)	0.037 (0.080)	0.040 (0.082)	0.037 (0.079)
Months in office	-0.039 (0.036)	-0.054 (0.039)	-0.054 (0.036)	0.061** (0.030)	0.064** (0.031)	0.063** (0.030)
Left government	-11.948 (9.050)	-12.197 (9.077)	-11.553 (9.330)	6.331 (4.044)	6.024 (4.276)	6.190 (4.118)
Pre-election window	3.662 (4.511)	0.896 (4.267)	0.105 (4.768)	3.628 (3.528)	2.405 (3.823)	2.230 (3.769)
Current account balance	-0.661*** (0.183)	-0.736*** (0.160)	-0.592*** (0.188)	-0.132 (0.132)	-0.134 (0.139)	-0.112 (0.136)
External debt	-0.452*** (0.170)	-0.427** (0.169)	-0.301* (0.172)	0.063 (0.070)	0.055 (0.074)	0.064 (0.075)
Short-term debt/reserves	0.041** (0.018)	0.039** (0.019)	0.022 (0.016)	-0.002 (0.007)	-0.001 (0.007)	-0.002 (0.008)
GDP growth	0.927* (0.473)	0.398 (0.590)	1.236** (0.561)	0.892*** (0.308)	0.874*** (0.308)	0.935*** (0.319)
ΔInflation	0.086 (1.057)	0.011 (0.087)	0.686 (1.698)	3.588 (2.417)	3.620 (2.207)	3.569 (2.201)
ΔCredit rating	-61.710** (30.229)	-30.161** (12.735)	-64.540*** (24.203)	-8.312 (5.539)	2.141 (3.551)	-11.276** (5.600)
ΔTreasury rate	-9.994 (6.232)	-8.929 (6.355)	-6.501 (6.448)	-0.533 (6.261)	-0.637 (6.044)	-0.583 (6.191)
ΔVIX	4.525*** (0.994)	4.470*** (0.941)	4.454*** (0.962)	3.020*** (0.402)	3.055*** (0.394)	3.061*** (0.395)
ΔCommodity prices	-0.822* (0.432)	-0.674* (0.371)	-0.764** (0.378)	-0.468*** (0.131)	-0.514*** (0.136)	-0.509*** (0.135)
ΔEquity premium	-0.295 (0.422)	-0.395 (0.403)	-0.323 (0.407)	-0.597*** (0.105)	-0.581*** (0.108)	-0.567*** (0.100)
ΔRegional diffusion	0.024*** (0.006)	0.024*** (0.006)	0.021*** (0.005)	0.012** (0.005)	0.011** (0.005)	0.011** (0.005)
Capital account openness	-1.355 (2.434)	-1.007 (3.134)	-0.316 (2.585)	2.266 (1.491)	2.181 (1.472)	2.135 (1.440)
Global default rate	-0.941** (0.367)	-1.057*** (0.334)	-1.333*** (0.397)	0.418 (0.377)	0.428 (0.379)	0.423 (0.370)
Constant	74.779** (36.570)	91.985*** (32.002)	100.205*** (36.069)	-48.107** (23.510)	-49.456** (23.264)	-49.513** (22.555)

Spread volatility [$\log(\sigma)$]

Months in office $\times$ Left government	-0.002*	-0.003***	-0.002**	-0.002***	-0.002***	-0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Months in office	-0.003***	-0.003***	-0.003***	-0.004***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Left government	0.612**	0.859***	0.782***	0.494	0.478	0.482
	(0.271)	(0.275)	(0.294)	(0.363)	(0.357)	(0.355)
Δ VIX	0.033***	0.032***	0.033***	0.016***	0.017***	0.017***
	(0.005)	(0.006)	(0.005)	(0.005)	(0.005)	(0.005)
Capital account openness	-0.259***	-0.278***	-0.284***	-0.566***	-0.565***	-0.566***
	(0.083)	(0.080)	(0.093)	(0.062)	(0.063)	(0.062)
Pre-election window	0.472***	0.500***	0.466**	0.506*	0.520*	0.521*
	(0.172)	(0.171)	(0.202)	(0.295)	(0.281)	(0.278)
Constant	4.819***	4.769***	4.775***	4.429***	4.435***	4.433***
	(0.172)	(0.177)	(0.177)	(0.174)	(0.169)	(0.168)
Observations	4819	4915	4566	2459	2526	2526
Countries	35	35	35	19	19	19
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
AIC	59399.24	60846.08	56208.14	28090.48	28798	28793.88

