# **Financial Markets and the Political Center of Gravity**

Mark J. Roe and Travis Coan

#### Abstract

Academics across multiple disciplines and policymakers in multiple institutions have in recent decades searched for the economic, political, and institutional foundations for financial market strength, seeing financial market prowess as propelling economic well-being. Promising theories and empirics have developed

Data thought to be inconsistent with the most basic political economy view — that the polity's overall left-right political orientation on market issues in western democracies predicts financial market development — has been prominently brought forward, indicating that financial markets deepened when locally left political parties governed. This finding might be interpreted to indicate that time invariant left-right orientation is unimportant in affecting financial development and either nonpolitical institutional issues or other political considerations are more central. We show, however, here first why that view is conceptually incorrect. 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 implement change. (And conversely, when interests and opinions were once statist and anti-market, one would not have expected locally right parties to push pro-market finance forward.) We motivate the conceptual discussion first with the median voter theorem and illustrate several such shifts in a nation's left and its political center of gravity. We then bring forward data suggesting that prior methods of measuring a nation's political position do not account for the substantial movement over recent decades of political parties and governing coalitions. Left-right matters, but the left-right economic shifts over time make an empirical difference. The results thereby further buttress the importance of a nation's basic left-right political orientation as a first-order factor in explaining financial market outcomes.

Keywords: financial markets; party politics; median voter; economic policy; capital market development; party manifestos; social democracy; political determinants

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#### **INTRODUCTION**

Financial markets have captured the attention of scholars and policymakers in recent decades, in both normative and positive accounts. Whereas financial markets were once seen as the details that an economic system filled as it developed (Robinson, 1952), academics and the international development agencies have come to see the financial market as foundational for economic well-being, operating as a necessary prior to economic take-off, by facilitating the movement of capital into valuable projects (Levine, Loayza & Beck, 2000; Levine 2005). As the 2007–2009 financial crisis shows, the failure of financial markets can be very costly to an economy.

Academics have also sought to explain why equity and bond markets in the United States have been deep and wide for much of the twentieth 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. With these nations at similar levels of economic development in recent decades, a primary economic explanation, namely the level of economic development, is taken off the table, leaving differences of economic task, as Hall and Soskice (2001) develop, the primary remaining economic explanation.

The differences in political economies have also been brought forward as primary explanations for differences in financial markets. Social democratic Europe in the postwar decades did not support capital markets (Roe 2000), as its median voter's firm-specific human capital dominated the voter's financial savings (Perotti & von Thadden 2006). 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.

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 & Shinn 2005; Culpepper 2011; Pagano & Volpin 2005). Simple, more abstract, left-right conflict destabilized public firms with diffuse ownership in nations in which labor 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).

Other theories have pointed to institutional differences in legal traditions, with such theories particularly popular among finance economists (La Porta et al. 1997, 1998). Common law nations were said to be better at financial contracting,

owing to a judiciary that better enforces financial contracts than do civil law nations, which, it was said, regulate financial markets excessively due to the nature of civil law. These differences in institutional legal capacities were then said to implicate whether financial markets grow or fail to grow. The political explanations stand in contradistinction to institutional theories, such as those tied to legal systems. The latter examine how some institutions affect corporate governance and securities market outcomes and possibilities; the former emphasize that institutional character is often secondary to institutional aim in determining outcomes, and political inputs largely determine institutional aim.

The political theories posit that the treatment of capital is a deeply political question for most nations and that how capital fares in the polity largely determines the depth and breadth of financial markets. Some polities will not provide the institutional supports that outside capital needs to be effective and protected. Some polities are 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 (and that voter's parliamentary representatives) presumably do have a broad interest in whether stock markets are deep, whether families control stable firms, and the overall picture. In the most sharply put of the political theory view, 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.

In the political theory's most fundamental form, one asks whether the dominant interests in a polity have reason to 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 & von Thadden, 2006), left-right conflict (Roe, 2003) (these two overlap), dominant coalition characteristics (Gourevitch & Shinn, 2005), the decisive influence of concentrated interests on low salience issues (Culpepper, 2011), and the nature of political representation — parliamentary and proportional or not (Pagano & Volpin, 2005; Mueller, 2006). Each theory boasts consistent empirical data. 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 allowing for a more rigorous account of the politics of financial market development. In a prominent and sophisticated example, Pinto, Weymouth, and Gourevitch (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 & Höpner (2006). Cf. Callaghan (2009: 733); Schnyder (2012: 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. If wide parts of the spectrum of a polity has become pro-market, 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 keeps its historical left principles and its historical supporting interests but then decides to support financial markets. If the polity has moved, then one would expect policy to move. 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.) Similarly, a locally right-oriented party in a statist, social democratic polity need not strongly support markets and in the immediate postwar era did not. Roe 2003: 66 (during the social democratic heyday, "[n]ominally conservative or middle-ofthe-road political parties have pursued the core social democratic policies"). Studies that do not account for the possibility that an entire polity shifts leftward or rightward risk interpretive error. We tune this specification more finely. When we do, the left-right dichotomy reemerges as significant in the relevant models.

To accomplish this improved left-right specification, we introduce a new dataset of time series measures of economic policy orientation, drawn from the Political Party Manifestoes 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.

Consider the median voter theorem for democratic polities. Our goal here is to examine and measure how 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 preferred by the median voter. We then see if any left-right shift in a polity correlates with depth and breadth of financial markets. 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 'conservative,' are not decisive. 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 understand dynamic shifts in the political center of gravity. Intuitively, we know that polities and political parties shift their economic views over time. For the outcome we seek to explain as partially politically dependent — financial market breadth and depth — this shift may be of first-order importance.

Overall, our evidence points toward the following conclusions, several of which would amend prior understandings. First, the median voter preference moved rightward in recent decades in the wealthy democracies. The major political parties also moved rightward, overall, and did *not* stay at the same point on the left-right political spectrum. Prior work comparing left-right orientation with the

breadth and depth of capital markets does not account for this shift, which was substantial.

Second, the political orientation of political parties in the wealthy west has been converging in recent decades on market-based issues. Consistent with the median voter preference shifting rightward in broad strokes, both left and right parties moved, somewhat in tandem, but with the gaps between them on market oriented policy positions narrowing. This convergence toward market oriented policy platforms included formerly left parties that exhibited hostility to market oriented policies. Hence, findings that nations with locally left political parties in power in the 1990s had strong financial markets must be interpreted carefully for their meaning in the political economy of financial market development. The left parties of the 1990s often had policy preferences that sharply differed from the 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, towards 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.

