Who Gets a Lifeline? A Political Economy of Corporate Bailouts*

Michael G. Smith†

November 16, 2012

Abstract

Why do some governments opt to provide firms that face bankruptcy with a bailout while others allow the firms to fail? I consider three explanations of bailout provision: one that focuses on the systemic risk posed by the failure of large financial firms, another that examines the conditions under which policymakers are most likely to acquiesce to demands made by the special interests that are directly harmed by the failure of the firm, and a third that highlights the role of the partisan orientation of policymakers in impacting the likelihood of a bailout being given as well as the kinds of firms that receives bailouts. To test these three explanations, I construct a new dataset of 597 financially distressed firms located in 49 countries between the years of 1987 and 2010 that includes firms operating in a wide array of industries by means of media keyword searches. I find evidence in support of the systemic risk and partisanship explanations of bailout provision. Larger firms and firms operating in the financial sector are shown to be more likely to receive bailouts. Further, right-wing governments are 12% less likely to provide a bailout than other kinds of governments, and the positive impact of left-wing governance on bailouts is increasing in the number of employees in a firm.

*Working paper. Do not cite without author consent. To be presented at the International Political Economy Society's Annual Conference, University of Virginia, 2012. The author would like to thank the Social Sciences and Humanities Research Council of Canada for providing financial support.

†PhD Candidate, Columbia University, Department of Political Science. mgs2131@columbia.edu

1 Introduction

In the wake of the global financial crisis of 2008, rapidly eroding consumer confidence and access to credit led to a dramatic deterioration in the finances of automakers around the globe. Concerned with the possible economic spillovers of a collapsing industry, the majority of governments in auto-producing nations implemented measures to support ailing auto producers. For example, while the US and Canadian governments provided loans and financing to assist GM and Chrysler through bankruptcy and restructuring, France and Italy provided emergency financing and Germany, the UK, Spain and Portugal provided loans and loan guarantees to their respective auto industries (Stanford, 2010). Despite this apparently global impulse to bail out ailing auto firms, the Swedish government remained steadfast in its unwillingness to do the same. After repeated attempts by GM to sell Saab, an automaker concentrated in the Swedish city of Trollhattan, failed, the Swedish government refused to provide assurances that it would bail out the firm and waited for the sale of Saab's technology to Beijing Automotive Industry Holding and the brand to Spyker Cars after GM began to cease operations.[1]

A similar pattern can be seen in the airline industry, which suffered a lengthy downturn in demand roughly from the 9/11 attacks to the SARS outbreak in 2003. While many countries undertook bailouts ranging in scope from a single carrier[2] to an entire industry,[3] others resisted demands for airline bailouts. For example, in September 2001 the Australian government allowed Ansett to go bankrupt, ignoring opposition demands to allow for a bailout, and in 2003 the French government resisted calls to save Air Lib and instead left it suffer liquidation.[4]

A clear puzzle emerges from these anecdotes: why are ailing firms bailed out in some cases but not in others? Why do governments sometimes allow for firms to fail and other times directly intervene in order to avoid this potentially costly outcome? This paper considers three separate answers, and ultimately finds support for two of them. First, out of concern for aggregate welfare

[1] See NYT, March 22, 2009; NYT, December 14, 2009; NYT, February 23, 2010.

[2] Examples include Air New Zealand, Japan Airlines, Swiss Airlines and Belgium's Sabena in 2001 (The Irish Examiner, October 4, 2001; The Wall Street Journal, September 25, 2009; Facts on File World News Digest, September 11, 2001).

[3] Example include the US and the UK in 2001 (NYT, September 22, 2001; Daily Mail, September 22, 2001).

[4] See CNN, September 10, 2001; Agence France-Presse, January 13, 2003.

costs, governments could be more likely to provide a bailout to the kinds of firms that pose the threat of systemic risk to the economy. Second, in so far as bailouts are a transfer of wealth from the median taxpayer to a narrow set of firm or industry specific beneficiaries, the willingness of governments to acquiesce to the demands of these special interests by means of providing a bailout could be a function of political characteristics that mitigate the impact of narrow interest lobbying. Third, the partisan orientation of policymakers might inform whether or not they are sympathetic to the use of bailouts, with left-wing governments being more so than right-wing governments, and it might also inform the kinds of firms that get bailed out, as left-wing governments could be more willing to assist firms that would have the largest impact on the labor market if they were to go bankrupt.

The strength of these different arguments is tested with a new dataset of 597 financially distressed firms constructed by media keyword searches. The distressed firms span 16 industries in 48 countries between the years of 1987 and 2010. I find, in support of the systemic risk answer, that larger and financial firms are more likely to receive a bailout, and in support of the partisanship answer, that right-wing governments are roughly 12% less likely to perform bailouts and the likelihood of left-wing governments authorizing a bailout is increasing in firm employment. Limitations on the influence of special interests seem to have no impact, however.

The findings of this paper contribute not only to debates over the causes of bailouts, but also to debates over the role of government in economic policy making. Research on bailouts to present in political science has solely considered policy responses to financial crises and generally only considers how different institutional settings render bailouts more or less costly or likely (Keefer, 2002, 2007; Rosas, 2006, 2009). The original dataset employed in this paper shows, however, that bailouts occur across a wide array of industries, and that focusing only on a subset of bailouts may therefore bias results. Further, by exploring the role of partisanship in bailout provision, this paper builds upon prior work that has shown that ideological differences continue to create persistent differences in economic policymaking, despite the pressures of globalization (Alvarez, Garrett and Lange, 1991; Garrett, 1998; Boix, 1998), and that the partisan orientation of the government impacts the structure of domestic industrial protection (Milner and Judkins, 2004; Pinto, 2004;

Dutt and Mitra, 2005).

The remainder of the paper takes the following form: first, I provide a working definition of bailouts and outline their distributional consequences. Next, I develop the three answers described above, drawing heavily upon existing bailout research. I then outline my research design strategy and describe the resulting universe of cases: a set of distressed firms, a portion of which receive a bailout. I subsequently estimate a series of multilevel logit models to assess the strength of the different answers in the face of the data, and I finally provide some concluding remarks.

2 Bailouts and their Consequences

2.1 What is a Bailout?

Corporate bailouts are variously defined as "any government action on behalf of a distressed company or industry" (Wright, 2010, p. 20); the reception of a "transfer payment or capital" from the "home government" of "financially troubled firms...so as to avoid failure or dissolution" (Faccio, Masulis and McConnell, 2006, p. 2603); or "*government-sponsored delays* in the exit of insolvent [firms] that are explicitly or implicitly funded by public resources (Rosas, 2009, p. 6; italics in original). In order to address the fact that bailouts are not limited in nature to cash transfers, bailouts will be defined as government actions, explicitly or implicitly funded by public resources, that seek to avoid the failure or dissolution of a distressed company or industry. By explicitly focussing on government actions, this definition of a bailout excludes private bailouts, for example the infusion of capital by domestic or foreign banks or investors, and acquisition, either by a domestic or foreign firm.[5]

How is a bailout distinct from a subsidy? While both bailouts and subsidies belong to the same conceptual family of government interventions that assist an enterprise or industry, there are some critical distinctions (Block, 1991-1992). First, bailouts tend to benefit fewer actors than do general government subsidies, as bailouts are frequently targeted at specific firms in order to avoid their insolvency, while subsidies are generally targeted to groups of actors such as businesses

[5]It is important to note that these government actions need not be successful in order to be classified as a bailout as the recipient firm or industry may still fail despite the intervention (Block, 1991-1992).

of a certain size, or in a certain region or industry. Second, subsidies are often geared towards providing recipients with incentives to perform certain activities, such as job creation, often in order to achieve a goal such as the maintenance of competition through supporting small enterprises or through market regulation in the case of price supports. Bailouts, on the other hand, are specifically designed to prevent the failure of distressed enterprises.

Bailouts come in numerous forms, and imply various degrees of cost to the issuing government. In terms of form of delivery, bailouts come as cash grants, loans or loan guarantees, the acquisition of troubled assets, equity investment, temporary acquisition or conservatorship, and full nationalization (Wright, 2010). In terms of the cost to the government, bailouts may be of little or none, for example when they come as loan guarantees and involve no revenue expenditure or when they are funded from sources other than general revenues, for example when they are financed by insurance pools such as the FDIC in the US. In the case where they are costly, bailouts can be funded entirely by general tax revenues, forcing their cost to be spread across the general tax-paying public, or they can be a combination of both special funds and general revenues (Block, 1991-1992).

Significant variation exists across both the propensity of countries to bail out firms as well as the number of bailouts received by an industry. For example, in a sample of 35 countries over a 5 year period, out of 71 corporate bailouts, none occurred in a number of European countries while 8, 15, and 20 occurred in Indonesia, Thailand, and Malaysia respectively (Faccio, Masulis and McConnell, 2006). An alternative 18 year study reports 104 bailouts, with Japan, the US, and Korea witnessing 28, 16, and 11 respectively, while a number of European countries experienced only 1 bailout (Jiang, Kim and Zhang, 2010).[6] In terms of industry, one analysis finds 24 sectors containing bailed out firms, 5 of which contain 5 or more cases (Jiang, Kim and Zhang, 2010).[7] My own dataset, discussed in greater detail below in Section 4.5, similarly shows that the number of bailouts witnessed varies significantly across countries, industries, and years.

