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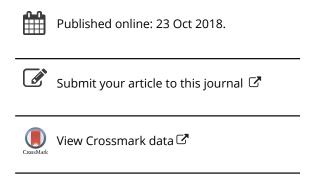
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ARTICLE



Does democracy promote capital account liberalization?

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ABSTRACT

Conventional wisdom maintains that democracy promotes market-oriented economic reforms. This paper argues that democracy's effect on economic liberalization hinges on international-systemic factors. To develop this argument, we focus on one important reform issue: capital account liberalization. We hypothesize that the level of financial openness abroad moderates the relationship between democracy and financial policy at home. An open global financial system increases societal support for capital account liberalization and incentivizes democratic leaders to liberalize the capital account. Analyses of country-level panel data demonstrate that democracy is only positively associated with capital account openness when proximate countries maintain open capital markets. Firm-level survey data and an illustrative case study of Argentina provide support for the mechanisms by showing that policy choices abroad influence domestic support for capital account liberalization. Our findings suggest that integrating domestic- and international-level variables in a single framework improves our understanding of the political economy of reform.

KEYWORDS

International finance; capital controls; capital account liberalization; economic reform; political institutions; developing countries

Introduction

Why have some developing countries adopted market-oriented economic reforms over the past four decades while others have resisted liberalization? One leading explanation focuses on the role of political democracy. Democratization promotes reform by making governments more responsive to the members of society that prefer market-oriented policy change. Statistical studies show strong positive correlations between democracy and comprehensive measures of economic liberalization (Giuliano, Mishra, & Spilimbergo, 2013), as well as strong relationships with reforms in specific

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issue-areas, including privatization (Biglaiser & Danis, 2002), trade liberalization (Milner & Kubota, 2005), openness to foreign direct investment (Pandya, 2014) and capital account liberalization (Eichengreen & Leblang, 2008; Milner & Mukherjee, 2009; Quinn, 2000).

This paper argues that democratization does not invariably promote economic reform. Rather, democracy has a conditional relationship with economic liberalization. Our evidence suggests that the impact of democracy on the likelihood of liberalizing policy change depends on the global policy context.

We develop this argument by focusing on the important issue of international financial-market openness in the developing world. We have strong substantive reasons to do so. Whether to implement or remove capital controls remains one of the most controversial policy choices facing governments. Proponents of capital account liberalization claim that it promotes economic growth (e.g. Klein & Olivei, 2008) while others blame unfettered capital market openness for financial crises (e.g. Reinhart & Rogoff, 2009).

There are also important theoretical and empirical reasons to investigate the impact of democracy on capital account openness. The state of theory linking democracy and capital account openness is 'seriously underdeveloped' (Milner & Mukherjee, 2009, p. 174). The existing empirical evidence on this question is murky. The few empirical studies that have focused on this relationship find that democracy contributes to capital account liberalization (Eichengreen & Leblang, 2008; Milner & Mukherjee, 2009; Quinn, 2000). However, other studies that include democracy as one of several variables of interest or merely include it as a control variable have produced mixed results. Some of these works find a positive association between democracy and capital account openness (Brune, Garrett, Guisinger, & Sorens, 2001; Eichengreen & Rose, 2014; Quinn & Toyoda, 2007), some report statistically insignificant relationships (Chwieroth, 2007; Guisinger & Brune, 2017; Mukherjee & Singer, 2010; Pepinsky, 2012) and others find that democracy has a statistically significant but negative association with capital account openness (Aizenman & Noy, 2009; Burgoon, Demetriades, & Underhill, 2012; Joyce & Noy, 2008).

Our main argument is that the effect of democracy on capital account openness depends on the external capital policy context, which we conceptualize as the intensity of capital controls used by other countries in the international system. Democratic institutions are more likely to promote policy liberalization when there is public support for openness, and the public is more supportive when other countries - especially economic partners and cultural peers - maintain open capital markets. We highlight three channels through which financial openness abroad increases levels of public support for capital account liberalization at home: the economic benefits of liberalization increase for households and firms that borrow money; individual savers gain more opportunities to diversify their investment portfolios; and voters are likelier to believe that controls are ineffective and inappropriate. Hence,

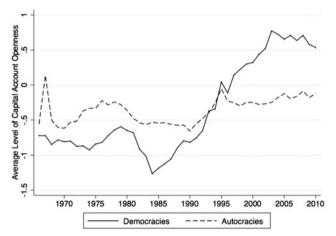


Figure 1. Democracy and capital account openness in the developing world. *Note:* Democracies (non-democracies) are defined as country-years with Polity2 scores of 6 or above (5 or below). The vertical axis presents the mean of the ckaopen measure of capital account openness for each group, re-scaled so that the minimum value for this variable is zero.

increasing the level of democracy is likely to spur liberalization when a country's partners and peers are already open to cross-border financial flows.

Figure 1 provides some preliminary evidence in favor of this argument. Using data for a large sample of developing countries, the figure compares the average level of capital account openness for democracies and non-democracies. Consistent with the conventional wisdom, democracies have maintained fewer capital account restrictions than non-democracies since the mid-1990s. However, democracies also had, on average, more intense capital controls than autocracies between 1966 and 1992. The relationship between democracy and capital account openness is clearly unstable over time, and the shift in this relationship coincides with the transition from a relatively closed international financial system to a more open and integrated one.

Below, we test this argument more systematically using 'spatial lag' variables, which capture the degree of capital account openness among a country's neighbors, commercial partners, capital competitors and cultural peers. We find a strong positive association between democracy and financial openness – but only when 'proximate' countries maintain open capital account policies.

In addition to showing that democracy has a conditional relationship with capital account openness, we present additional evidence that empirically illustrates the three causal mechanisms. We use firm-level survey data from a large number of developing countries to evaluate the argument that borrowers benefit more from capital account liberalization when proximate countries have open financial systems. Consistent with this argument, we find that capital account openness improves firms' access to credit when neighboring countries have open capital accounts, but not otherwise. An illustrative case study of Argentina demonstrates the operation of the other mechanisms underpinning the conditional effect of democracy on capital openness. We

show, using newly available individual-level survey evidence, that Argentine savers were an important pro-liberalization constituency. In addition, Argentina's mass media frequently emphasized that the country's capital controls put it out of step with most of its neighbors, which likely contributed to voters' perception that capital controls are an undesirable policy.

Our theory and evidence make a number of important contributions to theories of comparative and international political economy. First and most directly, this research enriches our understanding of the relationship between democracy and economic liberalization. Our data show that democracies in the developing world adopt more market-oriented policies in some, but not all, contexts.

Second, the paper contributes to the emerging literature on the interaction between domestic and international-systemic forces (Chaudoin & Milner, 2017; Chaudoin, Milner, & Pang, 2015; Farrell & Newman, 2016; Oatley, 2011). While our findings suggest that domestic institutions are important drivers of foreign economic policy, they also illustrate the limitations of purely domestic-focused approaches to International Political Economy (IPE), which have dominated the field (Lake, 2009). Similarly, our findings cast doubt on the standard assumption in the open-economy politics approach that voters and firms' preferences are constant across space and time. The evidence we present is more consistent with historical institutionalist approaches to preference formation, which recognize that contextual factors, such as the global policy context, can shape actors' policy preferences (e.g. Farrell & Newman, 2010; Steinberg, 2015).

