

ISSN 1936-5349 (print)
ISSN 1936-5357 (online)

HARVARD

JOHN M. OLIN CENTER FOR LAW, ECONOMICS, AND BUSINESS

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Published in *Journal of Law, Finance & Accounting*, Vol. 2, No. 1 (2017)

Discussion Paper No. 987

02/2019

Harvard Law School
Cambridge, MA 02138

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This paper is also Discussion Paper 2019-1 of the
Harvard Law School Program on Corporate Governance

Financial Markets and the Political Center of Gravity

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ABSTRACT

In recent decades, academics across multiple disciplines and policymakers in multiple institutions have searched for the economic, political, and institutional foundations for financial market strength. Promising theories and empirics have developed, including major explanations from differences in nations' political economy.

A common view among multiple academic observers is that, particularly because many pro-market corporate reforms occurred in Europe during the 1990s, when social democratic parties governed and financial markets deepened, basic left-right explanations fail to explain financial market depth. Hence, more complex political explanations are in play, and the correlation of left governments, market-oriented reforms and financial deepening presents an unexpected paradox. This finding might be interpreted to indicate that left-right orientation is unimportant in affecting financial development and that either nonpolitical institutional issues or different political considerations are more central.

We show here, first, that conceptually it's not relative local placement of the governing coalition on the nation's left-right spectrum that counts, but whether the polity as a whole — i.e., its political center of gravity or its dominant governing coalition — is left or right on economic issues. If interests and opinion shift in a nation, such that its political center of gravity is no longer statist and anti-market, then even locally left parties could and would often implement pro-market reforms. (And conversely, in an earlier era when interests and opinions were statist and anti-market,

*We thank for helpful comments Franklin Allen, Thomas Brennan, Gérard Charreaux, Peter Gourevitch, Howell Jackson, Brian Libgober, Katherine Litvak, Hideki Kanda, Pablo Pinto, Kristian Rydqvist, Holger Spamann, Stephen Weymouth, and participants in workshops at ESCP–Europe, Harvard Law School, and the Global Corporate Governance Forum.

one should not expect to see even locally right parties pushing pro-market financial reforms forward.)

Second, we bring forward data showing substantial movement over recent decades of political parties and governing coalitions; these shifts must be accounted for in assessing the impact of left-right divisions on financial and securities markets. In large measure, these political shifts correlate with financial markets shifts. Left-right matters not only in the fixed-in-time cross-section, but also the left-right economic shifts over time make an often significant empirical difference. The result from this data and study, in our view, leads to results and correlations that comport with most observers' intuitions about the impact of left-right politics on financial market depth. The results thereby further buttress the importance of a nation's basic left-right political orientation in explaining financial market outcomes.

Keywords: Financial markets, Party politics, Median voter, Economic policy, Capital market development, Party manifestos, Social democracy, Political determinants

1 Introduction

Academics have sought to explain why equity and bond markets in the United States were deep and wide for much of the 20th century, while post-World War II financial markets in western European nations were narrower — even after western Europe had recovered and had a per capita GDP approximating that of the United States.

Differences in political economies have been brought forward as primary explanations for differences in financial markets. Social democratic Europe in the early postwar decades did not support capital markets (Roe, 2000) — if the median voter lacked physical capital but had relatively higher human capital, the median voter would prefer a go-slow industrial policy and would prefer that capital markets not be strong enough to insist on industrial change that would quickly erode his or her human capital (Perotti and von Thadden, 2006).

Furthermore, shifting coalitions in the European democracies did not support capital market development, but fit better with bank-centered finance and family-dominated enterprises (Gourevitch and Shinn, 2005; Culpepper, 2011; Pagano and Volpin, 2005). Simple, more abstract, left-right conflict destabilized public firms with diffuse ownership in nations in which labour could make strong claims on firms' cash flows. Such firms, common in postwar

western Europe, could earn more value for shareholders when privately-held than when publicly-owned (Roe, 2001, 2003; Mueller and Philippon, 2011).

Political theories posit that the treatment of capital can be a deeply political question for most nations and that how well capital fares in the polity largely determines the depth and breadth of financial markets. Some polities will pressure firms to channel a good part of internal cash flows to existing employees; others will slow down structural change in ways that privately-held firms can mitigate best for capital owners; and still others will not provide the institutional supports that outside capital needs to be effective and protected. Some polities have been hostile to capital, and that hostility induces capital owners to take defensive measures, many of which preclude investors from leaving their capital exposed in transparent public markets. While the average voter has little regard for corporate governance specifics, the median voter (or that voter's parliamentary representation) presumably has a broad, generalized interest in whether stock markets are deep, whether families control stable firms, and the overall economic picture. In the most sharply put of the political theory views, there are multiple nations with similar institutional capacity for financial development — such as western Europe, the United States, and Japan in the postwar, modern era — but their differing polities induced those institutional capacities to be used differently in financial markets, particularly in the decades immediately after World War II (Roe, 2003). When these political pressures on capital subsided, more complex coalitions could govern without undermining large-scale public capital gathering and deployment.

In the political theory's most fundamental form, one asks whether the dominant interests in a polity favor or disfavor capital markets. The polity impedes or propels its institutions toward a goal; institutional capacity for nations at the same level of economic development is not then the primary determinant. From here the political theory comes in several major formulations, such as median voter theory (Perotti and von Thadden, 2006), left-right conflict (Roe, 2003) (these two overlap), dominant coalition characteristics (Gourevitch and Shinn, 2005), the decisive influence of concentrated corporate interests on low salience issues (Culpepper, 2011), the interests of economic elites in promoting or denigrating financial markets (Rajan and Zingales, 2003), and the nature of political representation (Pagano and Volpin, 2005; Mueller, 2006). Each theory boasts empirical support. However, each theory also has gaps in explaining important outcomes.

While most empirical studies to date on these political and institutional explanations are cross-sectional, several recent studies examine variation over time and space, thereby more rigorously accounting for the politics of financial market development. In a prominent and sophisticated example, Pinto *et al.* (2010) present evidence that left-of-center governments are associated with *stronger* security markets than more economically conservative governments. They conclude (*id.*: 386) that this evidence “reverses the sign” on past theorizing

that left-oriented governments will, all else equal, not produce deep capital markets. Other astute political scientists refer to this issue as “the political paradox of finance capitalism” (Cioffi and Höpner, 2006; Callaghan, 2009, p. 733; Schnyder, 2012, p. 1436).

We help to resolve those contradictions and that paradox here. To properly specify the polity, one must measure left–right orientation on an absolute scale, not a local one that just compares whether the nation’s left or right is in power after a specific election. If wide parts of the spectrum of a polity became pro-market over time, then finding that a nominally and locally left government supports financial markets is not the same (and is not as paradoxical) as finding that a strongly social democratic government kept both its historical left principles and its historical supporting interests but then decided to support financial markets. If the polity has moved, and if the major political parties themselves have moved, then one expects policy would move. If policies move, markets might also move.

Consider the median voter theorem for democratic polities if the median voter shifts (or stays steady) over time: political parties, in their drive to capture a democratic majority, tend in this conceptualization to adopt the policies that the median voter prefers. With the median voter theorem in mind, one realizes that whether its orientation is locally left or right, whether the party has historically been on the left or right, and whether the party in power is named “social democratic” or “labour” or “Christian democratic” or even “conservative,” are not decisive factors. Parties change their positions over time to reflect the preferences of the polity. If they do not, they will lose elections. Thus, one cannot rely on a static left–right label; one must analyze the impact of dynamic shifts in the political center of gravity overall and in the governing coalition in parliamentary democracies.

Intuitively, we know that polities and political parties shift their economic views over time. For financial market breadth and depth — the outcome we seek to explain — such shifts may be of first-order importance. Our contribution is to take this conceptualization, configure existing political data to measure such shifts over the past several decades, and to see whether such shifts roughly correlate often enough with shifts in financial market outcomes. They do.

Briefly put, locally left and locally right do not map well in theory onto absolutely left and absolutely right scales. Locally left in one time period need not be equally left in another time period. Compare Tony Blair’s Labour Party’s economic policy to that of James Callaghan’s (Budge *et al.*, 2001). The former was market-friendly while many considered the latter to have been “hard” left. Yet both would code “left” on a simple coding of whether the party was oriented left or right compared to other parties during their time in power. Similarly, a locally right-oriented party in a statist, social democratic polity should not be expected to strongly support markets and in the immediate postwar era the right-wing parties generally did not. See Roe (2000, p. 66), who

states that during Europe's social democratic heyday, "[n]ominally conservative or middle-of-the-road political parties have pursued the core social democratic policies". Hence, proper coding of left-right politics over time must account for the possibility that an entire polity shifts leftward or rightward. When we use data measuring left-right shifts over time in the overall polity and the governing coalition, the left-right dichotomy generally persists as influential.

To accomplish this improved left-right specification, we introduce for financial analysis a new configuration of time series measures of economic policy orientation, drawn from the Comparative Political Party Manifestos data, for a sample of roughly 40 democracies over the 1960–2004 period. We improve upon past measures of "left-right" political orientation to account for shifts over time in a nation's political orientation. Overall, our evidence points toward the following conclusions. First, the median voter preference has shifted in recent decades in the wealthy democracies. In general, the voter moved rightward at least until the financial crisis on most economic issues; the major political parties also moved rightward, overall. In general — and with not a small amount of noise and not without some evidence to the contrary — both left and right parties became more pro-market and thereby allowed market-oriented coalitions to form that could not have governed in earlier decades. This pro-market shift needs to be accounted for when assessing whether left-right orientation links to the breadth and depth of capital markets.

Second, the political orientation of political parties in the wealthy west converged in recent decades on market-based issues (again, at least until the financial crisis). Consistent with the median voter preference shifting rightward, both left and right parties moved generally in tandem, but with the gaps between them on market oriented policy positions narrowing. Formerly left parties that once were hostile to market oriented policies shifted their positions.

Hence, political scientists' findings that nations with locally left political parties in power in the 1990s and 2000s had strong financial markets must be interpreted carefully to truly understand the political economy underpinnings of financial markets. The left parties of the 1990s and 2000s often had policy preferences that sharply differed from the preferences of left parties of the 1960s, even if those parties had the same name and perhaps even similar membership in both eras. The entire polity in many nations had shifted rightward, with their 'left' parties moving rightward, toward the prior center.

Third, when re-examining the relationship between political orientation and market capitalization, we find that focusing specifically on a party's policy platform, as opposed to historic party labels, changes the substantive interpretation of past findings. Pro-market economic orientations are associated with higher levels of financial market growth.

The data we present and analyze — coding left vs. right on an absolute scale over time — is consistent with the view that financial markets' depth

and breadth depend in important part on left-right political orientation, as earlier work had conjectured. This is a result that accords with most observers' political intuitions.

2 Foundations for Financial Markets: Theory, Policy, and Empirics

Policymaking and academic inquiry into economic development have turned in the modern era to finance as a propellant of economic development. And, as they turned to finance, academics sought to explain the strength or weakness of a nation's financial markets. In this section, we outline several prominent explanations.