[6]This analysis includes both government and private bailouts.

[7]The banking sector is shown as the largest single recipient with 20 out of 104 bailouts.

2.2 Distributional Impact of Bailouts

In order to identify the winners and losers from a bailout, the impact of its main alternative, bankruptcy, must be understood as those who seek a bailout do so in order to avoid the costs of firm failure. In a general sense, bankruptcy occurs when a firm lacks sufficient cash to service debt outflows as they become due, and the value of the firm is too low to allow the firm to acquire further financing (Mossman et al., 1998). Though there exists no universal model of bankruptcy prediction, surveys of the literature conclude that more specific predictors, such as financial ratio variables that measure the solvency[8] or the profitability[9] of firms, tend to be the strongest predictors of bankruptcy (Dimitras, Zanakis and Zopounidis, 1996; Kumar and Ravi, 2007).

Four sets of costs are associated with bankruptcy: first, the real costs born by the firm itself; second, the real costs borne by claimants; third, the losses to the firm that are offset by gains to others; and fourth, the real costs borne by parties other than the firm and its claimants (Branch, 2002). The real costs firms face are comprised of direct costs, including professional fees and the time management spends in administering bankruptcy, and indirect costs, including unobservable opportunity costs such as lost sales, market share, and profits (Warner, 1977; Altman and Hotchkiss, 2006). Notably, a significant indirect cost is the increased frequency of the turnover of top executives and directors for firms in Chapter 11 bankruptcy proceedings (Gilson, 1990; Gilson and Vetsuypens, 1994). Further, a loss in sales and market share negatively impacts the firm's employees through the contraction of the firm. Losses to firm interest holders include direct costs in addition to a sharp decline in the value and marketability the bonds, debt, or equity they hold (Branch, 2002). While direct costs place a burden on firms that is inversely proportional to their size, indirect costs are estimated as being significant for firms of all sizes (Altman and Hotchkiss, 2006).

The bankruptcy of a given firm can impact other firms in the economy through two mechanisms: counterparty contagion and informational contagion (Levitin, 2011). Counterpaty contagion occurs when the failure of a given firm causes other firms that are its counterparties to fail either because the counterparties are owed payments by the failed firm that are subsequently not made (obligor contagion) or because the counterparties' continued operation depends upon future business, now

[8] For example, measuring working capital divided by total assets, or total debt divided by total assets.
[9] For example, measuring profitability in relation to investment or to sales.

cancelled, with the failed firm (supplier contagion). Informational contagion occurs when the failure of a given firm causes market actors to update their beliefs regarding the health and financial viability of other, similar firms, making it more difficult for these firms to secure financing or to conduct transactions, potentially causing them to fail as well. In addition to this negative effect, other, similar firms can experience a positive informational competition effect whereby they gain business from the bankrupt firm as consumers distrust the bankrupt firm's offerings and as the bankrupt firm faces higher prices for inputs and credit (Lawless et al., 1996; Ferris, Jayaraman and Makhija, 1997). Empirical work shows that though both informational effects exist, the contagion effect dominates in terms of the negative impact the bankruptcy of one firm has on the stock prices of other firms in the same industry (Ferris, Jayaraman and Makhija, 1997) and on the cost of financing for other industry participants (Bergman and Benmelech, N.d.). For example, in an examination of the impact of what was at the time the world's largest bankruptcy, that of WorldCom in 2002, Akhigbea, Martinb and Whytec (2005) find that while institutional investors and creditors were largely spared the fallout, the share price of both WorldCom itself and its large, important competitors fell significantly, indicating the predominance of contagion effects.

The economy-wide impacts of bankruptcies aren't as well understood, but they appear to be both significant and diffuse. For example, a Brookings Institute study of the collapse of Enron estimated that the impact on US stock markets in the aggregate was a decrease of between 10 and 24 percent, potentially causing significant declines in domestic consumption and investment due to reductions in household wealth and the pool of available capital (Graham, Litan and Sukhtankar, 2002). Thus larger bankruptcies can be seen as having a negative impact on stockholders and on investment and growth, though no empirical work has sought to determine the exact impact.

Bailouts themselves also imply distributional consequences. In so far as a bailout successfully staves off a bankruptcy, its beneficiaries are those actors who would be harmed by the alternative. Regardless of the counterfactual, recipient firm employees, managers, and shareholders gain from most forms of government financing.[10] While these benefits fall on a narrowly defined group, the

[10]Bailouts are not necessarily the ideal means of bankruptcy avoidance for recipient firms as they often fare worse than firms that are aided instead by private sources (Jiang, Kim and Zhang, 2010); however, firms presumably lobby for bailouts when they face bankruptcy, implying that alternative sources of financing are lacking.

costs of a bailout are diffuse: it is all taxpayers who share the financial burden of whatever form of bailout the government opts to employ (Rosas, 2006, 2009). Further, research on the impact of bank bailouts finds that larger bailouts lead to prolonged and deeper macroeconomic shocks (Rosas and Jensen, 2010). Thus bailouts can be seem as a redistributive transfer from the median taxpayer to firm stakeholders.

3 Why do some firms get bailed out and not others?

The consequences of bailouts and bankruptcies can be combined with existing literature on bailout provision, lobbying, institutions, and partisan policymaking to identify three different answers to this paper's primary motivating question of why some firms get a bail out and others do not. These answers, outlined in this section, focus first on the threat of systemic risk; second on political variables that make policymakers more or less susceptible to the demands of special interests; and third on the differing motivations of partisan actors.

3.1 Systemic Risk

In deciding whether or not to provide a bailout, a welfare-maximizing social planner would place primacy concern on avoiding bankruptcies that would cause harm not only to firm stakeholders, but also to a broader section of society. The determination of whether the failure of a particular firm is of concern is based on whether or not this microeconomic failure has macroeconomic consequences – whether or not the failure of a particular firm poses systemic risk. Systemic risk can be considered to exist if there is a risk of "a single firm's failure having substantial negative effects on the broader economy" (Levitin, 2011, p. 444). Unfortunately, what exactly constitutes a substantial effect is not defined in the literature.[11]

Despite the lack of specificity of what exactly constitutes systemic risk, it is possible to identify some firm-specific characteristics that at least increase the degree of systemic risk they pose that are grounded in the consequences of bankruptcy discussed above. The first, and most obvious, firm-

[11] Levitin (2011) identifies 17 definitions of systemic risk, none of which delineate the threshold at which the consequences of the failure of a particular firm can be considered substantial.

specific characteristic that may impact systemic risk, and therefore the likelihood that a government concerned about welfare maximization would bail the firm out, is its size. This idea is encapsulated in the "too-big-to-fail" doctrine – the cost of failure of particular, very large firms is so great that they must be bailed out. The concern, however, is not with the magnitude of the direct costs to the firm or its stakeholders, as it's unclear that a bailout of a single firm will maintain more value than bankruptcy (Ayotte and Skeel, 2010), nor with the economy-wide costs, as even very large firms may have competitors that can pick up the slack if the firm contracts or ceases operations. The concern instead is with the risk of counterparty contagion, and this risk is increasing in firm size (Ayotte and Skeel, 2010; Levitin, 2011): the largest firms are likely to have the most counterparties, and their counterparties are likely to have the highest exposure to the largest firms. Thus concerns over a cascade effect where the failure of a single firms will cause to failure across the industry increases in the size of the initially distressed firm.

The second firm-specific characteristic that increases systemic risk is whether the firm operates in the financial sector. Systemic risk is of particular concern in this industry for a number reasons. First, as banks tend to be highly leveraged, even small losses can cause insolvency. The implication is that the failure of a single bank that causes it to interrupt its payments to other banks (obliger contagion, to use the language above) is much more likely to cause their failure than would a failure in an industry without such high degrees of leverage (Levitin, 2011). Second, banks provide vital services to the economy, and banking failures can translate into macroeconomic shocks more easily than non-bank failures. Banking failures can limit credit availability and raise the costs of intermediation and lower aggregate demand. Further, banks are essential to the payments, clearance, and settlements systems that are crucial to the smooth operation businesses (Gup, 2004). Thus systemic risk concerns are highest in the finance industry, though they are still present in other segments of the economy (Gup, 2004; Levitin, 2011): both the obligor and supplier forms of counterparty contagion exist in non-financial industries as suppliers to large firms are likely to face bankruptcy if they rely on the large firms for future business, or if the large firms owe them sizable sums.

