

Financial Globalization and the Political Contributions of Firms^{*}

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November 2019

Abstract

Does financial globalization affect partisan competition in national elections? While there is broad agreement that financial integration affects left and right governments differently, research has yet to unpack the causal mechanisms that link global financial flows to electoral competition. I argue that global financial conditions affect corporate campaign contributions, and that the effect is larger for left parties. An improvement in global conditions loosens firms' financing constraints, enabling them not only to increase donations to the market-friendly right, but also to invest in access to left as a form of insurance. Starting from a lower baseline, left parties benefit relatively more from positive global shocks. Using firm-level data on political contributions in Brazilian elections for 1994–2014, I find that lower global interest rates and larger capital inflows raise contributions to left parties and shift firms' allocation of funds towards the left. A comparison of firms with access to international capital markets to firms without direct access provides a direct test of the mechanism. The findings underscore challenges to electoral accountability in financially-integrated developing countries, highlighting the link between global capital flows, corporate finance, and partisan competition.

^{*}I thank Faisal Ahmed, Eric Arias, Quintin Beazer, Daniela Campello, Julia Gray, Andreas Kern, Holger Kern, Amy Pond, and the audience at the 2019 APSA annual meeting for helpful comments and suggestions.

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1 Introduction

Do global capital markets affect national elections? Political scientists often study democratic elections as domestic phenomena whose determinants are typically circumscribed to national borders. A flourishing research program, however, investigates the international economic sources of national political outcomes. This research calls attention to the role of economic globalization in linking national political outcomes across countries. To the extent that the economy matters for election outcomes, the growing integration of national economies through cross-border financial and trade flows means that domestic processes such as elections are increasingly affected by international economic conditions (Kayser, 2007).

Existing research has made considerable progress in understanding the effects of financial globalization and international financial forces on national democratic processes. Central to this debate are the partisan effects of global financial integration. Does financial globalization favor right governments over left ones? Across a variety of studies, there is broad agreement that international financial markets punish left parties and governments. The prospect of a left-wing party winning a national election is often enough to send markets on a downward spiral, as investors flee to safer investments to protect their assets from market-unfriendly policies, or expectations thereof. Scholars have documented these partisan effects in stock (Sattler, 2013; Bechtel, 2009; Leblang and Mukherjee, 2005), bond (Mosley, 2000; Fowler, 2006; Snowberg, Wolfers, and Zitzewitz, 2007), and currency markets (Leblang, 2002; Leblang and Bernhard, 2000).¹ International credit rating agencies also tend to downgrade a country's rating when left governments come into office, making it costlier for these governments to borrow from international capital markets (Barta and Johnston, 2018; Vaaler, Schrage, and Block, 2006). Especially in capital-scarce developing countries, the market's punishment has severe effects on the left. Under unfavorable international conditions, left parties may be forced to reverse traditional policy positions to appease investors, lest they find themselves cut out from global capital flows (Campello, 2015).

¹Some studies, however, have found weak or no evidence of a partisan effect (Mosley and Singer, 2008; Spanakos and Renno, 2009).

While the partisan preferences of international capital are well documented, much less is known about the effect of international capital flows—and global financial conditions, more generally—on electoral competition. Do global financial forces effectively tip the electoral scales toward the right (or the left)? This study shows that global financial conditions affect partisan competition through their effect on corporate campaign contributions. Favorable conditions in international credit markets—low interest rates, excess liquidity—reduce firms’ financing constraints, enabling businesses to spend more on political campaigns. But not all parties benefit equally from this extra spending. This article’s central claim is that the resulting increase in corporate spending benefits left parties proportionally more than right parties. This happens because baseline contributions to the right are higher, as firms typically support business- and investor-friendly governments. Favorable international conditions allow firms not only to increase contributions to their party of choice, but also to invest in access to political actors on the opposite side of the aisle as a form of insurance. Starting from a lower baseline, left parties receive a relatively larger boost in contributions from the excess capital in global markets.

Empirically, I test these claims using firm-level data on campaign contributions in Brazilian presidential elections from 1994 to 2014. I exploit the fact that firms are not uniformly exposed to international financial conditions to compare the campaign contributions of firms with access to international capital markets to the contributions of firms without direct access to foreign capital, before and after shocks to global interest rates and capital inflows. The analysis shows that Brazilian firms indeed increase campaign spending in response to favorable changes in global credit conditions. Working with multiple outcome measures that track firms’ partisan allocation of campaign money, I find that international conditions have a larger effect on contributions to the left. Lower interest rates and larger capital inflows increase the probability that firms will make a contribution to left parties more so than to right parties. Likewise, the amount contributed to left parties increases at a higher rate than contributions to right parties. International conditions affect not only the volume of campaign contributions, but also their relative allocation across partisan categories: contributions to left parties increase as a proportion of firms’ total contributions when global finan-

cial conditions improve.

The study's design has a number of desirable features. In particular, the use of firm-level data offers advantages over the modal cross-national design used in related studies. First, the country study with micro-level data guards against common concerns about unobserved country-level confounders that plague aggregate cross-national analyses—unmeasured factors associated both with countries' ability to attract foreign capital and with national partisan cycles. Furthermore, the design exploits the fact that global interest rates and capital flows are exogenous to the borrowing and spending decisions of emerging-market firms, leveraging this exogeneity to identify the effect international conditions on campaign finance. Finally, the micro-level analysis allows me to directly observe business political behavior and test the causal mechanism of interest—that the partisan effect occurs through changes in campaign spending by firms exposed to international credit markets—which otherwise would be obscured by the use of aggregate data.

This article makes several contributions. First, it underscores that the sources of electoral competition are not purely domestic. Existing scholarship identifies multiple ways in which the international economy affects domestic politics. This study contributes to this research program by documenting a channel through which financial globalization affects partisan competition—namely, corporate contributions. Second, this study provides empirical microfoundations for claims about the relationship between financial globalization, corporate influence, and electoral politics in the developing world. Political scientists often argue that economic globalization empowers corporate actors, but outside of data-rich settings such as campaign finance and lobbying in the United States and a handful of developed economies, researchers have few opportunities to examine firms' political behavior in the broader context of developing countries. This article thus emphasizes the importance of careful data collection in varying political and economic contexts. Finally, this research highlights the differential constraints that financial globalization imposes on left and right parties. Just as left parties benefit from favorable international conditions, they are also more severely hurt when international credit dries up. Evidence of such external influences on partisan competition warns us about some of the challenges of electoral accountability in a financially-integrated world.

2 Partisanship and Corporate Political Contributions

Do firms prefer right-of-center governments? Do their campaign contributions match their partisan preferences? Corporate campaign contributions typically reveal a baseline preference for market-friendly or business-friendly governments. In most contexts, firms demonstrate these preferences by disproportionately channeling campaign contributions to right-of-center parties and candidates. The mapping from market- or business-friendly policy preferences to the distribution of contributions along a left-right ideological dimension is not exact, however. Corporate contributions reflect a combination of partisan and strategic considerations that can vary with firm and industry characteristics, as well as the institutional context.