2.1 *Political Preferences and Political Coalitions*

Several prominent works look to political decisions, interests, and structure as dominant determinants of financial markets. Rajan and Zingales (2003) examine how industrial elites repressed finance to undermine their potential product market competitors, especially during the first part of the twentieth century. Perotti and von Thadden (2006), Perotti and Schwienbacher (2009), and Degryse *et al.* (forthcoming) focus on the median voter in richer democracies. In nations where the median voter lost his or her financial assets in, say, the interwar inflation in Europe, but had strong human capital, the median voter preferred industrial stability, without the disruptions that securities markets would bring. That is, if inflation destroyed the middle class's savings, then the middle class no longer had savings to protect. They and their parliamentary representatives voted accordingly, by supporting corporate governance structures that would slow industrial change, thereby preserving their supporters' human capital for longer, at the expense of financial capital.

Gourevitch and Shinn (2005) and Pagano and Volpin (2005) both map coalitions between and among managers, employees, and shareholders onto politics, with shifting coalitions explaining the degree to which a polity provides shareholder protection. Cioffi (2010) and Cioffi and Höpner (2006, pp. 487–488) provide similar explanations, focusing on tensions between finance and corporate managers, with the shifting coalitions partly dependent on left parties seeing a decline in the strength of labor — their natural constituency — and then seeking to add finance to their coalition. Social democrats also sought to portray themselves as modernizers, to appeal to middle-class voters. Culpepper (2011) offers a median voter perspective in general, arguing that when corporate issues lacked sufficient salience to engage public opinion, outside interests, and the median voter, then insider interests could realize their agenda, often regardless of which party is in power.

Roe (2000, 2003) shows that for Western Europe and East Asia in the first post-war decades, the severity and nature of left–right conflict, and the

effort to co-opt internal left-oriented groups and political parties can explain core financial differences in the post-World War II decades among the richer capitalist democracies. Even locally right parties, like de Gaulle's in France or Christian Democrats in Italy (Deeg, 2005, 544 n.2), adopted what today would be seen as left-leaning economic policy. When labor power made strong claims on firms' cash flows, he argues, concentrated owners had a comparative advantage over dispersed owners. Managers of diffusely-held firms without strong shareholder-oriented corporate governance had reason to concede labor's claims; concentrated owners had reason — it was their money — to find ways to accommodate but not concede too much. In nations with strong left power after World War II, governments were less likely to support the capital markets institutions that would protect outside stockholders and bondholders (such as well-funded regulators and business courts).

These political theories examine political configurations and institutions in wealthy democracies, searching for factors that support or weaken financial markets, or that support particular kinds of financial markets and weaken contrasting kinds. They seek to explain why the coalitions and institutions in the wealthier, already-developed nations, such as, say, France, Germany, and Italy lead to less political support for liquid financial markets and, hence, facilitate more concentrated ownership in their large firms than prevailed in the United States during the past half-century.

2.2 Empirical Analysis to Date: A Brief Summary

Perotti and von Thadden (2006) and Perotti and Schwiabacher (2009) bring forward the middle class's loss of savings in the interwar hyper-inflation in Europe to explain the political position of the median voter in subsequent decades. With the median voter's savings lost in the interwar era's inflation and economic degradation, the median voter in the postwar European democracies lacked incentives to support financial markets. Moreover, with the median voter's long-term wealth tied to unfunded, pay-as-you-go company pension plans, such median voters had reason to more strongly favor continuity and slow industrial change than their homologues with more financial savings and funded pension plans, as was more common in the United States. They present evidence that in several continental European nations, the middle of the income distribution owned less equity than those in the middle of the income distribution in the United States. Perotti and von Thadden (2006, p. 163). Such voters would prefer steady-as-she-goes banks in corporate governance, because such voters and their parliamentary representatives would have wanted to avoid rapid change that could erode the voters' human capital.

A simple correlation of political orientation and stock market development comes via Roe's (2000) observation that in the wealthy nations that have high employment protection and strong labor protection, stock market diffusion is

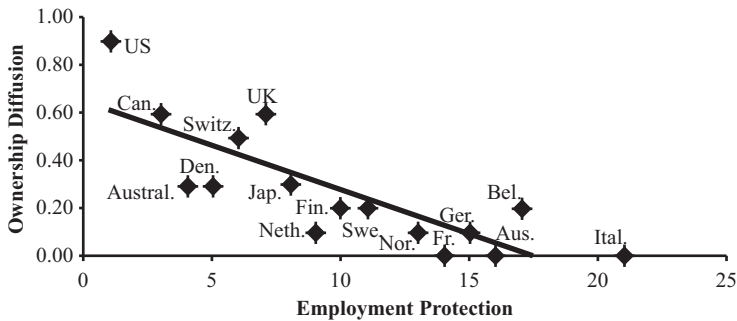


Figure 1: Labor Power as Predicting Ownership Separation in Large Firms

Note: This graphic takes a measure of total labor power — based on an index amalgamating employment protection and ease of unionization — and shows it to correlate with ownership separation in large firms. Sourcing in Roe (2003, pp. 137–138).

low, while nations with high stock market diffusion do not vigorously protect employees holding jobs. The relationship is easily visible in Figure 1.

Roe hypothesizes that nations with powerful labor and a powerful left in the immediate post–World War II decades were less interested in protecting financial interests. Sometimes those nations did not provide the institutions needed for outside investors to flourish. Sometimes owners in such environments found the private firm much more valuable to stockholders than the public firm, because labor’s powerful claims or the firms’ cash flows would not be aggressively contested by managers without strong owners, but concentrated, private owners could mitigate them. Overall, in such environments, more shareholder value was captured for shareholders in firms that stayed private or maintained a blockholder if they did go public. Consequently, fewer firms went public and those that did maintained close owners.

Pagano and Volpin (2005) present another political economy explanation. Insiders at large enterprises are aligned against outsiders. The insiders are those owning large blocks of the company’s stock, the firm’s managers, and its employees. They unite to weaken outside stockholders and, hence, they oppose corporate and securities law protections that would facilitate outside investors’ participation, protection, and voice. The three do not vote for the same political party, but their parliamentary representatives make the deals that unite their interests: the blockholders get protection against outside stockholder intrusion while the employees get employment protection. A parliamentary political system with proportional representation is said to be more likely to reach that result (Rueda, 2007).

Gourevitch and Shinn’s (2005) political economy theory differs. In the spirit of Hall and Soskice’s (2001) more general work, they divide the wealthy west along lines of more centrally coordinated and less centrally coordinated

economies, with the more coordinated economies having less need for strong financial markets. Coalitions shift among managers, labor, and financiers, and these shifting coalitions determine the institutional environment and the financial result of deep or shallow financial markets. They examine several such coalitions.

Overall, substantial and carefully-done political science work brings forward country-by-country explanations for corporate governance results, often tied to shifting coalitions and local conditions. For any particular country, a nuanced explanation of shifts in party positions and subtleties of cross-party, cross-sector, and sometime cross-class coalition formation will provide a stronger, deeper explanation for corporate governance outcomes than a one-dimensional left-right or median voter analytic. These explanations require deep knowledge of a particular nation's polity, parties, and people; several such analyses are embedded in the literature cited. However, such coalition subtleties cannot be tested with cross-country data, because the typical explanation is nuanced, but local. Moreover, when a polity's median voter becomes more (or less) pro-market, a pro-shareholder coalition of the kind that has been brought forward is easier (harder) to form.¹

Pinto *et al.* (2010) also present evidence at odds with Perotti and von Thadden's (2006) as well as Roe's (2000, 2003) conclusions and evidence. The latter works would predict that nations with left-leaning governments would have more block ownership, less diffusely held stock markets, and weaker outside shareholder protection. But, Pinto *et al.* present evidence that left-leaning governments are associated with stronger financial markets, not weaker financial markets.

3 Why It's the Political Center of Gravity that Counts

A core concept of modern political science is the median voter theorem. As long as political preferences array along a single dimension (either because one issue dominates or because voters have similarly-arrayed preferences on the salient issues), politicians will be driven to the policy preferences of the polity's median voter. Voters will come close to indifference between the major candidates. (Black (1948) and (Downs, 1957) are the classics; see also Cox (1990); Powell (2000); Lipset and Rokkan (1967) (adapting median voter concepts to a two-dimensional policy space); Grofman (2004) (reconciling limits to the Downsian pure median voter framework); and critiques of the median

¹Moreover, the European Union's impact on existing cross-country studies needs further analysis than it has received and than it will receive here. To the extent the centralized European Union determines key policies, the median voter in each nation could well have become less important than, say, the median voter in the entire Union or in a few dominant nations. If a member is bound by European Union directives, then local political position is not of critical import.

voter concept such as that from Green and Shapiro (1994)). Modern political scientists are less enamored of the median voter theorem as explanatory than are economists (Gillens and Page, 2014). More generally, the efficacy of the median voter theorem depends on assumptions about preferences and their distribution that cannot be assured (Arrow, 1951; Black, 1958; Sen, 1966).

In this basic median voter analytic, identifying where on a nation's political spectrum the party in power is located is less significant than identifying the position of the polity's median voter, as both left and right parties gravitate toward the median's voter's policy preferences. Political parties seeking a majority will move their opinions and policies from those of their "base" ideological activists and core interests toward those of the median voter.

But the median voter's position is not fixed over time. Changing economic production relationships, changing ideologies, and changing interests can shift the median voter's position. Reasons for shifts are discussed in Section 6, but the focus here is on whether we see such a shift, whether the shift was substantial, and, most importantly, whether the shift correlates with changes in the depth and breadth of financial markets.

The median voter theorem simplifies political economy configurations in that it is one dimensional, but its single dimensionality fails to account for coalitions of interests, intensity in motivating a party's base to vote, and happenstance. A fuller analysis would account for these coalitional characteristics. But a shift in the median-voter can induce a movement of political outputs even in multi-party coalitional polities. Even if each party appeals to narrow interests, when the parties form a governing coalition, they are pressured to form a government in the vicinity of that of the median voter as represented by the median political party. And at another analytical level, an intense left, anti-market polity will stymie coalitions that facilitate or tolerate strong financial markets. As the median voter's anti-market sensibility subsides, such market-oriented coalitions can appear, although they might not. Until a strong left subsides, such coalitions cannot govern.

We seek to evaluate here whether the governing coalition's market views — as reflected by the pro- or anti-market orientation of the government in power — moved during recent decades.

4 Measuring Political Orientation

4.1 *Is Political Orientation Constant Over Time?*

Does 'left' mean the same thing in today as it did in the 1960s? Are the economic policies of left-oriented political parties' roughly constant over time? Implicit in the Perotti and von Thadden (2006) median voter theorem for financial development and explicit in Roe's (2000: 579) left-right analytic

is that political parties and nations could shift rightward and become more market-oriented, due to changing interests or views. However, neither provided more than simple descriptive data on the matter. That data deficiency we remedy here.

