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The politics of stock market development

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ABSTRACT

This article locates the political determinants of stock market development in the distributional cleavages among voters and interest groups. Our argument questions the prevailing explanation about the role of partisanship in the literature, where it is usually assumed that left governments frighten investors. To the extent that financial development is translated into higher levels of investment that increases labor demand, workers and the parties representing them will adopt policies and regulations that favor the capitalization of financial markets. We explore the empirical content of our hypothesis against several competing explanations: the legal origins school, which argues common law proxies stronger investor protections than civil law; the electoral law school, which argues proportional representation provides weaker protections than do majoritarian ones; the institutional economics view, which argues that checks on policy-making discretion such as veto gates protect the property rights of investors and encourage investment. We test the implications of the different arguments on the level of stock market capitalization in a panel of 85 countries over the period 1975–2004. We find preliminary evidence in favor of the partisanship hypothesis: left-leaning governments are more likely to be associated with higher stock market capitalization than their counterparts to the right and center of the political spectrum. These results are consistent with recent theories emphasizing an emerging coalition of workers and owners against managers in favor of greater transparency and shareholder protection.

KEYWORDS

Financial development; investor protection; political institutions; partisan governments.

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'The amount of equity finance that external investors are willing to provide is affected by the degree of protection that they expect to receive from company law.' – Pagano and Volpin (2005:1006).

OVERVIEW

What political processes increase investor protection and the development of financial markets? This paper locates the answer in partisan political conflict as refracted through political institutions, where left-leaning governments seem to be more attractive to investors than are right-leaning ones. Our argument thus reverses the sign of the prevailing explanation about the role of partisanship, where it is usually assumed that left governments frighten investors and depress financial market development. The logic here is based on the expected distributive consequences of the policies aimed at regulating financial markets. Workers, and the parties that represent them, seek higher economic activity and increased labor demand. They are able thereby to join forces with some investors in promoting policies that are conducive to higher levels of investment, thus policies which promote equity capitalization and undermine the political clout of concentrated economic groups who oppose the opening of markets both internally and externally.

Investment figures very prominently in the literature on economic development. Vibrant as debates on the causes of economic growth may be, investment matters in all of them. Most arguments about growth revolve around explaining the drivers of higher investment and the factors that inhibit or repel it. Financial development is likely to influence incentives to save, to affect investment decisions, and to promote technological innovation.[1] Investor protection is a key ingredient of an attractive investment climate, as the quote above from Pagano and Volpin asserts. Financial markets respond to the laws and regulations that govern them. The challenge is then to provide an explanation of the production of policies, laws and regulations that favor the development of financial markets. These policies, laws and regulations are the output of complex political interactions, so we seek a political explanation: who supports pro-investment policies and how are they able to prevail?

We follow a large literature in measuring the effects of politics and institutions on financial development. In their comparison of minority shareholder protections (MSP) around the world La Porta *et al.* (1997, 1998, 1999) led the way in calling attention to law and regulation. Like other critics, we disagree with the emphasis La Porta *et al*. place on legal family (common vs. civil law) as an explanation of financial regulation. Legal family is a constant, not changing over time; as regulations and capitalization do show variance over time, we must look at other variables.[2] We explore political explanations that can deal with change – items that influence the way

group preferences are aggregated through institutions to generate specific outcomes of policy and behavior. We argue that investor protection and the concomitant development of financial markets allow a larger pool of investors to become active and exploit investment opportunities, hence affecting the creation and the distribution of employment and income in the economy. We should thus expect the capitalization of financial markets to covary with the partisan orientation of the incumbent governments, where the left will be associated with higher market capitalization.

Following Rajan and Zingales (2003a) we take the variance in the level of stock market capitalization over time as our major indicator of financial development in our statistical tests.[3] We find preliminary evidence in favor of the partisanship hypothesis: our results suggest that left-leaning governments are more likely to be associated with higher stock market capitalization than their counterparts to the right and center of the political spectrum. These results are robust to multiple specifications and control variables. In the ensuing sections we discuss our argument and the set of competing political explanations of market capitalization, and present the results from our empirical exercise.

EXISTING POLITICAL ECONOMY EXPLANATIONS OF FINANCIAL DEVELOPMENT

The literature looking at politics to explain financial arrangements has grown so much that there are now contending political explanations. The scholarly debate is not whether politics matters, but which political variable best explains the outcomes. As corporate governance has become prominent as the key variable used to interpret the development of financial markets, we first discuss the scholarly work on the determinants of corporate governance. The debates on corporate governance focus on the supply of MSP which protect outside investors from various forms of insider predation. The supply of MSP reflects the shifting balance among interest groups working through specific institutional structures. An explanation of corporate governance requires, therefore, an account of what explains the supply of MSP.

La Porta *et al.* (1997, 1998, 1999) argue one institutional feature, the type of legal system, explains the degree of protection of investors and the development of financial markets because legal systems, whether French, German, Scandinavian or English, affect the legal and regulatory environment in which financial transactions occur. Compared to 'civil law' systems, 'common law' systems are held to be less formalized and more adaptable, creating a better environment for contracting, which results in better protection of the rights of investors (see also Levine *et al.* 2000, Levine 2005). The effect of legal systems is bolstered in institutional settings where the judiciary is more independent (La Porta *et al.*, 2008).

Yet legal systems are stable attributes of a country's institutional structure, but we observe that MSP and financial development vary over time. While legal systems might explain at the margin the cross-country variation, we must explore other conditions that change over time to account for the temporal variance in market capitalization. As political circumstances change, so do the regulations that shape financial markets. Moreover, MSP is not the only instrument used to regulate the incentives to participate in financial markets, so our account must include other aspects of policy and regulation not easily handled by the legal family approach.

Alternative explanations for financial development in the political economy tradition stress the role of political demand and supply conditions in policy-making. First, we find arguments based on demand factors such as individual and group 'preferences' – what people want, expressed through how they vote, partisan cleavages, political parties, ideology, lobbying efforts; or on their economic behavior, such as where they invest or whether they strike. Second, we find explanations based on supply conditions which place emphasis on the role of political institutions – the structures that shape the aggregation of preferences – having their own impact on outcomes; and the configuration of veto points, that enhance or deny political actors' ability to move policy closer to their preferred outcomes.

Preferences for financial market development

Regarding individual and group preferences, the literature examines the political coalitions that are likely to form around regulation of financial markets and corporate governance. Roe (2003) pioneered the use of this approach to examine corporate governance and finance regulation by positing the left as anti-investor (hence anti-MSP), and the right as in favor of both. Thus, the existence of pro-MSP regulations reflects the power of the right as expressed through votes and the number of years conservative governments are in office. Roe presents data that seems to support this understanding of policy outcomes better than does the legal family argument. In much research in law, Roe's analysis has come to be seen as '*the*' political argument, and usually the only one considered in scholarly analyses. However, Roe's empirical evidence, while suggestive, is based on a cross-section of developed nations, and is therefore unable to account for the effects of changing political partisanship within a larger range of countries over time; it also simplifies the political landscape into left vs. right in ways which make it hard to explore how sectoral conflicts create alliance possibilities that cut across the left/right divide.

Perotti and von Thadden (2006), and Perotti and Volpin (2007) provide alternative explanations in the political economy tradition. Perotti and Volpin (2007) model the incumbent politician's utility function as a weighted sum of two components: first, the preferences of rich

businessmen and concentrated economic groups willing to give money and exert political influence to prevent investor protection and thereby, entry and competition; and second, the preferences of the general public, which accepts economic competition and supports with their votes those politicians who work against the goals of the rich.[4] The more accountable the incumbent government is to voters the likelier that welfare losses associated with restricting financial development will be more heavily weighted in the incumbent's utility function.[5] When accountability is low, on the other hand, lobbying activity by blockholders would lead to less MSP, lower competition, less market capitalization, and slower growth. Economic integration, on the other hand, reduces the incentive of these groups to lobby and could lead to more capitalization of financial markets. Blockholders and concentrated groups would still prefer lower MSP but these would be less effective in preventing entry. The effect of the consolidation of robust democratic institutions is reflected in the adoption of policies and practices which deepen financial markets and thereby affect the wellbeing of consumers, and of financially-constrained entrepreneurs.

Perotti and von Thadden (2006), on the other hand, present labor in opposition to shareholder protection. In their model, firms – the residual claimants on economic activity – can finance their activities through banks or the market. Financing economic activity in the market allows investors to diversify risk, resulting in higher propensity to invest in more risky activities at a higher average return. Labor risk, on the other hand, cannot be diversified because it is assumed that human capital is firm specific. Workers are risk averse, and hence prefer the less risky strategy that results from a system based on bank lending. Hence, they argue, the more labor is politically influential, the weaker is minority shareholder protection, and hence market capitalization. Perotti and von Thadden (2006) claim that this argument could account for the great reversal documented by Rajan and Zingales (2003a). At the time of the Great Depression exogenous shocks leading to higher inequality made the median voter less invested in financial returns in the market, and hence more willing to reduce investor protection. It could also explain more recent developments: an increase in the median voter's ownership of financial assets – as with individually controlled equity based pension funds – may lessen labor's hostility to MSP (see Gourevitch and Shinn 2005).