Overall, when we code left vs. right on an absolute scale, financial markets appear to depend on left-right political orientation, as earlier work had shown. This is a result that accords with most observers' political intuitions.

# I. 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.

## A. Economic Utility of Finance

Until recent decades, financial capacity was seen as an institutional detail, to be filled in when real economic operations demand it. 'Where industry leads, finance follows,' was Robinson's (1952) classic formulation. Financial capacity was just not seen as a first-order problem and certainly not as one of the dominant propellants of economic development.

Thinking in recent decades turned this around, 180 degrees, with many seeing finance as foundational for economic development, often as a sine qua non. Economic historians, like Sylla, Tilly & Tortella (1999), see financial take-off as preceding industrial take-off, finding significant evidence for the sequence and some for causation in the history of American, European, and Japanese development. Others find modern data associating financial growth with economic growth. King & Levine (1993).

While the modern consensus sees financial capacity as necessary for growth, we remain a bit circumspect, given that the prior long-held consensus did not treat finance as so central and modern interpretations could cast doubt on finance's centrality. For example, Acemoglu & Robinson (2005) is in the spirit of Robinson's adage: They find that strong property rights often correlate with strong contracting rights, with the latter propelling some type of financial growth. But, they say, and bring forth supporting evidence, the institution doing the economic work is property rights, with strong contracting rights just a frequent institutional correlation with strong property rights. Once property rights are in place, economic players will, in a way Robinson (1952) would appreciate, find some mechanism or another to make the financing work.

# **B.** Political Preferences and Political Coalitions

Several prominent works look to political decisions, interests, and structure as dominant determinants of financial markets. Rajan & 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 & von Thadden (2006), Perotti & Schwienbacher (2009), and Degryse, Lambert & Schwienbacher (2013) focus on the median voter in richer democracies. Where the median voter has lost his or her financial assets in, say, the interwar inflation in Europe, but has strong human capital, the median voter will prefer industrial stability, without the disruptions that securities markets bring. That is, if inflation destroyed the middle class's savings, then the middle class no longer had savings to protect and they and their parliamentary representatives voted accordingly, for corporate governance structures that would slow industrial change, thereby preserving human capital for longer, at the expense of financial capital.

Gourevitch & Shinn (2005) and Pagano & Volpin (2005) both offer sophisticated mappings, abstractly and in practice, of shifting coalitions among managers, employees, and shareholders; they show how these shifting coalitions can explain the degree to which a polity will provide shareholder protection. Cioffi (2010) and Cioffi & Höpner (2006: 487–488) provide a similar explanation, focusing on tensions between finance and corporate managers, with the shifting coalitions partly dependent on left parties seeing a decline in labor — their natural constituency — and then seeking to add finance to their coalition. The social democrats sought to portray themselves as modernizers, which would appeal to middleclass voters. Culpepper (2011) also offer coalitional explanations, independent of the median voter theorem, concluding that senior corporate managers get their preferred policies, regardless of which parties have power, because corporate issues are typically insufficiently salient to engage public opinion and other interests.

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 (such that even locally right parties, like de Gaulle's in France or Christian Democrats in Italy (Deeg (2005: 544 n.2), adopted left-leaning economic policy), explain core financial differences in the post-World War II decades among the richer capitalist democracies. 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 political configurations and institutions 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 the large firms than the United States in the past half-century.

## C. Empirical Analysis to Date: A Brief Summary

Perotti & von Thadden (2006) and Perotti & Schwienbacher (2009) indicate that the middle class's loss of savings in the interwar hyper-inflation in Europe altered the political position of the median voter for 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 much less equity than those in the middle of the income distribution in the United States. Perotti & von Thadden (2006: 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 among the wealthy nations that have high employment protection and strong labor protection generally, stock market diffusion is low, while nations with high stock market diffusion do not vigorously protect employees with jobs in place. The simple relationship is easily visible in Figure 1.



Figure 1. Labor power as predicting ownership separation in large firms

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: 137–138).

Roe hypothesizes that nations with powerful labor and a powerful left in the 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. Overall, in such environments, more shareholder value will be captured for shareholders by firms that stay private or that maintain a blockholder if they do go public. Consequently, fewer firms go public and those that do maintain close owners.

Pagano & Volpin (2005) present a different 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 oppose the influence of outside stockholders and, hence, do not support 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 more likely to yield that kind of result. Cf. Rueda (2007).

Gourevitch & Shinn (2005) provide a different political economy theory. In the spirit of Hall and Soskice's (2001) more general work, they divide the wealthy

west along lines of more coordinated (or less 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.

Pinto, Weymouth & Gourevitch (2010) present evidence at odds with Perotti & von Thadden's (2006) and Roe's (2000, 2003) conclusions and evidence. The latter two 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 over time associated with stronger financial markets, not weaker financial markets.

Views similar in this dimension to those of Pinto et al. — observing the increasing association of social democratic and left governments with pro-finance policies and results — can be found in Cioffi & Höpner (2006), Cioffi (2010), and Culpepper (2011), albeit each have different causal explanations, some of which are explicated above. But cf. Abiad & Mody (2005) (financial liberalization independent of politics); Burgoon, Demetriades & Underhill (2012). Cioffi (2010: 36) states "that corporate governance reform has largely been a project of the Center-Left" and Pinto et al.'s data fits well with this claim. Indeed, as noted above, Pinto et al. claim that their results reverse the sign of earlier work pointing to the importance of left power in explaining postwar European financial markets. That claim and the associated view of the unimportance of partisan politics in financial market results have become popular among political scientists studying the subject. We examine that analytic here.

#### **II.** WHY IT'S THE POLITICAL CENTER OF GRAVITY THAT COUNTS

A core principle of modern political science is the median voter theorem, whose application to this literature is necessary but can be missed. As long as political preferences array along a single dimension (either because only one issue counts or because voters have similarly-arrayed preferences on the multiple issues that they find salient and determinative), politicians will be driven to the policy preferences of the polity's median voter. Voters will come close to indifference between the major candidates (tweedle-dee and tweedle-dum). Black (1948); Downs (1957) are the classics; see also Cox (1990); Powell (2000); Lipset & Rokken (1967) (adapting median voter concepts to a 2-dimensional policy space); Grofman (2004) (summarizing and reconciling limits to the Downsian pure median voter framework); and critiques such as Green & Shapiro (1994).