To be more specific about the data problem, treating party political position as a three-decade constant could be troublesome, if the parties in fact shifted positions during those three decades, as Lipset and Marks (2000, p. 275) indicate could be detected by 2001. Roe (2000, pp. 570–81) says:

Europe's move rightward ... lead[s] to ... predictions: As economic politics has moved rightward diffuse ownership has become more feasible in Europe. As it becomes more feasible, the demand from policymakers and investors could increase ... for institutions that better support diffuse ownership. The recent rise in stock market institutions was preceded in Europe by a (necessary) precondition: a *political* shift to the right.

This descriptive of the Italian polity from the *Economist* in 2001, entitled "They're (nearly) all centrists now," illustrates:

As elsewhere in Europe, Italy's voters and main parties *of right and left* have stampeded towards the centre ground. *They are all for the market now.* They all want to sell off the state. They all say they want to lower taxes, loosen the labour market and reform the pensions system. ... These days there are remarkably few serious doctrinal differences across Italy's political spectrum.

Consider an American example. Compare economic policies during the Clinton presidency's first years with those Clinton pursued during his presidency's middle and the end. The Clinton administration's economic policies — and hence position on the left-right spectrum — were not constant over the eight years. The Clinton administration first began with a major, failed initiative to extend social welfare law by expanding health care, while the second Clinton administration sought to "end welfare as we know it." And Republican administrations shifted leftward and rightward over time. Compare the policies of Reagan's market-centric, anti-government presidency to those of Eisenhower's, or even Nixon's (price controls, an Environmental Protection Agency, an office of Occupational Health and Safety Administration, and "we're all Keynesians now"). In the analysis section below, we bring forward quantitative evidence to support this intuitive argument. Politics and political parties shift markedly on economic issues over time.

The western democracies experienced disruptive political change during the 1975 to 2004 period that is central to fully understanding the corporate finance dynamics and the problems academics have studied thus far. Statist nations at

that period's start became market oriented by its end. Government-owned firms were privatized. Markets were liberalized. The Berlin Wall fell during the middle of this period, changing Europe's political face. In light of the conceptual problems with past measures of left-right politics, which used left vs. right as a within-country constant, the obvious question is whether alternative measures can better handle the potential shifts over time along the political spectrum.

4.2 *Measuring Change in National Political Orientation*

Can we measure changes in the polities' views of markets over time?

Political scientists have long sought to measure social, political, and economic ideology across nations (see Budge *et al.*, 2001 for a comprehensive overview). One common method is to quantify party policy positions by using expert surveys of political position (Benoit and Laver, 2006; Steenbergen and Marks, 2007: 349–360). The extant expert surveys, however, are available for only a limited number of years and a limited number of nations.

A second method to measure political position is to analyze the content of political party manifestos (Budge *et al.*, 2001), particularly of the governing party or parties. The political party manifesto raw data is richer over time and covers a wide range of nations than the expert surveys. The Comparative Manifesto Project (CMP), a major undertaking in comparative politics, provides a rich database for making cross-national and cross-temporal comparisons in party policy preferences (Budge *et al.*, 2001; Klingemann *et al.*, 2006).²

The CMP data codes the content of party manifestos for more than 50 democratic nations since 1945. The theoretical underpinnings of the CMP coding project rely on “saliency theory” of party competition, where political parties emphasize salient policy issues in their published manifestos, thereby stating a party's policy preferences (Budge *et al.*, 1987/2008). As an example, consider free trade policy. If a party's manifesto frequently mentions anti-protectionist policies in the 1990s but not in the 1970s, then the party would be seen to have become more free-trade and more market-oriented during those decades.

The Comparative Manifesto Project's database is the standard in the area, having won the American Political Science Association Lijphart/Przeworski/Verba Data Set Award in 2003.³ It has been widely-used among scholars of

²In addition to its unrivaled temporal coverage — critical to this paper's project — scholars have also argued that, when compared to expert surveys, the CMP data is more impartial and more accurately represents where parties stand in the policy space (McDonald and Mendes, 2001; Dinas and Gemenis, 2010). Research also demonstrates that the CMP data maintains acceptable levels of reliability and validity (McDonald and Mendes, 2001; Volkens, 2007).

³American Political Science Association, 2003 Award Recipients, www.apsanet.org/content.asp?contentid=585.

comparative electoral politics and the project reports that it has been cited in more than 1,750 papers in the Google Scholar database.⁴

The dataset is not without critics though. See Gemenis (2013) for an overview. Several scholars have challenged the CMP coding scheme on theoretical grounds, while others have focused on the measurement error inherent in the textual analysis underlying the data (Benoit and Laver, 2007; Laver and Garry, 2000; Mikhaylov *et al.*, 2012; Benoit *et al.*, 2009). Nevertheless, while imperfect and noisy, the CMP data allow us to measure shifts over time. One would want eventual confirmation of our results using differently-constructed databases, but the other datasets now available have narrower coverage across time and across nations, making them inapt for the investigation in this paper. Hence, our results, based on a single dataset, must be treated cautiously, as a first effort.⁵

As a first look at whether party positions and the median voter shifted over time, we examined De Neve's (2011) data on party positions. De Neve's existing data on the median voter's position for 24 democracies over the period from 1960 to 2006 shows a steady rightward shift politically in the nations that account for about 80% of the world's total stock market capitalization during the period 1990–2012. Figure 2 shows the weighted average (by population) of the median voter's preferences in the CMP dataset. The figure displays the changing national ideological center, with the center initially moving toward a more left-leaning policy orientation during the 1960s and 1970s, followed by a sharp rightward (upward on the figure's scaling) shift during the 1980s and 1990s.

That overall trend suggested to us that voters may well have shifted meaningfully over time. Analysis based on relative leftness in the early 1970s as meaning the same as relative leftness in 2000 could thus be sharply called into question.

We next constructed a scale of economic orientation by using ten policy items (five pro-market and five anti-market items) that the CMP database classifies as "Economic," as De Neve's (2011) scaling includes both economic and noneconomic variables from the CMP data.⁶ Each policy item is relevant

⁴Manifesto Project Database, <https://manifestoproject.wzb.eu/>.

⁵Some of the imperfections in the CMP data reduce the chance of our project finding significant results. A main criticism is that the data is noisy, because the coders do not consistently assign manifesto data to the same place on the spectrum and, further, that the coding is biased to the center and away from extremes (Mikhaylov *et al.*, 2012, pp. 80, 90). These two defects lessen the chance of finding significant shifts over time. Yet our analytic nevertheless both detects such shifts and shows the detected shifts correlate with financial market change. A criticism of the CMP data was that prior expert opinion surveys showed less left-right change over time. While critics might have attributed the shift in party positions over time to noise, the better explanation that emerged is that the CMP data measures real shifts in party positions. McDonald *et al.* (2007, pp. 63, 65–66). The value for this paper's project of a database that is sensitive to shifts in position over time is obvious.

⁶Surprisingly to us, the shift over time differed when we limited the constructed Median Voter variable to economic positions in the CMP. The rightward shift of the 1980s and 1990s, as compared to the 1970s, persisted. But the 1960s economic variables coded as less left than the full range of variables, and the 2000s coded as more left than the full range.

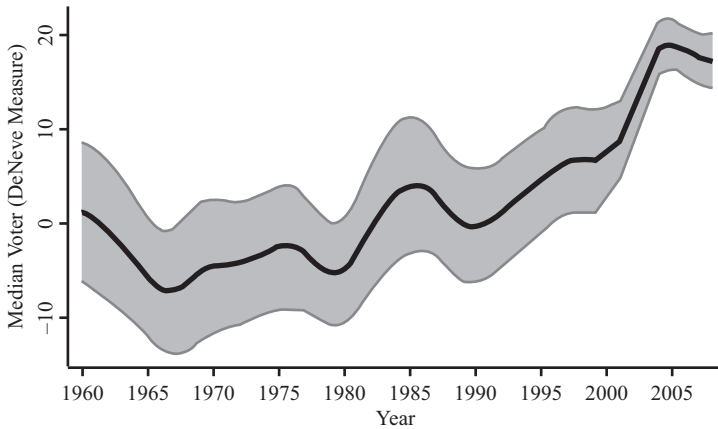


Figure 2: The Average Median Voter Position, 1960–2006 (24 Democracies).

Note: This figure presents the population-weighted average median voter position using the indicators outlined in De Neve (2011). The population estimates are derived from the Penn World Tables dataset. A higher economic median voter position indicates a more right-oriented view.

to financial market development. We measure a party’s economic position by using the CMP’s measure of the party’s emphasis of policy positions within a given (pro- or anti-market) policy position (Gemenis, 2013). We describe these ten policies in Table 1 and show the relevant CMP codes. We combine them into a single measure of the degree of a party’s pro-market orientation, by following the scaling procedure outlined in Lowe *et al.* (2011), using the logged difference between opposing items (pro-market and anti-market) to generate an additive scale. Lowe *et al.* (2011) demonstrate that this simple transformation corresponds well to external assessments of party positions based on expert surveys.

1. *Measuring the economic orientation of the median voter.* To measure the overall center of gravity, we use the procedure Kim and Fording (1998, 2001) outline. First, we categorize the policies presented in Table 1 as pro-market or anti-market tendencies and then use it to construct the relevant right-left position for each party. After estimating each party’s position, we combine these estimates with data on each party’s share of the vote to estimate the median voter’s economic position using the following equation,

$$M = L + (50 - C)/F * W$$

where M is the median voter position, L is the lower end (ideology score) of the interval containing the median voter (based on voting data), C is the cumulative frequency (vote share) up to but not including the interval

Table 1: Manifesto Data Underlying the Economic Orientation Measure

Name	CMP Label	Description
Free Enterprise	per401	Pro-Market Indicators Favorable mentions of free enterprise capitalism; superiority of individual enterprise over state and control systems; favorable mentions of private property rights, personal enterprise and initiative; need for unhampered individual enterprises.
Anti-protectionism	per407	Negative mentions of extension or maintenance of tariffs to protect internal markets; other domestic economic protectionism such as quota restrictions.
Productivity	per410	Need to encourage or facilitate greater production; need to take measures to aid this; appeal for greater production and importance of productivity to the economy; increasing foreign trade.
Economic Orthodoxy	per414	Need for traditional economic orthodoxy, e.g. reduction of budget deficits, retrenchment in crisis, thrift and savings; support for traditional economic institutions such as stock market and banking system; support for strong currency.
Welfare State Limitation	per505	Limiting expenditure on social services or social security; otherwise as 504, but negative.
Economic Planning	per404	Anti-Market Indicators Favorable mentions of long-standing economic planning of a consultative or indicative nature and need for government to create such a plan.
Protectionism	per406	Favorable mentions of extension or maintenance of tariffs to protect internal markets; other domestic economic protectionism such as quota restrictions.
Controlled Economy	per412	General need for direct government control of economy; control over prices, wages, rents, etc; state intervention into the economic system.
Nationalization	per413	Favorable mentions of government ownership, partial, or complete; including government ownership of land.
Welfare State Expansion	per504	Favorable mentions of need to introduce, maintain, or expand any social service or social security scheme; support for social services such as health service or social housing. This category excludes education.

containing the median, F is the frequency (vote share) in the interval containing the median, and W is the width of the interval containing the median (Kim and Fording, 2003). Kim and Fording's simple methodology offers a useful proxy of the center of gravity for country-level economic ideology, and their representation has been validated and used elsewhere (Markussen, 2008; Adams *et al.*, 2004; Bartels, 2008; De Neve, 2011). We refer to this variable as the **Economic Median Voter** in the following analysis.

