

The Political Economy of Financial Markets

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Summary

The relationship between politics and financial markets is central for many, if not most, political economy arguments. The existing literature focuses on the effect of domestic and international political interests, institutions and policy decisions on returns and volatility in stock, bond and foreign exchange markets. This research bears implications for three major debates in political science: the distributive effects of politics; globalization and state autonomy; and the political roots of economic credibility and its tensions with democratic accountability. While the study of politics and financial markets is complicated by several theoretical and empirical challenges, recent methodological innovations in political research provide a window of opportunity for the development of the field.

Keywords: partisanship; political institutions; political interests; economic policy; financial markets; redistribution; globalization; credibility; accountability; crises

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1 Introduction

The relationship between politics and financial markets is central for political economy. Politicians worry about financial markets because asset prices have major implications for voters and key societal groups, and hence influence popular evaluations of policymaker performance. Financial investors worry about politics because political choices decisively influence financial returns and volatility. Political developments often constitute a major risk or opportunity for investors. Many political economy arguments, therefore, build on mechanisms that work through the nexus between politics and financial markets. Examples are studies on fiscal and monetary institutions, financial crises, economic development, globalization, and even trade, which – sometimes explicitly, and often implicitly – yield implications about the financial effects of political choices.

This article reviews and assesses the research on the effect of political developments and outcomes on financial market behavior. On the domestic level, government composition, including partisanship, allocation of ministerial portfolios and personal ties to important government actors have strong effects on returns and volatility in stock, bond and foreign exchange markets. These effects are mediated by political institutions, especially democracy, electoral rules and the broader political-institutional framework. Internationally, cooperative decisions in strong institutions, but also the escalation of conflicts, reflect considerably on financial prices. These findings bear broader relevance for major debates in political science, e.g., on the distributive effects of politics, globalization and state autonomy, and the trade-off between economic credibility and democratic accountability. We conclude with an evaluation of the opportunities from new developments in political methodology for this research area.

2 Politics, Polity, Policy, and Finance

To what extent do financial investors care about politics, and what are their preferences? This question underpins virtually all the research on politics and financial markets. Most analyses in the field take Markowitz (1959)'s portfolio selection theory as a framework of reference. This theory posits that the value of an asset portfolio is a function of both its expected return and its standard deviation. The latter is referred to as the risk associated to a given portfolio (Elliott and Kopp 2005, 316–18). The value of a portfolio increases for greater average returns and decreases for greater levels of risk. Hence, financial

investors are assumed to maximize the expected return of a portfolio of assets, contingent on a given amount of risk. Thus, politics is relevant for traders, as the outcomes of political processes may directly affect future returns and volatility of assets held by financial investors.

The insights from portfolio selection theory are often operationalized in the distinction between mean and volatility effects of political phenomena. Indeed, the literature on politics and financial markets typically considers not only whether a given political phenomenon drives asset prices up or down on average, but also whether it contributes to heightening or lowering the amount of uncertainty surrounding the realization of the expected returns. This is particularly important for the role of politics. Information about policy change induced by political actors can directly affect the return on financial assets, e.g. when a new regulation reduces the profitability of a firm. But often, political processes simply raise uncertainty about the direction of future policy, e.g., when election outcomes are hard to predict or the formation of a new government is a difficult enterprise. The political uncertainty generated by these processes increases financial volatility.

This literature principally examines movements in three types of financial markets: stock markets; bond markets, and foreign exchange markets. Each of the three different types of markets presents some distinctive features concerning its relationship with politics. Stock markets, for instance, are particularly sensitive to regulatory politics because regulations directly affect the profitability of firms. Accordingly, in one of the first studies measuring the impact of government policy on financial markets, Schwert (1981) examines the effect of regulatory policy change on the value of regulated firms. Bond markets are more directly affected by monetary and fiscal politics, as inflation and fiscal deficits are usually listed among the most important determinants of interest on government bonds (Mosley 2000; Mosley 2003). Foreign exchange markets respond to the same policies because they are affected by inflation differentials across countries. But international politics also plays an important role as a central area of economic policy coordination of international fora, such as the G7, has been the management of major exchange rate configurations (Fratzscher 2009).

2.1 *Government Partisanship and Composition*

Financial investors observe political processes to form expectations about the future course of regulatory, fiscal and monetary policy. One of the most informative, a priori

indicators of future policy is the composition of the government and the political ties between firms and government actors. Different policymakers pursue different economic agendas that should reflect in policy decisions and hence be taken into account by financial investors.

A natural starting point for analyses of politics and financial markets are arguments about government partisanship, which is one of the main independent variables in this research area. Partisanship provides cues to investors about future policy because political parties implement economic policies that appeal to different constituencies, potentially at the expense of their opponent's constituencies (e.g., Hibbs 1977; Alt and Crystal 1983; Alesina and Rosenthal 1995; Franzese 2002; for a different perspective on the partisanship thesis, see Quinn and Shapiro 1991). According to the basic dichotomy of capital versus labor, right parties favor the former by focusing on price stability and balanced fiscal budgets, whereas left parties support the latter by attributing greater weight to employment and redistribution. Consequently, financial investors are expected to prefer right parties to left parties.

The evidence for the effects of partisanship is particularly strong for British and American financial markets. In one of the early studies, Roberts (1990b) showed that changes in the probability of a Reagan victory and a Republican Senate majority during the 1980 American general election were capitalized in the value of defense industry securities. Exploiting daily and monthly data from U.S. and British equity markets between 1930 and 2000, Leblang and Mukherjee (2005) find that the mean and volatility of stock prices increase during the tenure of right-wing governments and when traders anticipate the right-wing party to win the elections, while both decrease with left-wing parties. Similar results apply to the American bond market, as Fowler (2006) shows that positive changes in the probability of a victory of Democrats lead to increases in nominal interest rates due to expectations of increasing inflation. Herron (2000) estimates that, had the Labour Party won in 1992, short-term interest rates in the United Kingdom would have increased approximately one percent, and British stock markets would have dropped approximately five percent.