In this basic analytic, the identity of the party in power (is it a locally left, or a locally right party?) is less significant than the position of the polity's median voter, as both the left and right parties will gravitate toward the median's voter's policy preferences. True, a realistic application of the median voter theorem would not find political party identity irrelevant (as the pure form of theorem implies), but would posit that political parties seeking a majority will be pressured to move their opinions and policies from that of their "base" ideological activists and core interests toward that of the median voter. Presumably this movement toward the center should occur even in multi-party polities governed by coalitions of parties, each of which appeal to narrow, non-encompassing interests and targeted policies. The median voter theorem would be relevant even for such multi-party coalitions because both left parties and right parties will, when they seek to form a governing coalition, feel pressured to move government policy to that favored by the median voter as represented by the median political party.

Political economy explanations that focus on the entry of a left party into the governing coalition and find that such events are often accompanied by capital market development and improved capital markets institutions, can, hence, in principle, lead to error. That potential for error is in play because in a pure, albeit unrealistic, median voter polity, the identity of the party — Social Democratic on the left, or Christian Democratic on the right — is not determinative in explaining basic policy outputs. A political party may start on the left (or the right), but will be pushed toward the political center to capture the median voter's vote. Or the governing coalition will be pressured to satisfy those parties in the middle. The median voter gives the winning party (or the last piece in the coalition) its majority and the power to govern. Because both parties, or at least the governing coalition as constructed by compromise, will implement the median voter's policy preferences, the identity of the party in power is less important than the position on the political spectrum of the median voter.

Moreover, there's little reason in theory to expect that the median voter's position is fixed and immutable over time. Changing economic production relationships, changing ideologies, and changing interests can shift the median voter's position. Reasons for shifts are discussed further in Part VI, but the focus here will be on whether we can identify such a shift, whether the shift was substantial, and, most importantly, whether the shift correlates with financial results.

Indeed, the entry of a left party into the governing coalition could be a *positive* signal for the politics of stock market development. Consider a baseline shift: The left party (a) had been deeply hostile to financial markets, private property, and capital accumulation, and (b) had a significant chance of attaining power, presumably because the median voter was not pro-finance. (In a true application of the median voter theorem, one would expect that the right parties, even if less hostile would hover in the vicinity.) If the left party gave up on the most radical of its goals and thereby became legitimate enough to join a governing coalition, financial markets may accordingly become content. The left party's entry into the governing coalition, if due to it having moved to the center and having accepted market-based policies, could signal to capital market players that a serious threat to them has ended. Hence, capital would have reason to feel more comfortable because the left had dropped its older hostility to capital.

One dramatic example in recent years was the rise of the Worker's Party in Brazil and its capture of the Brazilian Presidency in 2003, with the election of Luiz Inacio da Silva ('Lula'), a long-time left leader in Brazil. Markets took off, but they took off not because they finally became enamored of Mr. da Silva's longheld left views, but because Mr. da Silva and his Worker's Party had reconciled themselves to capitalism and markets. Capital-owners did not generally support Lula's Worker's Party, but they understood that the farthest left party that could govern was no longer opposed to capital and markets. The Brazilian Workers' Party did not have the same policy goals in 2003 that it had had in 1992. The party, and presumably the polity, had shifted rightward.

## III. MEASURING POLITICAL ORIENTATION

#### A. Is Political Orientation Constant Over Time?

Hence, does 'left' mean the same thing today as it did in the 1960s? Are the economic policies of left-oriented political parties' constant over time? Pinto et al.'s (2010) study of left-right orientation's impact on financial markets, like ours, considers the problem of accurately treating political positioning across national polities, for which left and right on market issues may have differing valences. For example, they explain well that Brazilian President da Silva displayed a moderate leftism in Brazil, not a radical one, and, hence, Brazil during his presidency cannot be coded identically with, say, Venezuela during Hugo Chavez's presidency, when Venezuela's leftism was more extreme. Although both nations were governed from the local left, each placed differently on absolute left-right scale.

The study thereby adjusts well for differences in left-right position among the left-most parties *across* nations. However, their analysis and empirics do less well in handling changes in the overall political orientation of left-leaning parties *within* nations over time. Specifically, their measure of left-wing economic orientation effectively holds a polity and its political parties as constant over a 30 year period. This could lead to interpretive error, particularly when applied to western European political shifts in the postwar decades. Implicit in the Perotti & 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 descriptive data on the matter. That data deficiency we remedy here.

To be more specific about the data problem, the current treatment in the political science literature of party political position as a three-decade constant could be troublesome, if the parties in fact shifted positions during those three decades, as Lipset & Marks (2000: 275) suggest, using basic data, could be detected by 2001. ('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.' Roe (2000: 579–81) (emphasis in original).

To illustrate, consider this descriptive of the Italian polity dozen or so years ago from the Economist (2001), entitled 'They're (nearly) all centrists now:

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.

The reader can also see the potential problem conceptually with an American example. Compare economic policies during the first years of the Clinton presidency with the policies Clinton pursued during the 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.' Similarly, Republican administrations have 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, EPA, OSHA, and 'we're all Keynesians now'). In the analysis section below, we provide quantitative evidence to support this intuitive argument. Polities and political parties have shifted markedly on economic issues over recent decades. We then show that these shifts correlate with financial shifts.

Other examples abound, in diverse political contexts. Viewing political orientation as a within-country constant for each party can potentially yield mistaken inferences. Worse yet for the within-country constant is that the western democracies experienced disruptive political change during the 1975 to 2004 period that's central to the studies 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, the obvious question is whether there are alternative measures that better handle the potential shifts over time along the political spectrum.

## B. Measuring Change in National Political Orientation

Can we move beyond the assumption that the meaning of 'left' or 'right' is fixed over time and obtain new measures of economic ideology that can account for any such shift. 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 & Laver 2006; Steenbergen & Marks 2007: 349–360). Methodological concerns have been raised for these expert surveys (Budge 2000: 105-111; Volkens 2007; McDonald, Mendes & Kim 2007; McDonald & Mendes 2001), although several major concerns have been alleviated in subsequent work (Benoit & Laver 2007; Steenbergen & Marks 2007). Expert surveys,

however, serve the research of this article poorly, because the best expert surveys are available for only a limited number of years and a limited number of nations.