2. *Measuring the economic orientation of the ruling government.* We isolate the ruling party using the Beck *et al.* (2001) coding mechanism. In presidential and semi-presidential systems, Beck *et al.* used the party of the executive in power; for parliamentary systems, they looked to the largest party in government. After identifying the appropriate party, Beck *et al.* relied on the CMP data to derive the country-level measure of pro-market policy orientation for the government in power in each election year. Further, consistent with past studies using the CMP data to measure political orientation (Osterloh, 2012), we estimate pro-market orientation in non-election years by carrying forward the policy position of the ruling party from the closest election year.⁷ We rescaled the measure to range from 0 to 1, with higher values indicating a more market-friendly policy orientation⁸ and call this variable **Pro-Market Economic Orientation**.

5 Evidence of a Shifting Political Center

Does 'left' mean the same thing in recent decades as it did in the 1960s? According to the analysis we did of the CMP data and present next, often it does not. In this section, we (1) examine the ways in which the preferences of a single party have shifted over time in specific countries; and (2) explore overall trends in the economic median voter's position over time.

Before examining the dynamics of the **Economic Median Voter** position, Figure 3 illustrates why the assumption of fixed policy preferences over time for the governing party is inaccurate for France, Germany, the United Kingdom, and the United States. The figure shows the governing parties' economic

⁷Carrying forward the economic position of the ruling party assumes stability in policy preferences over the short-run. That, though, is potentially a noisy assumption, particularly because this procedure effectively assumes that the stated policy objectives espoused in party manifestos during the campaign period roughly relate to the realized policies when the party governs.

⁸The scaling here captures the expected effect from moving from the most left wing party in Europe (scaled value of 0) to the most right wing party in Europe (scaled value of 1).

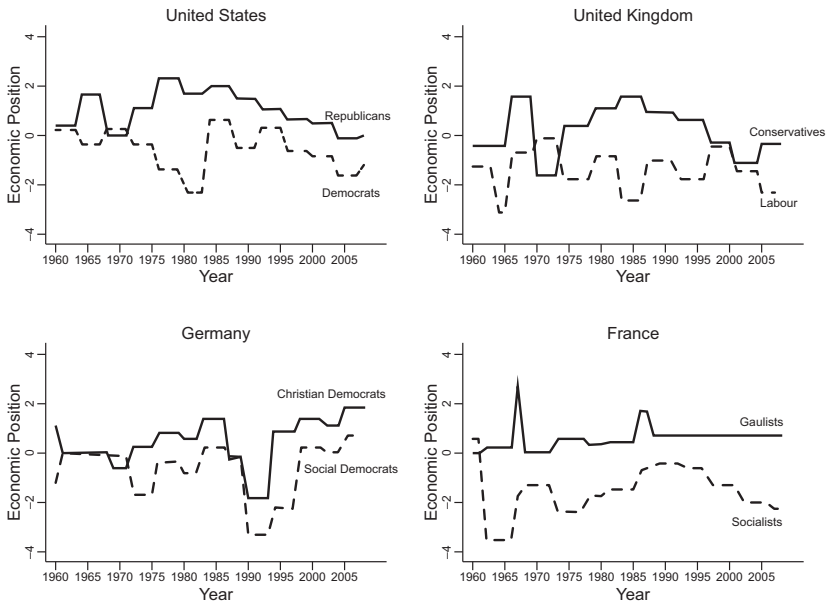


Figure 3: Pro-Market Economic Orientation for Four Developed Democracies

Note: Figure 3 displays the economic orientation for key political parties in four developed democracies: the U.S., U.K., Germany, and France. Pro-market **Economic Orientation** is measured using the ten economic policy items described in Table 1 and the logit scaling procedure outlined in Lowe *et al.* (2011). Higher values in the figure correspond to a more right-wing economic policy.

orientation varying considerably over time in these four nations, tending toward more pro-market views over time, but without being unidirectional overall. Nevertheless, several key parties supported more pro-market policies in later years than they did in earlier years in these four nations, with the shift most pronounced during the stock market boom of the 1990s.

First, we examine the shifts in the United States and Great Britain.

The U.S. data shows both the Republican and Democratic parties’ economic positions shifting sharply during the four and one-half decades between 1960 and 2006. For instance, when Richard Nixon, a Republican was president, the country used price controls to combat inflation. About thirty years later, in the mid-1990s, Bill Clinton, a Democrat, was president and sought to end welfare as we knew it.

As expected, the data has the Republican Party registering a more conservative economic policy position than the Democratic Party. However, the figure shows both multiple shifts and Democratic-Republican convergence during the 1990s toward what would earlier have been a traditionally conservative economic position. By the 1992 election, the two parties’ economic platforms were indistinguishable at the 95% confidence level. Coding the Democratic

Party as left throughout the measured period could thus lead to large interpretive error. Yes, the Democratic Party in the mid-1980s exhibited policy preferences that were to the left of 1980s Republicans, but their 1980s policy preferences were slightly to the *right* of the Republican Party's preferences *of prior decades*. Conversely, the Republican Party in the 1960s and 1970s was no farther to the right than the Democratic Party in other decades and to the left of the Democratic Party in the 1980s.

The U.K. party manifesto positions shift similarly over time. The Labour Party, when out of power during the Thatcher years, is sharply to the left, while its ideology in the first decade of the 21st century is centrist or moderately right, converging with the Tory's CMP-measured ideology. Tony Blair's party was not James Callaghan's 1970's Labour Party, nor is it Jeremy Corbyn's 2016 Labour Party; Blair's was much less to the left. This shift will prove quite important in interpreting prior results.

Operationalizing this U.K. movement in the data: In 1976, James Callaghan led the Labour Party with a sharply left ideology that in prior work could be coded as 'left', with Left = 1, for 1974. And then in 2000, when Tony Blair led the British Labour Party back to power, Labour is again coded as left, with Left again equal to the categorical 1, if we simply code the left-most major party of 1974 as left. See Pinto *et al.* (2010). But Tony Blair's Labour Party was much more market friendly than Callaghan's. Indeed, on economic issues Blair was about one-quarter of the way closer to Thatcher than Callaghan. One risks interpretive difficulties if the Labour Party of Callaghan and that of Blair are coded identically.

However, we emphasize that the figure does not uniformly show left parties moving away from anti-market policies. In the early 1970s, the left-right parties are tightly bunched but have the "wrong" sign for a couple of years. The American Democratic Party codes as becoming more market-oriented. For the United Kingdom, the Labour Party becomes more market oriented, with some of that movement occurring before Blair's ascension. Whether this is noise, measurement error, a real shift, or something else is for future work to sort out.

To provide texture outside of the U.S. and the U.K.: In France, "[t]he Left . . . began to acknowledge (first silently, and eventually, after the election of François Mitterrand to the presidency in 1981, publicly) that private property and a mixed economy were unmovable features of the French polity" (Haza-reensingh, 2015, p. 120). The graphic for the French Socialists approximates this descriptive. As measured in the data we bring forward below the French Socialists went from .28 on the left in the early 1980s to .39 a decade later. Overall, the European left parties' late 1970s orientation, compared to their year 2000 orientation, shows they moved and become more market oriented. (The right parties also generally moved in the same direction.)

While the problem to explain here is the left's adoption of pro-market policies, we do not want to leave the reader with the view that the right

was immobile while only the left moved. For example, the German Christian Democrats went on economic issues from about .24 in the early 1990s — in a range consistent with the views of European socialist parties — to .53 in the late 1990s. The German Social Democrats similarly moved from less market-oriented to more market-oriented from the 1970s, with the maximum move at about 0.2 on the zero to one scale we describe below. But it's the left's movement that is the issue to explain here.

6 The Politics of Stock Market Development Revisited

We now examine whether changing positions of the polity predict changes in financial market depth and breadth.

6.1 Data

The dependent variable typical in prior work has been the level of stock market capitalization as a percentage of GDP (**StockCap/GDP**) and we follow that convention. Other financial market variables are conceptually appropriate to test, but none other has data over time for so many countries. Even this stock market capitalization data does not provide stock market capitalization for a wide array countries before 1975 and that weakens the power of our tests, because our hypothesis is that the left-most modern era is the 1960s and we would have liked to compare political and financial correlations for the 1960s to those for the 1990s.

This stock market data comes from the Standard and Poor's Global Stock, originally compiled by Claessens *et al.* (2006). The primary independent variable in prior work is a dummy variable for whether a government is left-leaning (**Left**) in their economic policies, based on Beck *et al.* (2001) Database of Political Institutions. Cf. Pinto *et al.* (2010). We control for standard economic variables, including the natural log of GDP per-capita, growth in GDP per-capita, the natural log of inflation, and capital account openness. The overall dataset allows us to examine the three decades from 1975 to 2004. The post-2004 data is not consistent for all variables. Moreover, prior analysis finding significance for the left variables uses data from this period. The financial crisis starting in 2008 may well have a separate influence. Full descriptive statistics for the sample are in the Appendix.

6.2 Economic Orientation and Financial Market Strength

We begin by revisiting empirical research in the political economy literature that suggests left-wing governments promote stronger financial markets.

Model (1) in Table 2 replicates the two-way fixed effects model Pinto *et al.* (2010) present using the 38 democracies with data available on both economic policy position (via the CMP database) and stock market capitalization. The results correspond closely to past scholarship: when regressed against **StockCap/GDP**, **Left** is positive and significant at traditional levels ($p = 0.03$) for our subset of democracies. When restricting the sample to include only OECD countries (pre-1990), the effect of **Left** is just outside of traditional levels of significance ($p = 0.12$). Thus our initial results, like prior results, would paradoxically point to Left governments being associated with deeper stock markets.

Furthermore, the economic orientation of the median voter fares poorly in the standard two-way fixed effects model in Models (3) and (4). While the estimated effect of the **Economic Median Voter** variable is positive, the estimates are insignificant at traditional levels. Overall, these data support the paradoxical relationship between left-wing governments and financial market development, while casting doubt on the political center of gravity thesis outlined in preceding sections.

Closer inspection of the data suggests a more nuanced picture.

First, the distribution for the **StockCap/GDP** variable is extremely skewed. There are roughly twenty highly influential observations at the end of the 1990s and early 2000s, with the United Kingdom and Switzerland dominating that list. These observations are coded as “**Left**” in the data and it is reasonable to assess their influence on empirical findings thus far. Many of these influential observations are due to Britain having a strong capital market when Tony Blair’s Labour Party was in power. As we suggested above, coding Blair’s Labour in the same way as Callaghan’s Labour Party two decades before (or Jeremy Corbyn’s two decades later) is problematic.

Similarly, Switzerland’s coding depends on a shift of one vote in the seven-member collegial executive board during the 1990s; whether Switzerland’s government ever had a strong anti-market government could be questioned. In any case, when these influential points are not coded as “**Left**,” the **Left** variable is no longer significant at traditional levels. Table 3 reports those results.