Overall, the role of partisanship is confirmed beyond the Anglo-American context, especially for advanced economies. Sattler (2013) shows that the effect of partisanship on stock market levels generally holds for 205 elections in industrialized countries since the 1950s. Bechtel (2009) provides a nuanced account of the effect of partisanship on stock

market volatility in Germany, showing that this effect is dependent on the strength of inflation and the degree of government division. Similar results are reported for the German election of 2002 (Füss and Bechtel, 2008), the Canadian national election in 1988 (Brander, 1991) and on Belgium from 1974 to 2000 (Vuchelen, 2003). Conditional upon political institutional arrangements and types of political economy, partisanship also contributes to explaining variations in patterns of financial openness (Quinn and Inclan 1997).

More broadly, Freeman et al. (2000) find that volatility in foreign exchange markets increases when investors become more uncertain about electoral outcomes and government survival. Bernhard and Leblang (2002) show that the bias in the forward exchange rate – i.e. the price of the currency deliverable thirty days in the future – increases due to political uncertainty surrounding elections. Also, Bernhard and Leblang (2006b) uncover that unexpected drops in the government’s public support lead to currency depreciations and increased exchange rate volatility in the UK. Comparable effects of political variables on foreign exchange markets are reported by Bachmann (1992) and Blomberg and Hess (1997). Similarly, stock market volatility increases around election time (Bialkowskia et al., 2008) and stock prices tend to rise when electoral uncertainty is resolved in a broad range of OECD countries and emerging markets (Pantzalis et al., 2000). Although they do not directly test the partisan argument, these results support the conjecture that government composition is important for financial investors.

For developing countries, the general pattern holds, but results are more mixed. In line with the findings outlined above, Vaaler et al. (2005) show that sovereign bonds spreads increase when the risk of the left-wing turn rises in 19 presidential elections in 12 developing countries from 1994 to 2000. But Spanakos and Renno (2009) do not find evidence of a link between partisanship and sovereign credit risk in Argentine, Brazilian, Mexican, and Venezuelan presidential elections between 1994 and 2007. However, Campello (2015) clarifies that in Latin American countries higher spreads are present under left-wing administrations, but fade in case a left-wing candidate switches to an investor-friendly agenda after inauguration. Also, contrary to previous accounts, Jensen and Schmith (2005) find no evidence that Lula’s rise in the 2002 Brazilian election had a statistically significant impact on the mean return of the stock market, while they document a positive impact on its volatility. Nonetheless, there is a broader consensus that partisanship is an important factor affecting the likelihood of a currency crisis to take place (e.g., Leblang and Bernhard 2000; Leblang 2002; Block 2003).

A fruitful, yet less common type of analysis concerns the effect of government composition on sector-specific and firm-specific asset prices. Expectations on partisan policy preferences should not only be visible in aggregate stock market indicators, but vary across economic sectors according to the economic, ecological and security agenda of the political party. The study by Roberts (1990b), mentioned above, goes into this direction. In line with this logic, Bechtel and Füss (2010) show that defense and pharmaceutical sector returns increased before the German 2002 election when polls indicated that a right-leaning government becomes more likely, while the probability of a left-leaning coalition's victory triggered higher returns to the renewables energy sector. These results resonate with McGillivray (2003)'s findings that a government change leads to large variation of returns across sectors within a stock market in 14 advanced democracies between 1973 and 1996. Jayachandran (2006) shows that firms aligned with the Democratic Party, as measured by political donations, experienced rising stock prices after the control of the U.S. Senate unexpectedly shifted to the Democrats in 2001, while prices of firms aligned with the Republicans dropped.

Finally, a number of studies extend or move beyond the common partisanship logic and disaggregate government composition by focusing on politically powerful actors within the government. One recent strand follows up on recent research on ministerial appointment portfolio allocation (Alexiadou, 2016) to examine how markets respond to the appointment of finance ministers. Alexiadou et al. (2017) find that investors reward non-partisan technocratic appointments by reducing a country's borrowing costs in 21 Western and Eastern European democracies.

Another strand highlights the role of personal or political connections to leading figures or groups in government for financial market behavior. Fisman (2001) shows that the value of firms with strong ties to the Suharto regime in Indonesia, as measured by stock prices, depended strongly on expectations that the regime will survive in office. Similarly, Ferguson and Voth (2008), Li et al. (2008) and Goktepe and Satyanath (2013) find, respectively, that firms that supported the Nazi movement in Germany, that had political ties to the Communist party in China or that were controlled by the Turkish military experienced unusually high stock returns. This phenomenon is not limited to emerging economies. When Timothy Geithner, a public official with close ties to the New York financial community, was appointed as finance minister in 2008, firms to which Geithner had personal connections obtained higher returns – up to 12% relative to other unaffected financial sector firms – in

the days following the event. (Acemoglu et al., 2016).

One of the main challenges for these studies is the anticipation of political events, e.g. election results and government change, by financial investors. If an event is easily foreseeable, the market response when the event occurs is small because the information is already reflected in the price of a given asset. The studies reviewed above offer different solutions to address this issue. Some directly measure the probability that an event happens, e.g. by inferring the probability that a left- or right-wing government wins the upcoming election from public opinion polls (e.g., Leblang and Mukherjee 2004; Bechtel 2009). Newer research proposes to use prediction markets to measure the probability of winning (Snowberg et al., 2007). Others focus on close elections that were difficult to predict, e.g. when the margin of victory was small (Sattler, 2013) or in well-documented cases, such as the U.S. Presidential election in 2000 between George Bush Jr. and Al Gore (Bernhard and Leblang 2006a). Another strategy is to identify surprise events with major political repercussions. Roberts (1990a), for instance, examines the sudden death of U.S. Senator Henry Jackson in 1983, an event that changed the U.S. political landscape. Jayachandran (2006) studies the unexpected decision of the U.S. Senator James Jeffords to leave the Republican Party in May 2001, which tipped control of the Senate to the Democrats. Fisman (2001) looks at surprise news about health problems of President Suharto in Indonesia which led to a reassessment about the prospects that the Indonesian leadership would remain in power in the future.