The findings of prior work that examines the determinants of bailouts shows these systemic

risk concerns to be relevant. Early case studies of notable bailouts, including Chrysler, Lockheed, British Leyland and AEG-Telefunken, for example, highlight the fact that recipient firms are large and highly leveraged (Reich, 1985; Adams and Brock, 1987). More recent, large-n work also shows that financial firms receive the largest share of bailouts across industries (Faccio, Masulis and McConnell, 2006; Jiang, Kim and Zhang, 2010) and that bailed out firms are systematically large than similar firms that do no receive a bailout (Faccio, Masulis and McConnell, 2006).

3.2 Limits on the Influence of Special Interests

While the systemic risk explanation of bailout provision considers policymakers to be concerned with the aggregate welfare costs of particular bankruptcies, the special interest explanation instead considers how the distributive costs of bankruptcies motivate losers to attempt to directly lobby policymakers to provide them with a compensatory, redistributive transfer away from the median, taxpaying voter in the form of a bailout. The effectiveness of this lobbying is a function of both firm-specific attributes and country-specific political characteristics.

From this perspective, firm and firm-specific interests, such as management, stockholders, or employees, stand to suffer the most harm from the direct costs of failure, such as job loss, executive turnover, or the destruction of stock value. In order to avoid suffering these costs, these stakeholders lobby the government for a taxpayer supported bailout. The direct link between industrial lobbying and bailout provision and generosity has been demonstrated in a number of studies of Congressional roll call voting on bailout bills. Nunnari (2011), for example, finds that higher campaign contributions by the Big Three automakers made House representatives more likely to vote in favor of the 2008 auto bailout bill. Further, Dorsch (N.d.) and Couch et al. (2011) both find that campaign contributions from the financial sector had a positive impact on the likelihood of members of Congress voting in favor of TARP, and Mian, Sufi and Trebbi (2010) find that campaign contributions played the same roll in the vote on Emergency Economic Stabilization Act of 2008 (EESA). In addition, Blau, Brough and Thomas (2011) show that for every dollar spent by a firm on lobbying in the five years prior to the enactment of the Troubled Asset Relief Program (TARP) of 2008, the firm received between $485.77 and $585.65 in support.

Perhaps the most direct link between firm-specific interests and policy outcomes occurs when firm management is directly part of government it is lobbying. Faccio, Masulis and McConnell (2006) examine the impact of the political connections of firms on bailouts, where they define a firm as being politically connected if "at least one of its top officers... or a large shareholder... was head of state... a government minister... or a member of the national parliament" (Faccio, Masulis and McConnell, 2006, p. 2600). They find that connected firms have a higher bailout propensity than a set of matched firms over a five-year panel that spans 35 countries. The implication is that firms that meet this definition of being politically connected should be the ones best positioned to lobby the government for assistance in so far as they have a direct link to government decision making, and should therefore be more likely to receive a bailout.

Lobbying and political connections are not the whole story, however. Looking across multiple political contexts, other authors have placed the focus on the effectiveness of special interest lobbying for bailouts on how particular characteristics make policymakers more or less receptive to these interests' demands. Rosas (2006, 2009), for example, argues that democracies provide less generous and stricter financial bailouts in so far as the extension of the franchise shifts policymaking towards the median voter, lowering the capacity for collusion between financial interests and policymakers. Further, Keefer (2002, 2007) claims that low voter information, a higher number of political veto players, and minimal electoral competitiveness make bailouts more costly and forbearance[12] more likely as each of these characteristics limits the influence of financial special interests on policy outcomes. Thus democratic institutions and a high number of veto players should limit the likelihood that governments opt to provide a bailout.

Brown and Dinç (2005) further highlight the role of the temporal proximity of elections, showing that in 21 developing countries between 1994 and 2000, politicians largely avoided costly interventions in the face of bank failures in the lead-up to a popular vote. This relationship is posited to exist because the incentives politicians face to produce economically beneficial outcomes in the lead-up to elections in order to highlight their competence leads them to delay costly bank bailouts until the post-election period, while distant elections allow politicians to discount the costs of

[12]Forbearance occurs when government regulators allow insolvent banks to remain in operation.

current-day policies. Thus bailouts should be less likely in temporal proximity to elections.

3.3 Partisan Preferences

A fully theorized political economy explanation of why some governments opt to assist ailing firms while others do not would involve four factors (Rodrik, 1995): on the demand side, the sources of domestic preferences over economic policy as well as how these interests are aggregated to form interest groups; and on the supply side, the preferences of political officials themselves and the institutional context under which these forces interact to produce the final policy outcome. The previously discussed argument that firms lobby for bailouts and particular characteristics provide them with more or less influence over policy outcomes ignores the preferences that political officials themselves have. The third argument for explaining bailouts, described in this section, focuses on how the partisan orientation of policymakers may make them more or less sympathetic towards bailouts on average, and may also inform the kinds of firms they prefer to provide with assistance.

Policymakers' preferences as expressed by their partisan orientation are likely to impact both their support for any form of bailout as well as their support for bailouts of specific firms that are more in their core constituencies' interests. First, the ideological position of elected officials may inform whether they support or oppose a bailout. In a general sense, research in political economy has shown that governments of differing partisan orientations employ different sets of economic policies and pursue different policy goals given common economic shocks and global economic constraints, with left wing governments favoring higher levels of government spending as a means of spurring growth and right wing governments seeking lower spending and balanced budgets (Cameron, 1984; Alesina and Rosenthal, 1989; Garrett and Lange, 1991, 1995; Alesina, Roubini and Cohen, 1997; Boix, 1998; Garrett, 1998; Boix, 2000). For the case at hand, the assertion that partisan orientation impacts bailout propensity comes from the assumption that left-wing governments are more welcoming to government intervention in the economy, while right-wing governments are in general more opposed. As bailouts themselves represent a costly government intervention, they are a policy that is more in line with preferences of left-leaning, interventionist policymakers than with the more *laissez-faire* approach adopted by right-wing governments.

This assertion that the ideological orientation of policymakers should make them more or less likely to support bailouts finds support in two empirical areas. First, previous analyses of Congressional voting on various bailout bills shows that the ideology of Congress members (generally measured using their DW-Nominate score) impacts their likelihood of voting for or against a bailout, with more conservative members being less likely to vote in favor. These results generally hold even while controlling for the impact of constituent interests.[13] Second, left-wing governments are associated with higher subsidies to domestic industries than right-wing governments (Blais, 1986; Zahariadis, 1995, 1997) due to their greater willingness to intervene in the market in order to support their core constituency, labor.[14] In so far as bailouts are a subset of subsidies, as discussed in Section 2.1, this empirical association between left-wing governance and subsidization could spill over in to the realm of bailouts. Thus policymakers who prefer to limit government intervention in the economy may block potential bailouts.

Partisanship certainly seems to play a role in the airline and automobile cases discussed in the introduction as the countries that refused to provide assistance were universally governed by right-wing coalitions. For example, the Swedish governing coalition overseeing the Saab and Volvo crises was elected in 2006, displacing the Social Democrats after 12 consecutive years of rule. Led by Prime Minister Fredrik Reinfeldt of the Moderate Party, the new government took a decisive turn to the right, adopting a series market-conforming policies. Facing the auto crisis, the government maintained this position, allowing Saab to fail. The conservative Grand National Party, in power in South Korea in 2009, refused to assist in the case of Ssangyong. In the case of airlines, Prime Minister John Howard of the center-right Liberal Party refused to bail out ailing Australian carrier Ansett, while the center-right government of Prime Minister Jean-Pierre Raffarin, elected on a

[13] In the case of the auto industry, Nunnari (2011) shows that more conservative members of Congress and the Senate were more likely to vote against the 2008 bailout bills even while controlling for constituent-level auto industry employment and district electoral competitiveness. Mian, Sufi and Trebbi (2010) report similar results in their analysis of roll call votes on the Emergency Economic Stabilization Act of 2008. Further, Broz (2005, 2011) finds that legislators with a conservative ideological predisposition are less likely to support financing international bailouts and the IMF.

[14] Cao, Prakash and Ward (2007) argue that left-wing governments will only shift resources towards industrial subsidization and away from general social welfare spending, a substitute, when imports remain constant year-on-year. When imports surge, however, left-wing governments will be more likely to pick a policy of obvious, visible benefit to workers, namely social welfare spending. Given the threat of the failure of a major employer, however, it seems that the more visible policy choice would be to provide a bailout rather than to shore up general assistance to the unemployed.

platform of breaking with the interventionist policies of the previous left-wing government, refused to provide state funding to Air Lib. At face value, right-wing governments certainly seem disinclined to provide bailouts.

Partisanship does not only impact that likelihood that a policymaker provides a bailout to an ailing firm, but also impacts the kinds of firms that receive bailouts. Research in political economy has shown that partisan governments adopt policies that reflect the interests of their core constituencies, namely labor for left-wing governments and capital for right-wing governments, in adopting policy platforms with regards to trade (Milner and Judkins, 2004), in setting tariffs (Dutt and Mitra, 2005), and in policing and attracting (or repelling) foreign direct investment inflows (Pinto, 2004; Pinto and Pinto, 2008).