Firms' political contributions follow two main, often conflicting, rationales: on the one hand, firms make campaign contributions along partisan or ideological lines, as they seek to help elect candidates and parties that will advance the types of policies that are aligned with firms' interests; on the other hand, corporate actors may use campaign contributions strategically to ensure access to important political players on either side of the aisle. The partisan, or ideological, model of corporate contributions posits that firms will concentrate their campaign contributions on right-of-center parties or candidates. Firms' preference for right governments reflects the general predilection of these governments for pro-market and pro-business policies. Governments on the right tend to favor low inflation, fiscal discipline, low capital taxation (Hibbs, 1977; Oatley, 1999; Wibbels and Arce, 2003), financial openness (Quinn and Inclan, 1997; Oatley, 1999), secure property rights (Weymouth and Broz, 2013), and an overall environment conducive to capital investment (Bechtel, 2009). In contrast, firms tend to be averse to left-of-center governments, whose policies are typically more redistributive and interventionist, including higher government spending, greater inflation tolerance, higher taxes on profits, and a tendency towards economic regulation and capital controls (Garrett, 1998; Quinn and Inclan, 1997; Campello, 2015; Shin, 2017).

Partisanship will thus be a major driver of corporate contributions. Specifically, firms' campaign contributions should skew right, as they allocate their resources to maximize the electoral usefulness of funds to the party they prefer. In the US context, for example, firms concentrate contri-

butions on conservative candidates and the Republican Party (Walker and Rea, 2014; Clawson and Neustadtl, 1989; Brunell, 2005). Corporate actors predominantly share conservative beliefs, and business groups' ideology explains much of the variance in the partisan allocation of their contributions (Neustadtl and Clawson, 1988; McKay, 2010). Furthermore, cross-national evidence shows that business political behavior follows partisan motivations in political contexts as varied as Australia, Germany, the UK, Brazil, and Mexico (Samuels, 2001; McMenamin, 2012, 2013; Mancuso and Speck, 2015; Story, 1983). Firms' partisan behavior thus largely reflects the expectation that contributions to right governments will yield policies that are beneficial to corporate interests.

Besides partisanship, corporate contributions may also be driven by pragmatic, or strategic, motivations, of which access to policymakers is the most salient. Firms will often contribute on a nonpartisan basis to parties on opposite ends of the spectrum when seeking to ensure access to influential policymakers (Burris, 2001; Ansolabehere, Snyder, and Tripathi, 2002). In the access model of corporate political behavior, campaign contributions buy policymakers' time (Langbein, 1986), increase policymakers' involvement in matters that are of interest to donors (Hall and Wayman, 1990), and offer firms the opportunity to influence the policymaking process through the provision of policy-relevant information (Austen-Smith, 1995). In maximizing influence over policymaking, access-oriented firms will choose contribution "portfolios" that do not fall exclusively along partisan lines.

Ultimately, however, firms may reconcile partisan and access motivations by strategically combining larger amounts of electorally useful money to their preferred party with smaller donations to the opposing party that are designed to have minimal electoral impact—e.g. by targeting incumbents, who depend less on contributions for reelection (Brunell, 2005).

Given firms' ideological affinity with right and conservative parties and their incentives to combine partisan-based and access-based donations, we should expect baseline corporate contributions to the right to be higher. But we should also expect firms to contribute to the left. Institutions and other structural factors will shape firms' willingness to contribute more or less to left parties, to the extent that these factors alter firms' calculus around ideology and access considerations. In the next

section, I argue that the international macroeconomic environment is one such factor.

3 International Financial Conditions and Campaign Contributions

Do global credit and liquidity conditions affect firms' campaign spending? More importantly, do these external conditions differentially affect campaign contributions to the left and the right? I argue that favorable credit conditions and greater liquidity in global capital markets ease domestic firms' financing constraints and allow them to spend more on political goods like campaigns. The resulting increase in campaign spending should be larger for left than for right parties. The reason is that firms' baseline contributions to right parties are higher than their contributions to the left. Under tight financial constraints, firms concentrate contributions on their preferred parties. As financing constraints loosen, firms can increase spending on right parties, while also affording to invest strategically in access to opposing parties on the left. Therefore, the effect should be proportionally larger for the left, as contributions to the right start from a higher baseline.

Underpinning the link between international financial markets and firms' political spending is financial openness. The removal of barriers to cross-border capital flows enables domestic firms to tap funding sources beyond local capital markets. Particularly in developing countries with low levels of financial development, financial liberalization improves financing opportunities for the private sector. In these countries, capital scarcity, incomplete financial markets, and inefficient financial systems limit firms' ability to finance themselves through private credit markets on affordable terms (Rajan and Zingales, 1998; Love, 2003). By bringing in scarce capital and reducing capital costs, financial liberalization eases domestic firms' financing constraints (Harrison, Love, and McMillan, 2004; Bekaert and Harvey, 2000).

International financial conditions affect firms' financing constraints through direct and indirect channels. In financially open economies, domestic firms can go straight to the source: they can raise foreign capital by borrowing directly from foreign banks or by issuing debt in international capital markets. Firm borrowing through this direct channel is typically done in dollars or euros. Why would firms borrow in foreign currency? On the foreign creditor's side, there are incentives for

lending in foreign currency. Lending in domestic currency involves additional transaction costs, and borrowing countries may have incentives to inflate their way out of debt once foreigners buy domestic-currency debt (Reinhart and Rogoff, 2009). Additionally, foreign creditors may be unforgiving of emerging markets' patchy monetary history, and thus may only be willing to lend in foreign currency, or they may demand a premium for lending in domestic currency (Eichengreen and Hausmann, 2005). On the borrowing firm's side, lower interest rates on foreign-currency loans give firms an incentive to borrow directly from foreign creditors in foreign currency rather than domestic currency (Mora, Neaime, and Aintablian, 2013). Firms, moreover, may resort to external creditors to obtain long-term financing, especially where domestic capital markets are underdeveloped and private long-term credit is unavailable (Schmukler and Vesperoni, 2001; Caprio and Demirgüç-Kunt, 1998). Firms thus respond to changes in external financial conditions to optimize their borrowing terms: they increase their foreign borrowing when international interest rates are lower and reduce foreign debt loads when external credit tightens (Allayannis, Brown, and Klapper, 2003; Keloharju and Niskanen, 2001).

International financial conditions also affect firms' financing constraints through indirect channels. First, foreign capital can find domestic borrowers through the intermediation of domestic banks. When international funding conditions are favorable, local banks raise funds from international banks and lend them to domestic businesses. Through this channel, permissive financial conditions at the global level are transmitted to domestic firms, allowing them to borrow more at better terms (Bruno and Shin, 2015; Cohen et al., 2017). By the same mechanism, however, negative conditions in international credit markets are transmitted to local borrowers, constraining their ability to raise capital in periods of low liquidity and high interest rates (Kollmann, 2013). A second indirect channel connecting international financial conditions and domestic firms involves foreign portfolio investment in local equity and bond markets. Low interest rates and excess liquidity in international markets send global portfolio investors searching for higher-yield investments in emerging markets. The resulting capital inflows into local stock and bond markets increase the supply of credit and reduce financing costs for domestic firms (Bekaert and Harvey, 2000; Stulz,

1999; Tomashevskiy, 2015). Capital inflows thus reduce the cost of capital for firms wishing to issue new debt or equity in the domestic market.