Pagano and Volpin (2005) explore a third alignment, a cross-class coalition of insiders versus outsiders: blockholders, managers and employees seek to preserve the firm from a hostile takeover by outsiders, thus opposing MSP.[6] Gourevitch and Shinn (2005) examine this argument in the literature on MSP and shareholder concentration. Tiberghien (2007) stresses the role of political entrepreneurs in brokering the deals that shape coalitional outcomes.

The explanations surveyed in this section make opposing predictions regarding the relationship – or lack thereof – between government orientation and market capitalization: Perotti and Volpin's (2007) model would predict an inverse relationship between financial market capitalization and business influence; this association would decrease as countries integrate economically with the rest of the world. Within country, thus, we would expect that right-leaning incumbents – i.e. those who cater to domestic business owners – should be associated to lower shareholder protection, and hence lower market capitalization. In contrast, Perotti and von Thadden's (2006) model would predict MSP and market capitalization to fall with labor influence; the association would be stronger as countries become more open to trade and capital, since openness would increase workers' vulnerability to risk. Hence, pro-labor governments should be associated with lower capitalization of financial markets, counter to the argument that we advance in this article.

In any event, the role of preferences of political actors on policy outcomes is likely to be mediated by the incentives created by political institutions. In the next section we discuss the main contributions in this tradition.

Political institutions

A different line of reasoning about the effect of politics on the development of stock markets examines the role of political institutions. It is widely acknowledged that political institutions –the mechanisms of aggregation of preferences – have an independent effect on the political and economic outcomes. Holding preferences constant and varying the institutional arrangement will vary the outcome (McNollgast, 1987, 1989; for a contrary view see Mackie, 2003; Stasavage, 2003). The study of veto players, among other forms of institutional analysis, explores how these formal arrangements operate (Tsebelis, 2002).

In the ensuing paragraphs we explore different arguments on how electoral institutions, as well as other formal and informal political institutions, affect the supply of shareholder protection, and ultimately, stock market capitalization. We will draw on the institutional literature to inform the selection of additional hypotheses and the set of control variables to be included in our empirical analyses.

Electoral laws

Financial market regulation – just like any other policies that create or eliminate barriers to entry into product and factor markets – has the potential to benefit some groups in society and hurt others. The literature in comparative politics explores how the incentives created by electoral institutions affect the content of policies aimed at regulating economic activities,

especially those that have distributive consequences. Perotti and Volpin (2007), for instance, argue that accountability, which is usually present in more competitive political regimes, affects the weights that the incumbent government places on the contributions obtained from concentrated businesses, an interest group that wants to protect rents created by restricting market access. Politicians weigh contributions from interest groups against the welfare losses resulting from less developed financial markets. The argument is that sensitivity to welfare losses increases when the incumbent is more likely to be made accountable by voters. They find preliminary evidence in support of their prediction: investment protection increases with political accountability. In similar fashion, electoral competition is likely to affect the responsiveness of politicians to different actors in the polity (Cox, 1997). Rogowski and Kayser (2002), for instance, argue that prices are lower because competiveness is higher in countries with single member plurality systems than in countries with proportional representation (PR). Benmelech and Moskowitz (2006) explore a variation in electoral laws in the US in the eighteenth and nineteenth centuries to explain differences in financial market regulation: they find that lower political access correlated with higher credit restrictions.

Analyzing the effect of electoral institutions on MSP, Pagano and Volpin (2005) find that PR systems have weaker MSP than do plurality systems: the logic is that PR helps sustain the bargains that underlie the 'cross class coalitions' of insider control (the alignment noted above). Gourevitch and Hawes (2002) and Gourevitch and Shinn (2005) note a similar pattern. This generates the hypothesis that PR correlates with weak MSP and with shareholder concentration. Hence market capitalization should be lower in countries with PR electoral institutions.

Veto gates and formal institutions

The structures of power – the formal rules that organize institutional relationships – are also likely to influence economic outcomes. The literature has identified different political and policy consequences of different types of regimes: presidential versus parliamentary systems (Shugart and Carey, 1992), and strongly organized legislatures versus weak ones (Cox and McCubbins, 2008). Moreover, Westminster systems (Lijphart, 1999) that concentrate power in the prime minister and cabinet through their majority in parliament, contrast with fragmented power systems that use federalism or formal rules to create a separation of powers.

A substantial body of literature in this tradition examines the effect of 'veto' players, i.e. the various structures that give institutionalized power to different political groups (Tsebelis, 2002; Haggard and McCubbins, 2001; North and Weingast, 1989). The theory of veto players argues that institutional checks and balances imply greater degrees of policy stability and

credibility by constraining executive policy discretion (North and Weingast, 1989; Tsebelis, 2002). Yet increasing the number of veto players – actors whose acquiescence is needed to change the status quo policy – may constrain the incumbent's ability to react to shocks, or provide more points of access to groups to stop policy changes.

Gourevitch and collaborators apply this institutional analysis to MSP via comparison of majoritarian systems (or Westminster systems, with fewer veto points) with consensus systems (with high number of veto points). They argue that majoritarian systems are more likely to favor minority shareholder protection (Gourevitch, 2006; Gourevitch and Hawes, 2002; Gourevitch and Shinn, 2005). Alternatively, it could be argued that majoritarian institutions – which usually have a lower number of veto gates – would make policies more decisive – i.e. have a better ability to react to shocks – but less resolute – i.e. more likely to cycle back and forth – leading to a less stable policy environment which hurts minority shareholders, who are more dispersed and face higher costs of political action, and creates incentives to organizing ownership in large blocks to maximize political influence.[7]

Informal institutions

Another literature looks at the capacity of economic agents to engage in political action and affect political outcomes. Formal institutions may say one thing on paper, but can be subverted in practice (Gourevitch, 2006). Without political and civil rights, elections may be meaningless. The stronger these rights and liberties, the safer are investors, and the deeper the markets. This could also lead to higher MSP and diffusion as investors become more willing to take minority shareholder positions. Perotti and Volpin's (2007) emphasis on freedom of the press and access to information falls in this tradition. One way to test these ideas is to look at the correlation between the various measures of political rights and civil liberties, and market capitalization.

In the end, political institutions create the incentive structures that determine whose interests are more likely to be privileged by policy-makers. They create conditions under which some bargains are possible. For instance, it is likely that the corporatist compromise is more easily struck under non-majoritarian institutions. Hence controlling for the underlying institutional structure will be a central element of our empirical strategy.

In the empirical section we explore the association between market capitalization and formal institutions (including electoral rules and system of government), as well as informal political practices. Yet, we argue, the content of the policies adopted ultimately depends on the preferences of those in policy-making positions and their links to political groups in the polity. The next section presents this argument in more detail.

OUR ARGUMENT: PARTISANSHIP AND MARKET CAPITALIZATION

While we agree with, indeed are inspired by, the stress on political variables over legal origin in Roe (2003), Pagano and Volpin (2005), Perotti and von Thadden (2006), and Perotti and Volpin (2007), we expand the consideration of different political arguments, and test them over an extended period of time in a large sample of developing and industrialized countries. We reframe the discussion to focus on partisanship and labor oriented voting.

First we consider reversing the sign of Roe's view: left governments attract investors, rather than repel them, by providing shareholder protections and creating a better investment environment. We argue that when a pro-labor party participates in the governing coalition, we should expect higher stock market capitalization. Our argument emphasizes income effects over risk in workers' utility function: workers across the economy benefit from increased labor demand resulting from higher competition, investment, and output. More investment opportunities result in higher labor demand, increasing wages and employment.

Our argument is related with recent literature on the politics of investment. Among them we find Cioffi and Hoepner's (2006) and Cioffi's (forthcoming) argument that flips the conventional wisdom with respect to shareholder protections. Where most law and economics literature predicts support for shareholders comes from investors, and thus conservative parties, while opposition comes from labor and thus from the left, Cioffi and Hoepner predict support comes from labor and the left. Pinto (2004, 2005), and Pinto and Pinto (2007, 2008a) do the same with respect to foreign direct investment: where labor is part of the ruling coalition, governments seek foreign investment to stimulate employment, against the opposition of domestic capital owners who fear competition in product and factor markets.[8] Rajan and Zingales (2003a, 2003b) make a similar point in noting that resistance to pro-investor policies comes from domestic property owners seeking to preserve their rents that derive from protected markets. Similarly, Evans (1978) explores alliances between domestic compradors and international capital.

The political economy models of financial development discussed in earlier sections assume that human capital is firm specific across the economy; we find this assumption very restrictive. In the end, how specific skills impact the outcome depends on the underlying economic structure. We should expect individuals' endowment of firm-specific skills to vary within each country. A pro-labor government would promote policies that cater to workers with different skill endowments. Whether economy-wide wage and employment effects overwhelm risk and opportunities for rent sharing among insiders in the incumbent government's objective function

is ultimately an empirical issue; it would turn on: the bargaining power of different actors in labor market; political clout; political accountability (incentives to cater to interest groups or to the population at large); economic integration (capital mobility, trade and foreign investment); opportunities for rent extraction; and incentives to share those rents among workers and owners, or managers.

Moreover, weak protection of minority shareholders usually leads to higher barriers to entry, which result in rents that owners and workers could share. Yet the ensuing concentration of business ownership gives blockholders economic and political power, thus reducing (or balancing out) labor's bargaining clout.[9] Hence, even though rents are larger in markets where entry barriers are higher, the bargaining power of workers is likely to be greater when ownership is more dispersed.