2.2 *Democracy, Electoral Systems and Institutional Constraints*

How, when and to what extent government composition and political ties matter depends on the political-institutional framework of a country. The literature has highlighted a number of institutional features that are important, especially democracy, the electoral system, unified government, broader institutional and political constraints, and monetary and fiscal institutions.

Democratic rule has a number of effects on financial markets. Many of the political processes that generate political change and political uncertainty only occur in democracies. The most obvious examples are free, democratic elections. In addition, the importance of the capital - labor divide underlying the partisanship arguments requires the expansion of suffrage to the working class. Interestingly, Lehmann-Hasemeyer et al. (2014) show that financial investors generally reacted positively to the expansion of suffrage to the working

class in the German Kingdom of Saxony in 1909, presumably because they valued the positive effect of this decision on political stability at the time. Investors, however, reacted negatively when the social democratic party then almost won a parliamentary majority in October 1909. Bittlingmayer (1998) finds that stock market volatility increased significantly after the transition from Imperial Germany, an authoritarian regime, to the Weimar Republic, an (unstable) democratic regime. He attributes this effect to the increased political uncertainty under the new political regime. Hays et al. (2003) show that political processes generate a particularly large amount of uncertainty in young democracies where policymaking is less transparent and hence induce greater foreign exchange volatility. Once consolidated, democratic institutions can have positive effect on financial markets. Mosley and Singer (2008) highlight that levels of democracy are positively associated with equity-market valuations, while real interest rates are negatively associated. The value of political connections to the government may also be lower in democracies than in autocracies (Lehmann-Hasemeyer and Opitz, 2017). The type of regime and other domestic institutional features have also been shown to be important drivers of currency crisis resolutions (e.g., Sattler and Walter 2010) and sovereign bond yield spreads in developing countries (e.g., Eichler 2014).

Within democracies, the electoral system has a significant, mediating impact on the relationship between political processes and financial market movements. In an analysis of four major foreign-exchange markets (UK-Ireland, U.S.-Canada, Germany-Sweden, Australia- New Zealand), Freeman et al. (2000) show that consensual forms of democracy characterized by proportional representation tend to buffer currency markets from the effects of political uncertainty. In majoritarian electoral systems, elections are more likely to produce significant changes in economic policy, which makes the effect of political uncertainty on their currency markets more pronounced. Yet, Bernhard and Leblang (2002), using data from eight industrial democracies between 1974 and 1995, find that only weak support for hypotheses that electoral systems account for variations in how political events affect currency market. They attribute this result to the capability of markets to “incorporate far more information about political events than can be captured by a dummy variable for the electoral system” (Bernhard and Leblang 2002: 329).

In line with this objection, Sattler (2013) uses a more encompassing indicator of political-institutional constraints to measure the ability of incoming governments to alter policy after an election (Henisz, 2004). The results show that the negative (positive) effect of

left-wing (right-wing) governments on stock markets is large for governments facing few political constraints to implement their policy agenda. The effect of partisanship, however, fully disappears when governments face severe political constraints because stock market investors anticipate that the incoming government will not be able to change policy much. McMenemy et al. (2016) confirm the result that constraints mediate the financial effect of elections for sovereign bond markets and also find a significant difference between majoritarian and proportional systems.

The political system of a country, including electoral rules, has further, indirect implications through their effects on political processes, including government formation, government division and government stability and turnover. Increasing attention has been devoted to the profusion of political information connected with electoral and cabinet dynamics. Bernhard and Leblang (2006a) show that cabinet formations impact stock and bond markets only in absence of “strong” parties, i.e. when coalition negotiations are easier to foresee. Also, they examine how the probability of a cabinet coming to an end increases interest rates. Leblang and Bernhard (2000) argue that the probability of a speculative currency attack is higher when markets expect the cabinet to end and when the cabinet dissolution is likely to produce a leftward shift in policy. Along the same line, Leblang and Satyanath (2006) show that government turnover and government division increase the likelihood of a currency crisis to take place, while Leblang (2002) argues that government division has little leverage to explain whether a government decides to devalue or to defend a currency peg.

Finally, a number of studies examine the role of monetary and fiscal institutions on financial markets. The studies that explore the effect of central bank independence find less evidence of this institutional characteristic on stock markets (Sattler, 2013) or foreign exchange markets (Bernhard and Leblang, 2002). In contrast, Bodea and Hicks (2014) find that countries with more independent central banks are charged lower interest rates on government debt. They underscore that this effect was stronger in non-OECD countries before the global diffusion of central bank independence, and has greater impact where political institutions allow the central bank to de facto be credible, e.g. when the number of veto players is high (Keefer and Stasavage, 2003). Hallerberg and Wolff (2008) show that the effect of fiscal deficits on risk premia decreased with the start of the EMU. Markets expect that more rigid institutions reduce fiscal difficulties and make the monitoring of annual developments less important, at least in non-crisis times. Yet, after controlling for the

quality of domestic fiscal institutions, fiscal policy remains a significant determinant of risk premia for EMU member states.