In the case of bailouts, left-wing governments will therefore be more interested in providing assistance to those firms that, if they were to go bankrupt, would cause the the most harm to labor through increases in unemployment and potentially decreases in wages. Employee-rich firms are therefore more likely to receive assistance from left-wing governments for two reasons: first, as job loss and contraction are direct costs of bankruptcy, firms with many employees in an absolute sense will have the greatest impact on the labor market if they fail. Second, if we assume that labor-intense firms operate in labor-intense sectors, the greater potential for contagion associated with larger firms, as previously discussed, implies that the failure of a single, large, employee-rich firm could cause failures in other, similarly labor-intensive firms throughout the industry, exacerbating the negative impact on employment and wages. This assumption is motivated by the idea that large manufacturers, such as automakers, are likely to have similarly employee-intensive counterparties, such as auto parts manufacturers. Thus according to this argument, the preference for left-wing governments towards providing bailouts will be increasing in the distressed firms' number of employees.

3.4 Additional Explanatory Factors

In addition to these three arguments, I consider a set of macroeconomic conditions and international constraints that may impact the willingness and capacity of governments to authorize bailouts

as well as the degree of distress firms experience. Macroeconomic performance may impact the likelihood that governments provide bailouts to firms. In situations where the labor market is deteriorating, for example, or where the economy is contracting, allowing a firm to fail would not only be disastrous for the employees that are directly forced into a hostile job market, it may exacerbate the already poor situation faced by other workers in the same economy.

Membership in international organizations that govern domestic economic activity may also constrain policymakers from initiating a bailout. For example, under the WTO Agreement on Subsidies and Countervailing Measures, member states may raise a trade complaint against a subsidy that meets three requirements: first, it must be a financial contribution made by or at the direction of a government or public body; second, the subsidy must confer a benefit to the receiving party; third, it must be specific, meaning that contribution must confer a benefit to a firm, an industry, or a group of firms or industry, but not to a wide array of firms or industries (Brunel and Hufbauer, 2009). Thus in so far as a bailout undertaken by a WTO member state meets these three requirements, and it would seem on face value that most do, other member states could take legal action. As a result, WTO membership is likely to constrain the ability of policymakers to act freely on their desire to realize a bailout.

EU membership, at least after 1999, may also constrain policymakers' autonomy to undertake bailouts. While earlier restrictions on state aid, including assistance to severely financially distressed firms, was initially "ambiguous and controversial because it was not codified in a single document" (Zahariadis, 2010, p. 954), member states "finally accepted their obligation not to grant state aid without prior Commission consent and acknowledged the Commissions competence to order recovery of illegal aid"' (Blauberger, 2009, p. 721) by adopting Procedural Regulation 659/1999 in 1999. As rescue and restructuring aid, a subset of state aid, is often employed by member states to prevent bankruptcy, the strengthening of the EU competency should constraint governments from undertaking bailouts.

A final alternative explanation of the decision to bailout a firm may relate to the degree of distress the firm is experiencing. The simple hypothesis here is that firms that are in the most dire financial situation will be unable to protect themselves from bankruptcy without the assistance of

the government.

4 Methodology and Operationalization

In order to compare firms that are ripe for a bailout and get one with similar firms that are instead left to their own devices, I first construct a set of financially distressed firms by media keyword searches. Next I run keyword searches using the identified, distressed firms and a set of bailout-related words and identified the significant number of distressed firms that receive bailouts. Having constructed this set of distressed firms, I then append firm and country-specific data identified as relevant in the prior theoretical part of the paper. Empirical analysis is performed by means of multilevel logistic regressions.

4.1 The Universe of Cases

To identify and compare bailed out firms with financially distressed firms that do not receive a lifeline, I work with a universe of cases comprised of financially distressed firms, a subset of which get bailed out. In order to identify firms in distress, I perform a series of media keyword searches in a manner similar to Faccio, Masulis and McConnell (2006) and Jiang, Kim and Zhang (2010).

Using Factiva, an online database of various news media sources, I search between the years of 1987 and 2010 inclusive using the keywords "fac* bankruptcy," "near* bankrupt*," "avoid* bankrupt*," "verge of bankruptcy," "fac* insolvency," "near* insolven*," "avoid* insolvency," "verge of insolvency," "go bankrupt," "going bankrupt," "brink of insolvency," or "financial* distress*." Note that the asterisks work as wildcards such this search strategy identifies news articles that contain words that match any of these phrases exactly plus phrases that match versions of these phrases that are identical but any contain any set of additional characters in place of the asterisk. For example, searching for "near* bankrupt*" would identify articles containing the phrases "nearing bankruptcy," "nears bankruptcy," or "near bankrupt." In order to work with a manageable number of hits, the search is limited to *The New York Times*, *The Financial Times*, and *The Wall Street Journal*. This strategy finds 11,439 news articles.

Of course, only a portion of these articles actually identifies firms as being in financial distress,

and as the search was performed over time and across a number of publications, most distressed firms are covered by numerous news pieces. In order to determine whether or not a given article identifies a firm to be included in the universe of cases, the article must conform to three rules. First, the article must directly describe a private firm as being in distress, where distress is described by any of the keyword adjectives discussed above. For example, a *New York Times* piece from December 1, 2001 identifies "LTU, a German charter airline" as "near bankruptcy," leading LTU to be included in the universe of cases (NYT, December 11, 2001). The piece, a general story on job losses in Europe, also discusses a number of other firms that are contracting, but as these firms are not directly linked with any of the distress keywords, they are not considered to be nearing bankruptcy and so are not included in the universe. Second, the link between the distress keywords and the firm can not be speculative. Thus firms that are identified as facing bankruptcy only if certain events occur, such as a downturn in the economy or a negative court ruling, are excluded. Third, firms that are described in a historical sense as having been in financial distress of having gone bankrupt or having received a bailout are included as long as a year is clearly specified in which the event occurred, and the year is within the period covered by the analysis (1987-2010). By applying these rules, 747 instances of ailing firms are identified.

4.2 Dependent Variable: Bailouts

As the motivating question of this paper is why some firms get bailouts while others do not, the dependent variable is whether or not a given firm in the universe of cases does in fact receive a bailout. Firms are identified as having received a bailout if one of the news pieces found using the prior search strategy in which the firm is discussed explicitly describes the firm as receiving government assistance that matches the definition provided in section 2.1. The fate of the majority of firms identified through the media search strategy discussed above, which is to say whether they go bankrupt, resolve their financial problems through some private means such as restructuring or a cash infusion, or do in fact receive a bailout, is made clear through the text of associated news pieces.

For the 149 cases where no clear outcome is identified, however, a second search strategy is

used in order to probe whether or not these firms were bailed out. This strategy involves using Factiva in the manner described above but searching for the firm name in addition to the keywords "bail out," "bailout," "bail-out," "bailed out," "rescue package," "rescue plan," and "rescue aid" in a manner pioneered by Faccio, Masulis and McConnell (2006) and also employed by Jiang, Kim and Zhang (2010). Using the same set of rules as before, firms that are positively identified in the resulting set of articles as receiving a bailout are then coded as such while those that are identified are coded as 0. By limiting the search to these specific phrases, however, it is possible that some kinds of bailouts are missed, for example loan guarantees that are only described as such and not as a bailout. As widening the search strategy would produce a potentially unmanageable number of hits, I choose to accept working with a more tractable number of news pieces in exchange for potentially missing some bailouts that are not directly labelled as such by the news media. Further, bailouts performed by actors other than governments, such as banks, are coded as a 0.

4.3 Firm Record Matching

This set of distressed firms is then linked with records in Bureau van Dijk's *Orbis* database, and CapitalIQ's *Compustat* database. Firm records were first collected from *Orbis* and next from *Compustat*; where values were missing from the *Orbis* dataset, they were filled wherever possible with values from the *Compustat* dataset. As the databases do not use the same set of firm identifiers, locating a firm's records required searching both databases' master lists of firms to locate the relevant match. Unfortunately records were not available for all 747 firms initially identified, and so the universe of cases shrank to 597 distressed firms.

4.4 Independent Variables and Controls

As measures for the systemic risk arguments for bailout provisions, two variables are constructed using the *Orbis* and *Compustat* databases. The first, *ln(Emp) 3yr*, is used to measure the size of firms in terms of their total number of employees. It is constructed by taking the natural log of the three year moving average of a firm's total employees, a right-skewed variable. The second, *Finance*, is a dummy variable coded as 1 if the firm is identified as operating in the finance or

insurance sector, using the NAICS 2007 3-digit classification system.

As measures for the special interest lobbying argument, a number of firm and country-level variables are employed. First, to measure the number of veto players, *Checks* from the Database of Political Institutions (DPI) (Beck et al., 2001) is used. *Checks* represents a count of veto points within a political system. As the distribution of the variable is left skewed, the variable is transformed in to its natural logarithm, *ln(Checks)*.