A second common method to measure political position is to analyze the content of political party manifestos (Budge 1987; Budge *et al.* 2001), particularly of the governing party or parties. Unlike the expert surveys, the political party manifesto raw data is richer over time and covers a wide range of nations. 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, Volkens, Bara, Budge & Macdonald 2006).<sup>1</sup>

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 making these documents a reasonable statement of a party's policy preferences (Budge, Robertson & Hearl 1987/2008). In the next section, we present measures of economic orientation used in the CMP project to capture a polity's preference for pro-market and anti-market economic policies. As an example, consider free trade policy. If a party's manifesto frequently mentions anti-protectionist policies in the 1990s but that party's manifesto did not bring forward anti-protectionist views in the 1970s, 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 (as "Manifesto Project") in 2003.<sup>2</sup> It has been widely-used among scholars of comparative electoral politics and the project reports that it has been cited in more than 1,750 papers in the Google Scholar database.<sup>3</sup>

The dataset though is not without critics. 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 & Laver 2007; Laver & Garry (2000); Mikhaylov, Laver & Benoit 2012, Benoit et al. 2009). Nevertheless, while imperfect, we demonstrate below the advantages of using the CMP data over traditional binary measures of left-right politics, particularly because it allows us to measure shifts over time. One would want eventual confirmation of the results we present below, but the other datasets now available have narrower coverage across time and across

<sup>&</sup>lt;sup>1</sup> In 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 & Mendes 2001; Dinas & Gemenis 2009). Research also demonstrates that the CMP data maintains acceptable levels of reliability and validity, while correcting for the problems of party definition and determining the appropriate time-scale for expert judgments (McDonald & Mendes 2001; Volkens 2007).

<sup>&</sup>lt;sup>2</sup> AMERICAN POLITICAL SCIENCE ASSOCIATION, 2003 AWARD RECIPIENTS, http://www.apsanet.org/content.asp?contentid=585.

<sup>&</sup>lt;sup>3</sup> MANIFESTO PROJECT DATABASE, https://manifestoproject.wzb.eu/ (last visited Dec. 22, 2014).

nations, making them inapt for the investigation in this paper. Hence, these results, based on a single dataset, must be treated with caution, as a first effort.<sup>4</sup>

i. Economic Orientation of the Ruling Government: Is it Pro-market or not?

We constructed a scale of economic orientation by using 10 policy items (5 pro-market and 5 anti-market items) that the CMP database classifies as 'Economic.' Each policy item is relevant 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 (Gemines 2013). We describe these 10 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 that Lowe, Benoit, Mikhavlov & Laver (2011) outlined, using the logged difference between opposing items (promarket and anti-market) to generate an additive scale. Lowe et al. (2011) demonstrate that this simple transformation outperforms traditional measures of left-right politics based on the CMP data, and corresponds well to external assessments of party positions based on expert surveys.

We isolate the ruling party using Beck, Clarke, Keefer & Walsh's (2001) coding mechanism. Specifically, 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 (Osterloh 2011) using the CMP data to measure political orientation, we estimate pro-market orientation in non-election years by carrying forward the policy position of the ruling party from the closest election year.<sup>5</sup> We rescaled the measure to range from 0 to 1, with higher values indicating a more market-friendly policy orientation.

<sup>&</sup>lt;sup>4</sup> Some of the imperfections in the CMP data reduce the chance of our project finding significant results. A main criticism is that 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. Mikhavlov, Laver & Benoit (2012: 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, Mendes & Kim (2007: 63, 65–66). The value for this paper's project of a database that is sensitive to shifts in position over time is obvious.

<sup>&</sup>lt;sup>5</sup> Carrying forward the economic position of the ruling party assumes a good deal of stability in policy preferences over time. It is potentially noisy assumption, particularly because this procedure effectively assumes that the stated policy objectives espoused in party manifestos during the campaign period are roughly related to the realized policies enacted over the course of a governing period.

Name	CMP Label	Description				
		Pro-Market Indicators				
Free Enterprise	per401	Favorable mentions of free enterprise capitalism; superiority of indivi ual enterprise over state and control systems; favorable mentions private property rights, personal enterprise and initiative; need for u hampered individual enterprises.				
Anti- protectionism	per407	Negative mentions of extension or maintenance of tariffs to protect in ternal markets; other domestic economic protectionism such as quo restrictions.				
Productivity	per410	Need to encourage or facilitate greater production; need to tak measures to aid this; appeal for greater production and importance of productivity to the economy; increasing foreign trade; the paradigm of growth.				
Economic Ortho- doxy	per414	Need for traditional economic orthodoxy, e.g. reduction of budget defi- cits, 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.				
		Anti-Market Indicators				
Economic Planning	per404	Favorable mentions of long-standing economic planning of a const tive or indicative nature and need for government to create such a pla				
Protectionism	per406	Favorable mentions of extension or maintenance of tariffs to protect internal markets; other domestic economic protectionism such as quota restrictions.				
Controlled Econ- omy	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.				

#### Table 1: Manifesto Data Underlying the Economic Orientation Measure

#### i. Political Orientation of the Median Voter

To measure the overall political center of gravity, we use De Neve's (2011) technique (which relies on Kim & Fording's (1998, 2001) older efforts). First, categories in the CMP are divided based on whether they represent pro-market or anti-market tendencies and these data are used to construct the relevant right-left position for each party.<sup>6</sup> After estimating each party's position, these estimates are

<sup>&</sup>lt;sup>6</sup> Kim & Fording (and by extension De Neve) rely on the categories outlined in early work on the Comparative Manifesto Project (Laver & Budge 1993). Specifically, the categories are as follows. Leftist categories are: Regulation of capitalism, Economic Planning, Protectionism: positive, Controlled economy, Nationalization, Decolonization, Military: negative, Peace, Internationalism: positive, Democracy, Social services expansion: positive, Education: positive, and Labor groups: positive. Rightist categories are: Free enterprise, Incentives, Protectionism: negative, Economic orthodoxy and efficiency, Social services expan-

combined with data on each party's share of the vote to estimate the median voter's position on relevant issues:

$$M = L + \frac{50 - C}{F} * W$$

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 containing the median, Fis 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 basic methodology represents the political center of gravity and their representation has been validated and used elsewhere (*see* Markussen 2008; Adams et al. 2006; Bartels 2008).