Overall, these studies show how political processes and events, mediated by political institutions, generate political uncertainty with significant implications for financial markets. This finding is best exemplified by the book of Bernhard and Leblang (2006a), which underpins the advancement of the literature in more recent years. From a theoretical standpoint, their book provides a novel account of how electoral competition and cabinet formations and dissolutions impact capital markets: these are identified as periods of high unpredictability, which are most likely to provide new information affecting asset prices in terms of both mean and volatility effects. From an empirical point of view, their work combines advanced time series techniques with temporally disaggregated political and financial data, mostly at the daily or weekly level.

With few exceptions (e.g., Hallerberg and Wolff, 2008), the studies discussed in this section generally do not explicitly model the policymaking process and policy output and, in this way, they do not address a problem already raised in the previous section. Since the decisions of financial investors are very swift, many slowly moving political variables are unable to predict short-term shifts in asset prices, especially when investors anticipate political outcomes. In the words of Bernhard and Leblang (2006a), “simple hypotheses based on incumbent partisanship, partisan change, electoral institutions, and exchange rate commitments cannot account for the variation of market reactions to different political events” (p. 13). This objection is particularly evident for policy decisions that are reflected in economic variables only with a large delay. At the same time, many, if not all, mechanisms that connect politics to financial markets work through expectations about policies. The research that we just discussed, thus, still misses a crucial part that links politics to financial markets.

2.3 *Policy Announcements and Policy Output*

Research on policy announcements and financial markets is most developed in the area of monetary policy and central banking. A wide literature has developed aiming at disentangling how actions and statements of both central bankers affect economic expectations of financial investors (e.g. Kohn and Sack 2003; Ehrmann and Fratzscher 2007a; Ehrmann and Fratzscher 2007b; Rosa and Verga 2007; Hansen and McMahon 2016; for a review, see Blinder et al. 2008). In general, this literature underscores that

communication by central bankers – in the form of official statements, reports, minutes and speeches – provides signals that are consequential for financial investors: communication events increase market volatility and move markets in the intended direction, i.e. statements that suggest policy tightening lead to higher interest rates, while statements indicating policy easing lead to lower interest rates. Bonds with shorter maturities appear react more sharply to statements than long-term ones (e.g. Musard-Gies 2006; Ehrmann and Fratzscher 2007a), thus suggesting that the impact of policy-relevant information on asset prices is greatest in the short- and medium-term. Also, shocks in communication about future policy, as in the case of forward guidance, are extremely consequential (e.g. Hansen and McMahon 2016). However, while consensus has emerged on the merits of transparency and consistency in central bank communication, the literature has not clarified yet what constitutes an optimal communication strategy.

An increasing number of analyses has centered on the effect of fiscal policy on financial markets. Domestic economic policy-making has received much attention following the seminal work of Mosley (2000), according to which the main drivers of interest rates on government bonds in advanced economies are fiscal deficits and inflation rates. Relatedly Akitoby and Stratmann (2008) find that fiscal spending cuts reduce interest rates on government bonds in emerging markets. However, subsequent research provides a more nuanced picture of the relationship between fiscal policy and sovereign bond rates. Born et al. (2015) show that fiscal austerity reduces interest rates only in economically good times, but increases them during economic recessions. McMenamin et al. (2014) find that austere budgets are associated with substantial interest rate increases of sovereign bond yields during the Euro crisis. The research by Baldacci and Kumar (2010) and Beetsma et al. (2013) also stresses the that the institutional environment and credibility of policy-makers significantly condition the effectiveness of fiscal policy in driving financial investor expectations.

More recently, a still small literature has centered on political statements and policy announcements. In line with the results outlined above, this literature stresses the value of credibility in order for political communication to move financial markets in the intended direction. For instance, Falagiarda and Gregori (2015) observe that, in the 2009-2013 period,

only fiscal policy announcements made by members of the technocratic cabinet of Mario Monti had a significant impact on the Italian spread. Peterson and Sattler (2017) find that contractionary fiscal announcements only reduce interest rates spreads on government

bonds when political conditions back up the credibility of these policies, like in Ireland during the Eurocrisis. If announcements are not politically credible, like in Greece after 2008, contractionary announcements can increase interest rates spreads.

In sum, these recent studies yields novel, interesting insights into the effectiveness of policies under varying political conditions. We will return to this strand of the literature again below when we discuss potential avenues for future research.

2.4 *International Politics*

A smaller, but nonetheless encouraging literature examines how international rather than domestic political factors affect financial markets. We can classify this literature along the common divide in international relations into conflict and cooperation research.

Among the studies on international cooperation, one strand of this literature concentrates on the effect of decision-making in international organizations on the performance of specific firms. Bechtel and Schneider (2010) show that equity-market valuations in the defense sector are positively affected by EU summit decisions that intensify cooperation within the European Security and Defense Policy. Jensen (2007) examines the impact of WTO rulings on stock markets using daily steel stock prices during the 2002 dispute on steel tariffs applied by the US. He finds that traders reacted to the WTO announcement against the tariffs by selling off steel stocks, thus anticipating a reversal of U.S. steel policy. Exploiting a case study on the Basel III agreement, Wilf (2016) evaluates the impact of international financial regulation on stock returns of affected firms. She shows that the regulations provided by Basel III were widely seen as credible since the ratification of this agreement negatively affected the equity valuations of 45 US-regulated banks. Fratzscher (2009) assesses the effectiveness of statements by the G7 in managing the US dollar, yen and euro exchange rates. He highlights that these interventions are successful only at horizons of up to three months. Genovese (2015) finds that decisions of the UN Framework Convention on Climate Change affected the stock returns of 38 major European firms whose carbon emissions were regulated by this framework.