We next examined the importance of these potentially influential points more rigorously. To do so, we estimated a series of generalized linear models (GLM), a technique that, while often employed in the natural sciences to model outcomes with heavy-tailed distributions, has been less popular among economists.

These GLM results are in reported in Models (1), (2), and (3) of Table 4, replicating models (2), (3), and (4) of Table 2. **Left** is rendered substantively weak and statistically insignificant in these models, while the **Economic Median Voter** results are both positive and highly significant ($p = 0.001$). The estimated effects of the **Economic Median Voter** are economically

Table 2: Replicating Prior Work, Updating the Left-Right Measure

	(1)	(2)	(3)	(4)
	OLS	OLS	OLS	OLS
Left gov't in power	0.064** (0.029)	0.048 (0.030)	—	0.052* (0.029)
Econ. median voter	—	—	0.015 (0.029)	0.117 (0.233)
Ln(inflation)	0.026 (0.020)	0.027 (0.030)	0.030 (0.032)	0.025 (0.030)
Capital acc't openness	0.009 (0.018)	-0.003 (0.024)	-0.005 (0.026)	-0.004 (0.025)
Ln(GDP)	-0.054 (0.158)	-0.200 (0.133)	-0.072 (0.346)	-0.051 (0.346)
Per-capita econ. growth	0.017*** (0.005)	0.025*** (0.003)	0.027*** (0.005)	0.026*** (0.004)
Constant	0.441 (1.419)	1.923 (1.225)	0.756 (3.277)	0.488 (3.260)
Country FEs	Yes	Yes	Yes	Yes
Time FEs	Yes	Yes	Yes	Yes
<i>N</i>	728	574	554	553
adj. <i>R</i> ²	0.585	0.646	0.642	0.645

Note: Model (1) corresponds to prevailing political science work, such as Pinto *et al.* (2010), using all 38 democracies with available data. The data extends over the three decades from 1975 to 2004, as has prior work. Data for some country-years is missing. Models (2)–(4) rely on data from founding OECD member countries with available data ($N = 23$ countries). Model (3) substitutes in the **Economic Median Voter** measure described above for founding OECD countries. Model (4) runs a “horse-race” between the two measures.

Cluster robust standard errors for these OLS regressions are in parentheses.

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

meaningful as well, suggesting that if politics influences financial markets, it is the actual policies and not the labels and local orientation that count.⁹

The substantive influence of the independent variables of interest on the results bears mention. To repeat, the political party market attitude variable is scaled from 0 as the most anti-market, to 1 for the most pro-market, parallel to the 0 or 1 binary scale for whether the government in power is or is not a left party. **Median Voter** is scaled similarly. This scaling allows one to more

⁹To verify whether a single factor drives the results, we re-estimated the relationship between Economic Median Voter and StockCap/GDP by re-running model (2) ten times, dropping one factor (see Table 1) in each of the ten runs. The results persisted, with the economic median voter measure remaining statistically significant, at $p < .05$ and substantively meaningful in 9 out of the 10 cases, with the remaining configuration (which dropped the Productivity component) at $p < .10$.

Table 3: Robustness to an Alternative Coding for the U.K. and Switzerland

	(1)	(2)	(3)	(4)
	OLS	OLS	OLS	OLS
Left gov't in power	0.047 (0.034)	0.031 (0.036)	0.035 (0.036)	0.055 (0.038)
Econ. median voter			0.115 (0.229)	
Econ. position of party in power				0.354* (0.198)
Ln(inflation)	0.028 (0.020)	0.029 (0.031)	0.026 (0.030)	0.030 (0.028)
Cap. acct. openness	0.009 (0.018)	-0.003 (0.024)	-0.005 (0.025)	-0.013 (0.024)
Ln(GDP)	-0.052 (0.160)	-0.202 (0.132)	-0.055 (0.344)	-0.014 (0.316)
Per-capita GDP growth	0.018*** (0.005)	0.025*** (0.003)	0.026*** (0.004)	0.022*** (0.004)
Constant	0.433 (1.440)	1.950 (1.212)	0.524 (3.243)	0.047 (2.995)
Time FEs	Yes	Yes	Yes	Yes
Country FEs	Yes	Yes	Yes	Yes
<i>N</i>	729	575	553	555
adj. R ²	0.582	0.644	0.643	0.657

Note: This table examines whether the results in Table 2 are robust to alternatively coding the U.K. and Switzerland in the late 1990s and early 2000s as a Left government. These results do depend on the U.K. and Switzerland being coded as Left. Left is no long significant in any model. Cluster robust standard errors in parentheses.
 * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

intuitively assess the economic impact of moving from the minimum to the maximum for each variable, by examining the regression coefficients. In Model (3) of Table 4, **Median Voter** has a coefficient of 0.695, about 50 times larger than that of **Left** party in power, at 0.014. That is, a one unit change in **Median Voter** leads to a 0.35 unit change in **StockCap/GDP**, while a one unit change in Left leads to 1/50 that, or a 0.007 change. This difference in explanatory impact between **Median Voter** and **Left** is obviously substantial.

Comparing the full range of the Median Voter across countries, however, exaggerates the importance of the difference in the coefficients' size, because real world changes in any particular nation's **Median Voter** were, although common, not large — none went from zero to one, or vice versa. But the measured move for the German Median Voter went from 0.19 in 1990 to 0.63 in 2004. That move of 0.44 is substantial, and other nations' changes in the

Table 4: Testing Robustness of Left Variable to GLM

	(1)	(2)	(3)
	GLM	GLM	GLM
Left gov't in power	0.001 (0.047)		0.014 (0.052)
Econ. median voter	—	0.696*** (0.260)	0.695*** (0.265)
Ln(inflation)	0.017 (0.052)	0.014 (0.042)	0.011 (0.043)
Capital acc't openness	0.226*** (0.065)	0.219*** (0.062)	0.219*** (0.062)
Ln(GDP)	0.607* (0.353)	1.172 (1.039)	1.174 (1.031)
Per-capita econ. growth	0.056*** (0.009)	0.055*** (0.010)	0.055*** (0.010)
Constant	-7.531** (3.489)	-13.452 (10.305)	-13.468 (10.215)
Country FEs	Yes	Yes	Yes
Time FEs	Yes	Yes	Yes
<i>N</i>	574	554	553
Log Pseudo Likelihood	68.525	106.47	93.08

Note: In this table, we use a generalized linear model (GLM), assuming a gamma likelihood and log link function in order to account for unobserved heterogeneity in **StockCap/GDP**.

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

left-right measure of the Median Voter was not much less. In France, for example the Median Voter's minimum during the period was 0.35 and its maximum was 0.66. Italy's min/max was similar. More generally, moving from one standard deviation below the mean of Median Voter to one standard deviation above it leads to a 0.074 unit change in **StockCap/GDP**, which is still eleven times larger than that for **Left**. This difference in explaining outcomes is still quite substantial, suggesting that **Left** — the label of the party in power — is less important than actual economic views in the polity overall and of the party in power in particular.

Overall, these basic OLS and GLM runs provide mixed results: **Left** is regularly significant, particularly in the basic OLS regressions. But **Left** generally loses significance and **Median Voter** often gains significance in the other models. **Left's** significance seems often to depend on influential results from a few years in two countries — Britain and Switzerland.

To further test the importance of Britain and Switzerland as influential “**Left**” data points, we winsorized all of the Table 2 models (at 5%). These

results, which are striking, are reported in Table 5: **Left** loses significance in all specifications and its sign turns negative in both of its two appearances in the GLM models. The **Median Voter** remains statistically insignificant in its two OLS appearances, but becomes highly significant (at $p < 0.01$) in its two GLM appearances, including Model (7) in which both **Median Voter** and **Left** are run as independent variables.¹⁰ The disparity in coefficient size persisted: in the “horse race” in Model (7), **Median Voter’s** coefficient was two orders of magnitude larger than that of **Left**.

Lastly, we interacted **Left** with the **Economic Orientation** of the political party in power. **Left** loses significance and its sign reverses, becoming negative. Results are in Appendix Table A2. Economic orientation remains positive and the interaction term is significant in the full sample. Median voter interaction results, however, are generally insignificant. **Left** turns negative and insignificant when interacted with **median voter**, with the interaction term positive ($p = 0.12$ in the OECD sample and $p = 0.17$ in the full sample). These results suggest, once more, that **Left** in power is not as important as whether the **Left** party has become pro-market. However, without statistical significance in many of the specifications, the overall results are indicative but not compelling.

Figure 4 illustrates that the correlation of **Left** with financial market strength is moderated by the party’s actual economic position: if a government labeled as historically left-wing has strong anti-market views (i.e., a value of 0 for **Economic Orientation** in Figure 4), then **Left’s** correlation with financial market growth is *negative*; conversely, when historically left parties hold pro-market policy positions, they positively correlate with stock market strength. The first two points on Figure 4 illustrate that **Economic Orientation** is not pro-market and the **Left** variable has a negative coefficient. That is, only when traditionally left-wing parties adopt a market-oriented perspective, does one observe positive, and sometimes statistically and substantively meaningful, correlation with stock market depth.

Overall, what do these results suggest about the politics of financial market development? First, too many of the results presented here — as well as prior results in the literature — are model dependent.¹¹ The root of this dependence seems to be that the results turn on the weight given to the governments in power during the stock market boom of the late 1990s. These governments — and thus the governments in the tail of the StockCap/GDP distribution — are overwhelmingly coded as **Left**, as they were, indeed, locally left, even if they favored pro-market policies. But as we have said, coding Tony Blair’s Labour

¹⁰We do not offer the alternative coding, GLM, and winsorized models as alternatives, but as substitutes. Each points in the same direction of whether there’s a **Left**-labeled party in power as being less important once one deals with the late 1990s influential observations for Blair’s “left” Britain and Switzerland’s “left” government.

¹¹In addition to model dependence, both sets of results appear to be sensitive to missing data, as well as the explicit inclusion of measurement error.