## IV. EVIDENCE OF A SHIFTING POLITICAL CENTER

Does 'left' mean the same thing today as it did in the 1960s? According to the analysis we did of the CMP data and present next, 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.

# **A.** Party Shifts in Economic Ideology in Four Developed Economies

We illustrate shifts in median ideology with its variation over time in economic orientation in several established political parties in four large, developed democracies: the United States, the Great Britain, Germany, and France.

Figure 2 shows why the assumption of fixed policy preferences over time is inaccurate in important ways for France, Germany, the United Kingdom, and the United States. The figure shows the governing parties' economic orientation varying considerably over time in these four nations. Parties have tended to support 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.

Examine first 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

sion: negative, Constitutionalism: positive, Government effectiveness and authority, National way of life: positive, Traditional morality: positive, Law and order, National effort and social harmony, Military: positive, and Freedom and domestic human rights.

used price controls to combat inflation. In the 1990s, when Bill Clinton was president, the executive 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, Figure 2a illustrates many 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 shifts similarly over time, as Figure 5b shows. The Labour Party when out of power during the Thatcher years is sharply to the left, while the ideology of the Labour Party in the first decade of the 21<sup>st</sup> 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; Blair's was much less to the left. Interpretations that rely on the left-right orientation of the party in power in the U.K. can mislead us if they fail to account for the shift in party position.

Operationalizing this movement in the data: In 1976, Labour was led by James Callaghan with a sharply left ideology that in prior work was 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. See Pinto et al. (2010). But Tony Blair's Labour Party was much more market friendly than Callaghan's. In our 0 to 1 scale, Callaghan's Labour is coded as 0.305 and Blair's as 0.538. This change represented a sizeable move to the right for the Labour Party over the 30 year period. To study the relationship between politics and financial markets properly, one risks interpretive difficulties if the Labour party of Callaghan and that of Blair are coded identically. Our coding captures Labour's sharp shift.



Figure 2: Pro-market economic orientation for four developed democracies

Figure 2 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 10 economic policy items described in Table 1 (*see* pg. 12) and the logit scaling procedure outlined in Lowe at al. (2012). Higher values in the figure correspond to a more right-wing economic policy

The diagrams' plots do not uniformly show left parties moving away from anti-market policies. In the very early 1970s the left-right parties are tightly bunched but have the "wrong" sign for a couple of years. The United States shows the Democratic Party becoming more market-oriented. For the U.K. the Labour Party becomes more market oriented, with some of that movement occurs before Blair's ascension. Overall, the left parties' late 1970s orientation, compared to their early 21<sup>st</sup> century orientation, shows it had moved and become more market oriented. (The right parties also generally moved in the same direction. While the problem to explain is the left's adoption of pro-market policies, we would not want to leave the reader with the view that the right was immobile while only the left moved. But it's the left's movement that is the issue to explain here.)

## **B.** Shifts in the Economic Center of Gravity

Consistent with the rightward shift in economic orientation for major parties in the U.S. and the U.K., the data indicates a similar rightward shift in the overall median voter position in other countries. To illustrate this shift, Figure 3 plots the median voter position of six nations from 1960 to 2006 (based on our calculated index of the positions of all parties, weighted by their electoral strength): the U.S., U.K., Germany, and France, as well as Sweden and Italy. Although movement over time in the median policy position is not uniform, each nation shows a tendency to move away from statist, anti-market economic policies, especially during the early-to-mid 1990s.



Figure 3: The economic median voter, individual countries



In order to provide a more general account of shifts in the median voter position over time, we plot the derived median voter position for 24 democracies over the period from 1960 to 2006 in Figure 4. These countries are responsible for a substantial proportion of the overall global financial market, representing an aver-



Figure 4: The average economic median voter position, 1960-2006 (24 Democracies).

Figure 4 displays the average economic median political position for the 10 policy items in Table 1, weighted by population and real income. The population and income data are derived from the Penn World Tables dataset. A higher median-voter position on the x-axis indicates a more market-oriented view.

age of 81% of the world's total stock market capitalization during the period 1990-2012. Following De Neve (2011), we present the weighted average (by population and total income) of the median voter's preferences on all issues classified as 'economic' in the CMP dataset in Figure 4. The figure displays the changing nature of the national ideological center, with the center initially moving toward a more leftleaning policy orientation during the 1960s and 1970s, followed by a rather sharp rightward (upward on the figure's scaling) shift on market issues the 1980s and 1990s.

The findings are stark. The median voter has shifted rightward on economic issues around the democratic world in the past four decades. Prior analyses based on relative leftness in the early 1970s as meaning the same as relative leftness in 2005 are thus sharply called into question.

## V. THE POLITICS OF STOCK MARKET DEVELOPMENT REVISITED

In Part III we demonstrated why the assumptions embedded in prior measures of left-right economic policies in the literature could lead to inaccurate interpretations. We also provided an alternative measure that, while certainly not perfect, improves upon past conceptualizations. We now revisit prior central findings

#### A. 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 would be appropriate to test, but none other has data over time for so many countries. This data comes from the Standard and Poor's Global Stock, originally compiled by Claessens, Klingebiel & Schmukler (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, Clarke, Groff, Keefer & Walsh's (2001) Database of Political Institutions — the variable Pinto et al. (2010) used. 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. Full descriptive statistics for the sample are in Table 2.

Variable	Ν	Mean	Std. Dev.	Min	Max
Left	790	0.418	0.493	0.000	1.000
Pro-market Orientation	807	0.449	0.135	0.000	1.000
Median Voter Position	663	0.449	0.155	0.000	1.000
Ln(GDP)	807	9.357	0.981	5.705	10.830
Ln(Inflation)	785	2.720	0.594	1.961	6.972
Capital Account Openness	730	1.260	1.428	-1.753	2.623
Growth in GDP Per-capita	807	2.440	3.181	-18.107	37.204

Table 2: Descriptive statistics for political variables and key economic controls

## **B. Replicating Prior Work**

To establish the foundation for our analysis, we first replicate prior work, then show how an improved understanding of how left varies over time shifts results. Table 3 replicates Pinto et al.'s main findings, as that work is the most recent in depth analytic. Column (1) exactly replicates their results, while column (2) estimates their model on our sample of 40 democracies for which CMP data was available. The results with the CMP data are quite close to theirs, indicating a positive and statistically significant (p = 0.036) relationship between having a left political party in power (**Left**) and stock market capitalization (**StockCap/GDP**).