Another strand of literature highlights the effect of international politics on macroeconomic credibility of countries, often in the context of EU politics. Gray (2009, 2013) shows that receiving a “seal of approval” from Brussels, i.e. closing negotiation chapters on domestic economic policy reform in the process of accession to the EU,

significantly contributed to lowering the sovereign borrowing costs for Central and Eastern European countries from 1990 to 2006. Goldbach and Fahrholz (2011) focus on the role of the European Commission and the EcoFin in moving financial markets' perception of member states' creditworthiness, and provide evidence that decisions and statements related to the Stability and Growth Pact increase the volatility of sovereign bond yields. Smeets and Zimmermann (2013) assess the effectiveness of EU summits amid the Euro crisis in restoring financial investor confidence, and find little evidence that intergovernmental politics helped calming down the markets. Bølstad and Elhardt's (2015) analysis also concentrates on the euro crisis, but they consider the effect of statements and decisions by the EU, the ECB and Germany on the sovereign bond yields of crisis countries.

A smaller part of the literature examines the influence of international conflicts on global financial markets. Schneider and Troeger (2006) examine the influence of the Israeli-Palestinian conflict and the confrontations in Iraq and Ex-Yugoslavia exerted on global financial markets from 1990 to 2000. Using daily stock market data, they show that the conflicts affected the interactions at the core financial markets in the Western world negatively, if they had any systematic influence at all. Making use of prediction markets, Wolfers and Zitzewitz (2009) and Leigh et al. (2003) observe that positive variations in the likelihood of the 2003 Iraq war to take place were accompanied with upward pressures in spot oil prices and downward pressures on the value of US equities, and contributed to explaining a large proportion of daily asset price movements during the considered period. These results are confirmed by Rigobon and Sack (2003), who show that days with an elevated variance of news related to the Iraq war were characterized by a decline in US Treasury yields and equity prices, a widening of lower-grade corporate spreads, a fall in the dollar, and a rise in oil prices. Furthermore, financial markets may also anticipate developments in international security: Schneider et al. (2017) provide evidence for the hypothesis that stock market movements in the tourism and defence sectors predict the success of 24 ceasefire agreements in the Middle East from 1993 to 2014 better than forecasts appearing in press commentaries.

Finally, a related strand of research evaluates the relationship between international security and financial markets in a more historical perspective. For instance, analyzing movements in the bond market between 1928 and 1948, Frey and Kucher (2009) argue that historical events are reflected in asset prices, with an especially important role played by the outbreak of the war and changes in national sovereignty, while Bittlingmayer (1998) show

that much of the political uncertainty causing volatility in the German stock market during the interwar period originated from international conflictuous developments.

3 Why Should We Care? Implications for Three Major Political Debates

These results on politics and financial markets bear broad relevance for the big debates in political science and political economy research. Many arguments in political economy propose theoretical mechanisms that – explicitly or implicitly – build on claims about the relationship between politics and financial markets. This is not only the case for research that directly examines financial regulations, exchange rates, capital mobility, foreign investment or international and domestic monetary institutions. Even more distinct policy fields, such as trade and European politics, have serious implications for the profitability of firms and hence financial investments. These arguments, thus, yields testable implications about the response of financial investors to political events and processes.

In this section, we discuss the implications of the research reviewed above for three major debates in political economy of the last decades. The natural starting point are arguments about the distributive effects of political decisions, which are at the heart of any political economy research. We then narrow the focus and examine the discussion about the capacity of states to maintain policy autonomy in a financially globalized context. Finally, we explore the implications for the trade-off between economic credibility and political accountability.

3.1 *Distributive Effects of Politics*

Political economy is all about winners and losers. By definition, any type of economic exchange has distributive implications. Since politics regulates the economic exchanges of private agents and governments engage in economic exchanges via the allocation of taxation and spending, political processes generate important distributive consequences. One of the greatest insights from studying financial markets is the possibility to identify the winners and losers associated with these processes in two main ways. First, market movements reflect the expectations of investors about the distributive impact of politics on economic actors. This impact can be estimated at the market level by considering stock market general indices, as well as industry level indices or even at the firm level by studying the stocks of individual or

a set of firms. Second, financial market movements are the very source of domestic and international distributive conflicts, especially in the context of macroeconomic adjustment following a financial crisis.

The literature on the financial effects of partisanship revolves around one big assumption possessing a certain Marxian flavor: the presence of an enduring class struggle between capital and labor. Provided that right parties' implement policies aimed at price stability and low redistribution, owners of capital are expected to be better off in presence of right-wing governments. Conversely, the greater weight attached by leftist politicians on employment and redistribution should make owners of capital worse off. Studying financial market movements helps assess whether and to what extent this struggle between owners of different factors of production takes place. A wealth of evidence points to these distributive expectations playing a role for traders' decisions in the past decades (e.g., Herron 2000; Leblang and Mukherjee 2005; Snowberg et al. 2007; Sattler 2013).

Yet, this literature leaves several questions open. For instance, is a class perspective capable to capture the complexity of distributive conflicts in many political economies? Often, sectoral rather than factorial interests are the main line of organization of economic interests, with capitalists and workers of the same industries siding with each other (Frieden, 1991, 2015). In fact, the financial literature confirms that not all the capital owners and workers equally benefit from right- or left-wing governments. The fortunes of capitalists and workers in the same sector may be intertwined and dependent on how regulatory, trade and industrial policies affect profitability across industries. Thus, the influence of politics on financial markets can be also analyzed in the light of its sector-specific effects (e.g., Roberts 1990b; McGillivray 2003; Knight 2006; Mattozzi 2008; Bechtel and Füss 2010; Bechtel and Schneider 2010; Wilf 2016). This approach has the advantage of providing a clearer indication of how political processes are expected to enrich specific sets of economic actors. The main drawback consists in the greater context-specificity of the results: same type of industries might be affected differently by similar political processes in different settings. Yet, some general patterns exist, for instance, regarding the relationship between right-wing parties and stock returns in the defense industry (Roberts 1990b; Bechtel and Füss 2010).