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A14. Country spreads, left governments, and time in office in Latin America

Heteroskedastic regression analysis of EMBI and CDS spreads using Baker and Greene (2011)'s party ideology scores for Latin American countries

	<i>Dependent variable</i>			
	<i>EMBI spread</i>		<i>CDS spread</i>	
	(1)	(2)	(3)	(4)
ΔSpread				
Months in office × Party ideology (executive)	-0.016** (0.007)	-0.003 (0.013)	0.046 (0.071)	0.037** (0.015)
Months in office	-0.127 (0.104)	-0.046 (0.151)	1.053 (1.321)	0.667*** (0.200)
Party ideology (executive)	-0.148 (0.324)	-0.423 (0.560)	-0.371 (1.961)	-0.790 (0.625)
Pre-election window		11.422* (5.968)		-3.138 (11.795)
Current account balance		-0.032 (1.024)		0.283 (0.388)
External debt		-0.300 (0.357)		0.003 (0.062)
Short-term debt/reserves		0.030 (0.041)		0.003 (0.004)
GDP growth		0.145 (0.526)		0.578 (0.874)
ΔInflation		-0.101 (0.350)		9.914* (5.376)
ΔTreasury rate		-6.552 (13.710)		9.548 (8.076)
ΔVIX		6.431*** (1.589)		3.485*** (0.133)
ΔCommodity prices		-1.088 (1.089)		-0.501 (0.305)
ΔEquity premium		-1.474* (0.892)		-0.320** (0.130)
ΔRegional diffusion		0.028* (0.016)		0.015 (0.011)
Capital account openness		3.152 (4.266)		8.232* (4.649)
Global default rate		-0.634 (0.730)		-0.591* (0.341)
Constant	-7.781 (7.537)	10.603 (29.244)	-11.568 (44.907)	-16.550 (16.860)

Spread volatility [$\log(\sigma)$]

Months in office $\times$ Party ideology (executive)	-0.0002*	-0.001***	-0.002***	-0.001***
	(0.0001)	(0.0002)	(0.0001)	(0.0004)
Months in office	-0.009*	-0.022***	-0.015***	-0.011
	(0.005)	(0.004)	(0.006)	(0.007)
Party ideology (executive)	0.041	0.098***	0.243***	0.121
	(0.049)	(0.038)	(0.060)	(0.109)
Δ VIX		0.030***		0.027*
		(0.009)		(0.015)
Capital account openness		-0.431***		-0.611***
		(0.158)		(0.144)
Pre-election window		0.521**		0.764*
		(0.257)		(0.412)
Constant	5.944***	6.838***	7.438***	5.978***
	(0.716)	(0.472)	(0.973)	(1.197)
Observations	2556	2047	1062	906
Countries	17	12	8	7
Country Fixed Effects	Yes	Yes	Yes	Yes
AIC	33978.37	26484.71	13351.7	10467.69

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A15. Sampling country-level macroeconomic indicators at quarterly frequency

Heteroskedastic regression analysis of EMBI and CDS spreads, replacing annual indicators of GDP growth, current account balance, and external debt with quarterly data