The degree of electoral competition is measured using *Polity* taken from Marshall, Gurr and Jaggers (2011). This variable, the sum of the authors' *Autoc* and *Democ* variables, ranges from -10 to 10. Higher values are indicative of countries that possess more democratic attributes, such as competitive elections and constraints and the chief executive, and fewer autocratic attributes, such as closed executive recruitment and restricted regulation of political participation.

Electoral timing again comes from the DPI, which includes the variables *LEGELEC*, a dummy indicating whether there is an election for the legislature in a given year, and *EXECELEC*, a similar dummy for executive elections, both of which are directly employed. The variable *Election, t+1* is constructed from the data as a dummy that is equal to 1 if there is a legislature election for Parliamentary or Assembly-Elected Presidential systems or if there is an executive election for Presidential systems in the following year.

Finally, the measure of whether or not a firm is politically connected comes from Faccio (2006) in the form of a dummy variable, *Connected*, that is equal to 1 if a firm is on Faccio's connected firm list.

Government partisanship is also coded using the DPI. The *EXECRLC* variable which measures the partisanship of the executive is used for countries with directly-elected or assembly-elected Presidents, and the *GOV1RLC* variable, which measures the partisanship of the largest government party, is used for purely Parliamentary countries. Three dummy variables are constructed in this manner, *Left*, *Right*, and *Center*, that are equal to 1 if the relevant part of the government is of left, right, or center partisan orientation. In order to capture the hypothesized partisan interaction between left-wing governance and the number of employees in a firm, an interaction term, *L x ln(Emp) 3yr*, is constructed.

To capture the economic climate at the time that the bailout decision is being weighed, two economic variables, *Unemp. Change* and *GDP pc Growth* are constructing using data from the World Bank's *Data Catalog* (*Data Catalog*, Various Years). *Unemp. Change* measures the annual percentage change in the share of the total labor force in a country-year that is without work but is available and searching for it, and *GDP pc Growth* measures the annual percentage change of GDP per capita based on the local currency in a country-year.

In terms of international constraints that limit governments' capacity to authorize bailouts, two dummy variables, *Reg 659* and *WTO* are constructed. While the former is coded as 1 for all EU members from 1999 onwards, the latter is coded as 1 for all years in which a country is a WTO member.

Finally, as firms that are in worse shape may be more likely to request a bailout, Altman (1968)'s Z-score, a commonly, empirically robust[15] metric of bankruptcy risk, is used. This measure is constructed for firm i as $Z_i = 1.2X_{1i} + 1.4X_{2i} + 3.3X_{3i} + 0.6X_{4i} + 1.0X_{5i}$ where X_{1i} is the firm's working capital over total assets, X_{2i} is retained earnings over total assets, X_{3i} is earnings before interests and taxes over total assets, X_{4i} is market value of equity over book value of total liabilities, and X_{5i} is sales over total assets. The measure is bounded by 0 as the various ratios are measured in absolute terms. Firms with a Z-score value of less than 1.81 are considered as being at the highest risk of failure. As data coverage for most of the composite variables is spotty, 3 year moving averages are used to construct the final variable. The variable is constructed using the firm-level data from *Orbis* and *Compustat*.

4.5 Summary Statistics

Once the financially distressed firms identified using the media keyword searches were matched with observations in the two firm-level databases, 597 instances of ailing firms remained, 549 of which represent unique firms.[16] Individual firms that experienced multiple spells of financial distress were kept in the database as separate observations as firm financial and country-level data was collected

[15] See Altman and Hotchkiss (2006) for an overview of the model's empirical accuracy. Although other robust bankruptcy measures exist, including Moody's KVM Index, the Z-score is commonly used and has the advantage of being comprised of data that is publicly accessible.

[16] Unique firms are those which are only in the dataset once.

annually. Of these remaining cases of distress, 151 included a bailout.

Lists of the number of distressed firms, bailouts, and the ratio of bailouts to distressed firms by country, industry, and years are shown in the Appendix as Tables 8, 9 and 10, respectively. These values are graphically depicted as Figures 1, 2 and 3.

Figure 1 presents a plot of the natural logarithm of number of distressed firms by country, on the x-axis, by the percentage share of firms that receive a bailout by country on the y-axis. As we see, the single largest source of distressed firms in the dataset is the US, providing 191, 30 of which receive bailouts. The number of firms by country seems to roughly follow the size of countries' economies with the exception of China which holds only 5 distressed firms, 3 of which receive a bailout, likely due to its semi-socialist economy and limits on press freedoms. Bailout counts seem also to follow this pattern, and no single large economy holds a disproportionate number based on the ratios provided in Table 8.

Figure 2 shows some interesting patterns in the distribution of distressed firms and bailouts by industry. While the sector with the most distressed firms is manufacturing (142), the financial and insurance industries see the highest raw number of bailouts (89), as well as the highest ratio of bailouts to distressed firms (0.47). The difficulties faced by manufacturing firms seems to correspond to the lengthy process of deindustrialization the countries that are most represented in the sample are experiencing, while the tendency of governments to save financial firms corresponds to the earlier assertion that systemic risk is highest for firms in this sector that may fail. Further, the high number of firms in the information sector (54) and the low ratio of bailouts to distressed firms (0.07) is likely a result of the large number of failures of high tech firms during the dot-com bust of the early 2000s.

Figure 3 shows that while the total number of distressed firms follows global business cycles, with large numbers of ailing firms entering the dataset during the dot-com crash and the post-9/11recession as well as the more recent global recession, the ratio of bailouts to distressed firms appears less tied to this cycle. Though the two years with the highest number of bailouts (20) are 2008 and 2009, the ratio for these years, 0.39 and 0.36 respectively, is quite close to the ratio experienced in 1996, 1997, and 1998 (0.37, 0.36, and 0.39), despite the fact that these years had

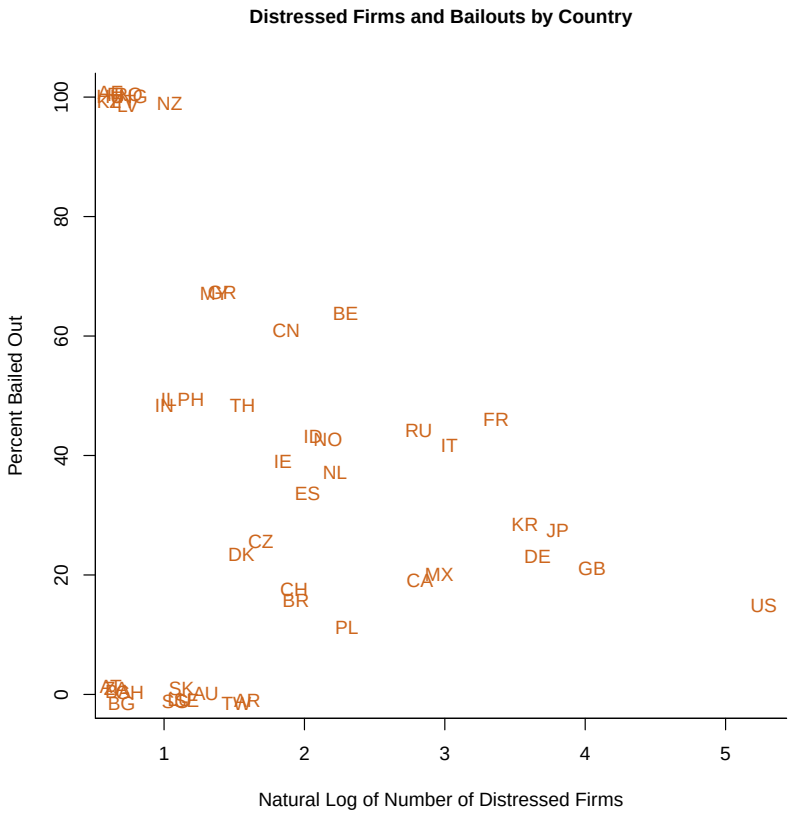

Figure 1: Plot of Distressed Firms on Percentage Bailed Out by Country

many fewer distressed firms.