As international financial conditions affect firms' financing constraints, they should have an effect on firms' ability to spend on political campaigns. Benign conditions in international credit markets should increase firms' campaign spending, while scarce credit and liquidity in global markets should limit firms' ability to make campaign contributions. Specifically, I expect an inverse relationship between international interest rates and firms' campaign contributions—low interest rates loosen firms' financing constraints, freeing up resources for political spending, while high interest rates should reduce firms' spending on campaigns. For the same reasons, I expect a positive relationship between capital inflows and campaign contributions, as larger capital inflows ease financing constraints, allowing firms to spend more on campaigns.

More importantly, I expect external financial conditions to differentially affect right and left parties. Specifically, the easing of international financial conditions should have a larger positive effect on contributions to left parties. Given firms' preferences for right governments, baseline corporate contributions to right parties should be typically higher than contributions to left parties. When financing constraints are more severe, firms will prioritize their spending and concentrate contributions on the right. But when financing constraints are looser, firms are able not only to contribute more to the right, but also to invest in access to both sides of the aisle, thus increasing contributions to the left. If contributions to the left start from a lower baseline, then the increase in contributions will be proportionally larger than the boost in contributions to the right. Conversely, left parties should bear the brunt of adverse changes in global markets, as firms are forced to cut back on campaign spending.

A competing argument would expect right governments to benefit more from favorable international conditions. Existing work argues, for example, that capital inflows are associated with increased contributions to right governments (Tomashevskiy, 2015). This argument posits that portfolio investment flows generate additional resources for domestic capitalists, who in turn channel these resources into contributions to capital-friendly parties on the right.

These divergent hypotheses rest on distinct assumptions about the motivations behind corporate donations; specifically, they differ on the relative importance assigned to ideology and access motivations in business political behavior. Whether the easing of firms' financing constraints benefits the left or the right depends, among other things, on the extent to which ideological affinity dominates other motives for campaign spending. The competing argument assumes that capitalists care exclusively about ideology, that is, about how market- or business-friendly a party is. However, the available evidence indicates that while firms strongly lean right when it comes to policy preferences, they also often find it advantageous to be on good terms with politicians across the political spectrum. Allowing for both ideology and access motivations, therefore, leads to different predictions. Where firms weigh both partisan and access considerations in contributing to campaigns, the left may also benefit from a relaxation of firms' financing constraints (and plausibly more so).

4 Data and Research Design

I estimate the effect of international financial shocks on political contributions using firm-level data on campaign contributions by publicly-traded companies in Brazil. The data cover presidential elections from 1994 to 2014.

While the question of the international economic sources of partisan competition is relevant to the developing world, broadly defined, the Brazilian case offers a suitable context for this study. First, Brazil has become increasingly integrated into global capital flows in the last thirty years. Financial liberalization has connected the domestic economy to international financial markets, providing domestic firms with much-needed access to foreign sources of financing. At the same time, greater financial integration has exposed the country to external shocks ([Campello and Zucco, 2015](#)). Not surprisingly, partisan conflict over international economic policy has been at the center of election campaigns in Brazil ([Martínez and Santiso, 2003](#); [Santiso, 2013](#); [Campello, 2015](#)). As such, the conditions are well-suited to studying if and how international capital flows affect firms' political behavior.

Second, corporate contributions are central to Brazilian elections. Campaign donations have

played a key role in firms' strategies to bolster the electoral chances of their preferred candidates (Boas, Hidalgo, and Richardson, 2014; Musacchio and Lazzarini, 2014). In fact, most money for election campaigns comes from business sources. In the 2010 election, for example, three-quarters of reported contributions for all levels of government came from firms. In presidential races alone, corporate donors can account for over 90% of total contributions (Samuels, 2001; Mancuso, 2015). Consistent with assumptions about the affinity between business actors and right-of-center parties, historically left-wing parties have had limited access to corporate funds (Samuels, 2001). Finally, Brazil's large, complex economy is populated by firms with varying degrees of exposure to international capital flows. I exploit such variation to identify the effect of international shocks on corporate contributions.

Corporate contributions in Brazilian presidential elections, 1994–2014. Brazil's 1993 law requiring candidates to report campaign contributions created a rich source of data to analyze firms' partisan preferences and political behavior. Brazil's electoral courts publish data on every reported contribution by corporate entities to every party and candidate in federal elections. Data for presidential elections are available from 1994 to 2014.² In total, the dataset covers 6 election cycles over the course of 20 years. For each election, I obtain the amount contributed by each firm to each candidate and party and construct measures of revealed partisan preferences in firms' donations.

The dataset for this analysis includes all firms listed in the Brazilian stock market during the period. While data on campaign contributions are available for all types of firms, publicly-traded or not, the analysis focuses on public firms for two main reasons. First, firm-level economic data is only available for publicly-traded companies. Therefore, some of the central variables in the analysis, such as access to international markets and other relevant firm-level economic indicators, can only be measured for those firms that are publicly listed. Second, the broader universe of firms that make campaign contributions is extremely heterogeneous, ranging from mom-and-pop corner shops to large multinational conglomerates. These firms are fundamentally different in many observable and non-observable dimensions, including economic fundamentals, access to (in-

²In 2016, electoral reform banned campaign contributions by corporate actors. The analysis thus includes all elections up to the 2014 election, the last general election to take place before the ban.

ternational) finance, policy preferences, government relations, and intensity and form of political activity. Restricting the analysis to the target population of publicly-traded firms ensures that firms are minimally comparable along dimensions that are relevant for this analysis.

Contribution-revealed partisan preferences. To identify firms’ revealed partisan preferences, I aggregate firms’ individual contributions to left and right parties. To do that, I use the party ideology scores estimated by [Power and Zucco \(2009\)](#). The scores place Brazilian parties on a left-right scale—from -1 (most left) to 1 (most right)—based on responses to the Brazilian Legislative Surveys ([Power and Zucco, 2012](#); [Zucco and Power, 2019](#)). For example, the country’s main programmatic left-wing party, the Workers’ Party, has an average score of -0.62 in the period, while the main center-right party, the PSDB, has an average ideology score of 0.20 . In some of the analyses, I use the continuous party ideology scores (see details below), while in others I use a dichotomous left-right classification. For the latter, I code political parties with a score of 0 or less as left, and parties with a score greater than 0 as right.

I use multiple indicators to capture firms’ partisan contributions. I begin with binary indicators of whether a firm contributed or not to right and left parties in a given election. *Contributed Left_{it}* and *Contributed Right_{it}* are coded one if firm i made a contribution to any left or right party, respectively, in election year t . This allows me to test whether international financial conditions affect firms’ decisions to make political contributions, and whether these conditions have differential effects on the left and the right. [Figure 1\(A\)](#) describes trends in the proportion of publicly-traded firms that contribute to right and left parties in presidential elections.