	<i>Dependent variable</i>	
	<i>EMBI spread</i> (1)	<i>CDS spread</i> (2)
ΔSpread		
Months in office × Left government	0.088 (0.110)	0.014 (0.062)
Months in office	0.0004 (0.032)	0.010 (0.038)
Left government	-1.594 (5.261)	0.958 (15.117)
Pre-election window	2.709 (3.858)	-1.699 (3.318)
GDP growth (quarterly)	0.011 (0.013)	0.007 (0.017)
Current account balance (quarterly)	-0.313*** (0.067)	-0.722* (0.403)
External debt (quarterly)	-0.069 (0.073)	-0.380 (0.335)
ΔInflation	1.607 (1.382)	23.173*** (7.372)
ΔTreasury rate	-1.624 (7.680)	11.327 (9.123)
ΔVIX	3.339*** (0.854)	2.200*** (0.644)
ΔCommodity prices	-0.757*** (0.270)	-0.835*** (0.231)
ΔEquity premium	-1.110*** (0.320)	-0.822*** (0.216)
ΔRegional diffusion	0.021*** (0.006)	0.012*** (0.004)
Capital account openness	5.584* (2.904)	1.093 (2.155)
Global default rate	0.269 (0.275)	0.797 (0.718)
Constant	-56.469*** (18.446)	-8.660 (48.509)
Spread volatility [log(σ)]		
Months in office × Left government	-0.006*** (0.001)	0.001 (0.006)

Months in office	-0.002** (0.001)	-0.005*** (0.001)
Left government	1.622*** (0.276)	0.385 (0.475)
Δ VIX	0.015*** (0.004)	0.015 (0.011)
Capital account openness	-0.358*** (0.081)	-0.060 (0.138)
Pre-election window	0.145 (0.187)	-0.651*** (0.188)
Constant	4.261*** (0.179)	5.114*** (0.317)
Observations	2649	2689
Countries	34	25
Country Fixed Effects	Yes	Yes
AIC	31441.32	33996.04

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A16. Using month-year fixed effects

Heteroskedastic regression analysis of EMBI and CDS spreads, replacing (country-invariant) common external variables with month-year fixed effects

	<i>Dependent variable</i>			
	<i>EMBI spread</i>		<i>CDS spread</i>	
	(1)	(2)	(3)	(4)
ΔSpread				
Months in office × Left government	0.0004 (0.036)	-0.023 (0.035)	-0.035* (0.021)	0.023 (0.083)
Months in office	-0.037 (0.034)	-0.046 (0.031)	0.0001 (0.097)	-0.037 (0.046)
Left government	-5.863 (9.291)	-6.148 (6.034)	8.812 (9.765)	-2.372 (4.657)
Pre-election window		-1.217 (3.762)		0.807 (2.682)
Current account balance		-0.870*** (0.222)		-0.228 (0.149)
External debt		-0.238*** (0.082)		-0.063 (0.078)
Short-term debt/reserves		0.021** (0.009)		0.007 (0.010)
GDP growth		-0.478 (0.638)		0.838 (0.630)
ΔInflation		0.067 (0.048)		1.367 (4.337)
Capital account openness		-1.517 (2.903)		-3.059 (2.692)
Constant	-30.641 (102.307)	61.399 (97.457)	-81.679*** (30.643)	-127.507*** (13.859)
Spread volatility [log(σ)]				
Months in office × Left government	-0.003*** (0.001)	-0.005*** (0.001)	-0.006* (0.004)	-0.003 (0.003)
Months in office	-0.0003 (0.001)	-0.0004 (0.001)	-0.005*** (0.001)	-0.004 (0.003)
Left government	0.543** (0.242)	1.039*** (0.289)	0.636 (0.533)	0.581 (0.425)
ΔVIX		0.023*** (0.006)		0.019*** (0.005)
Capital account openness		-0.319*** (0.090)		-0.658*** (0.082)
Pre-election window		0.469** (0.183)		0.576 (0.384)

Constant	4.689*** (0.158)	4.500*** (0.145)	5.166*** (0.310)	4.213*** (0.284)
Observations	8519	6262	4476	2808
Countries	67	50	36	20
Country Fixed Effects	Yes	Yes	Yes	Yes
Month-Year Fixed Effects	Yes	Yes	Yes	Yes
AIC	106082.44	76935.92	55915.66	31191.13