In addition to distributional effects of democratic politics, the literature also allows us to identify the economic beneficiaries of authoritarian or semi-authoritarian political regimes in a precise manner. Firms whose owners are closely aligned with the regime enjoy

economic advantages, which are reflected in the stock prices of these firms (Ferguson and Voth 2008; Li et al. 2008; Goktepe and Satyanath 2013). These personal ties can also be a source of financial crises when they lead to the misallocation of capital to less competitive firms (Fisman, 2001).

Financial markets are also relevant for political research because they are a major source of sharp political conflicts over distributive outcomes. This is particularly evident in the context of financial crises, be they banking crises, currency crises or sovereign debt crises, or combinations of them (Reinhart and Rogoff 2009). In each case panic among market agents - expressed by losses in equity valuations, currency depreciations, and spikes in sovereign bond yields - requires governments and central banks to implement policies aimed at restoring investor confidence. This is a highly conflictual process, as it requires deciding how to distribute the costs of resolving the crisis. These conflicts take place at both the domestic (e.g., Gourevitch 1986) and international level (e.g., Simmons 1994).

The Global Financial Crisis and the Eurozone Crisis provide cases in point to show the relevance of this issue in contemporary debates among political scientists. The process of crisis resolution appears to be characterized by a distributive conflict between the private sector and taxpayers. Evaluations of bailout programs in the U.S. and Europe suggest that banks and other financial market participants were largely able to socialize their losses, rolling them over to taxpayers (Blyth 2013). This argument is consistent with the stock market responses to key political events at the time. The appointment of Timothy Geithner as U.S. finance minister during the crisis signaled the favorable treatment of financial firms, which reflected positively in the stock prices of these firms (Acemoglu et al. 2016). Similar analyses along these lines would allow us to examine other domestic and international distributional conflicts that arise during crises, e.g. those related to macroeconomic adjustment strategies in the Eurozone and beyond (Walter, 2013, 2016).

3.2 *Globalization and State Autonomy*

Financial markets not only allow researchers to identify distributional effects, but also to assess arguments on how governments can alleviate them, e.g. in response to economic globalization. The link between politics and financial markets is central for this ‘room to maneuver’ debate (Mosley, 2005; Sattler et al., 2008). Critics fear that market systems “imprison or cripple” the policy-making process (Lindblom, 1977) due to the capacity of international capital to punish governments for unfavorable policy changes by moving across

state borders. The prevailing view, however, is that capital mobility has not reduced state power and the role of politics across the board in developed countries (e.g., Garrett 1995; Bearce 2007), although the details depend on the institutional frameworks (Basinger and Hallerberg 2004; Hays 2003). In contrast, global market forces are more constraining in emerging and developing economies, but this process does not remove significant room to manipulate policy (e.g., Rudra 2002; Wibbels and Arce 2005).

The relationship between politics and financial markets is central for this debate. For instance, Mosley (2000) examines how financial investors in the bond market assess governments. Among the respondents of her interview study, the clear majority of investors mentioned inflation rates and government deficit as the most important indicator for their evaluation of governments. Common political factors are mentioned among the least important indicators: 94.4% and 84.6% of those who mention partisanship and elections say that this indicator is unimportant (Mosley, 2000, table 1). These results lead to the conclusion that constraints from financial investors are “strong but narrow”: countries with higher inflation rates and fiscal deficits face higher costs of borrowing, but there is no robust evidence of a constraining effect of capital markets on government policy beyond these two measures. The quantitative results on the financial effects of government partisanship and elections put these insights into perspective. Contrary to the claims by financial investors, the analyses of stock markets and foreign exchange markets underscore that stock and currency traders are highly responsive to political developments, also in advanced industrial democracies. They carefully observe and respond to the government formation process (Bernhard and Leblang, 2006b) and the party composition of governments in a broad range of countries after elections (Leblang and Mukherjee, 2005; Bechtel, 2009; Sattler, 2013). This suggests that, in the long-run, national governments in the developed world seem free to pursue the micro-policy strategies that they prefer. But the short- and medium-run financial costs caused by deviating from a uniform policy paths are higher than previously maintained.

The use of political indicators as short-cuts for expected policies may even be greater in emerging markets with a long history of recurrent financial crises, like in Latin America. At the same time, incentives to converge on market-friendly policy platforms is particularly large when financial pressure is high. Campello (2015) argues that the sensitivity of financial markets is reduced when a left-wing candidate switches to an investor-friendly agenda, as in the case of Brazilian President Lula in 2002 (see also Jensen and Schmith 2005). More generally, Campello (2014) provides evidence for greater likelihood of switches to a market-

oriented program by Latin American leftist presidents in periods of dollar scarcity, when capital inflows are more needed. Kaplan and Thomsson (2017) find that Latin American politicians exhibit more fiscal discipline when their governments are more reliant on international bond markets, and the effect is particularly strong during election periods. Taken together, these studies suggest that small market reactions are not necessarily indicative of greater room to move if candidates already converged in their policy positions. The process of converging political platforms on market reactions is itself a sign of declining room to maneuver. These dynamics should be disentangled further in future research, both in emerging and industrialized countries.

These variations across countries are ascribable to the incentives faced by financial investors: when the risk of default and other economically destabilizing moves is higher, more dimensions of government behavior are under observation (Mosley 2000). Hence, the divide between developed and developing countries has become more blurred after the Global Financial Crisis, as the pressure of financial investors has extended on micro-policy dimensions also in advanced industrial democracies. Like the experience of emerging countries, the crisis of the Euro has been characterized by shifting market sensitivities induced by a deterioration in countries' fundamentals (Beirne and Fratzscher 2013), negative self-fulfilling market sentiments (De Grauwe and Ji 2013), and huge bailout programs combined with strong conditionality that have forced crisis countries to implement harsh austerity measures (Frieden and Walter 2017). Although they do not imply an unavoidable "race to the bottom" across countries, these considerations yield more nuanced pictures about the "narrowness" of financial market pressures on governments in developed countries.