Finally, this paper contributes to the literature on cross-border policy diffusion by highlighting one pathway for the diffusion of liberalization that most scholars have overlooked. Standard explanations for the cross-national diffusion of liberalization emphasize the interests and beliefs of elite-level policy-makers. Our evidence suggests that policies can spread across borders for a different reason: reforms in one country alter the preferences of societal actors in another country, tipping the political balance in favor of liberalization.

Democracy and capital account openness

The liberalization of cross-border financial flows in developing countries over the past several decades has been shaped by a variety of factors. Technological innovations in financial markets may have facilitated financial-market integration by making it easier for investors to evade controls (Bryant, 1987). The United States and EU have sought to promote liberalization by making open capital accounts a provision in bilateral trade and investment agreements (Rodrik, 2018; Waibel, 2009). Economic crises have put pressure on governments to adopt policies that are friendlier to international investors (Haggard & Maxfield, 1996; Pepinsky, 2012). Rising levels of capital account openness are also related to the rise of 'neoliberal' policymakers and the spread of pro-market ideologies (Chwieroth, 2007; Quinn & Toyoda, 2007). Without denying the potential importance of these and

myriad other factors, our goal in this paper is not to develop a comprehensive explanation of capital account policy. Rather, we seek to improve our understanding of how, when and why one key factor - a country's political regime type - influences capital account openness.

Our central argument is that democracy has a conditional effect on capital account liberalization, which is defined as the removal of 'capital controls', or restrictions on residents' ability to conduct financial transactions with nonresidents. The key feature of democracy is the use of competitive elections to select leaders (Przeworski, 1999). Democracies have bigger 'selectorates': a large subset of the country's population participates in the selection of the country's leadership. Democratic regimes also have large 'winning coalitions', meaning that incumbents need support from a large subset of citizens. In autocratic regimes, by contrast, only a small set of insiders can influence the incumbent government's prospects for political survival and shape policymaking (de Mesquita, Morrow, Siverson, & Smith, 2000). Democratic leaders are thus more responsive to the policy preferences of average citizens and collective interests, such as labor organizations (Mosley & Uno, 2007) and producer groups (Weymouth, 2012).

As a result, democracies are likely to adopt different financial policies from autocracies (see, e.g. Bearce & Hallerberg, 2011). Whether democracies maintain more or fewer controls over the financial system than autocracies hinges on the degree of societal support for capital controls. Democracies will maintain more intense capital controls than dictatorships if members of the democratic selectorate prefer restrictions. Conversely, if many individuals, firms and other diffuse interest groups favor liberalization, then democracies should on average be more open to capital flows.³

There are several reasons why elected officials and policy-makers are likely to pay attention to societal preferences when making decisions about capital account policy. First, if citizens strongly oppose the government's policies in this area, they may be more likely to vote against the incumbent at the next election. Capital controls were a salient partisan issue in several recent national elections, including in Iceland in 2013 (Sigurgeirsdóttir & Wade, 2015) and, as we detail in the case study below, in Argentina in 2015. Further, many developing democracies are heavily 'dollarized', meaning that many residents maintain dollar-based bank accounts and households and firms frequently borrow in foreign currencies (Levy-Yeyati, 2006; Reinhart, Rogoff, & Savastano, 2014). In countries where foreign currency-denominated deposits or loans are widespread, policies that restrict citizens' ability to conduct these international financial transactions will have tangible personal consequences, and capital controls are more likely to become a politically salient issue for average people.

Second, organized interest groups lobby for their preferred capital policies in democracies. For instance, business associations, labor unions, and nongovernmental organizations were actively involved in recent debates over whether to intensify capital controls in Brazil, Chile, South Korea and South Africa (Gallagher, 2015). These actors are more likely to gain access to policy-makers in democratic than in autocratic settings. Elected officials want to avoid public criticism from organized interests because negative media reports might impact voters' evaluations of the government's competence.

Finally, even when public interest in capital controls is low, policy-makers in democracies still have strong incentives to anticipate how the policy affects societal interests. As we elaborate below, capital controls have important effects on a variety of economic outcomes. Incumbent governments are likely to consider which types of international financial policies will deliver favorable financial-market outcomes for voters. Thus, elected officials consider voters' interests toward capital controls even when voters pay little attention to the issue. In sum, democracy contributes to financial openness when diffuse societal groups support this policy or when politicians expect them to benefit from it.

The external policy environment and domestic interests

Under what conditions do citizens and firms prefer an open capital account? Capital controls pose important tradeoffs for countries and their citizens. Generally, the main benefits of capital controls are macroeconomic in nature while the costs are microeconomic (Epstein, Grabel, & Sundaram, 2005, p. 331). It is not obvious whether the benefits of capital controls outweigh the costs for members of the selectorate in a democracy. Thus, there is little reason to expect democracy to have an unconditional positive or negative relationship with capital account openness. However, democracy is likely to contribute to liberalization when a sizeable proportion of the selectorate believes that they will benefit from openness.

While there are many factors that shape public support for economic reforms, we focus here on one factor that should influence public preferences over capital controls: the degree to which other countries regulate international capital flows. We argue that the external capital policy environment shapes the preferences of domestic interest groups and therefore moderates the relationship between democracy and capital account liberalization. Our central hypothesis is that increases in the level of democracy promote capital account liberalization when other countries are already open to international capital flows. By contrast, we do not expect democracy to contribute to capital account liberalization in more closed international contexts.

Our conceptualization of the external capital policy environment recognizes that not all foreign countries' policies exert an equally important effect on domestic interests. Bordering neighbors, major trade and investment partners, economic competitors, and cultural peers are more relevant than distant countries that have fewer connections to the home country (Simmons, Dobbin, & Garrett, 2006). We argue below that voters and firms become more supportive of financial openness when foreign countries with close connections to or similarities with the home country remove capital controls.

We lay out three mechanisms by which rising levels of capital account openness in foreign countries should increase public support for capital



account liberalization at home. First, capital account liberalization is beneficial for borrowers, and the benefits grow as foreign countries become more open to international capital flows. Second, households with savings benefit from an open capital account, but those benefits can only be realized when foreign countries are welcoming to foreign capital. The third channel involves citizens' perceptions of the desirability of this policy: the removal of capital controls in proximate countries makes it more likely that voters will view liberalization at home as an appropriate and effective policy. While there may be additional factors at work beyond the three that we focus on here, rather than generate an exhaustive list of mechanisms we choose to develop and then test for the role of three potentially important channels.⁵

The interests of borrowers

Policy-makers in developing democracies may open up their financial systems to increase residents' access to credit. Capital controls by design make it costlier for individuals and businesses to borrow money. Since capital is relatively scarce in developing countries, interest rates tend to be higher at home than in developed countries where capital is abundant. Opening up financial markets lowers the cost of borrowing for citizens of developing countries (Forbes, 2007b, pp. 179-180; Henry, 2007, p. 887). Capital account liberalization also improves firms' access to cheaper capital, and evidence shows that these benefits are particularly important for small- and medium-sized firms (Alfaro, Chari, & Kanczuk, 2017; Andreasen, Schindler, & Valenzuela, 2017; Forbes, 2007a; Gallego & Hernandez, 2003; Laeven, 2003).6

Democratic policy-makers have an interest in expanding the supply and reducing the cost of credit. As Menaldo and Yoo (2015, pp. 727, 729) point out, 'the majority of the population benefits from...cheap credit' because 'without access to credit, poor individuals usually cannot afford to pay up front for their homes, consumer durables, higher education, and job training'. In fact, almost half of the developing world's population (44%) reported borrowing money in the year 2014 (Demirguc-Kunt, Klapper, Singer, & Van Oudheusden, 2015). Democratically elected officials are likely to respond to the preferences of small borrowers who 'can vote for politicians who promise to increase the amount of credit or to improve the terms on which credit is granted' (Calomiris & Haber, 2014, p. 53).