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A17. Testing for temporal heterogeneity in effects

Heteroskedastic regression analysis of EMBI spreads,
splitting the sample into pre-/post-2000 and pre-/post-2005 subsamples

	<i>Dependent variable: EMBI spread</i>			
	<i>Pre-2000</i>	<i>Post-2000</i>	<i>Pre-2005</i>	<i>Post-2005</i>
	(1)	(2)	(3)	(4)
ΔSpread				
Months in office × Left government	0.310 (0.210)	0.003 (0.046)	0.130 (0.185)	0.061 (0.057)
Months in office	-0.293* (0.165)	-0.012 (0.030)	-0.161 (0.176)	-0.018 (0.028)
Left government	-5.181 (14.950)	-10.628 (10.006)	14.444 (17.155)	-6.549* (3.728)
Election window	-22.543 (20.558)	1.318 (4.085)	-6.899 (12.982)	3.040 (4.150)
Current account balance	-1.923** (0.973)	-0.668** (0.272)	-1.174 (0.826)	-0.596 (0.385)
External debt	-0.909 (0.757)	-0.302* (0.168)	-0.886* (0.467)	-0.096 (0.121)
Short-term debt/reserves	0.129 (0.081)	0.028 (0.017)	0.168*** (0.030)	0.008 (0.012)
GDP growth	-0.055 (1.175)	0.654 (0.584)	-0.194 (1.064)	1.494*** (0.414)
ΔInflation	-0.048 (0.111)	5.869** (2.660)	-0.063 (0.117)	3.413* (1.930)
ΔTreasury rate	-1.918 (9.966)	-11.890 (7.706)	8.302 (5.256)	-12.620 (8.764)
ΔVIX	4.283** (1.962)	4.334*** (0.655)	3.407 (2.808)	3.968*** (0.557)
ΔCommodity prices	-3.615*** (1.070)	-1.297*** (0.331)	-1.243* (0.653)	-1.357*** (0.283)
ΔEquity premium	1.025 (5.331)	-0.993*** (0.344)	1.184 (0.869)	-0.902*** (0.296)
ΔRegional diffusion	0.051*** (0.010)	0.019*** (0.004)	0.018* (0.011)	0.026*** (0.007)
Capital account openness	-9.056 (5.693)	2.046 (1.660)	-14.459 (13.628)	0.585 (1.408)
Global default rate	-2.438 (4.013)	-0.227 (0.373)	-1.439 (1.206)	0.465 (0.538)
Constant	177.413 (212.425)	38.312 (31.036)	125.698 (82.779)	-31.878 (41.588)

Spread volatility [$\log(o)$]

Months in office $\times$ Left government	-0.010** (0.004)	-0.005*** (0.001)	-0.008*** (0.003)	-0.005*** (0.001)
Months in office	0.001 (0.004)	-0.001 (0.001)	-0.002 (0.002)	0.0002 (0.001)
Left government	0.823 (0.505)	1.112*** (0.259)	0.572 (0.402)	1.335*** (0.344)
ΔVIX	0.043** (0.003)	0.015** (0.006)	0.039*** (0.006)	0.016*** (0.005)
Capital account openness	-0.204* (0.106)	-0.287*** (0.090)	-0.277*** (0.086)	-0.224** (0.088)
Election window	0.384 (0.329)	0.270*** (0.099)	0.563*** (0.215)	-0.024 (0.198)
Constant	4.969 (0.161)	4.475 (0.179)	4.999 (0.193)	4.280 (0.176)
Observations	1030	5012	2059	3983
Countries	19	51	25	51
Country Fixed Effects	Yes	Yes	Yes	Yes
AIC	13413	60830.02	26371.96	47506.2

Standard errors clustered by country in parentheses. Fixed effects estimates omitted for brevity.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

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