Economic integration could also impact labor demand. Increased trade and investment reduces rents (which blockholders and specific labor benefit from) but could increase labor demand at the expense of higher variance in output, and hence higher risk, which cannot be diversified. It is plausible that some workers would prefer restricting international capital mobility as a way of reducing risk. Moreover, those with firm specific skills could benefit from the rents created by raising entry costs and reducing competition. Yet, other workers might prefer eliminating controls on international capital to lure investors in.[10] Workers could prefer to protect minority shareholders and other investors to encourage foreign and domestic investment which would result in higher economic activity, innovation, labor demand and government revenue.

It is also possible that equity market development does not reflect partisanship. Economic actors, such as investors and workers, have leverage over a market economy regardless of whom voters put into power (Lindblom, 1977; Grossman and Helpman, 1994; Culpepper, 2007). The policies and regulations adopted by the incumbent government could create disincentives to save and invest domestically, and even force some investors who face low costs of mobility to draw their money out of the country or economic sectors. If workers are unhappy, they can strike. The absence of partisan pattern could support this interpretation – or it could mean that competition drives the parties to policy convergence.

Partisanship may also be blurred by cross-cutting coalitions, along the lines of the Ricardo-Viner predictions noted above. A closer look at Roe's country case analyses, for instance, shows that what he codes as Social Democracy often consists of cross class coalitions of this kind. These coalitions bring together elements of labor, managers, and owners from different industries seeking to preserve the firms against external forces. Yet identifying and measuring the composition of these coalitions for cross-country analysis is a daunting task.[11] The panel structure of the data, however, allows us to explore whether the alleged link between the left

and blockholding is in fact masking the relative strength of concentrated business interests that sustain the corporatist compromise. We would expect a stronger correlation between the left orientation of the incumbent government and market capitalization at times of higher economic integration, i.e. when allegedly the corporatist compromise captured by earlier political economy models of financial development is under strain.

In sum, we explore the role of changes in the partisan orientation of the government in producing stock market capitalization and financial development. Contrary to received wisdom we argue that pro-labor governments are likely to affect market capitalization through policy instruments aimed at protecting investors, hence promoting the development of financial markets. We equate the left with pro-labor stances, following the literature on partisan business cycles (Hibbs, 1977, 1992; Tufte, 1978; Alesina, 1987, 1988; Alvarez *et al*., 1991; Boix, 1997, 1998; Franzese 2002) and recent developments in the political economy of trade, capital controls and investment (Dutt and Mitra, 2005; Milner and Judkins, 2004; Alfaro, 2004; Pinto, 2004; Pinto and Pinto, 2008). The purpose of the remainder of this paper is to test the hypothesis that shareholder protections and the development of financial institutions are explained by voting and partisan alignments: when the left is in power, there will be more MSP, and hence higher market capitalization. A positive correlation between left government orientation and financial market capitalization would be consistent with our argument.

EVIDENCE AND TESTING

In our empirical analysis we are interested in exploring the attractiveness of equity market investment within countries over time. Our dependent variable is stock market capitalization. This operationalization of the dependent variable allows us to tap onto the conditions affecting the disposition of economic actors to participate in financial markets over time.[12] We test our partisanship explanation against the competing sets of political explanations advanced in the literature to explain corporate governance and financial development. To assess the role of partisanship, we use a measure of partisan strength, i.e. the balance of left versus right.[13] We compile indicators of political partisanship along the left–right dimension. Our theory implies that stock market capitalization will increase under left-leaning governments.

The second dimension that we test concerns electoral rules: are leaders selected following proportional (PR) or majoritarian forms of representation? Pagano and Volpin (2005) argue that PR systems of governance produce weaker investor protections. If this is correct, we would expect to find a negative correlation between PR and stock market capitalization.

The third set of competing political explanations fall under the category of formal political institutions, or the constitutional rules of the game that structure political power. The literature on veto gates argues that higher political constraints on the executive's policy-making discretion have the potential to increase the credibility of commitments, creating a better investment environment. Yet more constraints could limit the incumbent's ability to buy off those groups that would otherwise block corporate governance. Along with veto players, we also explore whether differences between presidential and parliamentary systems affect market capitalization.

Lastly, we test the effects of informal political institutions on stock market capitalization using commonly employed proxies for democracy and civil liberties. These measures capture the competitiveness of elections, and the right to organize politically.

Empirical strategy

The problems with cross-national analyses of economic outcomes are well known. The most common critique is that the explanatory variables often violate the OLS assumption of strict exogeneity because either the direction of causality is not firmly established, or because unobserved heterogeneity (omitted variables) is biasing the estimates. Valiant attempts to remedy this problem identify clearly exogenous sources of institutional and legal variation, but these variables are not good at explaining change over time, which clearly occurs. These problems are compounded where data limitations preclude the analysis over time.

Testing our main hypothesis of the effect of changing partisanship on financial market development presents an additional challenge for purely cross-sectional models: differences in partisan orientation across countries are extremely difficult to interpret. In particular, left–right variables are not standardized in a way that permits cross-national comparison; for example, the Democratic Party in the US (coded 'left' by most indices) could be considered conservative in some European countries; and there is large variance in the content of policies adopted by governments defined as left-leaning in Latin America. Compare, for instance, the stark differences of the Partido dos Trabalhadores (PT) government led by Luiz Inácio da Silva (Lula) in Brazil with Hugo Chávez's Bolivarian Socialism in Venezuela, or even the differences between Evo Morales's Movimiento al Socialismo (Movement for Socialism) with Michelle Bachelet's Socialist Party under the umbrella of the Concertación in Chile. For this reason, the study of partisan effects on economic outcomes requires time series data.

We attempt to remedy some of the estimation biases by studying the effects of partisanship on stock market development using fixed effects models that measures how variation in partisanship *within* countries is associated with changes in stock market capitalization. In particular, we fit

models with country fixed effects to control for unobserved heterogeneity, i.e. the variance in the dependent variable that could be associated with time-invariant and unobserved country characteristics. We also include year dummies to capture external shocks and global trends that are likely to affect all countries over time. As the fixed effects estimator measures how changes in political variables *within* each country affect stock market development, the estimated impact of partisanship will account for *relative* partisan changes; e.g. moving from Democratic to Republican administrations and vice versa in the US, rather than the difference between the effects of the Republicans and the British Labour Party, for example.

The fixed effects model has significant advantages over cross-sectional models of country averages or of pooled data in terms of causal identification. It is particularly useful for our purpose, since we have argued that the level of capitalization in a given year is affected by the regulatory and policy outputs produced by varying coalitions of political interests. In particular, the model allows us to ignore variables that tend to be time-invariant (such as legal traditions), isolating the determinants that vary over time within countries.[14] Again, time invariant heterogeneity for which the control variables do not account for is modeled with distinct intercepts for each country. Yearly dummies extract the effects of common shocks and worldwide trends in market capitalization over time.

Following the empirical finance literature, we control for economic variables that are likely to affect financial activity in general, and the functioning of stocks markets in particular: the level of economic development, capital account openness, price levels, and economic growth (see, for example, Claessens *et al.*, 2006; Chinn and Ito, 2006).

Data

Our dependent variable is the dollar amount of stock market capitalization as a percentage of GDP (**StockCap/GDP**) for up to 85 countries over the period 1975–2004. The data come from the Standard and Poor's Global Stock Markets Factbook and were compiled by Claessens *et al.* (2006). This measure differs from the degree of blockholding – studied by Gourevitch and Shinn (2005) – in that it does not explicitly identify the proportion of shares that are diffusely owned versus the proportion that remain under the control of a controlling stakeholder (Roe, 2003). Stock market capitalization is also likely to reflect, albeit indirectly, the degree of confidence that investors have in the functioning of financial markets, particularly after controlling for conditions that affect the economic bottom line faced by individuals, and ultimately the return to assets traded in the stock market (including the ratio of financial activity controlled by banks). Moreover, the measure is useful because it extends the coverage beyond that of the available measures of blockholding or MSP to include many countries over a significant time interval.[15]

The sample average of **StockCap/GDP** is .35. The variable exhibits strong cross-national and within-country variation: the overall standard deviation is 0.41 and the within-country standard deviation is 0.27 (see Table 1).

To test for pqartisanship effects, we create the dummy variable **Left** using the partisanship indicator from the Database of Political Institutions, herein DPI (Beck *et al.*, 2001).[16] **Left** relies on the coding of the executive if the political system is presidential or semi-presidential. In parliamentary systems, the variable derives from the partisanship categorization of the largest party in the government.[17] This coding allows us to analyze the effect of the change in the partisan orientation of the incumbent. Yet the partisan orientation of the chief executive alone is not enough to characterize the orientation of a coalition government, a minority cabinet, or the constraints faced by the executive under divided government. To obtain a more nuanced classification of the partisan orientation of the incumbent some of our models interact the dummy variable Left with **Polcon3**, a variable created by Henisz (2000) to measure the alignment between institutional and political veto players.[18] This interaction can be interpreted in the following way: when **Polcon3** takes a value of 0, the chief executive is not constrained institutionally; the orientation of the chief executive, thus, reflects the orientation of the government. For **Polcon3** values approaching 0, the preferences of the chief executive and other relevant institutional and political veto players are more likely to be aligned. **Polcon3** takes higher values when institutional constraints increase and the preferences of the chief executive and those of other veto players diverge. Hence, the interaction term allows us to obtain a continuous measure of incumbent partisanship.[19] The expectation is that the sign of the coefficient on the Left dummy will be positive and the interaction term between Left and political constraints will be negative, with a net positive effect at lower levels of the variable, capturing power diffusion.