The external policy environment influences how much borrowers gain from opening the capital account. Removing restrictions on cross-border financial flows is more beneficial to borrowers when foreign governments also permit these transactions. Borrowing from international markets is only feasible when the investment-source country's government permits capital outflows. Thus, when a country's commercial partners are financially open, borrowers benefit more from capital account liberalization at home. Consistent with this intuition, evidence shows that liberalization has a significantly larger effect on the volume of foreign bank inflows when investmentsource countries are open (Ghosh, Qureshi, & Sugawara, 2014). In open

global capital policy environments, borrowers stand to gain from greater openness at home - and elected officials, in turn, have incentives to liberalize the capital account.

The interests of savers

Savers are another diffuse societal group that can benefit from capital decontrol. Opening the capital account allows savers to construct internationally diversified investment portfolios (Freeman & Quinn, 2012). This can be especially important for members of the 'banked' middle classes in emerging market and developing countries because it allows them to limit their exposure to their national financial systems. Since the risk of domestic debt and banking crises is often substantial in these countries, 'domestic savers might find it optimal to send part or all of their savings abroad' (Broner & Ventura, 2016, p. 1500).

Openness also benefits savers in the developing world because it enables them to export their capital during periods of high inflation or rapid currency depreciation. When capital controls make it too costly for savers to move their money out of the country, rising inflation means that these individuals have little choice but to watch the real value of their savings erode.

Savers benefit more from capital account liberalization when foreign governments are financially open. Local savers only benefit from the removal of capital controls when the countries where savers seek to send their capital are open to foreign capital inflows (Freeman & Quinn, 2012). By contrast, liberalization by the home government does not help savers much if foreign governments restrict access to their financial markets. Ghosh et al. (2014) demonstrate that openness spurs capital outflows only when potential recipient countries are themselves open to inflows. In open international financial systems, where savers stand to gain from openness at home, democratic leaders have incentives to eliminate capital controls.

Perceptions of appropriateness and effectiveness

In addition to altering the economic interests of firms and households, changes in the external policy context also influence residents' perceptions of the appropriateness and effectiveness of liberalization. Capital account policies in foreign countries reveal information to voters about the desirability of those policies. Public support for openness at home increases when countries' partners and peers have open capital markets.

Citizens often evaluate their home government by comparing it to the performance and policies of foreign governments (e.g. Kayser & Peress, 2012). Voters are more likely to view policies that have been adopted elsewhere as legitimate and effective (Linos, 2013; Pacheco, 2012). Studies of American public opinion provide evidence that external adoption of a policy increases local public support for the policy. Gilardi, Shipan, and Wueest (2016) show that the adoption of a policy in neighboring jurisdictions affects how the policy is defined and understood in public debates. Focusing on the state-level adoption of smoking restrictions, Gilardi et al. (2016) show that several concerns about anti-smoking legislation, such as the potential harmful effects on restaurants and incompatibility with individual rights, lose salience in public debates after contiguous states adopt this policy. More direct evidence is presented in Pacheco (2012), which shows that Americans became more supportive of smoking restrictions in their home state after nearby states implemented restrictions. Survey experiments on Americans' attitudes toward social policies also support this conjecture: informing voters that other countries have adopted a policy dramatically increases support for adopting the policy at home (Linos, 2013).

Since policy-makers in democracies must publicly justify their choices, they often point to other countries' policies as a way to sell a policy change to the home audience. When a policy has not yet been widely adopted, 'it is actors who wish to introduce... [the] policy, who need to demonstrate that these policies are needed, appropriate and politically feasible'; after a policy becomes widely adopted 'the burden shifts to actors who do not want the policy to be introduced' (Gilardi, 2012, pp. 467-468). Elected officials will have an easier time 'selling' capital account liberalization when most peer countries have already liberalized. The same officials may be reluctant to be the first among their peers to enact financial reforms out of fear that this will lead their domestic opponents to paint the government's policies as radical or inappropriate. In Linos' (2013, p. 2) words, when 'many familiar countries have made the same policy choice, and ... [it has become] the international standard, an incumbent who borrows this policy will send a strong signal of competence and mainstream values'. Even if societal groups do not view the capital controls issue exclusively through the lens of economic self-interest, democratic policy-makers still have strong incentives to adopt international financial policies that are popular outside a country's borders.

Summary and testable hypotheses

To reiterate, our main argument is that democracy has a conditional impact on capital account openness. Liberalization is beneficial to borrowers and savers and voters are likely to believe that liberalization is appropriate and effective when the international environment is open. For these reasons, we expect to find that increases in the level of democracy increase the degree of capital account openness at home when other countries have open capital accounts.

The theoretical arguments generate more ambiguous expectations about the effects of democracy on capital openness in relatively closed international environments. While borrowers and savers are likely to benefit whenever their government removes controls on capital flows, these benefits are more limited when the barriers abroad are very high. Additionally, when controls abroad are widespread, voters may believe that liberalizing the capital account would be an ill-advised reform. In sum, the interest-based mechanisms suggest that voters weakly support liberalization when the international capital policy environment is closed, and the third mechanism implies that voters may actually prefer to maintain controls in closed environments. Thus, in relatively closed environments, the impact of democracy on capital account openness is likely to be either weakly positive or slightly negative, depending on the relative strength of the various causal mechanisms.

The remaining sections of the paper test this argument. First, we test the main hypothesis about the conditional effect of democracy using countrylevel panel data. We then examine the causal mechanisms more directly. We use cross-national survey data at the level of the firm to test the implication that capital account liberalization is perceived to be more beneficial to borrowers when proximate countries are open. Qualitative evidence from the case of contemporary Argentina - a democracy that maintained more stringent capital controls than most other countries between 2011 and 2015 illustrates the other two channels. We show that the interests of borrowers and voters' perception that their country's policies are out of step with their regional peers were two important sources of support for capital account liberalization in this case. The qualitative evidence also establishes that public opinion can influence decisions about financial reform.

Evidence from country-level data

Data and methodology

To assess the relationship between democracy and capital account policy, we constructed a dataset consisting of a large number of low- and middleincome countries between 1960 and 2011 (though the main model we present utilizes data for a slightly shorter time period of 1967–2010).⁷ The advanced industrialized countries are excluded because the sources of capital account liberalization are likely to differ in these economies where capital is relatively abundant and domestic financial systems are less volatile.8

To measure the dependent variable, capital account openness, we use Karcher and Steinberg's (2013) CKAOPEN variable. CKAOPEN is defined as the first principal component of four indicators of capital account policies: multiple exchange rates, current account restrictions, requirements to surrender export proceeds and capital account restrictions. 10

Our first independent variable of interest is the degree of democracy. We use the Polity2 score (DEMOCRACY), which ranges from -10 for the least democratic countries to +10 for full democracies (Marshall & Jaggers, 2007).