Table 5: Winsorized Regression Results (5%)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	OLS	OLS	OLS	OLS	GLM	GLM	GLM
Left gov't in power	0.047 (0.028)	0.033 (0.030)		0.037 (0.029)	-0.007 (0.047)		0.005 (0.051)
Econ. median voter			0.035 (0.155)	0.037 (0.164)		0.642*** (0.215)	0.640*** (0.219)
Ln(inflation)	0.018 (0.017)	0.013 (0.027)	0.013 (0.027)	0.009 (0.025)	0.006 (0.051)	-0.001 (0.041)	-0.002 (0.042)
Cap. acc't openness	0.011 (0.017)	0.000 (0.022)	-0.004 (0.023)	-0.003 (0.023)	0.227*** (0.065)	0.219*** (0.062)	0.219*** (0.062)
Ln(GDP)	-0.046 (0.146)	-0.165 (0.128)	-0.012 (0.321)	0.003 (0.320)	0.633* (0.357)	1.241 (1.043)	1.241 (1.037)
Per-capita GDP growth	0.015*** (0.004)	0.023*** (0.003)	0.024*** (0.004)	0.024*** (0.004)	0.054*** (0.009)	0.053*** (0.010)	0.053*** (0.010)
Constant	0.401 (1.319)	1.630 (1.175)	0.195 (3.038)	0.050 (3.026)	-7.766** (3.529)	-14.083 (10.340)	-14.085 (10.275)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	728	574	554	553	574	554	553
adj. R²	0.657	0.718	0.716	0.718			
Log pseudo likelihood					114.35	101.89	100.84

Note: In this table we reexamined the models in Tables 2 and 4, winsorizing at 5% to test for robustness, given the multiple influential points for the U.K. and Switzerland in the 1990s and 2000s. **Left** is never significant in the winsorized models, with the coefficient turning negative twice. The **median voter** is always positive and significant in two of the four models. Cluster robust standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

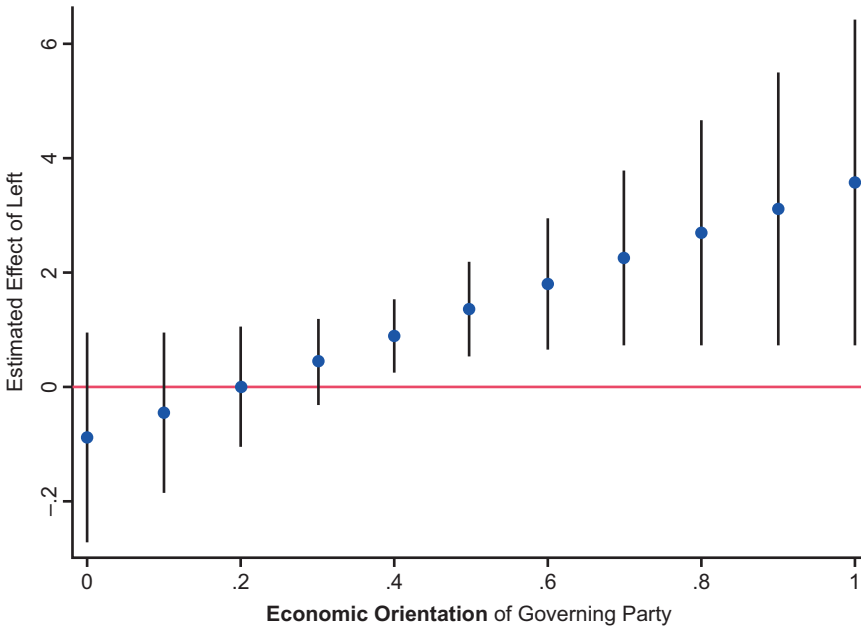


Figure 4: Interaction Effects of Economic Orientation and Left.

Note: This figure plots the effects of the variable *Left* at various levels of the moderating variable **Economic Orientation** (see Appendix, Table A2). For ease of interpretation, **Economic Orientation** is re-scaled to range from 0 (very left) to 1 (very right).

party or a Swiss coalition government during this era as left is questionable. These 1990s observations have considerable weight in the OLS estimates. They are less influential in the GLM and winsorized specifications; their relative weighting makes a difference in *Left*'s and the Median Voter's significance. As such, it is crucial to emphasize that the 'correct' specification turns on substantive, rather than technical, considerations.

While it is conceivable that truly left-oriented, anti-market policies during the 1990s spurred one of the largest growth periods in financial market history, we intuitively doubt that to be the case and the data suggests otherwise. The party manifesto data suggests that the left moved to the economic center during that era and tolerated or even supported markets more than they had previously. Hence, their presence in power in the 1990s did not deflate the booming stock market. Perhaps booming stock markets and robust economies induced even traditionally left-oriented parties to accept the capital markets that were lifting all of the economic boats, reversing the direction of causation. Or perhaps booming financial markets created influential financial interests that then influenced government policy. Regardless of what the causal channel is, the prior empirical results associating **Left** parties with strong capital

markets were driven primarily by this single decade.¹² But by that decade, the locally left parties' policies had changed and, like the polity overall, had become more pro-market.

7 Discussion

7.1 Notes on the Median Voter Theorem

Important prior political science work in the area does two things: (1) it brings forward country-by-country coalition explanations for corporate governance results and (2) denigrates Left-Right explanations due to (a) these coalition explanations, which are typically argued verbally, and (b) data analysis that purports to show that Left governments are actually more likely to bring about strong pro-shareholder corporate results than Right governments.

We agree with proposition (1) — nuanced coalition explanations are deeper and more sophisticated than a simple left-right metric. For any particular country, a nuanced explanation of shifts in party positions and the subtleties of cross-party, cross-sector, and sometimes cross-class coalition formation will provide stronger, deeper explanations for corporate governance outcomes than a one-dimensional Left-Right analytic. However, such coalition subtleties cannot be tested with cross-country data, because the coalition formation depends overwhelmingly on differing local conditions.

We disagree with the data-analytic concept, proposition (2). The prior econometric analysis misspecifies what counts in Left-Right analysis, because it does not account for shifts in economic viewpoint of the Party in Power and the Median Voter.

When a polity's median voter becomes more (less) pro-market, a pro-shareholder coalition of the kind that has been brought forward is easier (harder) to form. We first find, as shown above, that there have indeed been sharp shifts in recent decades of the **Median Voter** and the **Economic Orientation** of parties carrying the same name over time. We then test this proposition (of Financial Outcomes = $f(\text{Median Voter})$), with Median Voter shifts as the primary independent variable of interest and stock market capitalization as the outcome. These results generally (but not uniformly) point to the position of the **Median Voter** being a key factor in the outcomes.

Hence, one can reconcile the coalition-based, interest-group corporate governance theories that prevail among political scientists with the starker explanations from legal and economics academics that democratic nations with

¹²We re-ran the OLS models in Table 2, but for the restricted pre-1990 time period. Appendix Table A6 shows the results. As we expected, the coefficient for **Left** is negative. However, the party position variables do only somewhat better: in their four appearances, three are positive and only one is significant.

an ascendant left or with a median voter uncomfortable with deep financial markets cannot expect to have deep financial markets, ownership separation, and diffusely-held managerial-controlled large public firms. During the postwar decades of Left ascendancy for the median voter, public firms and deep stock markets were not politically possible, even if they had economic utility. Neither locally right nor locally left governments could bring that result about, nor did either want to. But as the Left ascendancy declined, coalition politics and “quiet” influence that could not have prevailed in 1950 could dominate and explain outcomes in 2000 (Culpepper, 2011). In this sense, the coalition theories do not serve as counter-examples to the left-right politics explanations for a prior era.

The median voter approach also has implications for how one looks at right parties and we have largely ignored that view thus far. That is, the right-left scaling is from market to anti-market orientation. But that does not mean that “right” parties would be sharply more pro-market than left parties at the same time in the same polity. Indeed, the median voter theorem would imply that the gap would be small: when the median voter is anti-market, a governing right party is not going to be particularly pro-market. Roe (2003, pp. 66, 86) provides several examples: classic French Gaullism was not pro-market;¹³ Italian parties of the left and the right in the 1950s and 1960a both disrespected market solutions. And the numbers are consistent. Figure 3 shows a gap in the policy space between the left and the right party in the figures, with the right party generally moving directionally similarly to the left party.

While the median voter analytic critically captures the core issues at hand, its analytics can also be reconciled with other perspectives. Closest perhaps is the literature on partisanship and macroeconomic outcomes, starting in modern times with Hibbs (1977) and continuing through Boix (1998, p. 11); Herron (2000); Franzese (2002); Leblang and Mukherjee (2005); Bechtel (2009); Häusermann *et al.* (2013) (a literature review of work on partisanship); Sattler (2013); and Facchini and Melki (2014). Sattler’s (2013) recent work shows that left-right dichotomies predict stock markets’ rise and fall, with left victories predicting less robust stock markets than right-wing victories. The fit here is obvious, but imperfect: The median voter framework would not imply sharp differences in policy results following a right victory as compared to a left victory, unless the right victory caused political players to reevaluate where the median voter lies on the political spectrum. Darcillon (2015) provides a partisanship analysis close to ours, with fewer countries and a different outcome variable.

Surely a pure median voter theorem cannot explain all policy outcomes, and we do not so offer it. If the interests consistent with the median voter’s policy

¹³Cf. Goyer (2011, 23 n.13): “the post-May 1968 context witnessed the emergence of a reformist political class under [right-oriented, Gaullist] Prime Minister Chalban-Delmas government which sought to provide greater legal rights to organized labor at the firm level (Howell, 1992, pp. 111–41).”

positions are diffuse and the interests opposed are concentrated, concentrated interests can and do regularly win, as Culpepper (2011) shows. His “quiet politics” theory has influential interest groups (like corporate management) working their political will when corporate governance and capital markets organization are low salience political issues. The data here suggests it to be plausible that as the polity moved to be less anti-market, such quiet political influence would be more likely to succeed than previously.

Further afield from the median voter theorem are coalitional theories, as we noted above. These theories are not motivated by the position of the median voter, but by the views of the groups and interests that join the winning coalition. One interpretation is that the median voter theorem and coalition theory are antithetical; one must choose one analytic framework or the other. Another interpretation, which is our own, is that shifts in the position of the median voter raise or lower the cost of coalition-formation. If the median voter shifts rightward on economic policy, then and only then left parties (representing left interests) can join, or even lead, a market-oriented coalition.

Lastly, note that the CMP data measures party position, not voter sentiment, leaving a gap between a median voter theorem and the data. Perhaps, for example, party platforms reflect party positions that do not correlate with voters’ views. For that reason, we would have preferred voter opinion data, but no such data on the economic subjects we study is available across countries and time for the period needed. The Michigan World Values Survey could in principle get to voter opinion more directly. For example, it uses a question on preferences for government versus private ownership.¹⁴ But its coverage for the issue does not go back any further than 1981 and then, for 1981, it surveys only seven nations. This left-right project, however, needs to compare 1990s results to the 1960s, 1970s, and 1980s. In contrast, the Comparative Party Manifesto project seeks information for all freely democratic elections since 1945 in more than 50 nations.

But multiple studies have correlated the CMP database with voter’s opinion and showed that parties change platforms in response to voters. Adams *et al.* (2004, 2006) use Comparative Manifesto Project data and Eurobarometer public opinion surveys to show that mainstream political parties in democracies shift their policy positions to respond to shifting voter preferences. As Ezrow (2007) summarizes: “Previous empirical studies on representation in advanced industrial societies have presented strong evidence that shifts in parties’ policy positions tend to mirror shifts in the mean or median voter position (see Adams

¹⁴“There is a lot of discussion about how business and industry should be managed. Which of these four statements comes closest to your opinion? . . . 1) owners should run their businesses, 2) owners/employees participate in selection of managers, 3) the state should be the owner, 4) employees should own the business and elect managers, or 5) no answer.” Michigan World Values Survey. Had the question been posed in a wide range of nations for several more decades, it would have served well as our primary independent variable.

et al., 2004, 2006; Erikson *et al.*, 2002; Stimson *et al.*, 1995).” Nevertheless, we are cautious and await better data. The Manifesto Data only gives us a good first look at the question of the political center of gravity and financial markets.¹⁵

7.2 Why a Nation’s Political Center of Gravity Shifts Over Time

While we do not here offer evidence on why such shifts in pro- or anti-market orientation occur, we do, for completeness, briefly note what can cause such shifts along the political spectrum.