I further construct two measures of firms’ revealed partisan preferences that aim to capture in a single number the overall partisan orientation of a firm’s contribution “portfolio” (see e.g. [Baker and Greene, 2011](#)). The first measure is the ideology-weighted average contribution of firm i in election year t :

$$CRR_{it} = \frac{1}{C} \sum_{c=1}^C \text{Ideology}_{pt} \times \text{Contribution}_{cipt}, \quad (1)$$

where CRR_{it} is firm i ’s *contribution-revealed rightism* in election year t ; Ideology_{pt} is party p ’s ideology score on a -1 (farthest left) to 1 (farthest right) scale; and $\text{Contribution}_{cipt}$ is contribution c (for

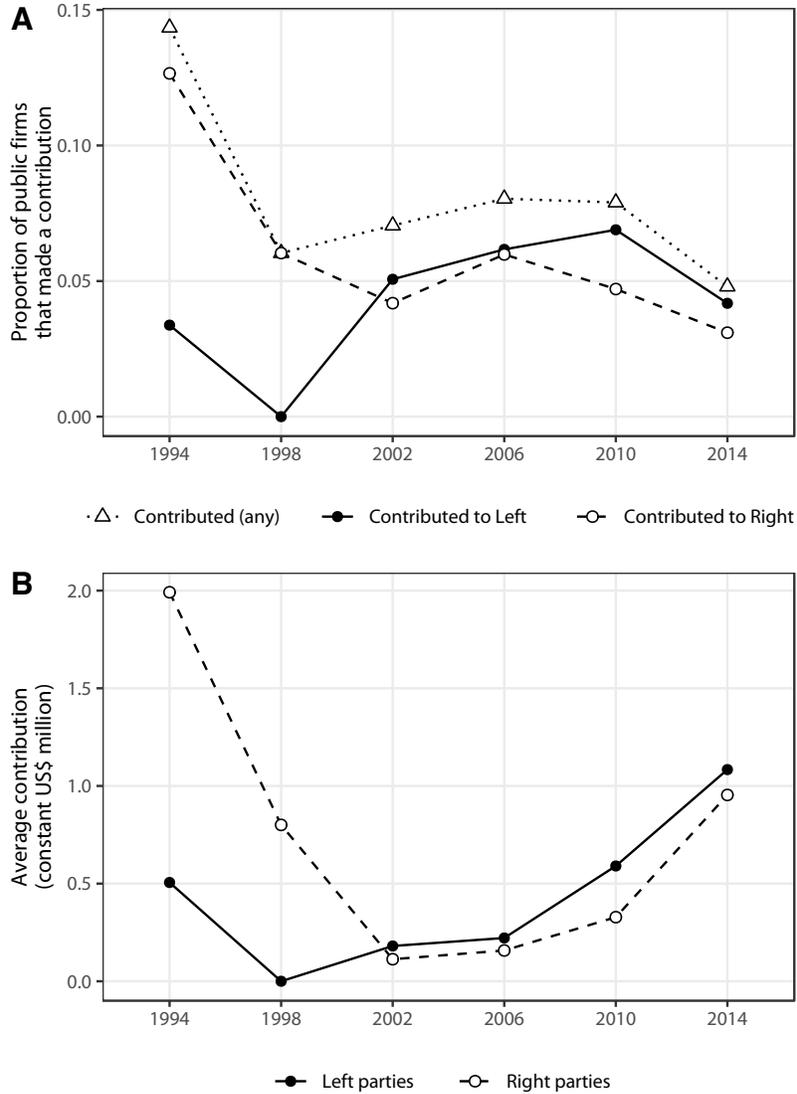


Figure 1. Partisanship and firms' political contributions. Panel A shows the proportion of Brazilian publicly-traded firms that made a campaign contribution to any party, as well as to right and left parties; panel B shows the average firm contribution to right and left parties.

$c = 1, \dots, C$) by firm i to party p in election t (in constant US\$). This measure has the advantage of incorporating full information on the partisan composition of firms' contribution portfolios. The measure takes higher values the larger the contributions a firm makes to parties farther to the right, and lower values the more it contributes to parties farther to the left. A firm that contributes equal amounts to diametrically opposed parties in a given election receives a score of zero, as the right and left contributions cancel each other out. Revealed rightism is thus a function of the size of

contributions and of where recipient parties fall on the left-right scale.

A limitation of this measure is that under certain circumstances, variation in the revealed preference score could be driven by the volume of contributions alone, even if the relative allocation of contributions across parties does not change. For example, a firm that increases its total contributions to right and left parties in equal proportion from one election to the next will see an increase in its contribution-revealed rightism, despite relative contributions to the left and right remaining constant. To guard against this issue, I construct a second measure of revealed partisanship—*relative contribution-revealed rightism*—that exclusively captures relative shifts in firms’ allocation of contributions between left and right parties:

$$\text{Relative CRR}_{it} = \sum_{c=1}^C \frac{\text{Ideology}_{pt} \times \text{Contribution}_{cipt}}{\text{Total Contribution}_{it}}. \quad (2)$$

Here, the *share* of a firm’s contributions going to a given party is weighted by party ideology. The measure captures variation in firms’ preferences toward the right (relative to the left) through relative shifts in the partisan allocation of contributions, irrespective of changes in the total amount contributed by the firm. Together, these two indicators allow for complementary tests of the effect of international financial conditions on political contributions, capturing both the effect on the volume of donations as well as on their relative allocation along ideological lines.

Finally, to assess potential effect heterogeneity, I consider campaign contributions to left and right parties separately, using the sum total of a firm’s donations to each partisan category in a given election: $\left[\sum \text{Right Party}_{pt} \times \text{Contribution}_{cipt} \right]$ and $\left[\sum \text{Left Party}_{pt} \times \text{Contribution}_{cipt} \right]$, respectively, where *Right Party* and *Left Party* are dummies for party ideology. Figure 1(B) shows trends in average contributions to right and left parties.

4.1 Comparing Firms with Varying Access to Global Capital Markets

The argument being tested here specifies both a directional hypothesis about the effect of international financial conditions on firms’ contributions and a causal mechanism. The hypothesis is

that favorable international conditions boost contributions to the left more than to the right. The mechanism is that firms that can take advantage of global credit booms will use the resulting excess funds to increase political spending. To test this argument, I compare the campaign contributions of firms with access to international capital markets to the contributions of firms that have limited or no access to foreign capital.

This strategy has a number of advantages over alternative designs. First, by analyzing firm-level variation, I can hold constant at the national level a number of shared political and economic factors that otherwise would be difficult to account for in a cross-national setting. Besides receiving different amounts of capital inflows and having varying exposure to external shocks, countries show many other differences that are difficult to observe or measure, including political and economic institutions, party systems, government-business relations, and corporate cultures. This design therefore guards against concerns that the results might be driven by such omitted factors. Second, this design allows me to directly observe firms' political behavior in response to changes in the international financial environment. An analysis of aggregate country-level outcomes might be vulnerable to problems of ecological inference and other aggregation issues, as one attempts to infer micro-level behavior from macro-level outcomes. Finally, this design allows me to observe the causal mechanism by comparing firms with varying access to international markets. By analyzing campaign contributions at the firm level, I can move beyond indirect evidence of an effect and provide a direct test of the posited mechanism.

The fact that firms are not uniformly exposed to international financial conditions affords me the opportunity to isolate the effect of interest. I use campaign donations from firms that are not directly exposed to international capital markets as a counterfactual, or control group, for comparing campaign contributions from firms that have easier access, or are otherwise highly exposed, to international capital markets. If, in response to a favorable global shock (i.e., an increase in capital inflows or a decrease in interest rates), campaign contributions increase more from firms with high exposure to global markets than from firms with low exposure, we can take this relative difference in changes in contributions as an estimate of the effect of international financial conditions

on campaign donations.