The external capital policy environment is the third key variable. Drawing from the literatures on policy diffusion and spatial econometrics, we measure countries' external capital policy environments by constructing spatial lag variables. 11 The spatial lags are weighted averages of the level of capital account openness in foreign countries. We use weighted averages because not all foreign countries are of equal importance to the home country.

A key challenge in constructing spatial lags involves deciding upon appropriate weights. We present results using a variety of weighting schemes, but our baseline measure weights foreign countries based on their geographic proximity to the home country. This spatial lag variable is calculated as: $\sum_{j\neq i}^{n} _{\text{CKAOPEN}_j} \times \frac{_{\text{PROXIMITY}_{ij}}}{\sum_{j\neq i}^{n} _{\text{PROXIMITY}_{ij}}}$. This measure weights international capital

account openness by the relative geographic proximity between two countries, i and j, calculated as the inverse geographic distance between them divided by the sum of all distances between country i and all other countries.¹²

It is useful to weight countries on the basis of their geographic proximity because neighboring countries typically interact more than countrypairs that are farther from one another geographically. Compared to countries that are physically distant, neighboring countries tend to have significantly higher levels of bilateral portfolio capital flows (Papaioannou, 2009; Portes & Rey, 2005), higher volumes of international trade (Santos Silva & Tenreyro, 2006) are more likely to be compared to each other by foreign investors (Brooks, Cunha, & Mosley, 2015), and receive more coverage from the domestic media (Wu, 2003). Another advantage of geographical weighting measures is that they are not endogenous to the values of the economic variable being spatially weighted (LeSage & Pace, 2011, p. 18). 13 Importantly, as we show below, our main results are consistent across the variety of different weighting schemes, including those based on trade ties, investment ties, shared religion and similarity of credit ratings.¹⁴

Our models also include a multiplicative interaction term between democracy and the spatial lag variable. We expect the interaction term to be positively signed, indicating that democracy promotes capital account liberalization when the spatial lag takes on high values (indicating that proximate countries have open capital accounts). Our expectation that democracy does not promote capital account openness in highly closed external policy environments implies that the lower-order coefficient for the democracy variable should be small in magnitude and/or statistically insignificant.

We control for several variables that may influence capital account policy and are likely to be correlated with democracy and/or the spatial lag. Macroeconomic controls include the level of economic development (natural log of GDP PER CAPITA), the size of the economy (natural log of REAL GDP), trade dependence (TRADE/GDP) and the rate of consumer price inflation (natural log of INFLATION). 15 These data are obtained from the World Bank's World Development Indicators database.

We estimate our models using ordinary least squares (OLS). All covariates, including the spatial lags, are lagged by one year because we expect these factors to operate with a time lag. 16 Our models include country fixed-effects to account for the possibility that unmeasured country-specific attributes influence international financial policies. In addition, our models include a lagged-dependent variable to address serial correlation of errors. Although the inclusion of both a lagged-dependent variable and unit fixed-effects

	(1)	(2)	(3)	(4)	(5)	(6)
	No spatial	Geographic	Trade	Investment	Investment	Shared
	lag	distance	partners	partners	competitors	religion
Democracy	-0.0004	0.002	-0.003	-0.002	0.006*	0.003
	[0.002]	[0.002]	[0.002]	[0.002]	[0.003]	[0.002]
Spatial lag		0.044	0.001	-0.016	0.063**	-0.048*
		[0.045]	[0.016]	[0.021]	[0.026]	[0.028]
Democracy* Spatial lag		0.024***	0.009***	0.008***	0.006**	0.014***
		[0.005]	[0.002]	[0.003]	[0.003]	[0.003]
Lagged-dependent	0.850***	0.833***	0.846***	0.847***	0.829***	0.843***
variable	[0.010]	[0.010]	[0.010]	[0.010]	[0.012]	[0.010]
GDP per capita	-0.070	-0.095	-0.067	-0.109*	-0.205*	-0.098
	[0.060]	[0.063]	[0.061]	[0.062]	[0.105]	[0.060]
Trade/GDP	-0.0002	-0.0004	-0.0002	-0.000	-0.0002	-0.0003
	[0.0004]	[0.0004]	[0.0004]	[0.000]	[0.001]	[0.0004]
GDP	0.100**	0.091**	0.090**	0.131***	0.123*	0.127***
	[0.040]	[0.046]	[0.041]	[0.045]	[0.073]	[0.043]
Inflation	-0.030***	-0.021**	-0.030***	-0.030***	-0.048***	-0.025**
	[0.010]	[0.010]	[0.010]	[0.010]	[0.013]	[0.010]
Constant	-1.765***	-1.416*	-1.574**	-2.229***	-1.283	-2.230***
	[0.608]	[0.740]	[0.631]	[0.703]	[1.193]	[0.678]

116

44

3183

0.747

117

44

3229

0.746

116

31

2247

0.774

117

44

3229

0.748

117

44

3225

0.747

Table 1. The conditional effect of democracy on capital account policy.

Note: Standard errors are in brackets.

117

44

3229

0.746

Countries

R-squared

Observations

Vears

produces biased estimates, when the time-series is as long as it is in this analysis (T=44) the amount of bias is small and this estimator outperforms alternative estimators in terms of root mean square error (Beck & Katz, 2009). We report OLS standard errors because the inclusion of the spatial lag directly addresses the problem of contemporaneous correlation that panelcorrected standard errors (PCSEs) are designed to address. 17

Main results

Table 1 reports our main findings. In model (1), we include the democracy score without the spatial lag or the interaction term. On its own the democracy indicator does not have a strong association with capital account openness: the coefficient is negatively signed, but it is substantively small and above conventional levels of statistical significance (p > .1). Three covariates are statistically significant: the lagged capital account index is positive and significant, inflation is associated with tighter controls on the capital account, while larger economies tend to be more open.

Model (2) adds the spatial lag variable as well as the interaction between the spatial lag and democracy. Figure 2 presents the main substantive results of interest from this model: the marginal effect of democracy on capital account policy at different values of the spatial lag variable. 18 The results are consistent with our expectations. At low levels of global openness (the bottom 22% of observations of the spatial lag), democracies maintain significantly

p < .1, p < .05, p < .01.

more closed financial systems than autocracies. This negative effect is relatively small, however: at the minimum of the spatial lag, a 21-point increase in the Polity score is estimated to decrease CKAOPEN by 0.3. This negative relationship is most consistent with our perception-based mechanism, which posits that voters are likely to view capital controls as a desirable and legitimate policy choice when most of their peer countries maintain strict controls.

Democracy has a positive and statistically significant relationship with capital account openness when a country's neighbors retain few restrictions on cross-border capital flows (the top 37% of the distribution). The magnitude of this effect is also more substantial: at the maximum of the spatial lag, an increase in the level of democracy from the minimum to the maximum increases CKAOPEN by 0.6, which is roughly equivalent to the removal of one capital control measure. The evidence suggests that democracy only promotes capital liberalization in contexts characterized by international openness. This finding is consistent with all three of our causal mechanisms, and we present more direct evidence in support of each of the specific mechanisms below.