One might attribute the change primarily to ideological shifts; voters who once disliked markets, financial and otherwise, could well have come to believe that markets overall provide a road to prosperity. If voters come to that belief, the anti-market left then shifts to the center. While the data shows that ideology shifted, underlying material conditions could well have motivated that shift. One would expect that ideology shifts along with interests.¹⁶ We believe that they moved in tandem, although we do not present independent evidence of such a shift of material interests here. With more players dependent on financial markets for their savings (Perotti and von Thadden, 2006; Perotti and Schwiendbacher, 2009), with union power declining as production shifted from heavy industry to services, with international trade increasing (Rajan and Zingales, 2003), and with other market shifts, the underlying core cause could be material, with ideology then following. For example, production technologies might change, such that a nation’s economy becomes less dependent on heavy industry — which had given rise to militant unions and workers who demanded and got much employment protection — to knowledge-based production and white-collar employment that is less organized and less embedded in a militant unionism. Some of this shifting is consistent with both the varieties of capitalism view that Hall and Soskice (2001) push forward and the corporate convergence view that Hansmann and Kraakman (2001) advance.

¹⁵As Adams *et al.* (2004, p. 516) state: “The Comparative Manifesto Project (CMP) [data] . . . [are] the only available longitudinal and cross-national estimates of parties’ policies[.]” Cf. Somer-Topcu (2009, p. 241): “The Comparative Manifesto Project (CMP) data have been the medium of research over the last decade to study strategic party positioning. . . . The CMP data have been the best available measure to capture the change of party positions over a long period of time (1945–98) for multiple countries.” And, using the same database we use, Sattler (2013) concludes from the data that “[g]overnments respond strongly to shifts in popular support by adjusting economic policies,” indicating a rough but real connection from opinion to platform to policy.

¹⁶Endogeneity of interests and ideology presents a problem for empirical studies on the politics of financial market development. A well-established literature in political science and economics suggests that individuals “vote with their pocketbooks.” See Lewis-Beck and Stegmaier (2000) for a strong review.

The economy might once have been organized without strong product market competition, because, for example, local economies of scale led to few producers if international competition was weak. As international trade opened up strongly after the first postwar decades or as technologies made more industries more competitive, then many voters could have had more confidence in markets (as opposed to local, national monopolies) and the surplus that the employees could grab from inside the monopolistic firm disappeared. Intensified product market competition reduced the size of the corporate surplus that could be distributed to employees in a social democratic deal. Then, as one nation becomes more market-oriented, neighboring nations imitate (Quinn and Toyoda, 2007; Quinn, 2003).

Eichengreen (2007, p. 333) explains one reason why a left-of-center government can enact reforms that, in a prior decade, only a right-of-center government would have considered: “The German chancellor Gerhard Schröder’s Agenda 2010 of labor-market reforms was motivated, in part, by the specter of German manufacturing moving east if steps were not taken to reduce labour costs.” Other studies are qualitatively consistent with the data-driven study in this paper: “With the move to the centre, the SPD sought to . . . to appeal to the median voter (Downs, 1957).” Lunn (2013, p. 6).¹⁷ Cf. Kitschelt (1994, p. 34).

Our prior is that the underlying changes in markets and competition were the, or at least a major, root cause for changing corporate governance and financial markets. Opened markets changed trading relationships, competition, and perceptions of what policies would work. These induced political position to change. Such changes in markets and policies, even at a modest scale, can take considerable time, with decades of lags. The Treaty of Rome set up a common European market in 1958, for example, and major institutional change in corporate structure and financial markets emerged forcefully in the 1990s. The consequential transactional restructuring may not yet be complete even today, decades later (Roe, 1996; Bebchuk and Roe, 1999).

As a nation’s wealth increases, citizens overall and the median voter in particular become richer, with more savings. With newly accumulated savings to protect, the citizenry and the median voter find themselves attuned to capital markets development. And the median voter’s increasing wealth could have other effects: the wealthier voter could change his or her view on capital. Capitalism would no longer seem to be the enemy. Financial players became more important and constituted a separate interest group, one that presumably sought to protect its turf and expand its import. Lastly, budget pressure pushed nations to privatize, leading to more privately-owned stock (Gordon, 1998).

¹⁷The French socialists, however, were “confronted with intense competition on the left,” which impeded them from moving sharply toward the center. Lunn (2013, p. 6). The SPD could move toward the center in Germany partly because the conservative parties were moving farther to the right on social welfare issues. Id. at 7. That is, in this paper’s analytic framework, the entire polity was moving rightward on these issues.

Of course, the polity must by then have been willing to forgo state ownership and increasingly competitive markets made state ownership more visibly costly than it had been before.

Nor should one ignore international politics. The fall of the Berlin Wall and the decline of communism could well have affected western European ideology and the view of what kinds of economic organization provided for more people's well-being. See Ban (2012, p. 127), who asks: "Did 1989 put the last nail in the coffin of European social democracy?". Hard-left political parties that depended on outside, foreign support were weakened. Conservative and moderate parties that thought they needed to co-opt the indigenous left with left-oriented policies found they had more policy freedom. More prosaically, communist nations did poorly economically, while liberal capitalist nations did well. That lesson affected voters. Cf. Quinn and Toyoda (2007, p. 353) (shifting worldwide support for communist parties indicates shift of global ideology and, presumably, underlying material interests).

We do not here push forward a primary explanation for a shift toward more market orientation in a country's center of gravity from among these explanations. Nor do we say that such shifts cannot back away from a market orientation; our data does not extend into the financial crisis that started in 2008 and an examination of its effect is worthy of inquiry. Rather, we have demonstrated that these shifts happened, that they were common, and that the shifts could have several important underlying causes. These shifts could well reverse thinking that left-right divisions are unimportant to capital market development.

Certainly much of the underlying explanation for shifting party positions must lie in the shifting economic environment. That is for other work to elucidate, analyze, and weigh. Here in this article we make one core point: the left governments that promoted financial liberalization and market-oriented reforms lacked the same commitment to the left's traditional programs that earlier left governments and parties had. Some may want to explain that shift, but we here document it and show how the political shift correlates with financial market results.

7.3 From Market-Oriented Political Economy Shifts to Deepened Financial Markets

A word or two might be said on the channels through which political economy shifts support or degrade financial markets.

Some channels may be quite direct. The polity, coming to believe in the efficacy of basic finance for economic well-being, can reform corporate and securities law and pay for securities regulators to protect investors (Jackson and Roe, 2009). Some channels may be indirect; hence, one political economy channel has been that when labour makes strong claims on firms' cash

flows, public firms are less valuable to shareholders than closely-held firms that can move more of the firm's value to shareholders than to stakeholders. As a polity becomes more market-oriented, the strength of support for labor can decline. Darcillon (2015) brings forward evidence that as polities shifted rightward, their governments were more likely to enact shareholder protections.

If countries change their retirement policies so that instead of pension obligations being mostly a direct obligation of the government (like American social security), retirement savings are in managed retirement accounts that contain stocks (like American 401(k) plans), then stock markets become more important (Rydqvist *et al.*, 2014). The predicate for that shift from government-funded pensions to privately-funded and managed pensions is partly a function of political attitudes to markets and governments. Similarly, if the major firms are government-owned, then stock markets will be unimportant. When market-thinking progresses so that the government privatizes previously government-owned firms, then stock markets will grow.

Parallel channels arise in whether governments allow easy cross-border flows of capital, whether governments reserve bond markets to themselves instead of firms, whether government facilitates open labor and product markets, and whether it taxes capital severely or not.

Changes in real interest rates could explain the results. Lower real interest rates have a salubrious effect on stock market capitalization, the dependent variable. If **Left** governments lower real rates more than other governments, that may be a causal channel. Hence, we re-ran all of the models in Table 2, adding a control of the real rate of interest. **Left** weakens slightly, losing significance in one model and turning negative in another, with **Median Voter** persisting as significant in the GLM models. Results are reported in Appendix Table A3.

Lastly, as a simple check on causation, we lagged the **Median Voter** variable, finding that its significance persisted with the lags. We ran the opposite direction as well, which had stock market capitalization a negative predictor of later positions of the Economic **Median Voter**. Results, although only suggestive, are in Appendix Tables A4 and A5.

Future work with the data used in this paper could elucidate which channels are most significant. For now we rest with showing that the absolute position of the polity on pro-market vs. anti-market issues is more important than the relative local position of political parties.

8 Conclusion

We have here revisited the relationship between politics and financial market development — a topic that has engaged academics from multiple disciplines

during the past several decades. Influential recent political science studies have conjectured that left-oriented governments correlated with stronger not weaker financial development, presented examples and in some cases data to that effect, and have drawn conclusions that basic left-right politics fails to predict financial market development. The studies therefore conclude that a causal link running from left-right, market-oriented (or market-hostile) politics to financial market depth and breadth cannot be powerful.

We have shown that conceptually the data inquiries can be better specified, by treating economic leftness or rightness not as a constant across time for political parties, but as a variable. Studies assuming political orientation of political parties to be constant in a nation over time make a simplifying assumption, one that is often needed to use some data sets. But the simplifying assumption can lead to misinterpretation if one then concludes that parties with left-oriented policies facilitate financial market development.

We have examined in this article whether such a simplifying assumption affects results. It does. Parties and polities *move* across the political spectrum over time and accounting for this movement affects results. Prior studies that showed Left governments to correlate with stronger financial markets could lead to misinterpretations that left-oriented economic policies are nicely congruent with strong financial markets. But it's the pro-market orientation (or anti-market orientation) of the government, rather than the party's name or its position on a local left-right scale, that emerges in our data as an often strong predictor of financial market strength. The behavior of these two variables in the face of their interaction terms suggests that a primary channel through which nominally Left government correlated with strong financial market outcomes is through the Left parties having adopted a pro-market orientation. If the Left-most parties in a polity support markets, markets flourish more easily than if those parties do not.

The median voter in the rich democracies of the west has shifted during the past half-century, becoming much more market-friendly in recent decades. Political parties' ideological location has changed as well, with these changes predicting the strength and breadth of financial markets. More market-oriented and less left-oriented political parties predict stronger financial markets. Hence, prior work that rejected the primacy of basic left-right politics in financial and related outcomes, particularly in the immediate postwar decades in Europe, will need to be revisited.