I thus estimate two-way fixed-effects models of the form:

$$Y_{it} = \delta(\text{International Financial Conditions}_t \times \text{Exposure}_i) + \gamma \mathbf{X}_{it} + \eta_i + \theta_t + \epsilon_{it}. \quad (3)$$

In this model, Y_{it} stands for the different measures of firm i 's partisan contributions in year t discussed above; \mathbf{X}_{it} is a vector of time-varying firm-level controls; η_i are firm fixed effects; θ_t are year fixed effects; and ϵ_{it} is the error term. The vector of firm dummies, η_i , controls for mean differences in contribution patterns across firms, and year dummies, θ_t , control for growth in contributions common to all firms. The coefficient of interest is δ , the effect of international financial shocks on firms' political contributions. The interaction term ($\text{International Financial Conditions}_t \times \text{Exposure}_i$) captures the comparison of the effect of international financial shocks on firms that are exposed to international capital markets to firms that have low exposure to foreign credit conditions, in years of favorable international conditions relative to years of unfavorable conditions. Because recent analyses show that within-firm error correlation can produce downward-biased standard errors in designs like this one, and because common shocks may induce error correlation within years, I use two-way clustered standard errors by firm and year in all models ([Bertrand, Duflo, and Mullainathan, 2004](#); [Cameron, Gelbach, and Miller, 2011](#)).

Firm-level controls include measures of firm size (total assets and stock market capitalization), as larger firms and firms with more assets have easier access to (foreign) credit ([Gelos, 2003](#); [Aguiar, 2005](#); [Allayannis, Brown, and Klapper, 2003](#)). Likewise, I adjust for profitability (gross profits/assets) and revenues, as more profitable firms and firms with larger cash flows are more creditworthy. Finally, I adjust for measures of indebtedness and solvency—leverage (total debt/assets) and debt service (interest expenses/operating revenues). High leverage may indicate easier access to capital markets and a greater ability to borrow, but it may also adversely affect earnings and profitability ([Ghosh, 2008](#)). High debt service indicates deteriorating solvency and a reduced ability to repay debt, thus signaling lower creditworthiness.

Scholars may recognize this research design as akin to a difference-in-differences strategy. In the traditional difference-in-differences design, one would analyze a discrete intervention, e.g. a discrete global credit shock. The traditional design has a 2×2 structure with two groups (treatment and control) and two time periods (pre- and post-intervention). The difference-in-differences estimate would thus be the difference between the campaign contributions of firms “treated” by the credit shock and the contributions of untreated firms, before and after the shock.

The present research strategy differs from the traditional difference-in-differences design in two ways. First, it moves beyond the two-period design by exploiting the occurrence of international financial shocks over multiple time periods (Angrist and Pischke 2008; see e.g. Autor 2003). Second, it exploits variation in “treatment intensity” by using continuous measures of international financial shocks in lieu of the conventional discrete intervention (see e.g. Acemoglu, Autor, and Lyle, 2004). This strategy thus generalizes the traditional design to the multiple time period setting where the intensity of the treatment (i.e. the size of the international financial shock) is allowed to vary over time. Compared to the traditional estimator, this generalized estimator is equivalent to a weighted average of all possible two-group, two-period difference-in-differences comparisons implied in the data (Goodman-Bacon, 2018).

International financial conditions. Exogenous shocks to the global supply of credit and liquidity affect the ability of domestic firms to access international capital markets. Firms’ decisions to borrow from international creditors depend critically on prevailing interest rates in international markets. Lower rates reduce financing costs and increase firms’ demand for foreign loans, while higher rates reduce firms’ willingness to borrow from foreign sources. I use the 10-year US Treasury constant maturity rate—a benchmark rate in global debt markets—as an indicator of international interest rates. Low US rates indicate favorable credit and liquidity conditions for emerging-market firms. They reduce the cost of borrowing for firms and increase the supply of available credit, as global investors turn to capital-scarce economies in search of higher-yield investments. High US rates, in contrast, imply a limited supply of credit for emerging markets, as investors flock to higher-interest, risk-free US Treasuries. Importantly, the identification of the effect of international finan-

cial shocks on political donations expressed in Eq. 3 rests on the fact that US interest rates are exogenous to Brazilian firms' borrowing decisions and campaign contributions. We should expect δ to be negative for the interaction term ($\text{US Interest Rates}_t \times \text{Exposure}_i$) if favorable liquidity conditions (low interest rates) indeed cause creditworthy firms to increase campaign contributions.

Additionally, I assess the effect of capital flows on firms' contributions. Net portfolio investment flows capture variation in the net supply of foreign credit in the domestic economy. Positive net inflows indicate positive net purchases of domestic assets by foreigners, which imply an increased availability of foreign capital in the domestic economy, while negative net inflows represent a decrease in the supply of foreign capital. To estimate the effect of capital inflows on firms, I focus on net private external debt flows (i.e. capital inflows into private sector debt) and net portfolio equity flows (i.e. capital inflows into firms' stocks). These two types of flows explicitly capture capital that finances the private sector and that directly affects the borrowing constraints of private firms. As with interest rates, the identification strategy rests upon the assumption that aggregate capital inflows are exogenous to Brazilian firms' borrowing and spending decisions. This is a safe assumption given that global capital flow cycles are largely exogenous to national policy in developing countries (Forbes and Warnock, 2012; Rey, 2015; Bauerle Danzman, Winecoff, and Oatley, 2017) and especially so for individual firms. If capital inflows boost firms' campaign spending, then we should expect a positive δ for the interaction term ($\text{Net Capital Flow}_t \times \text{Exposure}_i$).

Exposure to global markets: firm creditworthiness. The analysis compares the effect of international financial shocks on firms that have access to international capital markets to those with limited or no access. Here, firms' creditworthiness determines their exposure to changing credit conditions in international capital markets. The easing of international financial conditions, for example, should primarily affect those firms that are able to take advantage of favorable lending terms in global markets. By the same token, those same firms should be most constrained by contractions in international credit markets, as credit scarcity and higher interest rates will make it costlier for them to service foreign debt, issue new debt, and rollover existing debt.

I use data on firm-level credit ratings from Standard & Poor's to capture firm creditworthiness.

A credit rating is a forward-looking determination by a credit rating agency of a firm's capacity and willingness to meet its financial commitments, whereby a higher rating indicates greater creditworthiness. I construct a binary indicator of creditworthiness that is coded one if a firm receives an "investment grade" rating (an S&P rating of BBB– or higher) at any point during the sample period, and zero otherwise. Investment grade is a conventional designation that denotes that a firm is likely enough to meet its payment obligations and is thus considered a good credit—as opposed to firms receiving a non-investment-grade, or "junk", rating, which are deemed speculative investments. The investment grade indicator therefore captures domestic firms' direct exposure and ability to tap into international capital markets.

To further probe the causal mechanism, I distinguish between foreign currency and local currency credit ratings. I expect the effect of international shocks to be larger for foreign-currency investment-grade firms, which have more direct access to international capital markets relative to firms with only a local currency rating. Foreign currency ratings assess firms' capacity to meet debt obligations in foreign currency. A foreign currency investment grade label is a stronger signal of creditworthiness, since firms must meet more stringent requirements to be classified as foreign currency investment grade. This is because taking out loans or issuing bonds in foreign currency involves additional risks, foremost among which is the risk of exchange rate movements that may adversely impact the ability to pay off foreign currency debt using local currency revenues. Indeed, while 11% of Brazilian publicly-traded firms receive a local currency investment grade rating in the sample period, only 4% are rated investment grade in foreign currency. No firm without a local investment grade rating has a foreign currency rating. As firms with foreign currency investment grade ratings are able to borrow directly from international creditors in foreign currency, they are most likely to raise foreign capital when international conditions turn favorable—and, conversely, to withdraw from international markets when credit conditions tighten.