A list of summary statistics for all independent and control variables is shown in Table 1. The most noteworthy and distressing feature of this table is the fact that the number of observations for firm-specific variables, such as *ln(Emp) 3yr* and *Z-score 3yr*, is much lower than the total number of observations in the dataset. This issue of missing data becomes much more acute and much more obvious in the data analysis below, as in fully-specified models that include all relevant covariates, the total number of cases with observations on variables is only 306. The cause of the missing data appears to be that both the *Orbis* and *Compustat* databases are incomplete in their coverage over time. In order to assess whether this missingness is biasing results, multiple imputed versions of the dataset are generated and the models are re-estimated using these infilled data as a robustness

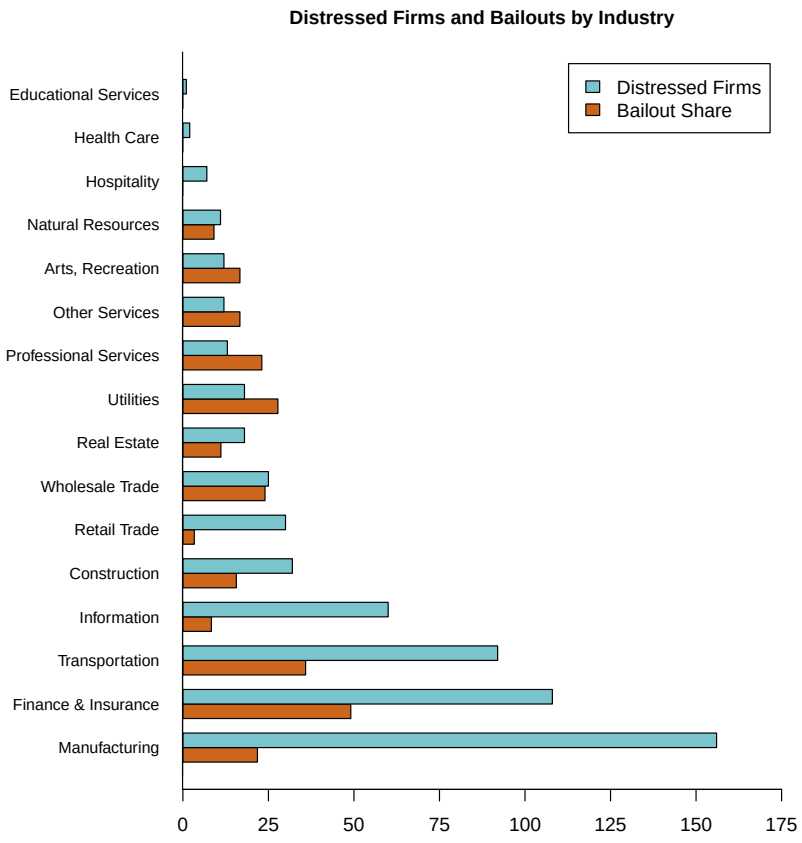

Figure 2: Bailouts by Industry

check.

Table 2 reports differences in means test performed between firms that received a bailout and those that did not across all independent and control variables. The table provides some support for the three arguments regarding bailout provision: firms that receive bailouts appear to have more employees than those that do not, and a disproportionate number of financial firms are bailed out compared to non-financial firms (34% as opposed to 13%), supporting systemic risk arguments. Moving on to the special interest lobbying argument, we see that the proportion of firms that are bailed out is lower in years prior to an election than in all other years, and bailed out firms are located in countries with lower values on *ln(Checks)*. Bailed-out firms reside in country-years with a lower *Polity* score, but the difference is not statistically significant. Further, the proportion of

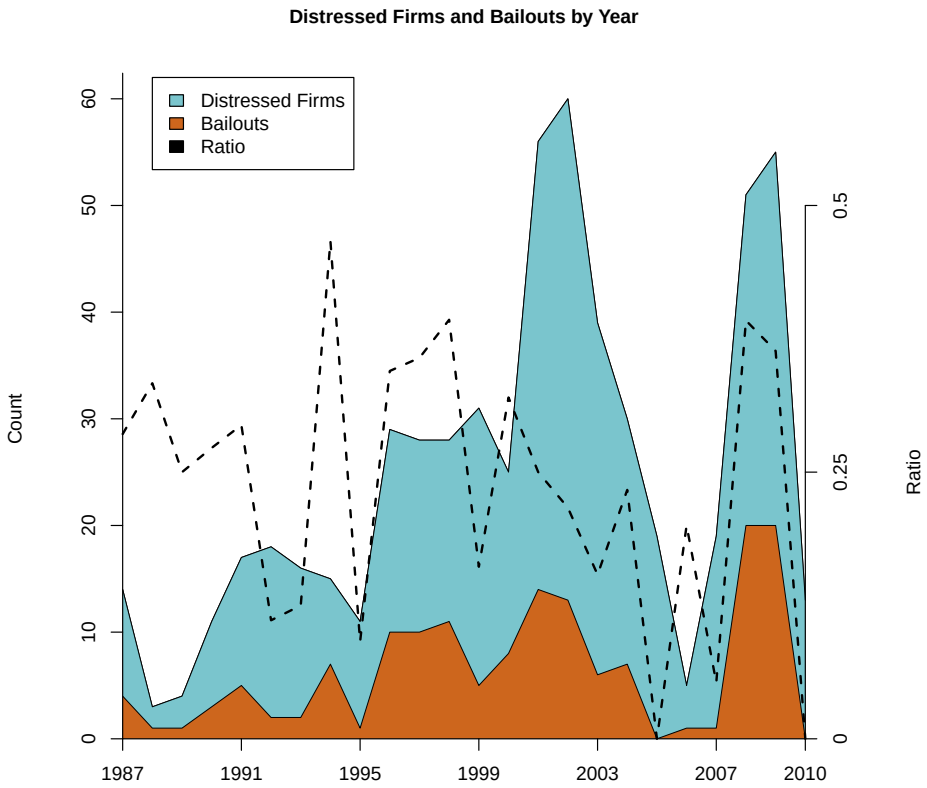

Figure 3: Bailouts by Industry

bailed out firms that are politically connected is higher than than the proportion that are not (0.05 versus 0.02), though this finding is also insignificant. The data does seem to conform to this argument albeit weakly. Finally, regarding partisanship, we see that the proportion of bailed out firms that exist in country-years under right governance is lower than the proportion under non-right governments (0.45 versus 0.57), a statistically significant result. A larger share of bailed out firms exist in years governed by the left versus years governed by the non-left, but this finding is insignificant.

The table shows some mixed results for our expectations regarding alternative explanations of bailouts. Bailed out firms have lower Z-scores, implying that they are closer to bankruptcy than non-bailed out firms, and country-year GDP growth is lower for bailed out firms than for those that

Table 1: Summary Statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
Bailout	0.25	0.44	0	1	597
ln(Emp) 3yr	2.2	1.54	0	5.83	350
Z-score 3yr	1.82	2.05	0	17.32	366
Connected	0.03	0.17	0	1	597
Finance	0.18	0.39	0	1	597
Left	0.34	0.48	0	1	577
Right	0.54	0.5	0	1	577
Polity	8.99	2.66	-8	10	591
Election, t+1	0.26	0.44	0	1	596
WTO Member	0.8	0.4	0	1	597
Reg 659	0.17	0.37	0	1	597
ln(Checks)	1.35	0.31	0	2.77	595
Connected	0.03	0.17	0	1	597
Unemp. Growth	0.09	0.26	-0.31	2.78	578
GDP pc Growth	0.8	3.23	-14.29	11.82	596

do not get a life line. The differences for unemployment growth, WTO membership, and Regulation 659 are not statistically significant.

4.6 Data Analysis

In order to analyze the determinants of bailouts in a multivariate settings, a series of multilevel logit models are estimated. As we are interested in the impact of country-level variables on firm-level outcomes, the data possess a mixed-level structure with firms clustered by countries. Failure to adjust the estimation of the standard errors of a logit model accordingly would lead to a downward bias (Primo, Jacobsmeier and Milyo, 2007). While one common approach to dealing with the mixed-level nature of the data is to estimate cluster-robust standard errors, these standard errors also tend to biased downwards, especially given few clusters (Cameron, Gelbach and Miller, 2008) and multilevel interaction terms (Leoni, 2009). I therefore opt to estimate multilevel models, as these models control for the lack of independence of firm-level outcomes within countries and allow for the inclusion of country and firm-specific variables that impact the likelihood of a bailout occurring. The multilevel models I estimate are of the following form:

Table 2: Differences in Means Tests by Firm Status

Variable	Bailed Out	Not	Difference	P. Value
ln(Emp) 3yr	2.80	2.03	0.77	0.00
Finance	0.34	0.13	0.21	0.00
Election t+1	0.19	0.28	-0.09	0.02
ln(Checks)	1.33	1.36	-0.03	0.43
Polity	8.30	9.22	-0.92	0.00
Connected	0.05	0.02	0.03	0.12
Left	0.38	0.33	0.05	0.35
Right	0.45	0.57	-0.12	0.01
Z-score 3yr	1.38	1.93	-0.55	0.01
GDP pc Growth	0.29	0.97	-0.68	0.05
Unempp Growth	0.11	0.09	0.02	0.32
WTO Member	0.77	0.81	-0.04	0.32
Reg 659	0.19	0.16	0.03	0.47
Number of Observations	151	446	-	-

$$Pr(y_i = 1) = logit^{-1}(\alpha_{j[i]} + X'_{[i]}\beta) \tag{1}$$

$$\alpha_j = Z'_j\phi + \epsilon_j \tag{2}$$

In these equations, firms are indexed by i and the countries in which they are clustered j. The inclusion of $\alpha_{j[i]}$ in Equation 1 indicates that the multilevel models are of the random intercept type, with intercepts varying by country. Equation 2 shows how these country-level intercepts are modeled. The dependent variable, y_i, is a dummy indicator for whether or not firm i receives a bailout. $X_{[i]}$ represents a vector of firm-level independent and control variables and β a vector of the associated coefficients, while Z_j and ϕ act in the same way for country-level independent and control variables. ϵ_j represents a country-level error term that is assumed to be normally distributed, $\epsilon \sim N(0, \sigma^2_{country})$.