To test Pagano and Volpin's (2005) claim regarding the effects of electoral institutions, we employ the variable **PR Pagano/Volpin**, which we construct – following Pagano and Volpin (2005) – using a combination of three distinct binary DPI indicators: (1) PR, which equals one if at least some government officials are elected using PR; (2) Plurality, which equals one if at least some officials are elected under majoritarian (non-proportional) rules; and (3) Housesys, equal to one if the majority of house seats are allocated via a non-PR rule. **PR Pagano/Volpin** is then calculated as PR-Pluralty-Housesys+2, providing a comprehensive indicator of the degree of proportional representation of the electoral system. **PR Pagano/Volpin** equals 3 if the system is purely PR; 2 if the majority of seats are assigned using PR; 1 if the minority of seats is assigned using PR; and 0 if the system is purely majoritarian. Due to electoral reforms, the variable is within country time-variant with a within standard deviation of 0.23.[20] To the

Table 1 Summary statistics

Variable	Mean	Std. Dev.	Min	Max
Stock Cap/GDP				
Overall	0.352	0.407	0.000	3.218
Between		0.319	0.009	2.285
Within		0.273	−0.604	2.443
Log GDP/capita				
Overall	8.600	1.348	4.945	10.580
Between		1.432	5.009	10.414
Within		0.179	7.718	9.352
Log Inflation				
Overall	2.841	0.768	−1.006	8.921
Between		0.506	2.143	4.777
Within		0.563	−0.797	7.722
Capital Account Openness				
Overall	0.582	1.578	−1.753	2.623
Between		1.349	−1.615	2.623
Within		0.907	−2.738	3.346
GDP Growth				
Overall	2.261	3.404	−13.865	13.693
Between		2.061	−2.010	9.624
Within		3.001	−14.015	14.352
Left				
Overall	0.392	0.488	0.000	1.000
Between		0.387	0.000	1.000
Within		0.365	−0.517	1.358
PR Pagano/Volpin				
Overall	1.735	1.276	0.000	3.000
Between		1.251	0.000	3.000
Within		0.230	0.235	3.235
Parliamentarism				
Overall	1.213	0.945	0.000	2.000
Between		0.943	0.000	2.000
Within		0.257	−0.537	2.463
Polcon3				
Overall	0.410	0.152	0.000	0.714
Between		0.125	0.000	0.656
Within		0.098	−0.104	0.787
Log Polity				
Overall	2.847	0.415	1.099	3.045
Between		0.350	1.298	3.045
Within		0.201	1.436	3.522
Log FH Political Rights				
Overall	1.732	0.355	0.000	1.946
Between		0.354	0.000	1.946
Within		0.155	0.908	2.304
Log FH Civil Liberties				
Overall	1.673	0.318	0.000	1.946
Between		0.289	0.347	1.946
Within		0.146	0.939	2.224
English Legal Origin				
Overall	0.300	0.458	0.000	1.000
Between		0.449	0.000	1.000
Within		0.000	0.300	0.300

Note: The variable **Market Capitalization / GDP** is stock market capitalization as a percentage of GDP for 85 countries over the period 1975–2004. The data come from the Standard and Poor's Global Stock Markets Factbook and were compiled by Claessens *et al*. (2006). The variable **Left** (from the Database of Political Institutions, DPI; Beck *et al*., 2001) is a dummy variable that equals one if the executive branch in presidential or semi-presidential systems is coded left; in parliamentary systems, the variable takes a value of one if the largest party in the government is coded as left. **Parliamentarism** (DPI) operationalizes the form of executive power (1 = presidential, 2 = mixed, 3 = parliamentary). **PR Pagano/Volpin** is a combination of three distinct binary DPI indicators: (1) PR, which equals one if at least some government officials are elected using PR; (2) Plurality, which equals one if at least some officials are elected under majoritarian (non-proportional) rules; and (3) Housesys, equal to one if the majority of house seats are allocated via a non-PR rule. **PR Pagano/Volpin** is then calculated following Pagano and Volpin (2005) as PR-Pluralty-Housesys+2. We use the **Polcon 3** index, developed by Henisz (2000) as a proxy for veto players. The variable **Polity**, captures the level of democracy. Freedom House provides two additional indicators of democracy and informal civil liberties: **Political Rights** and **Civil Liberties**. The economic variables **Inflation, GDP,** and **GDP/capita Growth** are from the World Development Indicators. **Capital Account Openness** comes from Chinn and Ito (2006).

extent that proportional representation helps sustain the cross-class coalition of insiders leading to lower protection of minority shareholders, we would expect to find a negative correlation between PR and stock market capitalization.

The second set of competing political explanations fall under the category of formal political institutions, or the constitutional rules of the game that structure political power. As a proxy for veto players, we use the **Polcon3** index developed by Henisz (2000). Secondly, we consider the debates between presidential and parliamentary systems. The variable **Parliamentarism** (also from the DPI) operationalizes the form of executive power (1 = presidential, 2 = mixed, 3 = parliamentary). We have no clear predictions about how these formal political institutions affect market capitalization.

Finally, we consider the effect of informal political institutions. We use three distinct measures of democracy and civil liberties. The variable **Polity**, developed by Jaggers and Marshall (2004), captures the level of democracy (the degree of competitiveness and openness of the political system). Freedom House (Gastil, 1990) provides two additional indicators of democracy which broaden Dahl's definition of polyarchy – **Political Rights** and **Civil Liberties** – which are likely to affect MSP and hence market capitalization. Consistent with the empirical literature, we use the logged values of these indicators.

Following the empirical finance models of Claessens *et al*. (2006) and Chinn and Ito (2006), we include various control variables to better isolate the effects of the political indicators on stock market development. It has been shown that economic and institutional development (broadly conceived) is an important determinant of financial development (La Porta *et al.*, 2007; Claessens, *et al.*, 2006), so we include the natural log GDP/capita in our models. Following Claessens *et al.* (2006) and Chinn and Ito (2006), our models include the log of inflation. We also include GDP per capita growth, since economic performance dictates investment opportunities and political outcomes alike. Turning to international factors, we include a measure of the degree of *de jure* capital account openness constructed by Chinn and Ito (2006).[21]

Table 1 presents the summary statistics for all the variables used in this study. While the average government in our sample is centrist (indicated by the mean value of **Left** of 0.39), there is significant variation within countries, as evidenced by the within-country standard deviation of 0.37. The average political system has some elements of parliamentarism (average value of 1.21) and proportional representation (1.74), with nine countries experiencing changes in parliamentary institutions and another seven undergoing reforms related to the degree of proportional representation during our period of study. These changes contribute to the 0.26 and 0.23 within-country standard deviations for the variables **Parliamentarism** and **PR Pagano/Volpin**, respectively. Table 2 is a correlation matrix. For the

Table 2 Correlations

	Stock Cap/GDP	Log GDP/capita	Log Inflation	Capital Account Openness	GDP growth	Left	PR Pagano/Volpin	Parliamentarism	Polcon3	Log Polity	Log FH Political Rights	Log FH Civil Liberties	English Legal Origin
Stock Cap/GDP	1												
Log GDP/capita	0.3970*	1											
Log Inflation	−0.2971*	−0.2599*	1										
Capital Account Openness	0.3828*	0.5874*	−0.4532*	1									
GDP growth	0.0436	−0.0490	−0.2325*	0.0376	1								
Left	0.0864*	−0.0300	−0.0742*	0.0389	0.0133	1							
PR Pagano/Volpin	−0.0845*	0.2234*	0.1288*	−0.0146	−0.0250	−0.0654	1						
Parliamentarism	0.2088*	0.4659*	−0.2497*	0.3179*	0.0157	0.1276*	0.0270	1					
Polcon 3	0.2012*	0.3744*	−0.1305*	0.3199*	−0.0374	−0.1157*	0.3176*	0.2883*	1				
Log Polity	0.2098*	0.4419*	−0.0718	0.3591*	−0.1168*	−0.0192	0.2430*	0.3784*	0.5886*	1			
Log FH Political Rights	0.1984*	0.5760*	−0.1190*	0.4365*	−0.1316*	−0.026	0.1801*	0.4046*	0.5683*	0.8045*	1		
Log FH Civil Liberties	0.2288*	0.6846*	−0.2043*	0.5238*	−0.0987*	0.0025	0.1378*	0.4126*	0.4904*	0.7200*	0.8735*	1	
English Legal Origin	0.2376*	−0.1554*	−0.0649	0.0561	−0.0249	0.0601	−0.4319*	0.1379*	−0.0566	0.1393*	0.0371	−0.0056	1

Note: The variable **Market Capitalization / GDP** is stock market capitalization as a percentage of GDP for 85 countries over the period 1975 – 2004. The data come from the Standard and Poor's Global Stock Markets Factbook and were compiled by Claessens *et al.* (2006). The variable **Left** (from the Database of Political Institutions, DPI; Beck *et al.*, 2001) is a dummy variable that equals one if the executive branch in presidential or semi-presidential systems is coded left; in parliamentary systems, the variable takes a value of one if the largest party in the government is coded as left. **Parliamentarism** (DPI) operationalizes the form of executive power (1 = presidential, 2 = mixed, 3 = parliamentary). **PR Pagano/Volpin** is a combination of three distinct binary DPI indicators: (1) PR, which equals one if at least some government officials are elected using PR; (2) Plurality, which equals one if at least some officials are elected under majoritarian (non-proportional) rules; and (3) Housesys, equal to one if the majority of house seats are allocated via a non-PR rule. **PR Pagano/Volpin** is then calculated following Pagano and Volpin (2005) as PR-Pluralty-Housesys+2. We use the **Polcon 3** index, developed by Henisz (2000) as a proxy for veto players. The variable **Polity**, captures the level of democracy. Freedom House provides two additional indicators of democracy and informal civil liberties: **Political Rights** and **Civil Liberties**. The economic variables **Inflation, GDP,** and **GDP/capita Growth** are from the World Development Indicators. **Capital Account Openness** comes from Chinn and Ito (2006). * indicates significance at 99%.

sample period and variable averages corresponding to all the countries in our study, see Table A.1 of the Appendix.