But, when we turn to the **Pro-market Economic Orientation** measure for the ruling parties in our subsample of democracies (*see* Column 3), the sign on the coefficient remains positive, although not significant at traditional levels. Results are similar for the relationship between the **Median Voter Position** and **StockCap/GDP**: the relationship is also positive but not significant, although barely so, at traditional levels (p = 0.11).

The data tell a different story when one examines the effect of right-wing economic orientation *after controlling* for the effect of the 'left' party label and the political center of gravity. The **Pro-market Economic Orientation** of the government in power is significant at traditional levels (p = 0.034), as column (6) shows.<sup>7</sup> After taking the median voter and party label into account, governments with pro-growth economic orientations tend to support financial market development.<sup>8</sup>

	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	OLS	OLS	OLS	OLS	OLS
Left political party in power	$0.065^{*}$	$0.065^{*}$			$0.089^{*}$	0.122**
	(0.026)	(0.030)			(0.035)	(0.036)
Pro-market Economic Ori-			0.054		0.189	$0.292^{*}$
<b>entation</b> of the government in power			(0.129)		(0.14)	(0.133)
Median Voter Position				0.002		0.002
(higher values = right-wing)				(0.001)		(0.001)
Log(GDP/capita)	0.100	0.290	0.312	0.314	0.305	0.300
	(0.120)	(0.254)	(0.256)	(0.275)	(0.247)	(0.262)
Log(Inflation)	$0.045^{**}$	$0.077^{*}$	$0.086^{+}$	0.059	$0.085^{+}$	0.060
-	(0.015)	(0.038)	(0.044)	(0.046)	(0.044)	(0.050)
Capital Acct. Openness	0.016	0.012	0.012	0.005	0.015	0.017
1 1	(0.014)	(0.020)	(0.019)	(0.022)	(0.019)	(0.021)
GDP Growth	0.011**	$0.015^{**}$	$0.016^{**}$	0.014	0.015**	0.011
	(0.002)	(0.005)	(0.005)	(0.006)	(0.005)	(0.006)
Constant	-1.024	-2.943	-3.156	-3.019	-3.108	-2.201
	(0.975)	(2.321)	(2.370)	(2.595)	(2.258)	(2.602)
					× ,	. ,
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1287	698	698	587	698	574
$R^2$	0.251	0.442	0.441	0.480	0.446	0.500

 $^{+} p < 0.10, ^{*} p < 0.05, ^{**} p < 0.01$ 

#### Table 3: Replicating prior work, updating the left-right measure

<sup>&</sup>lt;sup>7</sup> The Pro-market Economic Orientation of the government averages the positions of the parties in power (as specified in Beck et al. (2001); the Median variable averages the positions of all parties, weighted by the size of the vote for the party.

<sup>&</sup>lt;sup>8</sup> Pinto et al. interpret their *two-way* fixed effects regression results as strictly *within* estimates and, as such, interpret their work as only comparing changes across political orientation within a particular country (see pp. 389-390). While this interpretation is correct for a *one-way* fixed effect estimator, the addition of time fixed effects implies that information for the comparison group (i.e., the between estimate) starts to matter (*see* Imai & Song 2012 for a detailed explanation of the fixed effects estimator). As such, statements that the two-way fixed effects model is estimating moves "from Democratic to Republican administrations and vice versa in the US, rather than differences between the Republicans and the British Labour Party" (390) are not technically accurate, and the time series nature of the data alone do not resolve the problem that "differences in partisan orientation across countries are extremely difficult to interpret" (389). Differences between, say, the Democratic party in the U.S. and left-leaning parties in Europe are precisely what is being used to estimate the counterfactual outcome in each case, regardless of whether the Democrats would be considered "conservative" by European standards.

Cluster robust standard errors for these ordinary least squares regressions are in parentheses.

Model (1) replicates Pinto et al. (2010). Left government is a significant and positive predictor of strong stock market capitalization. Model (2) replicates Pinto et al. (2010) for the subset of democratic nations included in the CMP data. For these nations, more than for nondemocracies, the median voter theorem is likely in play and would need to be accounted for.

In the three models with Pro-Market Economic Orientation of the government in power, the variable has the 'correct' sign and becomes significant in model (6), in which the environment is conditioned by the median voter and whether the Left is in power.

# C. Generalized Linear Model: Correctly Specifying the Error Term

A closer inspection of the data indicates that the error distributions for regression models in columns (1)-(3) are highly skewed. The normality assumption in ordinary least squares regression conceptualization is often ignored in applied work, particularly when a researcher is fortunate enough to have a large sample (which is true in our case). In this situation, a common approach is to move forward with standard regression estimates, ignoring distributional assumptions, and apply 'robust' standard errors to (hopefully) clear up any remaining misspecification.

However, using a more appropriate estimator is a more efficient method. Others have suggested transformations to make the dependent variable fit the normality assumption or the use of generalized linear models (GLM) with more flexible error distributions (Manning & Mullahy 2001). We use the latter.

Do the findings in Table 3 change when using this alternative GLM specification? The short answer is yes, as Table 4 shows. The coefficient for the Promarket **Economic Orientation** of the governing political party is both positive and significant at traditional levels (p = 0.046), as seen in columns (2)–(4). These findings suggest that economically conservative, market-oriented policy platforms of the governing party are associated with greater financial market development, regardless of whether the party in power is traditionally labeled as left-leaning in their economic policies.

What do these results suggest about the relationship between partisan politics and stock market development? First, they underscore the importance of using actual policies to build out the independent variable — as proxied by policy platforms — rather than historical party labels. Labels persist, but policies can and do change. These policy-based, instead of label-based, results point to economically conservative, pro-market policy platforms as being associated with increased market capitalization and financial market growth.

True, Left remains significant in three of the four specifications. But these results suggest that it is not the election of left-labeled (or right-labeled) governments that attract investors and raise stock markets; rather, economic policies, regardless of party label, that support economic growth attract investors.