Multilevel modeling, however, is not without its problems in that it requires a strong set of assumptions regarding the models' constituent error terms, and due to the intensive use of data required to estimate many parameters, nonconvergence can occur (Primo, Jacobsmeier and Milyo, 2007). Thus as a robustness check, I also estimate logit models with bootstrap clustered standard errors (BCSE), as doing so relies on fewer assumptions and is computationally simple (Harden,

2011). In brief, this approach draws a sample of clusters of observations from the data at hand with replacement, calculates an estimate of the statistic of interest for this sample and stores it in a vector, and then repeats this process a sufficient number of times such that the standard deviation of the storage vector can be used as the standard error of the estimated statistic of interest in order to construct confidence intervals for the estimate.[17]

As an overview, the main results from what follows are that the systemic risk and partisanship arguments of bailout provision find reasonably strong evidence, while the special interest lobbying argument does not. Firm size and operation in the financial sector are consistently found to increase the likelihood of a firm receiving a bailout across specifications and estimation techniques. Right and left wing governments generally seems to decrease or increase the likelihood of a bailout occurring respectively in so far as their coefficients are always correctly signed and statistically significant in most specifications. The same is true of the interaction term between left governance and the number of employees. Regarding the special interest variables, they are, with the exception of impending elections, generally insignificant and in some cases incorrectly signed. The *Connected* variable is often rejected during model convergence due to the perfect prediction of failure, or its presence prevents convergence from occurring at all.

As a first cut as examining the validity of the three bailout arguments, Table 3 represents a set of multilevel logit models that include their explanatory variables iteratively, but exclude the control variables. Model 1 includes the two systemic risk variables, *ln(Emp) 3 yr* and *Finance*. We see here that, as hypothesized, both variables have a positive and statistically significant impact on the probability of a firm receiving a bailout. Model 2 additionally incorporates the special interest argument variables, none of which appear significant. A Wald test with the null hypothesis that the four variables are jointly equal to 0 can't be rejected, implying that their inclusion adds no predictive power to the model, and both the AIC and BIC values are higher in comparison to the prior model, suggesting a deterioration in model fit. It appears, at least a first cut, that the special interest lobbying argument is not borne out in the data. While the special interest argument delineated earlier in the paper identifies political connections are being a relevant explanatory factor,

[17] See Harden (2011, pp. 227–228) for a formal treatment.

including the *Connected* variable prevents the model from converging, and so it is excluded.[18] Model 3 subsequently includes the *Right* dummy to test for the impact of partisanship. Here we see that the results from the prior model remain in tact, and *Right* has a negative and statistically significant relationship with a firm receiving a bailout. The fourth model repeats this exercise but uses *Left* in place of *Right* and further shows that left wing governments are more likely to authorize bailouts than right or center governments. Finally, the fifth model includes an interaction term between *ln(Emp) 3yr* and *Left*. We see here that the term has a positive and significant effect, implying that the impact of *Left* is increasing in *ln(Emp) 3yr*.

The second set of models shown in Table 4 replicates the prior results but includes the various controls. These variables themselves appear to have minimal impact. While *Z-score 3 yr* has a negative impact on bailout probability as expected (remember that lower Z-scores imply a higher risk of failure), the result is never significant. GDP growth is also insignificant, and generally holds a negative relationship with bailouts, except in the first model. Unemployment growth increases bailout risk in the first model, a result that is significant at the $p < 0.10$ level, but is insignificant in all other specifications. WTO membership and the presence Regulation 659 appear to increase bailout risk, contrary to our expectations, though their coefficients are never significant.

In terms of assessing the validity of the three explanatory arguments, the results are broadly consistent with those from the models that excluded controls, though with some notable differences. *Finance*, for example, is only significant at the $p < 0.10$ level in the first and fifth model, though it maintains a positive relationship without bailout probability across specifications. Further, *Polity*'s negative relationship with the probability of a bailout is significant at the $p < 0.10$ level in the second model, but the inclusion of the partisanship variables erodes the strength of this relationship. Again, the inclusion of the *Connected* variable makes model convergence impossible, and so it is excluded. Partisanship, however, seems to maintain its relevance, though only in explaining the average probability of a bailout occurring. Both *Right* and *Left* maintain a statistically significant relationship (though now at the $p < 0.10$ level) with the probability of a bailout occurring and in the hypothesized direction. The interaction of left wing governance and employee levels loses its

[18] As we see below, in the BCSE models, the variable is ejected from the estimation procedure as it perfectly predicts failure.

Table 3: Multilevel Logit Models Estimating Bailout Probability Without Controls

	1	2	3	4	5
ln(Emp) 3yr	0.35*	0.34*	0.38*	0.37*	0.19
	(0.09)	(0.09)	(0.10)	(0.10)	(0.12)
Finance	1.25*	1.29*	1.38*	1.36*	1.45*
	(0.35)	(0.36)	(0.37)	(0.37)	(0.37)
Election, t+1		-0.59	-0.52	-0.53	-0.54
		(0.36)	(0.37)	(0.37)	(0.37)
Polity		-0.09	-0.07	-0.08	-0.09
		(0.08)	(0.09)	(0.09)	(0.09)
ln(Checks)		-0.17	-0.40	-0.41	-0.45
		(0.77)	(0.81)	(0.82)	(0.83)
Connected		-0.27	-0.34	-0.27	-0.70
		(0.84)	(0.87)	(0.86)	(0.94)
Right			-0.65*		
			(0.33)		
Left				0.56+	-0.62
				(0.33)	(0.61)
L x ln(Emp) 3yr					0.46*
					(0.20)
Constant	-2.01*	-0.82	-0.51	-0.97	-0.31
	(0.32)	(0.76)	(0.81)	(0.87)	(0.92)
Observations	352	352	345	345	345
Countries	32	32	27	27	27
AIC	348.11	349.59	338.22	339.22	335.69
BIC	363.57	380.50	372.81	373.81	374.12
Prob $> \chi^2$	0.00	0.00	0.00	0.00	0.00

Multilevel logit models. Random intercepts vary by country. Standard errors reported in parentheses. Two-tailed tests: + p< 0.10, * p< 0.05

significance, but the following calculation of marginal effects shows that it is still significant for some values of *ln(Emp) 3yr*. Thus the partisanship and systemic risk arguments appear at least partially confirmed by these models, while the special interest lobbying argument is once again disconfirmed.

To understand the substantive effects, marginal effects were calculated using the fixed effects from Model 3 of Table 4 holding all variables at their means if they are continuous or medians if they are dichotomous. This exercise shows that a one-unit increase in *ln(Emp) 3yr* is associated with a 4.6 percent increasing in the likelihood of a bailout occurring. Further, the presence of a right-wing government is associated with a 12.2 percent decrease in the likelihood.

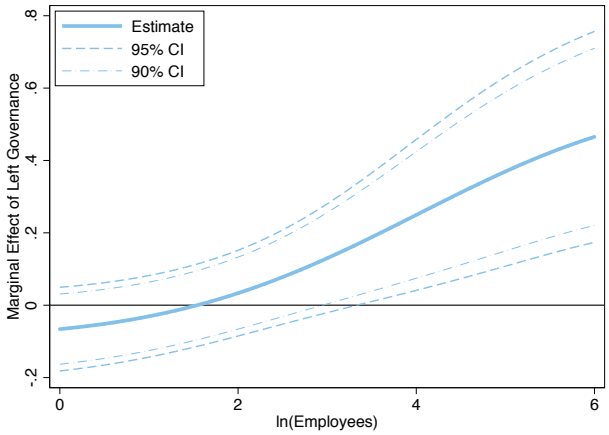

Figure 4: Difference in Probabilities for Left-Wing Governance

To further probe at the interactive effect of employees and left-wing governance, the marginal effect of *Left* was calculated across the range of *ln(Emp) 3yr* in steps of 0.1. The results are plotted in Figure 4. As previously mentioned, this exercise reveals that the interaction effect remains in tact for some values of *ln(Emp) 3yr* despite the insignificance of the interaction term. We see that the marginal effect of *Left* becomes significant at the $p < 0.10$ value just over 2.8 on *ln(Emp) 3yr*, where it implies a 13.5 percent increase in the probability of a bailout occurring, and significant at the $p < 0.05$ value at just over 3.6 on *ln(Emp) 3yr*, where it implies an 18.7 percent increase. To get a sense of where these values lie on the distribution of *ln(Emp) 3yr*, the median value of that variable is 2.04, and the 75$^{\text{th}}$ percentile is 3.31. Thus we see that the impact of left-wing governance