Results

This section analyzes the effects of political variables on the development of stock markets throughout the world. Our interest is in measuring how changes in the partisan orientation of the incumbent within countries explain variation in stock market capitalization within countries, abstracting from cross-national variation. Therefore, we run OLS regressions with country and year fixed effects. In particular, we estimate the following model:

$$y_{it} = \alpha_{\mathrm{i}} + \tau_t + \boldsymbol{\beta}' \boldsymbol{P}_{it} + \gamma \boldsymbol{X}_{it} + \boldsymbol{\varepsilon}_{it}$$

where the dependent variable y_{it} represents *stock market capitalization/GDP* for country i in year t. The vector $\boldsymbol{P}_{it}$ is the set of competing political explanatory variables, $\boldsymbol{X}_{it}$ are macroeconomic controls, β and γ are vectors of estimated coefficients and α_i and τ_t are country and year dummies, respectively. We compute robust standard errors, adjusted for within-country clustering, in all of our estimations.

We begin by establishing a relationship between political partisanship and stock market capitalization that is robust to several alternative measures of the partisan orientation of the government. The results reported in Table 3 indicate a strong, positive effect of left-leaning governments on stock market capitalization. The baseline model reported in column (1) can be interpreted as follows: a shift in the orientation of the incumbent from right or center to left-leaning is equivalent to a 6.8 percentage point increase in market capitalization. Column (2) reports that this positive relationship between shifts to the left and stock market capitalization holds to the inclusion of our vector of economic control variables. Similar results are obtained when we include dummy variables for the Right and Center (column 3). The model in column 4 substitutes an ordered variable **Partisanship** (1=R, 2=C, 3=L), and the results remain consistent and highly significant. In column (5) we create an indicator variable equal to 1 for Center or Left governments, 0 for Right. The results indicate that a shift away from the Right increases the ratio of market capitalization to GDP by 6.2 percentage points, consistent with our previous estimates.

We also test how institutional and market constraints condition the effect of partisanship on stock market capitalization. In the model reported in column (6) we interact the **Polcon3** index with the Left dummy, as discussed above. Consistent with our predictions, the interaction term enters negative, suggesting that a pro-labor government is more likely to

Table 3 Political partisanship and stock market development

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Left	0.068**	0.065**				0.189***	0.039
	(0.027)	(0.026)				(0.071)	(0.028)
Log GDP/capita		0.100	0.094	0.094	0.087	0.081	0.077
		(0.120)	(0.123)	(0.124)	(0.127)	(0.115)	(0.123)
Log Inflation		0.045***	0.045***	0.045***	0.046***	0.042***	0.038***
		(0.015)	(0.014)	(0.014)	(0.014)	(0.016)	(0.014)
Capital Account Openness		0.016	0.017	0.017	0.018	0.014	0.000
		(0.014)	(0.013)	(0.014)	(0.013)	(0.014)	(0.015)
GDP Growth		0.011***	0.011***	0.011***	0.011***	0.011***	0.010***
		(0.002)	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)
Right			−0.070***				
			(0.025)				
Center			−0.035				
			(0.054)				
Partisanship				0.035***			
				(0.012)			
Center or Left					0.062***		
					(0.023)		
Polcon 3						0.048	
						(0.161)	
Left*Polcon 3						−0.295*	
						(0.159)	
Left*Capital Account Openness							0.034**
							(0.017)
Observations	1287	1287	1287	1287	1287	1287	1287
Countries	85	85	85	85	85	85	85
R-sq (within)	0.499	0.518	0.519	0.519	0.518	0.521	0.524
R-sq (between)	0.065	0.071	0.057	0.057	0.039	0.018	0.041
R-sq (overall)	0.105	0.251	0.242	0.242	0.230	0.214	0.239

Note: ***, **, * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors shown in parentheses are adjusted for heteroskedasticity and clustered by country. The dependent variable is **Market Capitalization / GDP** over the period 1975 – 2004. The variable **Left** (from the Database of Political Institutions, DPI; Beck *et al.*, 2001) is a dummy variable that equals one if the executive branch in presidential or semi-presidential systems is coded left; in parliamentary systems, the variable takes a value of one if the largest party in the government is coded as left. **Right** and **Center** are dummy variables. The model in column 4 substitutes an ordered variable **Partisanship** (1=R, 2=C, 3=L). In column (5) we create an indicator variable equal to 1 for Center or Left governments, 0 for Right. The economic variables **Inflation, GDP,** and **GDP/capita Growth** are from the World Development Indicators. **Polcon 3** (Henisz, 2000) is a proxy for veto players. **Capital Account Openness** comes from Chinn and Ito (2006).

promote financial development when it is unconstrained by veto players of different partisan orientation; that is, when the right-leaning/pro-business party has control of decision making positions in the cabinet or in parliament. The positive coefficient on the left and the negative coefficient on

the interaction term suggest market capitalization increases with the left/pro-labor party's control of policy-making positions. The coefficients are jointly significantly different from 0 beyond conventional levels for lower values of Polcon3.

To test whether the Left's interest in financial development has increased with globalization, in column (7) we interact capital account openness with the Left dummy. The positive signs on the coefficient of the left and on the interaction term are in line with our theoretical expectations that the pro-labor incumbent is more likely to promote the development of financial markets when capital can flow freely across national borders.[22] The coefficients on Left and capital account openness and their linear combinations are positive and statistically significantly different from 0 for values of capital account openness over 0.42 (below the average level of capital openness in the sample).

Table 4 reports the results of specifications that pit our partisanship explanation against competing political-institutional explanations. We add in successive models the variables coding PR electoral systems (column 1), system of government (column 2), political constraints/veto players (column 3), democracy (columns 4–6), and legal tradition (column 7). Depending on the within-country variance of the competing political variables, we fit either random or fixed effects models.

In the full sample, the only other political variables that appear to matter for stock market development are PR – in the negative direction hypothesized by Pagano and Volpin (2005) – and legal origin, with English legal traditions being conducive to financial development, in line with La Porta *et al.* (1997) and previous research. None of the other political indicators yield statistically significant results. Furthermore, the inclusion of the alternative political variables never diminishes the statistical significance of the partisanship effect: **Left** retains a strongly positive effect on stock market capitalization at the 95 per cent confidence level or higher. In column (8) we include all of the political variables that exhibited statistically significant effects on market capitalization. Controlling for differences in legal tradition and proportional representation increases the magnitude of the effect of the Left dummy to 7.4 percentage points.

Robustness

The models reported in Table 5 probe the robustness of our findings using dynamic specifications. All of the models in Table 5 include the lagged value of the dependent variable on the right hand side of the equation. Column (1) reports our baseline specification, without the economic control variables. The effect of the Left remains negative and statistically significant, though the substantive impact of a transition to the left is reduced by more than half with the inclusion of the lagged dependent variable. The

Table 4 Politics and stock market development (partisanship vs. competing explanations)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log GDP/capita	0.157***	0.149***	0.101	0.128	0.057	0.075	0.156***	0.162***
	(0.036)	(0.033)	(0.121)	(0.118)	(0.119)	(0.125)	(0.033)	(0.037)
Log Inflation	0.049***	0.041***	0.045***	0.039***	0.047***	0.047***	0.042***	0.050***
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.015)	(0.016)
Capital Account Openness	0.015	0.017	0.015	0.013	0.022	0.021	0.022	0.022
	(0.014)	(0.013)	(0.014)	(0.013)	(0.013)	(0.013)	(0.015)	(0.016)
GDP Growth	0.011***	0.010***	0.011***	0.011***	0.011***	0.011***	0.010***	0.011***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)
Left	0.070***	0.069***	0.066**	0.067***	0.060**	0.063**	0.072***	0.074***
	(0.025)	(0.026)	(0.026)	(0.025)	(0.026)	(0.026)	(0.027)	(0.026)
PR Pagano/ Volpin	−0.052*							−0.036
	(0.029)							(0.034)
Parliamentarism		−0.008						
		(0.025)						
Polcon 3			−0.032					
			(0.145)					
Log Polity				−0.026				
				(0.073)				
Log FH Political Rights					0.093			
					(0.075)			
Log FH Civil Liberties						0.043		
						(0.094)		
English Legal Origin							0.288***	0.241**
							(0.079)	(0.103)
Random or fixed effects?	RE	RE	FE	FE	FE	FE	RE	RE
Observations	1235	1287	1287	1198	1244	1244	1138	1086
Countries	82	85	85	82	84	84	66	63
R-sq (within)	0.513	0.518	0.518	0.518	0.528	0.526	0.537	0.532
R-sq (between)	0.209	0.157	0.070	0.127	0.018	0.040	0.258	0.265
R-sq (overall)	0.306	0.278	0.250	0.270	0.210	0.229	0.375	0.374