3.3 *Economic Credibility vs. Democratic Accountability*

A related debate examines the trade-off between economic credibility and democratic accountability in modern democracies. The tension between these two goals defines one of the most compelling dilemmas in political economy. In short, the economic credibility literature assesses which institutional framework produces the best economic outcome, e.g. through delegation to an independent central bank (Keefer and Stasavage 2003; Bodea 2010). This, in turn, raises concerns on how voters hold governments accountable when important policy fields are delegated to politically independent authorities (Powell and Whitten, 1993; Sattler et al., 2010).

Again, the link between politics and financial markets is at the core of this debate. Much of this literature points to the beneficial effects of institutional arrangements limiting fiscal and monetary policy discretion at the expense of political accountability. It shows that institutional features that promote transparency and policy predictability of governments and central banks are important elements driving asset prices and volatility (e.g., Hallerberg and Wolff 2008; Alexiadou et al. 2017; Sattler 2013; Bodea and Hicks 2014; Breen and McMenamin 2013). For instance, Hallerberg and Wolff (2008) show that greater centralization of the budget process and delegation of power to the finance minister are connected with lower risk premia. Bodea and Hicks (2014) find that in non-OECD countries with rule of law, strong constraints, and freedom of the press, central bank independence is an effective device to reduce interest on government debt. Alexiadou et al. (2017) provide evidence that the appointment of non-partisan, technocratic finance ministers significantly reduces sovereign debt yields during crises. These results represent a growing consensus that the delegation of economic policy to politically insulated agencies is a good strategy to achieve superior economic outcomes (Alesina and Tabellini 2004; Alesina and Stella 2010).

In the end, the conclusions drawn from this debate depend on how much one weights the benefits of greater credibility relative to the costs of reduced accountability. The financial market literature contributes to this debate by providing estimates for this cost/benefit analysis. In other words, studies of politics and financial markets allow us to ‘price politics’ (Bernhard and Leblang, 2006a) by comparing the effect of democratic political processes on asset prices and market volatility in different institutional settings. This, however, does not mean that democratic accountability is undesirable from a financial point of view. The literature also shows that the absence of democratic accountability can be financially even more costly when non-democratic, intransparent institutions lead to a misallocation of capital and raise political uncertainty with destabilizing economic consequences (Fisman 2001; Hays et al. 2003).

The balance between market credibility and political legitimacy is even harder to achieve in times of crisis. This has become particularly evident in Europe, following the implementation of budget cuts aimed at restoring investor confidence amid the Eurozone crisis. The proponents of the fiscal austerity programs in Europe accorded little weight to the domestic political viability of these policy strategies (Blyth 2013; Dellepiane-Avellaneda 2015). In addition, there is little evidence that these austerity measures significantly contributed to driving down sovereign bond spreads, thereby reassuring financial investors

about the sustainability of public finances in crisis countries (e.g., McMenamin et al. 2014). Conversely, crisis resolution is widely ascribed to the European Central Bank and its commitment to providing unlimited financial support with the Outright Monetary Transactions program in Summer 2012, which had a large effect on interest rate spreads (De Grauwe and Ji 2013; Chang and Leblond 2015). This heightened the tensions between government “responsibility” toward systemic constraints and “responsiveness” to the domestic public, which is reflected in the increasing difficulties of governments to reconcile electoral and economic pressures on fiscal policy (Hubscher et al. 2015; Hübscher and Sattler 2015; Hübscher 2016). Simultaneously, independent central banks have increasingly come into the political spotlight. Crisis resolution required unprecedented international cooperation of monetary authorities to cope with financial stress (e.g., Broz 2015) and unconventional measures determined sharper distributive implications than monetary policy in normal times (Fernandez-Albertos 2015), while limiting the potential for mass unrest in crisis countries (Genovese et al. 2016).

Hence, the relationship between credibility toward market agents and accountability to the public has significantly changed over time, as a result of international financial integration and crises. By stressing the importance of political predictability for investors, this literature helps uncover the tensions arising from voters’ and markets’ conflicting interests in financially open countries. Ultimately, government credibility – resulting from a wide array of institutional features, including political constraints (Sattler 2013; Breen and McMenamin 2013) and delegation of economic policy to politically insulated actors (Bodea and Hicks 2014; Alexiadou et al. 2017) – is key for financial investors’ decisions and evaluation of elected officials’ commitments. Indeed, these features are expected to tie governments’ hands and solve their time inconsistency problem. Yet, by foregoing the possibility to change policy path, governments are also likely to reduce their effectiveness in addressing voters’ demands for protection of their social benefits. Furthermore, measures aimed at crisis resolution have provided central banks and other technocratic institutions with a new and powerful political role. This new scenario calls for a detailed analysis of the political determinants and consequences of policy-making within technocratic institutions.

4 Evaluation and Future Avenues of Research

The previous sections underscore the value of studying the relationship between politics and financial markets for political economy and political research. This section

discusses the limitations of this literature, as well as the avenues of research to move the literature ahead. We focus on two main issues. First, the relationship between politics and financial markets is two-directional, which could be modeled more explicitly. Second, the causal chain linking politics and financial markets always works through policy, but empirical research largely ignores policy choices or announcements.