Our main conclusions change little when we use alternative weighting schemes to construct our measures of the global policy context.¹⁹ In models (3) and (4) of Table 1, countries are weighted based on their importance as trade partners and investment partners, respectively. The spatial lag in model (5) uses the average capital account openness scores for countries that have a similar credit rating to the home country. Countries with similar risk profiles should be more important because they help set standards for legitimate foreign economic policies and serve as competitors for investment (Brooks et al., 2015; Simmons & Elkins, 2004). The final model measures the external policy environment as the average level of openness for countries that share the home country's dominant religion. In studies of diffusion, countries with similar religious traditions constitute cultural peer groups (Simmons & Elkins, 2004). The interaction between democracy and the spatial lag is positive and statistically significant in all models. The conditional marginal effects from models (3) to (6) are also similar to those presented in Figure 2: the marginal effect of democracy is positive and statistically significant at high values of the spatial lag in all models, and the marginal effect has a statistically significant negative effect at low values of the spatial lag in three of the four models (see Figure A1 in the appendix). The similarity of results across the various spatial lags is consistent with our argument that increased openness in both economic partners and cultural peers increases the propensity of developing democracies to liberalize their capital accounts.

Moreover, as we shown in Tables A8-A17 of the appendix, our main results are also robust to the use of an alternative measures of capital account openness (Quinn, 1997); different measures of democracies (from Boix, Miller, & Rosato, 2013; Pemstein, Meserve, & Melton, 2010) and specifications that include additional covariates, such as the size of the domestic financial sector, the exchange rate regime, the current account balance, trade policy openness, the presence of left-wing governments, the number of veto players, participation in IMF programs and the (weighted) average level of

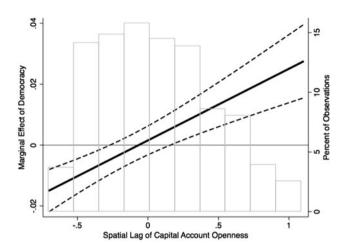


Figure 2. Marginal effect of democracy on capital openness.

democracy in a country's neighborhood. The results are also similar when we include a linear time trend or year fixed-effects in the model. In sum, we find robust evidence that democracy only promotes capital account openness in open global financial contexts.²⁰

Evidence from firm-level survey data

We have shown that the relationship between democracy and capital account openness depends on the international capital policy environment. In this and the next section, we move beyond these macro-level relationships by providing micro-level evidence in support of our proposed causal mechanisms.

Here, we provide evidence to evaluate our claim that the material benefits of capital account liberalization grow larger when peer and partner countries become more open to international capital flows. To do so, this section focuses on the role of one type of actor that is expected to benefit from liberalization under these conditions: borrowers. Our analyses of borrower interests rely on the World Bank's World Business Environment Surveys, which queried firms across the world about their perceptions of the business environment. We focus on several questions about firms' access to credit that were administered in the survey waves between 2002 and 2006. One limitation of these data is that it focuses only on firms. Firms are only one of several relevant societal actors in our argument; however, we lack cross-national opinion data that would enable us to test this mechanism at the level of individual voters. The firm-level survey data give us a partial but nonetheless useful way to test this proposed mechanism. 21 We test this hypothesis using three different measures of firms' interests. In the first model in Table 2, the dependent variable is the natural log of the annual interest rate that a firm pays on its loans.²² The dependent variables in the next two models capture firms' perceptions of their interests as borrowers. In model (2), we use firms' responses to a survey question about how large the cost of credit looms as a problem in the business environment. Model (3) examines the degree to which the availability of finance is an obstacle to business. These two outcome variables are based on firms' responses to questions about how large an obstacle these factors pose to their business. The response categories ranged from a minimum of zero (if firms report that these issues are not business obstacles) to a maximum of four (if these are considered a 'very severe obstacle' to business).

The main explanatory variables of interest are the degree of capital account openness in the home country, the distance-weighted spatial lag of capital openness, and a multiplicative interaction term between these two variables. We control for various firm attributes (sector, degree of foreign ownership and domestic private ownership, export status and the logged number of employees) and national-level factors (log of GDP per capita, and democracy) that are likely to influence the degree to which firms are concerned with financial-market outcomes and that may also be correlated with national financial policy.²³ Since the data include both firm-level and country-level covariates, traditional OLS specifications that ignore the interdependence of lower-level observations would lead to inflated significance levels for the country-level variables. We therefore use hierarchical models with random country and country-year level effects.²⁴

In model (1), the coefficient on CKAOPEN is positive and statistically significant and the interaction variable is negative and statistically significant. To illustrate this relationship, the left panel of Figure 3 plots the marginal effect of capital account openness at different values of the spatial lag. 25 Figure 3 shows that capital account openness has a negative and statistically significant relationship with interest rates at high values of the spatial lag. Thus, capital account openness is associated with lower borrowing costs for businesses when other countries permit cross-border capital flows. The beneficial effect presumably arises because, under these circumstances, liberalization allows local firms to tap into international capital markets, where the cost of credit is lower. By contrast, the marginal effect of capital openness is positive and significant when the spatial lag is at low values, meaning that liberalization at home is associated with higher borrowing costs for firms in closed external policy environments. One possible explanation for this result is that while capital account liberalization does not substantially expand firms' opportunities to borrow internationally when neighboring countries restrict capital flows, removing controls at home may exacerbate capital flight out of the national financial system, thereby reducing the availability of credit and raising borrowing costs. This evidence suggests that capital account liberalization is more beneficial for borrowers when the international financial system is more open.

Model (2) examines firms' perceptions of the degree to which financing costs are a problem. The middle section of Figure 3 presents the conditional marginal effects based on this model. The results are consistent with the first model. Openness at home makes firms more concerned about their financing costs when neighbors are relatively closed. When the spatial lag is at high values, by contrast, firms' concerns with the cost of credit decline as their country becomes more financially open.

Table 2. The effect of capital account policy on the business environment.

	(1) Interest rates	(2) Finance cost	(3) Finance access
Capital account openness	0.830***	1.275***	0.808
	[0.249]	[0.391]	[0.354]
Capital openness spatial lag	0.722	1.376	1.239*
	[0.286]	[0.430]	[0.436]
Interaction term	-0.360***	-0.530***	-0.378**
	[0.106]	[0.164]	[0.153]
Number of employees	-0.032***	-0.011**	-0.042***
	[0.003]	[0.006]	[0.004]
Domestic private ownership	-0.0004***	0.002***	0.0005**
	[0.0002]	[0.0003]	[0.0002]
Foreign ownership	-0.002***	-0.002***	-0.003***
	[0.0002]	[0.0004]	[0.0003]
Exporter	0.058***	-0.008	-0.013
	[0.010]	[0.020]	[0.015]
Service sector	-0.024**	-0.164***	-0.120***
	[0.012]	[0.021]	[0.014]
Agroindustry sector	0.039	-0.015	-0.016
	[0.042]	[0.061]	[0.052]
Construction sector	0.019	-0.026	0.014
	[0.019]	[0.033]	[0.023]
Other sector	-0.087*	-0.324***	-0.136**
	[0.049]	[0.076]	[0.054]
GDP per capita	-0.124**	-0.271***	-0.127
	[0.058]	[0.093]	[0.084]
Democracy	0.002	0.030**	0.018
	[800.0]	[0.013]	[0.012]
Constant	2.105***	0.575***	-0.347
	[0.689]	[1.000]	[0.985]
Variance: country-year	0.068	0.059	0.465
Variance: country	0.054	0.336	1.6e-8
Variance: residual	0.195	1.495	1.104
Observations	12,288	29,444	43,513

Note: Standard errors are in brackets.