Note: ***, **, * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors shown in parentheses are adjusted for heteroskedasticity and clustered by country. The variable **Market Capitalization / GDP** is stock market capitalization as a percentage of GDP for 85 countries over the period 1975 – 2004. The data come from the Standard and Poor's Global Stock Markets Factbook and were compiled by Claessens *et al*. (2006). The variable **Left** (from the Database of Political Institutions, DPI; Beck *et al*., 2001) is a dummy variable that equals one if the executive branch in presidential or semi-presidential systems is coded left; in parliamentary systems, the variable takes a value of one if the largest party in the government is coded as left. **PR Pagano/Volpin** is a combination of three distinct binary DPI indicators: (1) PR, which equals one if at least some government officials are elected using PR; (2) Plurality, which equals one if at least some officials are elected under majoritarian (non-proportional) rules; and (3) Housesys, equal to one if the majority of house seats are allocated via a non-PR rule. **PR Pagano/Volpin** is then calculated following Pagano and Volpin (2005) as PR-Pluralty-Housesys+2. **Parliamentarism** (DPI) operationalizes the form of executive power (1 = presidential, 2 = mixed, 3 = parliamentary). We use the **Polcon 3** index, developed by Henisz (2000) as a proxy for veto players. The variable **Polity**, captures the level of democracy. Freedom House provides two additional indicators of democracy and informal civil liberties: **Political Rights** and **Civil Liberties**. The economic variables **Inflation, GDP,** and **GDP/capita Growth** are from the World Development Indicators. **English Legal Origin** from La Porta *et al*. (1999). **Capital Account Openness** comes from Chinn and Ito (2006).

Table 5 Robustness: dynamic specifications

	(1)	(2)	(3)	(4)
L.Stock Cap/GDP	0.718***	0.704***	0.702***	0.700***
	(0.047)	(0.048)	(0.049)	(0.048)
Left	0.021*	0.018*	0.065**	0.009
	(0.011)	(0.010)	(0.032)	(0.010)
Log GDP/capita		−0.036	−0.044	−0.044
		(0.036)	(0.034)	(0.039)
Log Inflation		0.024***	0.023***	0.021***
		(0.007)	(0.008)	(0.007)
Capital Account		0.013**	0.012*	0.008
Openness		(0.006)	(0.006)	(0.006)
GDP Growth		0.006***	0.006***	0.006***
		(0.002)	(0.002)	(0.002)
Polcon 3			0.038	
			(0.059)	
Left*Polcon 3			−0.111	
			(0.071)	
Left*Capital Account				0.012*
Openness				(0.006)
Observations	1207	1207	1207	1207
Countries	83	83	83	83
R-sq (within)	0.733	0.738	0.738	0.739
R-sq (between)	0.940	0.822	0.776	0.788
R-sq (overall)	0.832	0.780	0.761	0.766

Note: ***, **, * indicate significance at 1%, 5%, and 10% levels, respectively. The standard errors shown in parentheses are adjusted for heteroskedasticity and clustered by country. The dependent variable is **Market Capitalization/GDP** over the period 1975 – 2004. The variable **Left** is a dummy variable that equals one if the executive branch in presidential or semi-presidential systems is coded left; in parliamentary systems, the variable takes a value of one if the largest party in the government is coded as left (from the Database of Political Institutions, DPI; Beck *et al*., 2001). The economic variables **Inflation, GDP,** and **GDP/capita Growth** are from the World Development Indicators. **Polcon 3** (Henisz, 2000) is a proxy for veto players. **Capital Account Openness** comes from Chinn and Ito (2006).

model in column (2) is particularly demanding, as we include the economic controls along with the lagged value of the dependent variable; our main result holds up at standard levels of confidence. The results in columns 3 – 4 suggest that the substantive conditional (interactive) effects of institutional (Polcon 3) and economic constraints (Capital Account Openness) on partisanship remain consistent, although only the interaction between Left and Capital Account Openness retains statistical significance in the dynamic specification.

We conducted additional robustness tests using other measures of financial development as the dependent variable. The relationships do not seem hold for indicators such as value traded, stock turnover, or private credit to GDP, where partisanship seems to have no effect. Note,

however, that the coefficient on left is positive and significant for indices that measure the amount of capital raised abroad and international market capitalization.[23] This may reveal the sensitivity of stock market capitalization to international capital flows, in contrast with some of the other measures of financial development, which are not as reliant on international flows. These results are consistent with the findings in the models reported on column 7 of Table 3 where we interact left orientation of the incumbent with capital account openness. Such an inference provides evidence of a bond between labor and international capital against the interests of domestic capital, who oppose market liberalization in order to maintain rents (Rajan and Zingales, 2003; Pinto and Pinto, 2007, 2008a).

In sum, the results from the statistical analyses suggest that our argument linking partisanship to financial market development is plausible. We find a robust, statistically and substantively significant relationship between left-leaning governments and market capitalization, which supports our theoretical expectations.

CONCLUSION

This paper investigates empirically the political determinants of increased investor protection and stock market development. We argued that left-leaning governments, particularly moderate ones such social democratic governments in Europe, Chile's Concertación or Lula's PT in Brazil, are more likely to provide regulation and better investment environments than their right-leaning counterparts, and will thus be more attractive to investors. We test this prediction side-by-side with a number of competing hypotheses on the role of legal systems, formal and informal institutions on investor protection and market capitalization. Our explanation of the effects of partisanship departs from conventional wisdom, whereby the left is associated with lower investor protection and shallower financial markets.

Using a panel of 85 countries over the period 1975 – 2004 we find evidence of partisanship effects even after controlling for unobserved heterogeneity and time effects. Our results suggest that left-leaning governments are more likely to be associated with higher stock market capitalization, and the relationship appears to be quite robust. We show that the effects of the left are conditional on the structure of the economy and that they evolve over time: the strongest positive impact of the left on market capitalization is observed when the economies eliminate their capital account restrictions. We also find support for alternative hypotheses including English legal origin and majoritarian electoral rules – both having a positive effect on market capitalization; yet our partisanship hypothesis appears to remain strong and robust to the inclusion of variables proposed by competing explanations, and seems to dominate most of them.

Politics surely influences investment – this is not news (see *inter alia* Fisman, 2001). More difficult is evaluating which political variables matter and why. Our results shed new light on the influence of politics and institutions on financial development, particularly the central role of the preferences of relevant political actors, which had been overlooked in earlier studies. These findings should be of interest due to the increasing evidence that financial development is strongly correlated with economic development – as both an indicator and as a cause (Levine, 2005).

Our project focuses on stock market capitalization. We find that left involvement in a government can be reassuring to investors. It confirms the reasoning of Rajan and Zingales and Pinto and Pinto that opposition to financial liberalization comes from domestic sources including domestic capital. It is a type of protectionism and thus the politics of financial liberalization resembles the politics of protectionism more generally.

NOTES ON CONTRIBUTORS

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NOTES

1 See Levine (2005: 867).
2 Among the many critiques of legal family making this point about variance within countries over time, see Rajan and Zingales (2003a, 2003b), Gourevitch (2003), Gourevitch and Shinn (2005), Perotti and von Thadden (2006).
3 Market capitalization reflects the response of economic actors to the incentives created by statutes aimed at protecting minority shareholders, and hence we

treat market capitalization as a proxy of MSP. Rajan and Zingales (2003a) do essentially this in 'The Great Reversals' paper, their critique of legal family explanations of the development of financial institutions.

4 Biais and Perotti (2002) advance an alternative explanation of public support of market capitalization resulting from broadening ownership that resulted from privatization of state-owned enterprises and public utilities.

5 See Perotti and Volpin (2007: 9). Rajan (2009) explores the conditions in which a coalition forms against the rich who oppose pro-market reforms. This is also a theme in Rajan and Zingales (2003a, 2003b).

6 This approach resonates with a literature on political cleavages over trade: the Stolper-Samuelson model, based on relative endowments of factors of production (labor and capital in the stylized version of the model) and the expected distributive consequences of factor-based trade when factor mobility is high, lies at the core of the class approach (left vs. right) on the politics of trade; the Ricardo-Viner model has been used as the foundation for a specific assets approach (i.e. low factor mobility) which predicts that the distributive consequences of trade are felt at the industry, not class, level leading to cross-class coalitions in trade politics (Rogowski, 1987; Hiscox, 2001).