	(1)	(2)	(3)	(4)
	GLM	GLM	GLM	GLM
Left political party in power	0.014		0.137**	$0.115^{+}$
	(0.051)		(0.043)	(0.061)
Pro-market Orientation of		$0.045^{*}$	$0.067^{**}$	$0.063^{**}$
the government in power		(0.018)	(0.021)	(0.024)
Median Voter Position				0.001
(higher values = pro-market)				(0.003)
Log(GDP/capita)	0.340	0.242	0.229	0.011
	(0.366)	(0.669)	(0.671)	(0.961)
Log(Inflation)	.068	$0.136^{*}$	0.145	0.070
	(0.222)	(0.214)	(0.219)	(0.279)
Capital Acct. Openness	$0.194^{**}$	$0.165^{**}$	$0.170^{**}$	$0.155^{**}$
	(0.057)	(0.043)	(0.044)	(0.052)
GDP Growth	$0.062^{**}$	$0.062^{*}$	$0.059^{**}$	$0.058^{**}$
	(0.014)	(0.016)	(0.016)	(0.015)
Constant	-3.715	-2.749	-2.691	-0.418
	(4.011)	(7.137)	(7.147)	(10.258)
Country Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	698	698	698	574
$R^2$				

#### Table 4: Robustness of prior results to GLM

n the GLM specification above, the **Pro-Market Orientation** variable is positive and statistically significant. Cluster robust standard errors are in parentheses. The GLM specifications assume a gamma model with a logistic link function and are included in the table given the skewed error distributions in the OLS specifications.

We must qualify these results. The results here (and prior results, as well) seem to be model dependent.<sup>9</sup> Carefully examining our and prior data suggests the root of this dependence: the results turn on the weight given to the governments in power during the stock market boom of the 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 promarket policies. These 1990s observations are given considerable weight in the OLS estimates and are less influential in the GLM specifications.

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 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. The prior

<sup>&</sup>lt;sup>9</sup> In addition to model dependence, both sets of results appear to be sensitive to missing data, as well as the explicit inclusion of measurement error. In future research, we will explore more fully this sensitivity.

empirical results associating Left parties with strong capital markets were driven primarily by this single decade.<sup>10</sup> But by that decade, the locally left parties' policies had changed and like the polity overall, had become more pro-market.

## **D.** Left Political Parties and Pro-market Orientation

Are left or right governments most likely to support 'pro-investment policies?'

This is an important question and our data allows us to address this argument more fully by examining the interaction between governments historically classified as **Left** and our measure of **Pro-market Economic Orientation**. The data here enables us to explore the extent to which the effect of having a left-wing government in power affects **StockCap/GDP** and whether its affect on the economic variable depends on the presence of a strong commitment to pro-market economic policies. We do so by interacting the two measures, "Left" and "Promarket" policy positions.

	(1)	(2)	(3)	(4)
	OLS	OLS	GLM	GLM
Left political party in power	$0.089^{*}$	-0.031	0.137**	0.077
	(0.035)	(0.081)	(0.043)	0.120)
Pro-market Orientation of	0.189	0.093	$0.605^{**}$	$0.559^{**}$
the government in power	(0.141)	(0.145)	(0.187)	(0.210)
Left*Pro-market		$0.278^{+}$		0.137
		(0.153)		(0.291)
Log(GDP/capita)	0.305	0.333	0.229	0.249
	(0.247)	(0.254)	(0.671)	(0.670)
Log(Inflation)	$0.085^{+}$	$0.082^{+}$	0.145	0.143
	(0.044)	(0.042)	(0.219)	(0.218)
Capital Acct. Openness	0.015	0.016	$0.170^{**}$	$0.170^{**}$
	(0.019)	(0.020)	(0.044)	(0.044)
GDP Growth	0.015**	0.015**	$0.059^{**}$	$0.059^{**}$
	(0.005)	(0.005)	(0.016)	(0.016)
Constant	-3.108	-3.393	-2.691	-3.155
	(2.258)	(2.312)	(7.147)	(7.115)
Country Fixed Effects	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	698	698	698	698
$\mathbf{R}^2$	0.446	0.441		

 $^{+} p < 0.10, ^{*} p < 0.05, ^{**} p < 0.01$ 

#### Table 5: The interactive effect of pro-market orientation on the left party in power

<sup>&</sup>lt;sup>10</sup> As we expected, when one restricts the analysis to decades prior to the 1990s, the coefficient for **Left** is negative. Conversely, the coefficient for Pro-market **Economic Orientation** is positive and significant in both the OLS and GLM specifications over the pre-1990 period.

As a further robustness test, we re-ran model (x) ten further times, dropping one factor in each of the ten runs. The results persisted, with Pro-market Orientation being significant at conventional levels with the p-value exceeding .10 for only one factor drop (productivity, at .12), with the mean of the p-value of the ten tests at .05.

This table provides the regression results associated to adding the interaction between Left and Promarket Orientation to our model of the politics of stock market capitalization. Columns (1) and (3) in the table replicate earlier analyses. We provide them so that the reader can compare old static results to those using a variable that varies over time.

Table 5 provides the results of examining this interactive model for both the OLS and GLM specifications.

The interaction term is significant in the OLS model in column (2), suggesting that **Left** may be important, but it's primarily important when the **Left** has promarket orientation. In the OLS model, the interaction term is positive and significant, but Left is insignificant and, as intuition might have once had it, negative. In the GLM model in column (4), **Left** is not significant and **Pro-Market Orientation** is significant, although the interaction term is not. The two interaction models weaken the Left in-and-and-of-itself story and strengthen the political orientation explanation.



Figure 5: The interactive effect of pro-market orientation on the left party in power

This figure plots the estimated coefficient for the variable **Left** at various levels of the conditioning variable **Pro-market orientation**, along with the 95% confidence interval for the estimate. The coefficients and standard errors are produced by examining the liner combination of the variable **Left** and the **Left\*Pro-market** interaction term. Reading the figure from left to right, the plotted points hold Pro-market orientation constant at its minimum, two standard deviations below its mean, one standard deviation below its mean, and its maximum value. GLM results are similar.

Figure 5 facilitates visualizing the interaction term in Table 5, in which we interact **Left** and **Pro-Market Orientation**, to see their effect on **StockCap/GDP**. Specifically, Figure 5 graphs the estimated effect (or the coefficient) of the variable **Left** (vertical axis) at different levels of the conditioning variable **Pro-market Orientation** (horizontal axis).<sup>11</sup> The positive and significant relationship between having a left political party in power and financial market development only holds at higher levels of **Pro-market Orientation**. Left's effect on **StockCap/GDP** is insignificant when its **Pro-market Orientation** is low.