Appendix Tables

Table A1: Summary Statistics

Variable	N	Mean	Std. Dev.	Min	Max
Full Sample ($n = 38$ democracies)					
Left gov't in power	728	0.409	0.492	0.000	1.000
Econ. median voter	682	0.475	0.104	0.000	1.000
Econ. position of gov't in power	699	0.416	0.127	0.000	1.000
Stock market capitalization/GDP	728	0.413	0.419	0.000	3.218
Ln(inflation)	728	1.575	1.182	-2.662	6.865
Cap. acc't openness	728	1.220	1.441	-1.753	2.623
Ln(GDP)	728	9.496	0.717	6.380	10.580
Per-capita GDP growth	728	2.320	2.675	-8.991	10.564
OECD (Pre-1990)					
Left gov't in power	574	0.413	0.493	0.000	1.000
Econ. median voter	553	-0.211	0.815	-3.800	3.747
Econ. position of gov't in power	554	-0.294	1.284	-4.263	5.303
Stock market capitalization/GDP	574	0.461	0.441	0.003	3.218
Ln(inflation)	574	1.348	0.965	-2.162	3.304
Capital acc't openness	574	1.515	1.314	-1.753	2.623
Ln(GDP)	574	9.740	0.459	7.820	10.580
Per-capita GDP growth	574	2.234	2.327	-7.525	10.564

Table A2(a): Economic Position of the Governing Party and Interaction Results

	(1) OLS (Full Sample)	(2) OLS (OECD)	(3) OLS (Full Sample)	(4) OLS (OECD)	(5) OLS (Full Sample)	(6) OLS (OECD)
Left gov't in power	0.064** (0.029)	0.048 (0.030)			-0.088 (0.091)	-0.023 (0.096)
Economic orientation			0.227 (0.183)	0.305 (0.190)	0.175 (0.176)	0.287 (0.190)
Left*Econ. orientation					0.444* (0.223)	0.252 (0.211)
Ln(Inflation)	0.026 (0.020)	0.027 (0.030)	0.026 (0.022)	0.035 (0.030)	0.026 (0.020)	0.028 (0.028)
Cap. acc't openness	0.009 (0.018)	-0.003 (0.024)	0.004 (0.018)	-0.011 (0.024)	0.004 (0.018)	-0.010 (0.023)
Ln(GDP)	-0.054 (0.158)	-0.200 (0.133)	0.257 (0.271)	-0.048 (0.324)	0.382 (0.279)	0.056 (0.326)
Per-capita GDP growth	0.017*** (0.005)	0.025*** (0.003)	0.015*** (0.005)	0.023*** (0.004)	0.014*** (0.005)	0.022*** (0.004)
Constant	0.441 (1.419)	1.923 (1.225)	-2.469 (2.493)	0.400 (3.076)	-3.615 (2.566)	-0.587 (3.090)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes
Country FEs	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	728	574	719	555	699	554
adj. <i>R</i> ²	0.585	0.646	0.577	0.653	0.599	0.662

Note: *Summary.* For the results in the table above, we rescale the **Economic Orientation** measure to range from 0 (extremely left-wing) to 1 (extremely right-wing) to ease interpretation of the additive effects for **Left**. Here is how to interpret the coefficients of interest in model (5):

1. **Left** gov't in power: This gives the estimated impact of **Left** when **Economic Orientation** equals 0 (i.e., the government is extremely left-wing). As expected, the coefficient is negative; however, the estimate is insignificant at traditional levels.
2. **Economic orientation**: The impact of **Economic Orientation** when **Left** is equal to 0 (i.e., right and other).
3. **Left * Economic orientation**: The effect of the interaction term, which is the exact same effect displayed in our current Figure 4 (though, the *x*-axis would be rescaled to be between 0 and 1). In Model (5), the interaction term is statistically significant, indicating that **Left** correlates with stock market capitalization outcomes when the government's economic orientation is pro-market, but not otherwise.

Standard errors in parentheses.
 p* < 0.10, *p* < 0.05, ****p* < 0.01

Table A2(b): Interaction between Left and the Median Voter

	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	OLS	OLS	OLS	OLS	OLS
Left	0.064**	0.048			-0.139	-0.171
	(0.029)	(0.030)			(0.148)	(0.149)
Median voter			0.002	0.115	-0.138	-0.081
			(0.222)	(0.219)	(0.179)	(0.187)
Left*Median voter					0.419	0.472
					(0.300)	(0.298)
Ln(Inflation)	0.026	0.027	0.024	0.030	0.023	0.020
	(0.020)	(0.030)	(0.026)	(0.032)	(0.025)	(0.031)
Cap acc't openness	0.009	-0.003	0.008	-0.005	0.009	-0.004
	(0.018)	(0.024)	(0.019)	(0.026)	(0.019)	(0.024)
Ln(GDP)	-0.054	-0.200	0.141	-0.072	0.217	0.005
	(0.158)	(0.133)	(0.268)	(0.346)	(0.285)	(0.361)
Per-capita GDP growth	0.017***	0.025***	0.016**	0.027***	0.017***	0.026***
	(0.005)	(0.003)	(0.006)	(0.005)	(0.006)	(0.004)
Constant	0.441	1.923	-1.315	0.699	-1.959	0.058
	(1.419)	(1.225)	(2.449)	(3.267)	(2.611)	(3.392)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes
Country FEs	Yes	Yes	Yes	Yes	Yes	Yes
<i>N</i>	728	574	699	554	682	553
adj. <i>R</i> ²	0.585	0.646	0.582	0.642	0.594	0.649

Note: The Median Voter variable is re-scaled to range from 0 (extremely left) to 1 (extremely right) to ease interpretation of the interaction term.

Standard errors in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A3: Robustness to Real Interest Rate Control

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	OLS	OLS	OLS	OLS	GLM	GLM	GLM
Left gov't in power	0.051* (0.026)	0.042 (0.027)		0.048 (0.030)	-0.008 (0.057)		0.008 (0.064)
Econ. median voter			0.218 (0.213)	0.238 (0.228)		0.720** (0.280)	0.724** (0.296)
Ln(inflation)	0.037* (0.021)	-0.002 (0.030)	0.005 (0.030)	-0.001 (0.029)	0.009 (0.048)	0.021 (0.045)	0.020 (0.047)
Cap. acc't openness	-0.005 (0.020)	-0.011 (0.024)	-0.013 (0.028)	-0.011 (0.027)	0.199*** (0.061)	0.190*** (0.055)	0.190*** (0.054)
Ln(GDP)	-0.212 (0.182)	-0.298** (0.139)	-0.231 (0.291)	-0.206 (0.287)	0.728 (0.448)	1.029 (1.279)	1.030 (1.272)
Per-capita GDP growth	0.024*** (0.005)	0.027*** (0.004)	0.030*** (0.005)	0.029*** (0.005)	0.068*** (0.013)	0.070*** (0.013)	0.070*** (0.014)
Real interest rate	0.001 (0.001)	-0.006 (0.006)	-0.004 (0.006)	-0.005 (0.006)	0.024 (0.020)	0.030 (0.023)	0.030 (0.024)
Constant	1.783 (1.642)	2.842** (1.276)	2.126 (2.750)	1.872 (2.704)	-8.650* (4.450)	-11.979 (12.724)	-11.998 (12.638)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	614	499	484	484	499	484	484
adj. R²	0.635	0.701	0.701	0.704			
Log pseudo likelihood					37.19	37.20	44.97

Note: Cluster robust standard errors in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A4: Robustness to Lag Specification

	(1)	(2)	(3)	(4)
	GLM	GLM	GLM	GLM
StockCap/GDP _{<i>t</i>-1}	0.436** (0.176)	0.411** (0.175)	0.401** (0.169)	0.426*** (0.157)
Econ. median voter	0.661*** (0.172)			
Econ. median voter _{<i>t</i>-1}		0.599*** (0.178)		
Econ. median voter _{<i>t</i>-2}			0.486** (0.220)	
Econ. median voter _{<i>t</i>-3}				0.287 (0.294)
Ln(inflation)	0.018 (0.032)	0.014 (0.032)	0.014 (0.034)	0.014 (0.035)
Ln(GDP)	0.987 (1.057)	1.010 (1.078)	0.989 (1.158)	0.851 (1.248)
Cap. acc't openness	0.232*** (0.061)	0.226*** (0.061)	0.228*** (0.061)	0.238*** (0.063)
Per-capita GDP growth	0.047*** (0.012)	0.046*** (0.012)	0.043*** (0.013)	0.042*** (0.014)
Constant	-11.259 (11.135)	-11.427 (11.323)	-11.160 (12.117)	-9.686 (13.020)
Time FEs	Yes	Yes	Yes	Yes
Country FEs	Yes	Yes	Yes	Yes
<i>N</i>	535	535	521	507
Log pseudo likelihood	76.20	72.45	58.256	44.08

Note: Cluster robust standard errors in parentheses.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A5: The Possibility of Reverse Lag Correlation

	(1) GLM	(2) GLM	(3) GLM	(4) GLM
Econ. median voter $_{t-1}$	0.901*** (0.020)	0.899*** (0.020)	0.897*** (0.021)	0.903*** (0.021)
StockCap/GDP	-0.027** (0.011)			
StockCap/GDP $_{t-1}$		-0.028** (0.012)		
StockCap/GDP $_{t-2}$			-0.028** (0.011)	
StockCap/GDP $_{t-3}$				-0.026** (0.010)
Ln(inflation)	0.001 (0.002)	0.000 (0.002)	0.001 (0.003)	0.001 (0.002)
Ln(GDP)	-0.068* (0.034)	-0.064 (0.039)	-0.063 (0.046)	-0.043 (0.043)
Cap acc't openness	-0.006 (0.004)	-0.006 (0.004)	-0.007* (0.004)	-0.007* (0.004)
Per-capita GDP growth	-0.002* (0.001)	-0.002* (0.001)	-0.003*** (0.001)	-0.004*** (0.001)
Constant	0.766** (0.341)	0.724* (0.392)	0.715 (0.465)	0.513 (0.436)
Time FEs	Yes	Yes	Yes	Yes
Country FEs	Yes	Yes	Yes	Yes
N	539	533	514	495
Log Pseudo Likelihood	0.847	0.847	0.845	0.847

Table A6: Estimates Restricted to Pre-1990s (Founding OECD Members)

	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	OLS	OLS	GLM	GLM	GLM
Left gov't in power	-0.007 (0.018)			-0.133 (0.135)		
Econ. median voter		-0.055 (0.133)			0.393 (0.640)	
Econ. orientation			0.104 (0.063)			0.024 (0.362)
Ln(inflation)	-0.008 (0.038)	-0.020 (0.027)	-0.005 (0.027)	0.021 (0.161)	-0.038 (0.125)	-0.054 (0.121)
Cap. acc't open.	0.047** (0.019)	0.035* (0.018)	0.028 (0.018)	0.097 (0.083)	0.041 (0.056)	0.039 (0.051)
Ln(GDP)	0.438 (0.275)	1.276* (0.675)	1.203* (0.677)	1.458 (0.983)	4.896*** (1.824)	4.986*** (1.836)
Per-capita GDP growth	0.008* (0.004)	0.004 (0.004)	0.004 (0.005)	0.075** (0.036)	0.061 (0.038)	0.061 (0.038)
Constant	-3.972 (2.555)	-11.903* (6.413)	-11.304* (6.428)	-15.550* (9.446)	-49.581*** (18.177)	-50.318*** (18.140)
Time FEs	Yes	Yes	Yes	Yes	Yes	Yes
Country FEs	Yes	Yes	Yes	Yes	Yes	Yes
N	265	251	248	265	251	248
adj. R ²	0.560	0.584	0.591			
Log Pseudo Likelihood				206.65	207.26	221.70

Note: Cluster robust standard errors in parentheses.
*p < 0.10, **p < 0.05, ***p < 0.01

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