7 On decisiveness and resoluteness of political institutions, see Cox and McCubbins (2001).

8 Pinto (2004), and Pinto and Pinto (2007, 2008a) argue that the incumbent's partisanship – its allegiance to labor or capital – would affect policies aimed at foreign investors, and these policies have the potential to affect inward investment flows. Pro-labor governments will encourage foreign investment inflows that complement labor in production, hence increasing labor demand. Right-leaning governments, usually associated with pro-business stances, will promote inward investment that complements domestic capital in production, generates positive spillovers effects on domestic businesses, and/or introduce labor saving technologies (Pinto and Pinto, 2007, 2008a). In a dynamic setting, partisanship could play a role in reducing the expectation that the host government would act opportunistically against some types of investors, not others (Pinto, 2004; Pinto and Pinto, 2008a, 2008b).

9 Corporatism historically has brought labor and business together in opposition to MSP deepening financial markets, but modern developments may work the other way (see Gourevitch and Shinn, 2005; and Cioffi and Hoepner, 2006).

10 See Alfaro (2004) who develops a political economy model of capital account restrictions where the pro-labor government chooses lower restrictions because higher capital accumulation results in higher labor productivity.

11 We do have data on sectoral composition of the economy (agriculture, industry, and services) but these are too crude to pick up on differences across industries within these sectors.

12 Measures of MSP and blockholding, which more directly reflect regulatory preferences, are not currently available for large groups of countries over time.

13 The literature often calls this 'ideological' though to us 'ideology' represents a particular interpretation of partisan alignment – a narrower concept since it omits the institutional strength of interest groups. We prefer the term 'partisanship.

14 To test our explanation against the legal origin school, we fit a random effects model, which allows us to include time-invariant legal traditions as an explanatory variable.

15 Market capitalization is also the best proxy for MSP presently available for cross-national analysis over an extended period of time.

16 We code the variable as follows: 1 = 'Left', 0 = 'Right' or 'Center'. We drop the observations where no information is available to classify the political orientation of the party in the Database of Political Institutions, coded as 0 in DPI. Re-coding these observations as 0 on the Left dummy does not alter the results.

17 In alternative specifications we add a dummy variable for incumbents coded as 'Center' in the DPI, created in similar way. In general the coefficient on the Center dummy is positive, but never attains statistical significance. Adding the Center dummy makes the coefficient on Left substantively and statistically stronger.

18 Polcon3 (political constraints) is an index that captures institutional and political constraints on the executive (Henisz, 2002). Relying on a simple spatial model of political interaction Henisz derives a measure of how constrained the chief executive is in her choice of policies. It is a measure of the likelihood of change in policy given the structure of political institutions (the number of veto points) and the preferences of the actors that hold each of these points (the partisan alignment of various veto points and the heterogeneity or homogeneity of the preferences within each branch). Possible scores for the final measure of political constraints range from 0 to 1.

19 We thank an anonymous reviewer for encouraging us to develop a continuous measure of partisanship that accounts for the relative strength of the incumbent vis-à-vis the legislature.

20 These countries are El Salvador, Italy, Macedonia, Morocco, New Zealand, Russia, and Tunisia.

21 Capital account openness is a choice made by politicians and regulators, and hence endogenous to the political system. In alternative specifications omitted from this version of the article we also control for the value of bank assets. The effect of these two variables should be interpreted with caution: the degree of bank versus market based financial intermediation in a country reflects both a trait of the economic structure and an outcome of the political process (i.e. what we are trying to explain in this article). On the politics of capital account liberalization see Alfaro (2004); Quinn (1997); Quinn & Inclan (1997); Alesina and Tabellini (1989); Alesina *et al*. (1994).

22 We interpret this result with extreme caution given that capital account openness is a policy choice, endogenous to the decisions of partisan governments.

23 These results, omitted here due to space constraints, are available from authors upon request.

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APPENDIX

Table A1 Country average values

Country	Start	End	Stock Cap/ GDP	Log GDP/ Capita	Log Inflation	Capital Account Openness	GDP Growth	Left	PR Pagano/ Volpin	Parliamentarism	Polcon3	Log Polity	Log FH Rights	Log FH Civil Liberties	English Legal Origin
Argentina	1984	2004	0.120	8.843	3.906	0.108	0.731	0.048	3.000	0.000	0.437	2.917	1.795	1.710	0
Australia	1975	2004	0.557	9.725	2.608	1.363	1.957	0.467	1.000	2.000	0.491	3.045	1.946	1.946	1
Austria	1975	2004	0.099	9.851	2.417	1.795	2.073	0.833	3.000	2.000	0.441	3.045	1.946	1.946	0
Bangladesh	1987	2004	0.023	5.763	2.682	−1.506	2.013	0.625	0.000	0.750	0.153	2.238	1.401	1.306	-
Belgium	1975	2004	0.418	9.806	2.455	1.594	1.855	0.000	3.000	2.000	0.656	3.045	1.946	1.914	0
Bolivia	1994	2004	0.081	6.899	2.612	1.235	1.462	0.000	1.778	0.000	0.575	2.989	1.820	1.585	0
Botswana	1991	2004	0.160	8.033	2.863	0.478	4.494	0.000	0.000	2.000	0.212	2.972	1.814	1.766	-
Brazil	1981	2004	0.216	8.161	4.777	−1.431	0.459	0.417	2.000	0.208	0.515	2.781	1.712	1.573	0
Bulgaria	1996	2001	0.037	7.296	3.853	−1.095	1.165	0.167	3.000	1.000	0.407	2.953	1.817	1.609	0
Canada	1975	2004	0.604	9.847	2.516	2.623	1.752	0.667	0.000	2.000	0.426	3.045	1.946	1.946	1
Chile	1978	2004	0.616	8.125	3.045	−0.912	3.741	0.000	0.000	0.000	0.279	2.371	1.374	1.547	0
China	1991	2004	0.246	6.656	2.490	−1.189	9.103	1.000		1.000	0.000	1.386	0.000	0.347	0
Colombia	1976	2004	0.095	7.504	3.301	−1.481	1.483	0.000	3.000	0.000	0.404	2.934	1.635	1.482	0
Costa Rica	1992	2004	0.084	8.242	3.039	0.514	3.856	0.375	3.000	0.000	0.335	3.045	1.946	1.830	-
Cote d'Ivoire	2001	2004	0.119	6.376	2.397	−1.095	−2.010	1.000	0.000	0.000	0.185	2.501	0.795	0.968	-
Croatia	1998	2003	0.163	8.363	2.434	0.162	3.812	0.500	2.000	0.000	0.307	2.640	1.657	1.626	0
Cyprus	1991	2004	0.459	9.409	2.439	−0.611	2.035	0.000	3.000	0.000	0.421	3.045			-
Czech Republic	1998	2004	0.207	8.645	2.431	1.279	2.481	0.857	2.000	2.000	0.430	3.045	1.946	1.814	0
Denmark	1975	2004	0.308	10.097	2.532	1.371	1.631	0.500	3.000	2.000	0.534	3.045	1.946	1.946	0
Dominican Republic	1997	1999	0.009	7.605	2.732	−1.615	6.281	0.000	2.000	0.000	0.393	2.944	1.701	1.609	0
Ecuador	1992	2004	0.072	7.205	3.666	0.197	0.721	0.909	3.000	0.000	0.261	2.947	1.725	1.589	0
El Salvador	1996	2004	0.129	7.634	2.441	2.278	0.639	0.000	1.750	0.000	0.373	2.890	1.769	1.609	
Estonia	1998	2004	0.334	8.407	2.486	2.623	6.765	0.000	3.000	1.000	0.532	2.833	1.946	1.814	-
Finland	1982	2004	0.643	9.894	2.414	1.963	2.100	0.696	3.000	2.000	0.538	3.045	1.912	1.899	0
France	1975	2004	0.357	9.817	2.526	1.028	1.797	0.500	0.000	2.000	0.359	2.976	1.946	1.813	0
Georgia	2003	2004	0.044	6.746	2.583	1.582	9.624	0.000	2.000	0.000	0.417	2.773	1.498	1.386	0
Germany	1992	2004	0.402	9.999	2.298	2.623	1.204	0.462	2.000	2.000	0.467	3.045	1.946	1.827	0
Ghana	2001	2004	0.178	5.579	3.353	−1.095	2.580	0.000	0.000	0.000	0.347	2.833	1.792	1.701	1
Greece	1975	2004	0.277	9.125	2.987	−0.141	1.828	0.500	2.000	1.600	0.360	3.007	1.898	1.735	0
Guatemala	1996	2001	0.010	7.427	2.740	1.542	1.345	0.000	1.000	0.000	0.392	2.944	1.609	1.386	-
Guyana	2004	2004	0.162	6.911	2.539	2.623	3.123	1.000	3.000	1.000	0.374		1.792	1.792	-
Honduras	1991	1998	0.066	6.814	3.458	−0.160	−0.623	0.000	2.000	0.000	0.332	2.833	1.701	1.609	-
Hungary	1991	2004	0.225	8.464	2.909	0.940	2.705	0.875	2.000	2.000	0.444	3.045	1.927	1.811	0

(Continued on next page)

Table A1 Country average values (Continued)