Entropy balancing. The validity of the difference-in-differences estimation strategy rests upon the assumption that, absent the treatment (here, international financial shocks), the campaign contributions of creditworthy and uncreditworthy firms would follow the same trajectories—an as-

sumption commonly known as parallel trends. While the assumption cannot be directly tested, one may plausibly suspect that investment-grade and non-investment-grade firms might differ in certain dimensions, including their propensity for political activity, in ways that may lead to unparallel trajectories. It is important, therefore, to ensure that the treatment and control groups are comparable with respect to pre-treatment trends in relevant firm-level dimensions, including their pre-treatment contributing activity.

To accomplish this goal, I use entropy balancing, a reweighting method that produces treatment and control groups that are balanced in the desired dimensions (Hainmueller, 2012; Truex, 2014). With entropy balancing, one specifies the moment conditions that should hold across the treatment and control groups. The algorithm then finds weights for control group observations such that the resulting weighted control group is comparable to the treatment group along those pre-specified conditions. For this analysis, I aim to balance the groups of investment-grade and non-investment-grade firms along pre-treatment trends in firm size, indebtedness, and financial performance, which are potentially relevant determinants of both creditworthiness and political contributions. Importantly, the two groups must also be comparable with respect to their pre-treatment campaign activity. I thus reweight control group observations to achieve balance on total assets, leverage (total debt/assets), and profitability in the period prior to the analysis (1990–1994 averages), as well as on whether firms made a campaign contribution or not in 1994, the first election in the sample.

Table 1 shows that the weighted control group is virtually identical to the treatment group in terms of mean assets, leverage, profitability, and campaign activity in the pre-treatment period, while the raw, unweighted control group differs substantially in those dimensions. The main analysis thus uses the balanced data to estimate the effect of international financial conditions.³

Placebo test: public external debt flows. To bolster the credibility of the effect estimates, I conduct a placebo test using *public* external debt flows. The goal is to demonstrate that the effect of interest does not exist when it “should not” exist. The test applies the same research design and modeling strategy, but uses a treatment variable that should not have an effect on firms’

³I report results with the unweighted data as a robustness check.

Table 1. Results of Entropy Balancing

	Treatment (Inv. Grade)		Weighted Control (Non-Inv. Grade)		Raw Control (Non-Inv. Grade)	
	μ	σ^2	μ	σ^2	μ	σ^2
Assets (US\$ million)	5.76	212.88	5.75	39.84	0.43	1.44
Leverage (%)	20.60	202.12	20.59	219.40	18.69	222.46
Profitability (%)	16.17	250.72	16.18	222.42	23.25	225.25
Contributed 1994*	0.00	0.00	0.00	0.00	0.11	0.10

*Binary indicator of whether the firm made a campaign contribution in the 1994 election.

contributions—yet might plausibly produce a positive finding for spurious reasons. Public external debt flows follow similar trends and share common external causes with private debt and equity flows. These flows, however, should not directly affect private-sector financing constraints. Net inflows on public external debt reflect net purchases of government debt by foreigners; as such, these resources are channeled into the public sector and are not readily available to private firms. I thus expect to find an effect from private external debt flows, but not one from public external debt flows. If no effect of public debt flows is found, then the credibility of the original estimates is enhanced. If an effect is found, then the estimates should be interpreted with caution—in which case the findings could reflect mechanisms other than the channeling of international capital into corporate political contributions.

5 Results

Table 2 shows results of entropy-weighted difference-in-differences linear probability models of contributions in Brazilian presidential elections. The dependent variable is binary, measuring whether firms made a campaign contribution or not to left (or right) parties in a given election. Columns 1 and 2 show effect estimates of US interest rates on contributions to the left and right, respectively. Both coefficients are negative, indicating that lower interest rates in global markets increase the probability that firms will make a contribution. The evidence is stronger for left contributions

(significant at 5% level) than right contributions (significant at 10% level). Moreover, the estimated effect is 71% larger for left contributions. Substantively, a 1 percentage-point reduction in US interest rates increases the probability of a contribution to left parties by 0.05, while the same interest rate reduction raises the probability of a right contribution by 0.03.

Columns 3 and 4 show effect estimates of private external debt flows on the probability of a contribution to the left and the right, respectively. The positive and statistically significant coefficient for left contribution indicates that capital inflows into private debt bolster contributions to left parties. An increase of US\$ 20 billion in net private debt flows (approximately one standard deviation) increases the probability of a left contribution by 0.10. In contrast, there is no evidence that private external debt flows affect contributions to the right. The coefficient on private debt flows for right contributions is smaller and statistically indistinguishable from zero.

The results for portfolio equity flows, shown in columns 5 and 6, offer evidence in the same direction. Here, positive and statistically significant coefficients for both left and right contribution indicate that an increase in net capital flows into the stock market increases the probability that firms will make a campaign contribution. Similarly to the other effects, the effect of portfolio equity flows is 60% larger for left parties. An increase of US\$ 14 billion in net equity flows (~ 1 *sd*) corresponds to an increase of 0.11 in the probability of a left contribution and an increase of 0.07 in the probability of a right contribution. These results show that favorable international financial conditions, in the form of larger capital inflows and lower interest rates, are conducive to higher rates of political participation by firms, through campaign contributions, in Brazilian presidential elections. Consistent with my argument, left parties benefit more from this effect than right parties.

Table 3 shows effect estimates of US interest rates on measures of contribution-revealed partisanship, as well as on the monetary amount of contributions to left and right parties. Columns 1 and 2 show estimates of the effect on contribution-revealed rightism (the weighted average of a firm's contributions, with larger weights for right parties) and relative contribution-revealed rightism (the relative allocation of a firm's contributions across partisanship), respectively. The estimates show that an improvement in international financial conditions reduce firms' revealed rightism. The

Table 2. International Financial Conditions and Firms' Decisions to Make Campaign Contributions in Brazilian Presidential Elections, 1994–2014

	<i>Dependent variables: Contributed Left; Contributed Right</i>					
	US Interest Rate		Private Ext. Debt Flow		Portfolio Equity Flow	
	<i>Left</i> (1)	<i>Right</i> (2)	<i>Left</i> (3)	<i>Right</i> (4)	<i>Left</i> (5)	<i>Right</i> (6)
US Interest Rate × Inv. Grade	−0.055** (0.024)	−0.032* (0.019)				
Private Ext. Debt Flow × Inv. Grade			0.005*** (0.002)	0.003 (0.002)		
Portfolio Equity Flow × Inv. Grade					0.008*** (0.002)	0.005*** (0.002)
Assets	−0.001*** (0.0005)	−0.001*** (0.0003)	−0.001*** (0.0003)	−0.001*** (0.0001)	−0.0005 (0.0003)	−0.0003 (0.0003)
Market Capitalization	−0.001** (0.001)	−0.001 (0.001)	−0.001** (0.001)	−0.001 (0.001)	−0.002** (0.001)	−0.001 (0.001)
Leverage	0.0003 (0.008)	0.001 (0.003)	0.003 (0.004)	0.002 (0.002)	0.003 (0.003)	0.002 (0.003)
Profitability	−0.005 (0.004)	−0.003 (0.003)	−0.004 (0.003)	−0.002 (0.002)	−0.004 (0.003)	−0.002 (0.002)
Revenues	0.002*** (0.001)	0.002** (0.001)	0.002 (0.001)	0.002*** (0.001)	0.001 (0.001)	0.001 (0.001)
Debt Service	−0.003*** (0.001)	−0.002*** (0.001)	−0.002*** (0.001)	−0.002** (0.001)	−0.001 (0.001)	−0.001 (0.001)
Observations	511	511	511	511	511	511
Firms	144	144	144	144	144	144
R^2	0.503	0.462	0.504	0.462	0.506	0.465
Firm Fixed Effects	✓	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓	✓

Table shows results of entropy-weighted diff.-in-diff. linear probability models of political contributions.