We obtain similar results in model (3) and in the right panel of Figure 3, which uses firms' perceptions about their access to finance as the dependent variable. Capital account policy does not have a large or statistically significant effect on firms' concern with their access to finance in closed external policy environments. However, when a country's peers are financially open, firms are less concerned about financing costs when their home government has a more open capital account. Models (1)–(3) in Table 2 all suggest that firms tend to believe that capital account liberalization is in their interest as borrowers – but only when neighboring countries are open to international financial flows. The evidence presented in this section reveals that one benefit of capital openness – improved access to credit – is larger when neighboring governments have abrogated capital controls.²⁶

Qualitative evidence from Argentina

This section presents evidence from the case of Argentina to illustrate our second and third mechanisms, centered on the interests of savers and voters'

^{*}p < .1, **p < .05, ***p < .01.

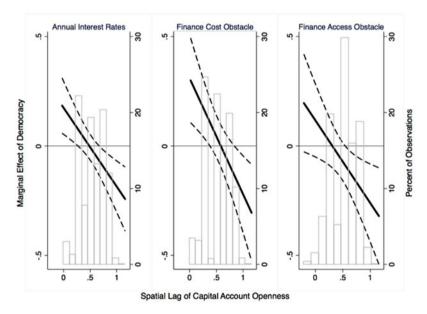


Figure 3. Marginal effect of capital openness on the business environment.

perceptions of the appropriateness of capital controls. The lack of cross-national data available for statistically testing the observable implications of these causal pathways necessitates the use of qualitative evidence from a single case. Case study research also has unique strengths, which we leverage here, including the ability to trace the causal processes connecting our variables of interest.

Our discussion of the Argentine case focuses on the politics leading up to Argentina's removal of stringent capital controls in December 2015. In the past 25 years, Argentina has been an electoral democracy in a region where most countries have been open to capital flows. Consistent with the expectations of our argument, Argentina was open to cross-border capital flows for most of the 1990s and 2000s.²⁷ However, the period of 2011-2015 was an important exception to this general trend. These controls were first implemented by the Peronist administration of Cristina Fernández de Kirchner in 2011, shortly after she won reelection, and were progressively tightened over the next four years. The most contentious element of the capital controls was the restrictions it placed on residents' ability to purchase dollars. Mauricio Macri of the center-right 'Let's Change' (Cambiemos) party dismantled the controls in December 2015, shortly after his election victory.

This case study has three main objectives. First, we evaluate whether savers, in line with our interest-based expectations, were likelier to oppose the controls. Second, the case examines how the country's outlier status in this issue-area became an important part of the political debate within Argentina. Third, the case study evaluates whether societal preferences influenced Macri's decision to liberalize the capital account. The following three sub-sections address each of these questions in turn.

Savers opposed capital controls

The post-2011 controls were unpopular with large segments of Argentina's population. Anti-government protests were a frequent occurrence between 2012 and 2015, and the exchange controls were a common grievance mentioned by the protestors. More systematic survey data also indicate that capital controls were an unpopular measure. The Argentine Panel Election Survey (Lupu, Gervasoni, Oliveros, & Schiumerini, 2015), a nationally representative survey fielded in June 2015, contains several questions about public attitudes toward economic policies, including one related to the most controversial capital control measures. Figure 4 compares the level of support for the capital controls with levels of support for four other 'statist' economic policies: barriers to international trade, price controls, state ownership and the Universal Child Allowance (a conditional cash transfer program). Only 42% of respondents expressed agreement with the capital controls, which is less than the number who supported import barriers (49%) and much less than the number in favor of the three other interventionist policies.

The Kirchner administration's capital controls were particularly burdensome for the nation's savers. The controls were designed to prevent Argentines from exchanging pesos for dollars – an increasingly common step taken by average citizens as mounting price inflation eroded the peso's purchasing power.³¹ The stringent controls, which required individuals to receive official approval from the national tax authority in order to obtain foreign currency, did not put an end to the capital flight. Instead, many chose to evade the regulations by purchasing dollars on the black market. However, doing so came at a substantial personal cost: buying dollars from illicit vendors was much more expensive than obtaining dollars at the official exchange rate.

The election survey data, referenced earlier, provide further evidence in support of the contention that opposition to the capital controls was

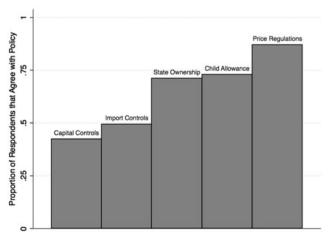


Figure 4. Comparing public support for different policy issues.

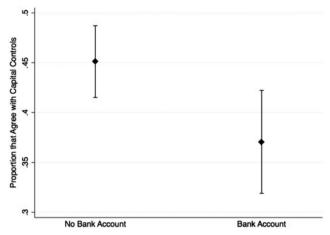


Figure 5. Bank account ownership and support for capital controls. *Note:* proportions of survey respondents with and without a bank account (roughly distinguishing between savers and non-savers) that reported agreement with the Argentine government's use of capital controls. The bars represent 95% confidence intervals around the estimated averages for both groups.

particularly great among Argentines with savings in the banking system. This survey includes a measure of whether individuals have a bank account. Although bank account ownership is not a perfect measure of whether an individual is a saver, individuals with bank accounts must have at least some savings whereas people without a bank account may not save at all. Figure 5 shows that Argentines with bank accounts are considerably more opposed to capital controls than citizens that do not have any bank accounts; this difference-in-proportions is statistically significant (p < .05).

How regional comparisons shaped voters' perceptions

Our argument suggests that public opposition to capital controls depends not only on citizens' economic interests, but also on non-material considerations, and in particular on a desire for policies to conform to those implemented by peer countries. This dynamic played an important role in debates over the appropriateness of capital controls in Argentina.

Opponents of the controls noted the absence of similar restrictions in most neighboring countries. During the electoral campaign, Macri promised that his currency reforms would make Argentina a 'normal country' again and he defended his proposal to liberalize the capital account on the grounds that 'we will remove something that no other country has'. Similarly, Federico Sturzenegger, Macri's central bank governor, wrote an editorial in a major national newspaper arguing that Argentina's more stringent capital controls is one of the reasons that the country has fallen behind its neighbor Uruguay in terms of per capita income. ³⁵

The mass media also regularly commented on the uniqueness of Argentina's exchange controls. One editorial in the conservative *La Nación* reasoned that

Argentina's capital controls are not necessary for growth because if that were true then 'Brazil, Chile, Uruguay, Colombia and Peru would also have capital controls'.36 Another article in that paper connected Argentina's 'bad international reputation' to the country's 'unusual' capital control policies.³⁷ An article in Clarín, Argentina's most widely read newspaper, contains a glowing description of the ease of exchanging currencies in Chile: 'When you arrive in the airport in Santiago, Chile ... there is a bank to buy and sell dollars. There are no questions or inquiries'. The article continues by noting that the ease of currency transactions is 'not a thing just for Chileans. It happens the same in almost all the world. But for an Argentine who comes from his "model", these experiences are like crossing to the other side of the mirror'. 38

The rarity of extensive capital controls elsewhere in the region - particularly in Chile and Uruguay, two countries that border Argentina - seemed to work in favor of proponents of liberalization. The recurring references to neighboring countries' capital account policies suggests, at a minimum, that elite-level actors expected this information to bolster support for capital account liberalization.