Country	Start	End	Stock Cap/ GDP	Log GDP/ Capita	Log Inflation	Capital Account Openness	GDP Growth	Left	PR Pagano/ Volpin	Parliamentarism	Polcon3	Log Polity	Log FH Rights Rights	Log FH Civil Liberties	English Legal Origin
Iceland	1994	2004	0.510	10.282	2.394	1.243	2.815	0.000	3.000	2.000	0.495		1.946	1.946	–
India	1976	2004	0.195	5.772	2.632	−1.058	3.313	0.786	1.000	2.000	0.454	2.960	1.733	1.546	1
Ireland	1995	2004	0.623	10.054	2.394	2.596	6.532	0.000	3.000	2.000	0.441	3.045	1.946	1.946	1
Israel	1980	2004	0.401	9.625	3.431	−0.121	1.711	0.160	3.000	1.360	0.529	3.006	1.869	1.708	1
Italy	1975	2004	0.210	9.649	2.717	0.667	1.935	0.000	2.267	2.000	0.454	3.045	1.925	1.849	0
Jamaica	1980	2004	0.375	7.939	3.181	0.341	1.006	0.640	0.000	2.000	0.298	3.022	1.792	1.678	1
Japan	1975	2004	0.660	10.304	2.304	2.301	2.213	0.033	1.000	2.000	0.541	3.045	1.909	1.871	0
Kazakhstan	1998	2004	0.087	7.214	2.788	−1.095	7.515	0.000	0.000	0.000	0.000	1.879	0.693	1.099	0
Kyrgyz Republic	2003	2004	0.016	5.753	2.445	1.243	5.977	0.000		0.000	0.537	2.079	0.693	1.099	0
Latvia	1998	2004	0.082	8.185	2.419	2.426	7.554	0.000	3.000	2.000	0.547	2.944	1.946	1.792	0
Lithuania	1998	2004	0.158	8.149	2.289	2.416	4.940	0.000	1.000	0.000	0.479	3.045	1.907	1.792	0
Macedonia	1998	2003	0.040	7.439	2.143	−0.446	2.729	1.000	1.500	2.000	0.446	2.914	1.609	1.609	–
Malawi	1997	2001	0.078	5.009	3.498	−1.095	−1.210	0.000	0.000	0.000	0.420	2.867	1.638	1.609	1
Malta	1994	2004	0.289	9.111	2.373	−0.795	2.331	0.200	3.000	2.000	0.337		1.946	1.946	–
Mauritius	1990	1995	0.233	7.940	2.767	−0.574	4.063	1.000	0.000	2.000	0.439	3.045	1.895	1.792	–
Mexico	1977	2004	0.174	8.549	3.513	0.607	1.377	0.857	1.000	0.000	0.270	2.432	1.536	1.481	0
Moldova	1998	2004	0.155	5.857	3.098	−1.040	3.384	1.000	3.000	0.600	0.398	2.917	1.719	1.386	–
Morocco	1980	2004	0.154	6.997	2.539	−1.128	1.594	0.280	0.560	0.000	0.252	1.298	1.202	1.183	0
Namibia	2003	2004	0.077	7.595	2.608	−1.095	3.428	1.000	3.000	0.000	0.268	2.833	1.792	1.609	–
Nepal	1994	2000	0.070	5.345	2.703	−0.946	2.623	1.000	0.000	2.000	0.420	2.790	1.609	1.386	–
Netherlands	1981	2004	0.753	9.904	2.346	2.623	1.685	0.333	3.000	2.000	0.474	3.045	1.946	1.946	0
New Zealand	1984	2004	0.424	9.444	2.476	2.492	1.405	0.524	0.571	2.000	0.392	3.045	1.946	1.946	1
Nigeria	2000	2004	0.140	5.945	3.052	−0.594	2.727	0.000	0.000	0.000	0.448	2.708	1.386	1.271	1
Norway	1980	2004	0.249	10.300	2.510	1.010	2.500	0.480	3.000	2.000	0.493	3.045	1.946	1.946	0
Pakistan	1976	1997	0.136	6.100	2.896	−1.095	1.639	0.727	0.000	2.000	0.391	2.798	1.404	1.197	1
Panama	1992	2004	0.161	8.229	2.176	2.623	2.496	0.000		0.000	0.480	2.979	1.796	1.714	0
Paraguay	1993	2004	0.028	7.269	2.930	0.462	0.194	0.000	3.000	0.000	0.469	2.882	1.442	1.609	–
Peru	1981	2004	0.141	7.598	4.040	0.948	0.613	0.174	3.000	0.000	0.420	2.737	1.516	1.469	0
Philippines	1988	2004	0.491	6.857	2.737	−0.042	1.593	0.000	0.000	0.000	0.387	2.944	1.738	1.570	0
Poland	1991	2004	0.157	8.360	2.820	−0.608	2.416	1.000	3.000	0.000	0.352	3.002	1.927	1.811	0

(Continued on next page)

Table A1 Country average values (Continued)

Country	Start	End	Stock Cap/ GDP	Log GDP/ Capita	Log Inflation	Capital Account Openness	GDP Growth	Left	PR Pagano/ Volpin	Parliamentarism	Polcon3	Log Polity	Log FH Rights Rights	Log FH Civil Liberties	English Legal Origin
Portugal	1977	2004	0.191	9.007	2.882	0.586	2.560	0.429	3.000	1.571	0.420	3.035	1.923	1.872	0
Romania	1998	2004	0.070	7.499	3.640	−0.272	3.521	0.571	3.000	2.000	0.456	2.944	1.766	1.792	0
Russia	1998	2004	0.302	7.480	3.684	−0.493	3.183	0.000	1.500	0.000	0.191	2.708	1.155	1.195	0
Slovak Republic	1998	1998	0.044	8.227	2.688	−1.095	3.544	1.000	3.000	2.000	0.519	2.996	1.792	1.792	0
Slovenia	1998	2004	0.181	9.204	2.691	0.842	3.715	1.000	3.000	2.000	0.537	3.045	1.946	1.858	0
South Africa	1975	2004	1.224	8.062	2.922	−1.216	−0.007	0.333	3.000	1.333	0.328	2.824	1.421	1.241	1
South Korea	1975	2004	0.270	8.702	2.700	−0.540	5.800	0.000	1.000	0.433	0.418	2.270	1.560	1.427	0
Spain	1978	2004	0.361	9.325	2.679	0.829	2.122	0.519	2.000	2.000	0.481	3.037	1.928	1.826	0
Sri Lanka	1985	2004	0.126	6.535	2.859	−0.044	3.262	0.500	3.000	0.000	0.332	2.782	1.531	1.294	1
Sweden	1975	2004	0.550	10.016	2.565	1.703	1.657	0.700	3.000	2.000	0.485	3.045	1.941	1.946	0
Switzerland	1996	2003	2.285	10.414	2.168	2.623	0.880	1.000	2.000	2.000	0.628	3.045	1.946	1.946	0
Tanzania	1998	2004	0.036	5.616	2.618	−1.095	2.504	1.000	0.000	0.000	0.242	2.434	1.329	1.431	1
Thailand	1976	2000	0.261	7.104	2.575	−0.054	4.854	0.000	0.000	1.750	0.467	2.642	1.498	1.416	1
Trinidad and Tobago	1981	2004	0.335	8.667	2.720	0.678	1.005	0.458	0.000	2.000	0.419	3.004	1.881	1.807	–
Tunisia	1986	2004	0.105	7.461	2.541	−0.876	2.551	1.000	0.526	0.000	0.030	1.914	0.757	1.156	0
Turkey	1976	2002	0.135	7.804	4.201	−0.892	1.639	0.174	3.000	2.000	0.426	2.889	1.546	1.310	0
Ukraine	1998	2002	0.044	6.478	3.020	−1.095	4.650	0.000	1.500	0.000	0.533	2.890	1.476	1.386	0
United Kingdom	1975	2004	0.953	9.856	2.630	2.087	2.110	0.400	0.000	2.000	0.361	3.045	1.946	1.882	1
United States	1975	2004	0.810	10.216	2.512	2.623	2.034	0.400	0.000	0.000	0.402	3.045	1.946	1.946	1
Uruguay	1993	2004	0.012	8.703	3.315	1.820	2.694	0.000	3.000	0.000	0.545	3.045	1.900	1.838	0
Venezuela	1977	1993	0.084	8.569	3.480	−0.214	0.849	0.545	3.000	0.000	0.467	2.986	1.885	1.709	0
Zambia	1995	2004	0.080	5.729	3.546	1.567	0.514	1.000	0.000	0.000	0.209	2.535	1.198	1.386	1
United Kingdom	1975	2004	0.953	9.856	2.630	2.087	2.110	0.400	0.000	2.000	0.361	3.045	1.946	1.882	1
United States	1975	2004	0.810	10.216	2.512	2.623	2.034	0.400	0.000	0.000	0.402	3.045	1.946	1.946	1
Uruguay	1993	2004	0.012	8.703	3.315	1.820	2.694	0.000	3.000	0.000	0.545	3.045	1.900	1.838	0
Uzbekistan	1996	2004	0.009	6.327		−0.999	3.004	1.000		0.000	0.000	0.693	0.000	0.693	-
Venezuela	1977	1993	0.084	8.569	3.480	−0.214	0.849	0.545	3.000	0.000	0.467	2.986	1.885	1.709	0
Yugoslavia	1998	2001	0.001	6.869			6.774	1.000	3.000	0.000	0.191	2.250	1.197	1.197	–
Zambia	1995	2004	0.080	5.729	3.546	1.567	0.514	1.000	0.000	0.000	0.209	2.535	1.198	1.386	1
Zimbabwe	1980	1980	0.218	6.395	2.595		10.454	0.000		2.000	0.328	2.773	1.609	1.386	1