Obviously, political processes not only influence financial markets, but financial markets also have political repercussions. Research on the political effects of financial crises (e.g., Hellwig and Samuels 2011; Margalit 2013; Hallerberg 2015) is exemplar of this large literature on the effect of financial markets on politics, which we cannot review in this paper. Yet, few studies explicitly examine the joint evolution of political and financial factors. Notable exceptions are Bernhard and Leblang (2006b) and Bernhard and Leblang (2008). Models of financial and political dynamics, e.g. in a multivariate time series framework, would allow for a better understanding how politics and markets affect each other over time. This is crucial to unpack mechanisms that are still unclear, as to how domestic political institutions mediate the link between market expectations and government support, or how financial crises intensify the relationship between politics and financial markets.

Theoretically, the relationship between politics and financial markets is always mediated by a third factor, which is actual policy. But most studies consider this relationship in a direct, unmediated way: they implicitly or explicitly speculate about the relationship between politics and policy, but do not study policy announcements or policy output. A useful example may be drawn from studies considering the financial effects of partisanship. Left-wing parties are assumed to depress financial markets, while the opposite is the case for right-wing ones. Yet, this is true only under the assumption that right parties implement pro-business and anti-redistributive policies, and vice-versa for left parties. If this assumption does not hold, as it seems to be the case in recent times (Mair, 2013), it is reasonable to conclude that this theoretical framework provides little analytical leverage to study the impact of partisanship on markets. This suggests that future research should assign greater weight to policy than previous research. In fact, political changes across the world, e.g. the rise of anti-establishment and protectionist parties, urge scholars to re-think and refine some of the assumptions underpinning the literature reviewed in this paper.

That said, the main reason why this link is generally ignored stems from the empirical difficulties related to measuring the evolution of policy expectations. Following the efficient

market hypothesis, markets move in response to the arrival of new information and do so very swiftly (Fama 1970). This raises two main challenges for researchers. The first one is measuring the flow of information that causes market movements. As new information comes from a wide array of sources (media, statements, forecasts, reports, etc.), it is very arduous to have comprehensive measures of real-time policy-related information flows. The second challenge is related to the high speed of market adjustment. Even when adequate proxies of information flows may be found, they are often characterized by their low frequency (e.g. monthly, quarterly or semi-annual). Thus, they are less suited to account for changes in high-frequency data, as in the case of market movements unfolding over days, hours or even minutes. Accordingly, early empirical analyses do not find that important news stories explain large variations in stock market returns (Cutler et al., 1989).

In light of these challenges, researchers have tried to cope with these difficulties by isolating specific sources of policy signals and extracting real-time information to determine how they move financial markets. Using more encompassing data and new methods, Tetlock (2007) shows that media pessimism helps predict market trading volume and negative stock market returns. Important examples of sources of policy signals are media outlets (e.g., Bechtel and Schneider 2010; Beetsma et al. 2013; Wilf 2016) and politicians' and central bankers' statements (e.g., Kohn and Sack 2003; Ehrmann and Fratzscher 2007a; Goldbach and Fahrholz 2011; Falagiarda and Gregori 2015; Bølstad and Elhardt 2015). Yet, there is still much work to do in this direction. These studies either do not try to infer the directional intent of policy signals and are limited to study the financial impact of the occurrence of certain events; or they rely on hand-coded procedures to derive measures of policy stance. The main drawback of these conventional methods of content analysis is that they do not allow researchers to process large amounts of data. In a world in which algorithmic and high-frequency trading have become widespread (Gomber et al. 2011), it is difficult to overestimate the importance of big data in driving financial investors' decisions. Nonetheless, research on the political economy of financial markets seems to lag behind the strategies developed in the financial industry and has not yet leveraged the combination of financial econometrics techniques (e.g. Campbell et al. 1997) and automatic procedures for the estimation of large bodies of text data (e.g. Sebastiani 2002).

Which opportunities arise from these developments for research on politics and financial markets? First, new types of data need to be systematically processed and analyzed to grasp the immediate response of investors to political news and the continuous

communication between policymakers and investors. An interesting frontier is represented by the text-as-data research program, which is favored by the increasingly popular use of automated content analyses techniques in political research (Grimmer and Stewart 2013; Lucas et al. 2015). Although these tools require careful validation, they are more reliable than hand-coded procedures since they allow for the analysis of large portions of text and avoid the danger of human errors. Political economists have been increasingly applying these techniques to study a wide array of phenomena, ranging from central bank committee decision-making to international economic policy-making (e.g., Bailey and Schonhardt-Bailey 2008; Schonhardt-Bailey 2013; Baerg and Hallerberg 2016). However, with a few notable exceptions (e.g., Hansen and McMahon 2016; Peterson and Sattler 2017), research in the political economy of financial markets has not yet exploited the potential of these techniques to obtain more precise measures of government and central bank communication and political news.

Second, and related, some canonical questions that have informed the study of politics and financial markets may be revived by big data research. Standard theoretical frameworks, as the ones based on partisanship and institutions, may still provide much analytical leverage if combined with more accurate measures of real-time changes in political dynamics. An interesting avenue of research may result from the use of online social-media based sentiment analysis (e.g., Barbera 2015; Ceron et al. 2016). While some studies have already provided evidence for a relationship between measures of public mood based on social media and financial market movements (e.g., Bollen et al. 2011), research linking political sentiments expressed online and financial markets is scanty. Another potential avenue of research can be based on more fine-grained measures of institutional change. For instance, Peterson and Spirling (2017) employ machine learning techniques to obtain new measures of political polarization within the U.K. House of Commons making use of dataset of 3.5 million speeches between 1935 and 2013. The possibility to study lengthy trends that researchers usually find difficult to map with traditional datasets may be particularly useful to quantitatively assess the political determinants and consequences of financial market evolutions over the long term.

In sum, the study of politics and financial markets presents many opportunities for development. These stem both from changes experienced by democracies across the globe and deep methodological transformations induced by technology in the world of research. With these new tools available, political economy research on politics and financial markets

will be able to contribute significant insights and answers to the big political questions that emerged from recent evolutions in domestic and international politics.

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