The binary dependent variable indicates whether or not a firm made a contribution to left and right parties.

Two-way clustered standard errors at the firm and year level in parentheses.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

coefficients in both cases are positive and statistically significant at conventional levels, which indicates that firms' revealed rightism increases with US interest rates. A low interest rate environment, therefore, bolsters the participation of left parties in firms' contribution portfolios. Columns 3 and 4 confirm that this relative shift towards left contributions under lower interest rates indeed occurs

through differential effects on the volume of contributions to left and right parties. The negative effect estimates in columns 3 and 4 indicate that a negative shock to interest rates increases contributions to both left and right parties, but the effect is 35% larger for left parties. A 1 percentage-point drop in US interest rates increases firms' contributions to left parties by US\$ 23,496 on average, while it increases contributions to right parties by US\$ 17,382. Together, the estimates in Table 3 show that international interest rates affect both the volume of firms' contributions as well as their relative allocation across left and right parties—with lower rates benefiting left parties and higher rates favoring right parties.

Effect estimates for capital inflows corroborate these findings. Table 4 shows results for private external debt flows (panel a) and portfolio equity flows (panel b). Both types of flows are inversely related to firms' revealed rightism, as the negative and statistically significant coefficients in columns 1, 2, 5, and 6 indicate. An increase in net flows into private-sector debt and equity reduces firms' contributions to right parties relative to left parties. As is the case with international interest rates, the effect of capital inflows on firms' revealed partisanship operates through differential effects on the volume of contributions to left and right parties. Columns 3, 4, 7, and 8 show that an increase in net flows into private-sector debt and equity bolsters campaign contributions both to the left and the right, as indicated by the positive and statistically significant coefficients on the interaction terms. The effect, however, is larger for left contributions. A US\$ 20 billion increase in net flows into private external debt (~ 1 *sd*) corresponds to an increase in firms' expected contributions of US\$ 57,000 to left parties and US\$ 32,400 to right parties—a boost that is 75% larger for parties on the left. Similarly, the effect of portfolio equity flows is 113% larger for contributions to the left. A US\$ 14 billion increase in net purchases of domestic equity by foreigners (~ 1 *sd*) raises firms' expected contributions to left parties by US\$ 57,800 and to right parties by US\$ 27,100.

Table 5 provides bootstrapped confidence intervals around the difference in effects on left and right contributions. The interval estimates lend more confidence to the conclusions about the differential effects of capital inflows, as the 95% interval around the difference does not include zero, than to the conclusions about the differential effect of interest rates, which is estimated with more

Table 3. US Interest Rates and the Partisan Distribution of Campaign Contributions in Brazilian Presidential Elections, 1994–2014

	<i>Dependent variables:</i>			
	<i>Revealed rightism</i> (1)	<i>Relative revealed rightism</i> (2)	<i>Left contributions</i> (3)	<i>Right contributions</i> (4)
US Interest Rate × Inv. Grade	6,072.892** (2,856.350)	0.020*** (0.007)	−23,496.990* (12,228.360)	−17,382.680* (9,547.240)
Assets	134.064 (81.385)	0.0004** (0.0002)	−562.016** (217.604)	−352.557* (193.318)
Market Capitalization	75.735 (111.857)	0.0004 (0.0002)	−367.806 (320.712)	−56.428 (338.720)
Leverage	336.215 (1,012.868)	−0.001 (0.002)	−1,643.178 (4,405.279)	−1,486.394 (3,242.612)
Profitability	488.022 (412.771)	0.002 (0.001)	−2,227.537 (1,792.640)	−1,644.385 (1,149.892)
Revenues	−166.385 (199.398)	−0.0004 (0.0004)	1,041.572*** (298.117)	706.244* (405.677)
Debt Service	352.014* (189.988)	0.001** (0.0004)	−1,514.513*** (486.022)	−691.506** (342.629)
Observations	511	511	511	511
Firms	144	144	144	144
R^2	0.228	0.373	0.385	0.395
Firm Fixed Effects	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓

Table shows results of entropy-weighted diff.-in-diff. regressions of political contributions.

Two-way clustered standard errors at the firm and year level in parentheses.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

uncertainty.

Placebo test. To what extent can we attribute these effects to capital flows themselves, as opposed to potentially confounding external factors or spuriously correlated trends in capital flows and firms' contributions? A placebo test assessing the effect of public external debt flows on contributions offers reassurance. Public external debt flows share the same external determinants (global capital cycles, interest rates, liquidity, and risk aversion) as private debt and equity flows, but they should not directly affect the financing constraints of private firms, since they reflect foreigners'

Table 4. Capital Flows and the Partisan Distribution of Campaign Contributions in Brazilian Presidential Elections, 1994–2014

	<i>Dependent variables:</i>			
	<i>Revealed rightism</i> (1)	<i>Relative revealed rightism</i> (2)	<i>Left contributions</i> (3)	<i>Right contributions</i> (4)
(a) Private External Debt Flow				
Private Ext. Debt Flow × Inv. Grade	−972.287** (413.088)	−0.002*** (0.001)	2,850.209*** (973.151)	1,620.704** (767.941)
(b) Portfolio Equity Flow				
Portfolio Equity Flow × Inv. Grade	−2,085.239*** (677.423)	−0.003*** (0.001)	4,132.743*** (1,223.173)	1,936.190*** (747.021)
Observations	511	511	511	511
Firms	144	144	144	144
Firm Fixed Effects	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓
Firm-Level Controls	✓	✓	✓	✓

Table shows results of entropy-weighted diff.-in-diff. regressions of political contributions.

Panel (a) shows effect estimates for private external debt flows and panel (b) for portfolio equity flows.

Two-way clustered standard errors at the firm and year level in parentheses.

Firm-level controls are included in the analysis, but omitted from the table for the sake of brevity.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

purchases of government debt. Table 6 shows estimates of the effect of net flows into public debt on all measures of partisan contributions. Columns 1 and 2 show results for the binary dependent variables that capture whether a firm contributed or not to right and left parties in a given election, while the remaining columns report results for the continuous measures. There is no evidence that public external debt flows affect firms' probability of making a contribution, nor is there any evidence that these flows have an effect on the amount that firms contribute to right and left parties (and their relative allocation). The null findings of the placebo test bolster the credibility of the original effect estimates and raise confidence in the posited mechanism. They indicate that corporate campaign contributions respond to capital inflows into the private sector but not to capital inflows

Table 5. Substantive effect of favorable international conditions on contributions to left and right parties

<i>Shock</i>	<i>Increase in contributions</i>			<i>95% CI*</i>
	<i>Left</i>	<i>Right</i>	<i>Left – Right</i>	
1 <i>SD decrease</i> in US interest rates	37,593	27,811	9,782	(–4,723; 34,252)
1 <i>SD increase</i> in private ext. debt flow	57,000	32,400	24,600	(1,040; 79,720)
1 <i>SD increase</i> in portfolio equity flow	57,800	27,100	30,700	(2,240; 68,642)

Notes: Contributions in constant 2010 US\$.