The electoral connection

Macri's decision to liberalize the capital controls shortly after entering office was driven in large part by public opposition to these measures. Argentina had severe macroeconomic imbalances when Macri took over the Presidency - a situation that exacerbates the risks of capital account liberalization. As a result, many Argentine elites advocated gradual liberalization. As one Argentine economist put it: 'you cannot remove the exchange controls if the money market is not cleared first'. ³⁹ For this reason, many expected Macri to back away from his campaign promise to quickly dismantle the capital controls. As one article explained, rapid liberalization 'is so fraught with risk and so logistically difficult that many outside observers insist that he won't really try to pull it off so quickly'. 40 Macri and his advisors even appeared to be moving in this direction after the election. 'Four years of exchange controls "cannot be resolved in a day", proclaimed Rogelio Frigerio, Macri's Interior Minister, immediately following the election. 41 Macri himself suggested that exchange controls would only be lifted 'once the situation is normalized'. 42

Ultimately, however, Macri liberalized the capital account soon after taking office. Public pressure to drop the most burdensome restrictions appears to be the most likely explanation for Macri's decision to quickly eliminate the capital controls. In a relatively open international context, concerns about the costs of the controls had become salient for a wide swathe of the Argentine public, and Macri seized the opportunity to garner support by taking a proliberalization position in the run up to the election. The demand for liberalization among segments of the voting public promoted a change that brought Argentina's capital policy back in line with the prediction generated by our core argument: in internationally open contexts, democratic regimes are likely to themselves adopt open capital accounts.

In this episode, electoral politics and an open external financial environment contributed to the turn toward capital account liberalization. Macri's incentive to liberalize would have been considerably weaker if Argentina was not a democracy, and the President did not have to contest any elections. Macri would also have been less likely to liberalize if Argentina's neighbors maintained stringent capital controls. Under those conditions, the media would not have been able to use regional comparisons to cast doubt on the legitimacy of capital controls, and the public would likely have been less hostile to capital controls. Historical patterns in Argentina during periods in which the international environment was more closed are also consistent with this expectation. The country's democratically elected Presidents in the 1970s and 1980s apparently did not feel strong domestic pressure to liberalize the capital account: both Perón and Alfonsín maintained strict capital controls throughout their tenures. Rather, both times that Argentina liberalized the capital account in the closed era (1967 and 1977) the country was under autocratic military rule. In sum, the case of Argentina illustrates how capital account policies depend on the interaction between domestic institutions and the external environment.

Conclusions

Over the past 40 years, many developing countries abandoned strict regulations over cross-border capital flows and embraced global financial integration. This paper examined whether transitions toward democratic government have helped propel this process of capital account liberalization. We argue that democracy does indeed promote capital account liberalization, but only under certain conditions. The international policy context moderates the relationship between democracy and financial policy because it influences whether local firms and voters favor or oppose capital controls.

We provided three types of evidence consistent with this theory. Using country-level data, we find that democracy is associated with financial openness in some conditions - specifically, when neighboring countries have open capital accounts. However, when neighboring countries maintain closed capital accounts, increasing the level of democracy tends to reduce the degree of capital account openness. Analyses of firm-level survey data showed that capital decontrol improves firms' access to credit, but only when neighboring countries are relatively open to cross-border capital flows. Qualitative evidence from Argentina revealed that savers have been an important pro-liberalization constituency in recent years, a period in which most of Argentina's neighbors had open capital accounts. The case study also showed that proponents of liberalization repeatedly referenced neighboring countries' open policies to justify their own pro-openness position. The extensive attention paid to other countries' policy choices and the evidence that democracy is associated with more intense capital controls under conditions of low global capital mobility suggest that policy choices abroad shape public perceptions about the desirability of various policy options.

Our findings have implications for the current debate over the use of capital controls as a 'prudential' policy. IPE scholars have observed that elite opinion became much friendlier to capital controls after the Global Financial Crisis erupted in 2008 (Gallagher, 2015; Grabel, 2017). Even the IMF now accepts the case for (limited) restrictions on cross-border capital flows - an ideational shift that has been likened to the Vatican endorsing contraception (The Economist, 2013). It may be the case that the dissolution of the pro-liberalization consensus gives developing country policy-makers more leeway to experiment with unconventional policies such as capital controls. However, our evidence suggests that the viability of controls depends on more than just the views shared by elites: the political sustainability of capital controls is jointly shaped by the presence of democratic institutions and the openness of the international capital policy environment. When openness prevails abroad, the political costs of imposing controls at home are sharper. As the Argentine case shows, incumbents that impose tight controls may be punished for that policy by angry voters come the next election cycle. These political considerations may help explain why there was only a modest shift toward increased restrictions on capital account transactions in the wake of the 2008 crisis despite the changing views of elites. One implication of our findings is that the open global financial system may be more difficult to re-regulate than has been previously appreciated.

These findings have three important implications for the political economy of market-oriented reforms in developing countries. First, the international context can affect the economic consequences of political regimes. We demonstrate that the relationship between democracy and capital account openness is not as simple as previous studies have suggested. Our main finding - that the effects of democracy are contingent on the global policy context – explains why previous work yielded ambiguous evidence on the relationship between democracy and financial openness. The finding serves as an important reminder that democracy does not always contribute to market-based policies.

Second, this paper has important implications for the literature on policy diffusion. Prior work on the international spread of economic policy liberalization typically assumes that elite policy-makers, largely insulated from domestic political pressure, choose whether to adopt or resist economic openness. Our theory and evidence points to a different mechanism through which policies can spread across countries: changing policy preferences at the societal level. Future research on the diffusion of market-oriented reforms would benefit from paying greater attention to how global policy changes can affect the preferences of voters and firms at the domestic level, as has started to occur in a study of the diffusion of social policy (Linos, 2013; Pacheco, 2012).

Finally, the paper suggests that scholars who are interested in understanding the drivers of policy liberalization risk making faulty inferences if they focus exclusively on either domestic- or systemic-level variables (see also Chaudoin et al., 2015; Oatley, 2011). This research provides further evidence that in an era marked by the globalization of national economies, it is essential to examine the interactions between systemic and domestic factors.