Overall, the interactive analysis clearly points to a strong conclusion: historically left-of-center parties promote financial market development only when they take a pro-market stance in overall policy orientation. This finding is consistent with the views that Perotti & von Thadden (2006) and Roe (2000: 579) advanced. Focusing simply on left-right political labels is misguided. It is not a party's historical label that matters for financial markets; instead, it is their political commitment to market– friendly policies.

#### VI. DISCUSSION

#### A. Notes on the Median Voter Theorem

One can reconcile the coalition-based, interest-group corporate governance theories that prevail among political scientists with the starker explanation that democratic nations with an ascendant left 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 (reasons for that decline suggested below) coalition politics and "quiet" influence that could not have prevailed in 1950, could dominate and explain outcomes in 2000. In this sense, the coalition theories do not serve as counter-examples to the politics of 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: 66, 86) provides several examples: classic French Gaullism was not a pro-market effort;<sup>12</sup> Italian parties of the left and the

<sup>&</sup>lt;sup>11</sup> Following Brambor, Clark & Golder (2006), Figure 5 presents the marginal effect and standard error associated with the variable **Left** at various values of the conditioning variable, **Pro-market Orienta-***tion*.

<sup>&</sup>lt;sup>12</sup> Cf. Goyer (2011: 23 n.13): "the post-May 1968 context witnessed the emergence of a reformist political class under Prime Minister Chalban-Delmas government which sought to provide greater legal rights to organized labor at the firm level (Howell, <u>1992</u>: 111–41)."

right in the 1950s and 1960a both disrespected market solutions. And the numbers are consistent. Return to Figure 2. One sees that while there is a gap in the policy space between the left and the right party in the figures, the right party moves directionally similarly to the left party.

Nor does a median voter approach require that one reject political leadership as instrumental, with political leaders mining public opinion data to find the median voter's view and then aligning their parties' policies accordingly. Savvy leaders do not always need polls, with the best among them able to anticipate changes in public opinion and, aware of the latency of change, will move in advance. Or, to hybridize median voting thinking and interest group theory, political leaders, anticipating that statist solutions no longer command the allegiance of the median voter, can start playing ball with interests that they would not have associated with in the postwar heyday of European social democracy. Change may be slow and sporadic, as institutions and patterns could well have become embedded and resistant to change, but the political shift allows for the possibility of change.

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: 11); Herron (2000); Franzese (2002); Leblang & Mukherjee (2005); Bechtel (2009); Häusermann, Picot & Geering (2013) (literature review of work on partisanship); Sattler (2013); and Facchini & 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.

Surely a pure median voter theorem cannot be offered to explain all policy outcomes, and we do not so offer it. If the interests consistent with the median voter's policy 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 its political will. When corporate governance and capital markets organization are low salience political issues and markets are less politically contested, then such "quiet politics" can readily succeed.

Further afield from the median voter theorem are various coalitional theories noted above. These theories are not motivated by the position of the median voter, but the views of the groups and interests that join the winning coalition. One interpretation is that the median voter theorem and its application here have little to do with one another and, hence, a coalition with left parties playing a central role has little to do with the position of the median voter; that is, one must choose one analytic framework or the other. Another interpretation 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 left parties (representing left interests) become freer to join, or even lead, a market-oriented collation.

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.<sup>13</sup> 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, even showing that parties change platforms in response to voters. Adams, Clark, Ezrow & Glasgow (2014, 2004) 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 overt 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 et al. 2004, 2006; Erikson, MacKuen & Stimson 2002; Stimson, MacKuen & Erikson 1995)." Nevertheless, although we are cautious and await better data, the Manifesto Data gives us a good first look at the question of the political center of gravity and financial markets.<sup>14</sup>

## B. Why a Nation's Political Center of Gravity Shifts Over Time

A polity's center of gravity shifts over time, making tests that do not account for the median voter theorem suspect. While we do not here offer evidence on why such shifts occur, we do, for completeness, briefly indicate what can cause such shifts along the political spectrum.

<sup>&</sup>lt;sup>13</sup> "There is a lot of discussion about how business and industry should be managed. Which of these four statements comes closed 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 could have served as our primary independent variable.

<sup>&</sup>lt;sup>14</sup> As Adams et al. (2014: 516) state: "The Comparative Manifesto Project (CMP) [data] . . . [are] the only available longitudinal and cross-national estimates of parties' policies[.]" Cf. Somer-Topeu (2009: 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, Stattler (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. Cf. Sattler, Brandt & Freeman (2010) and Sattler, Freemen & Brandt (2008).

One might be tempted to 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.<sup>15</sup> 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 & von Thadden 2006; Perotti & Schwienbacher 2009), with union power declining as production shifted from heavy industry to services, with international trade increasing (Rajan & Zingales 2003), and with other economic 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 the varieties of capitalism view explained in Hall & Soskice (2001).

The economy might have once been organized without strong product market competition, because of either the economies of scale of technology or the weakness of international competition. As international trade opened up strongly after the first postwar decades or as technologies made industries more competitive, then 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 would have disappeared. Intensified product market competition reduced the size of a 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 & Toyoda (2007); Quinn (2003). Eichengreen (2007: 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 labor 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 (Down 1957)." Lunz (2013: 6).<sup>16</sup> Cf. Kitschelt (1994: 34).

As a nation's wealth increased, citizens overall and the median voter in particular become richer, with more savings. With newly accumulated savings to pro-

<sup>&</sup>lt;sup>15</sup> Endogeneity 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 & Stegmaier (2000) for a strong review.

<sup>&</sup>lt;sup>16</sup> The French socialists, however, were "confronted with intense competition on the left," which impeded it from moving sharply toward the center. Lunz (2013: 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.

tect, 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. If equality increased between the median voter and the nation's richest sectors, rich vs. poor conflict might subside. Financial players become more important and constitute a separate interest group, one that protects its turf and expands its import.

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. Ban (2013: 1) ("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 & Toyoda (2007: 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 in a country's center of gravity from among these explanations. Rather, we have demonstrated that these shifts happened, that they were common, and that these occurrences 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 note it, document it, and show the empirical relationship between the political shift and market results.

#### CONCLUSION

We have here re-visited the relationship between politics and financial market development. Most political science studies in recent years 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 only weakly predicts financial market development, and therefore concluded 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, but prior studies did not account for this movement, 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 Left government orientation and strong financial market outcomes is through the Left parties having adopted a pro-market orientation. If 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.

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