*Confidence interval around the difference between left and right contributions obtained from 5,000 bootstrapped samples.

into the public sector, which further reinforces the argument that international financial conditions influence campaign spending by affecting the borrowing constraints of private firms.

Foreign-currency investment-grade firms. To further probe the causal mechanism, I estimate the effect of international financial conditions on firms with a foreign-currency investment-grade credit rating, for which I expect larger effects. To take advantage of easier financing conditions in international capital markets, firms must have the confidence of creditors, who expect loans to be repaid and investments to yield promised returns. Firm creditworthiness is thus a critical determinant of access to international financial markets. So far the analysis has not distinguished between ratings in local and foreign currency. Foreign currency ratings, however, have more stringent criteria, since firms that finance themselves in foreign currency must bear additional risks (e.g. currency mismatch risk due to exchange rate movements) that firms that use local currency financing do not face. A foreign-currency investment-grade rating, therefore, confers direct access to foreign credit markets to the most creditworthy firms. As such, exposure to international financial conditions should be highest among this group of firms.

The results confirm that effects are larger and estimated with greater precision when using foreign currency ratings as the treatment exposure variable. The effect estimates are larger for all three types of financial shocks (US interest rates, private external debt flows, and portfolio equity flows) and for all outcome measures. These additional results further support the interpretation that the effect of global conditions on campaign contributions work through the borrowing of firms with

Table 6. Placebo Test: Public External Debt Flows and Campaign Contributions in Brazilian Presidential Elections, 1994–2014

	Binary DVs		Continuous DVs			
	<i>Contributed Left</i> (1)	<i>Contributed Right</i> (2)	<i>Revealed rightism</i> (3)	<i>Relative revealed rightism</i> (4)	<i>Left contributions</i> (5)	<i>Right contributions</i> (6)
Public Ext. Debt Flow × Investment Grade	0.002 (0.002)	0.002 (0.001)	−191.346 (397.801)	−0.0004 (0.001)	1,363.167 (1,009.826)	1,606.082 (1,173.316)
Observations	511	511	511	511	511	511
Firms	144	144	144	144	144	144
R^2	0.488	0.458	0.223	0.361	0.377	0.394
Firm Fixed Effects	✓	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓	✓
Firm-Level Controls	✓	✓	✓	✓	✓	✓

Table shows results of entropy-weighted diff.-in-diff. regressions of political contributions.

The binary dependent variables indicate whether or not a firm made a contribution to left and right parties.

Two-way clustered standard errors at the firm and year level in parentheses.

Firm-level controls are included in the analysis, but omitted from the table for the sake of brevity.

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

direct access to international capital markets. Importantly, the boost in contributions to left parties is even larger for foreign currency investment grade firms, which further indicates that Brazilian left parties benefit disproportionately from global credit booms.

Robustness checks. The results are robust to a host of alternative specifications and measurement choices. First, I assess whether the findings are sensitive to the sample selection strategy. The main analysis restricts the sample to those firms that were publicly-listed in 1994, because the control group is reweighted to achieve balance on pre-treatment (1990–1994) values of the dependent variable and firm-level financial indicators. While this strategy enhances the internal validity of the design, there is a concern that the findings may be unrepresentative of the growing population of publicly-traded firms in the period under analysis. The results might also be sensitive to the omission of firms that went public at a later time if there are any systematic differences between younger and older public companies. Nonetheless, the findings hold when using the full, unweighted pop-

ulation of publicly-traded firms in the 1994–2014 period.

I further account for firms' sector of activity. Firms in different sectors may have different incentives to contribute. Firms in highly regulated sectors or in sectors that rely on government contracts, for example, are more likely to invest in access to policymakers (Grier, Munger, and Roberts, 1994; Hart, 2001; Bonica, 2016). To the extent that left governments favor more active regulation of the private sector and more government spending, some sectors may have a greater incentive to curry favor with left parties to obtain favorable regulation and special access to government contracts. It is therefore important to account for sectoral differences in campaign spending. I use entropy reweighting to achieve balance on the sectoral composition of the treatment and control groups, using Economatica's sector classification. The results are robust to this reweighting scheme. Finally, I check the results' sensitivity to the measurement of party ideology using alternative data from Baker and Greene (2011), which cover Brazilian parties that have fielded presidential candidates in the period. The conclusions remain the same. Results for the robustness checks are included in the Supplementary Information.

6 Conclusion

Does financial globalization affect partisan competition in national elections? This study shows that in a world of international capital mobility, developments in international capital markets have an effect on the financing of election campaigns. Firms that have access to global capital markets can raise capital when international financial conditions are favorable, which enables them to increase spending. Among other things, benign conditions in global credit markets enable firms to expand their financial support to political parties and candidates for office.

Importantly, I show that the effect of international conditions, from global interest rates to capital flows, is larger for left parties compared to right parties. Evidence from Brazilian elections indicates that the left receives a larger boost in contributions from the excess capital in global markets. The evidence is consistent with my claim that, while baseline business contributions to the right are typically higher, the easing of firms' financing constraints, due to improving conditions in interna-

tional credit markets, enables firms to not only increase spending on right parties, but also to invest more in access to the other side of the aisle. The argument and findings have several implications for the study of financial globalization.

First, this research underscores the relationship between financial globalization, corporate influence, and electoral politics in the developing world. For those studying elections from a strictly domestic perspective, this article joins the growing chorus of scholars that draw attention to the international economic sources of national electoral politics (e.g. [Kayser, 2007](#); [Campello and Zucco, 2015](#); [Arias, 2016](#)). For those examining the effect of financial globalization on domestic politics, this article documents an important mechanism that connects international financial conditions to electoral competition. Beyond aggregate analyses, I provide microfoundations for the causal link between global finance and corporate political contributions.

Second, these findings highlight the differential constraints that financial globalization imposes on left and right parties. Existing work shows that poor international macroeconomic conditions can hinder the electoral chances of the left (e.g. [Kayser, 2009](#); [Campello, 2015](#)). This article suggests that left parties may face yet another constraint. While the results indicate that an easing of firms' financing constraints translates into an easing of left parties' financing constraints, they do not imply that left parties are net beneficiaries from global financial integration. If, on the one hand, left parties benefit proportionally more from favorable international conditions, on the other hand, they are also more strongly hurt by unfavorable developments in international markets. In short, left parties' finances suffer more when international credit dries up.

Finally, this research reminds scholars of the need for broadening the scope of research on financial globalization and corporate political behavior. Political scientists often argue that economic globalization empowers corporate actors, but we have scarce scientific documentation of that relationship beyond the developed world. Outside of data-rich settings, such as in the study of campaign finance and lobbying in the United States and a handful of other developed economies, there have been few opportunities to directly observe firms' political behavior. This article thus emphasizes the importance of careful data collection in varying political and economic contexts. Broadening

the scope of research on firms and financial globalization would allow scholars, among other things, to systematically investigate interactions among global forces, domestic institutions, and firm-level behavior. This study represents a push in that direction.

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