Notes

- 1. As Houle, Kayser, and Xiang (2016, p. 695) point out, 'the actors in international diffusion processes are most often elites who observe and then adopt or eschew policies from abroad'.
- 2. Linos (2013) and Pacheco (2012) also argue that societal preferences help account for policy diffusion, though their studies focus on social policy issues.
- 3. The concentrated interest groups that typically dominate economic policy-making in autocracies are unlikely to have unified preferences vis-à-vis capital controls. Many politically connected firms can benefit from capital controls because, in a closed financial system, the government showers them with subsidized credit and provides other rents (Giannetti & Ongena, 2009; Johnson & Mitton, 2003). However, other organized interests, such as the banking sector, are more likely to support the liberalization of some types of cross-border financial flows (Gallagher, 2015; Mukherjee, Yada, & Béjar, 2014; Pepinsky, 2013).
- Our argument does not, however, imply that the overall welfare effects of capital account liberalization are large and positive. It is likely that citizens pay more attention to the microeconomic benefits of liberalization, some of which are more direct, more tangible and more concentrated (e.g. access to cheap credit), than to the macroeconomic costs of liberalization (e.g. reduced monetary policy autonomy), which are less immediate, less well-publicized and tend to be spread more widely across the public.
- 5. We focus on microeconomic rather than macroeconomic consequences of capital controls for two main reasons. First, voters have difficulty connecting their personal interests to the macroeconomic effects of capital controls (Brooks & Kurtz, 2007, p. 705; Helleiner, 1994, p. 205). Second, while we have strong reasons to expect that liberalization abroad will intensify the microeconomic costs of capital controls, the macroeconomic benefits are less likely to change substantially. Rising international capital mobility increases the need for regulations over cross-border capital flows while at the same time reducing these regulations' ability to stabilize the macroeconomy.
- Small firms do not have large internal capital markets to tap into, and they rarely have the political connections necessary to reliably obtain cheap credit in closed financial systems. Large firms, by contrast, often benefit from capital controls because such controls make it easier for governments to channel subsidized credit toward 'crony capitalists' (Giannetti & Ongena, 2009; Johnson & Mitton, 2003).
- Summary statistics for the variables included in this dataset can be found in Table A1 of the Supplementary Appendix. The appendix also lists all the countries included in our main model specification.
- Importantly, however, we do use data on developed countries' capital account policies when constructing the spatial lag variables. Note also that including these countries in the main analyses does not alter our main findings (see Table A2 in the appendix).
- 9. A Dickey-Fuller test rejects the null of a unit root (p < .001). We also obtain similar results when the dependent variable is the first-difference of CKAOPEN (see Table A18).
- CKAOPEN is a modified version of Chinn and Ito's (2006) KAOPEN measure, which uses a five-year moving average of capital account restrictions. By including previous years' openness in the measure, KAOPEN can generate biased estimates (see Karcher & Steinberg, 2013).
- Our measurement strategy is similar to that of Simmons and Elkins (2004), Brooks and Kurtz (2012), and Guisinger and Brune (2017), who test the effect of spatial lag variables on capital account liberalization. None of these studies,



- however, examines the interaction between the diffusion variables and democracy, as we do here.
- Bilateral distances are drawn from the CEPII gravity database, and are calculated as the distance between each country's largest cities, weighted by the population shares of those cities relative to their country's total population. For a more in-depth description see Mayer and Zignago (2011). The calculation of the spatial lag follows the procedure outlined by Attfield, Cannon, Demery, and Duck (2000).
- By contrast, endogeneity problems potentially plague some of most widely used alternative weighting matrices. For example, capital account policies influence whether a country is a major investment destination and whether it receives a strong credit rating, making it more problematic to use these variables to determine country weights.
- One limitation of the geographic distance-weighted indicator is that it does not enable us to assess the relative importance of economic partners and cultural peers, but doing so is not our main objective. Instead, we aim to evaluate whether the international capital policy environment, defined broadly, moderates the relationship between domestic institutions and capital account policy.
- All negative values of INFLATION were set to 0 plus 1 prior to the log transformation.
- Lagging the spatial variables helps reduce simultaneity biases in OLS estimates of spatial effects (Franzese & Hays, 2008, p. 758). Simultaneity biases, however, are not likely to be much of an issue for our analyses because the estimated spatial effects are not especially strong, the spatial lag is only weakly correlated with the other explanatory variables, and the non-spatial variables have strong explanatory power. Franzese and Hays (2007) show that simultaneity biases from spatial OLS estimates tend to be small under these conditions. Moreover, our interest is not in evaluating the relative importance of spatial versus domestic variables, which is where these biases are most likely to arise.
- 17. The choice of standard error does not affect the interpretation of the results. PCSEs and country-clustered standard errors were similar in size to the OLS standard errors (see Tables A6 and A7).
- We obtain substantively similar results when using Hainmueller, Mummolo, and Xu's (2017) binning estimator and kernel estimator (see Figures A2 and A3) instead of the linear estimator.
- For more details on the construction of these variables, see Supplementary Appendix.
- In Table A19, we test for the possibility that the direction of influence runs from capital policy liberalization to the level of democracy rather than the other way around using the difference-in-differences approach from Giuliano et al. (2013). The results suggest that capital account liberalization does not produce improvements in countries' democracy scores.
- The median firm in the sample employs 23 workers. Firms of this small size are unlikely to have access to policy-makers in a dictatorship, and are more likely to be able to influence policy in democracies. Consistent with this intuition, Weymouth (2012) shows that firms are more likely to lobby and believe that they influence policy in more democratic countries.
- We use the logarithmic form of this variable because the interest rate series is highly skewed (the average interest is 15%, with a standard deviation of 207%).
- The Supplementary Appendix provides more detailed descriptions of 23. these variables.
- Although some of our outcome variables are ordinal, we focus on linear models because the substantive effects are easier to interpret. As shown in Tables A24 and A25, we obtain similar results using hierarchical logit and OLS with clustered standard errors.



- 25. The range of values on the spatial lag variable is much narrower, and higher on average, than in the country-level dataset because the firm-level dataset only includes data for years in which the global financial system was largely open.
- As a placebo test, we also examined the other 16 'business obstacle' questions that the World Bank asked firms. The results, shown in Tables A21-A23, indicate that capital account policies are not significantly related to business problem questions that have no theoretical link to capital controls.
- Argentina briefly deviated from its policy of financial openness when it imposed intense capital controls during a severe financial crisis in 2001-2002. However, Argentina's overall level of financial openness was high in the 1990-2010 period; for example, the mean CKAOPEN score for this period is 0.2. This compares to a mean score of -1.3 for Argentina's democratic governments between 1966 and 1989 - a period in which the global context was far more closed - and a mean of -0.4 for the country's military regimes. These broad patterns over time within Argentina are consistent with our findings in the cross-national statistical analyses, which makes this a useful case for in-depth analysis (Lieberman, 2005).
- See, for example, Cronista Comercial, Sep 12, 2012, http://www.cronista.com/ economiapolitica/Miles-de-personas-protestaron-en-Plaza-de-Mayo-y-varios-puntosdel-pais-20120913-0133.html (accessed Jan. 31, 2017); La Nación, Apr. 3, 2013 http://www.lanacion.com.ar/1572356-cristina-viajara-a-venezuela-horas-antes-delcacerolazo-del-18-a (accessed Jan. 31, 2017); La Nación, Nov 9, 2014 http:// www.lanacion.com.ar/1742470-convocan-por-las-redes-a-una-protesta (accessed Jan. 31, 2017).
- Specifically, the question asked whether respondents agreed with the policy that 'citizens need to obtain permission from the national government and pay taxes to purchase dollars'.
- The difference in proportion of respondents supporting the capital control compared to the trade restriction variables is statistically significant (p < .01).
- The dollar is the most popular foreign currency in Argentina for a number of reasons: the dollar is the world's number one reserve currency, Argentina is physically closer to the United States than it is to any other major reserve currency (e.g. Euro or British Pound), and the United States is one of Argentina's leading trade and investment partners.
- 32. Consistent with this assumption, there is a very strong correlation between bank account ownership and savings in Demirguc-Kunt et al.'s (2015) database, both in Argentina and globally.
- Using this dataset, Steinberg and Nelson (2016) shows that 'financialized' individuals (those with bank accounts and credit cards) were more opposed to capital controls than other Argentines, after controlling for other factors, such as income, ideology and partisanship.
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Disclosure statement

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