Table 4: Multilevel Logit Models Estimating Bailout Probability With Controls

	1	2	3	4	5
ln(Emp) 3yr	0.29*	0.27*	0.30*	0.30*	0.17
	(0.10)	(0.10)	(0.11)	(0.11)	(0.14)
Finance	0.91+	0.76	0.88	0.87	0.98+
	(0.52)	(0.53)	(0.54)	(0.54)	(0.55)
Election, t+1		-0.56	-0.57	-0.57	-0.57
		(0.41)	(0.42)	(0.42)	(0.42)
Polity		-0.16+	-0.12	-0.13	-0.13
		(0.10)	(0.11)	(0.11)	(0.11)
ln(Checks)		0.02	-0.38	-0.42	-0.46
		(0.86)	(0.91)	(0.93)	(0.93)
Right			-0.70+		
			(0.37)		
Left				0.63+	-0.20
				(0.38)	(0.67)
L x ln(Emp) 3yr					0.31
					(0.21)
Z-score 3yr	-0.07	-0.10	-0.08	-0.08	-0.08
	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)
GDP pc Growth	0.02	-0.07	-0.10	-0.10	-0.10
	(0.07)	(0.08)	(0.08)	(0.08)	(0.08)
Unemp. Growth	2.14+	0.88	0.39	0.43	0.30
	(1.13)	(1.20)	(1.22)	(1.22)	(1.24)
WTO Member	0.28	0.22	0.37	0.29	0.27
	(0.54)	(0.54)	(0.61)	(0.60)	(0.59)
Reg 659	-0.17	0.20	0.01	0.01	0.02
	(0.57)	(0.51)	(0.52)	(0.53)	(0.54)
Constant	-2.13*	-0.47	-0.10	-0.57	-0.07
	(0.65)	(1.11)	(1.17)	(1.16)	(1.19)
Observations	312	312	306	306	306
Countries	29	29	25	25	25
AIC	308.19	307.60	296.29	297.06	296.89
BIC	341.88	352.52	344.70	345.46	349.02
Prob $> \chi^2$	0.00	0.00	0.00	0.00	0.00

Multilevel logit models. Random intercepts vary by country. Standard errors reported in parentheses. Two-tailed tests: + p< 0.10, * p< 0.05

is in fact increasing in the number of employees in the firm, giving support to the assertion in the partisanship argument that left governments will be more likely to provide assistance to employee-rich companies.

4.7 Robustness Check: Bootstrap Clustered Standard Errors

As a first robustness check, these result are re-estimated using logit models with bootstrap clustered standard errors. Table 5 reproduces Table 3 with this alternative estimation mechanism. As we see in Model 1, the simple systemic risk argument finds support, with both the number of employees and the finance dummy holding positive and significant coefficients. In the second model that includes the special interest lobbying variables, we see that *Election, t+1* has a negative and significant relationship with the probability of a bailout occurring. The other variables have no significant relationship, including *Connected*. The third model includes *Right*, which we see is statistically insignificant, though its coefficient is still negative. As a Wald test with the null hypothesis that all of the special interest variables, save for *Election, t+1*, are jointly equal to 0 on model 2 could not be rejected, model 3 is then re-run excluding this variables with the results shown in model 4. Here we see that the impact of partisanship is meaningful, as is the impact of an impending election, if we exclude the other special interest variables which jointly added nothing to the predictive power of the model. Model 5 repeats this exercise but with the *Left* dummy, and model 6 with the left-wing governance and employment interaction. We find that left governments are more likely to bail out any firm, on average, and that the impact of left-wing governance is increasing in the number of employees in the firm. The strength of impending elections holds, but the other special interest lobbying variables have no impact.

Table 6 is a replica of Table 5 but with the control variables added. The results are broadly consistent across specifications as previously reported, as is the result of the Wald test on model 3. Notably, when *Connected* is included in models 2 through 6, it is rejected from the estimation results as it perfectly predicts failure on the dependent variable. Once again we see that *Right* is insignificant in the third model, though when *Polity* and *ln(Checks)* are excluded (a Wald test with the null hypothesis that these variables are jointly equal to 0 can not be rejected again) it becomes

Table 5: BCSE Logit Models Estimating Bailout Probability Without Controls

	1	2	3	4	5	6
ln(Emp) 3yr	0.31*	0.31*	0.36*	0.36*	0.35*	0.20*
	(0.08)	(0.09)	(0.09)	(0.08)	(0.08)	(0.09)
Finance	1.11*	1.19*	1.27*	1.21*	1.18*	1.31*
	(0.38)	(0.38)	(0.36)	(0.38)	(0.39)	(0.39)
Election, t+1		-0.53^{+}	-0.43	-0.48^{+}	-0.49^{+}	-0.45
		(0.30)	(0.30)	(0.28)	(0.29)	(0.33)
Polity		-0.10	-0.09			-0.09
		(0.15)	(0.25)			(0.29)
ln(Checks)		-0.44	-0.51			-0.68
		(0.84)	(0.80)			(0.91)
Connected		0.11	0.01			-0.23
		(0.73)	(0.83)			(0.95)
Right			-0.63	-0.79*		
			(0.41)	(0.39)		
Left					0.65^{+}	-0.45
					(0.36)	(0.68)
L x ln(Emp) 3yr						0.39^{+}
						(0.23)
Constant	-2.21*	-0.59	-0.44	-1.82*	-2.50*	-0.24
	(0.39)	(1.61)	(2.57)	(0.34)	(0.49)	(2.96)
Observations	350	350	343	343	343	343
Countries	32	32	27	27	27	27
Pseudo-R^2	0.07	0.10	0.12	0.10	0.09	0.12
AIC	349.47	347.29	334.79	334.37	336.82	334.00
BIC	361.05	374.30	365.49	353.56	356.01	368.54
Prob $> \chi^2$	0.00	0.00	0.00	0.00	0.00	0.00

Bootstrap clustered standard errors (by country) reported in parentheses.

Two-tailed tests: + p< 0.10, * p< 0.05

negative and significant. Left-wing governance increases the likelihood of bailout occurring as well, and its impact is increasing in the number of employees.

4.8 Robustness Check: Multiple Imputation

As was discussed in the descriptive statistics section of the paper, the dataset has a significant amount of missing data, particularly at the firm level. Some variables, such as *ln(Emp) 3yr* and *Z-score 3yr*, are missing as many as 50% of their observations. To account for the possibility that the findings in the prior model specifications, estimated by listwise deletion, could have biased results, I generate twenty separate versions of the dataset via multiple imputation and then reestimate the multilevel logit models across these imputed datasets.[19] Note that in order for the following results to hold, we must assume that the missing data is missing at random, an ultimately untestable assumption. This assumption implies that the probability of a particular cell is missing can depend on the observed data, but once the observed data is controlled for, it must not depend on the values of the missing data (King et al., 2001; Allison, 2002). As the values of the missing data are not known, it is impossible to compare the values on the variable with missingness across those firms that do or do not have missing data. Multiple imputation is possible as long as the pattern of missingness is ignorable – "the parameters that govern the missing data process are unrelated to the parameters to be estimate" (Allison, 2002, p. 5).

To perform multiple imputation, I use Honaker and King's Amelia II package for R (King et al., 2001; Honaker and King, 2010). The imputed datasets are generated using all of the variables employed in the previous estimations in addition to industry and year dummies as well as the current and one-year lag levels of *ln(Emp)* and *Z-score*. I specify that the dichotomous variables in the dataset are nominal and set bounds on *ln(Emp)* as between 0 and 6, on *Z-score* as between 0 and 5, on *ln(Checks)* as between 0 and 3, and on *Polity* as between -10 and 10. Once the multiply imputed datasets are generated, they are read in to Stata 12 for analysis. Using Stata's set of `mi` features designed to operate on multiply imputed data, multilevel models are estimated for all 20 datasets and then coefficients are calculated by taking the mean across the estimations and

[19] If data is not missing completely at random but is instead missing at random, listwise deletion can lead to biased results. See King et al. (2001); Allison (2002).

Table 6: BCSE Logit Models Estimating Bailout Probability With Controls

	1	2	3	4	5	6
ln(Emp) 3yr	0.28*	0.25*	0.30*	0.32*	0.31*	0.18
	(0.09)	(0.09)	(0.08)	(0.09)	(0.09)	(0.11)
Finance	0.41	0.55+	0.67*	0.56+	0.53+	0.74*
	(0.31)	(0.30)	(0.28)	(0.31)	(0.31)	(0.29)
Election, t+1		-0.65+	-0.64+	-0.64+	-0.64+	-0.65+
		(0.35)	(0.35)	(0.35)	(0.36)	(0.38)
Polity		-0.20	-0.16			-0.16
		(0.17)	(0.26)			(0.29)
ln(Checks)		-0.05	-0.37			-0.52
		(0.98)	(1.00)			(1.05)
Right			-0.62	-0.83+		
			(0.48)	(0.43)		
Left					0.68+	-0.18
					(0.42)	(0.55)
L x ln(Emp) 3yr						0.27+
						(0.14)
Z-score 3yr	-0.14	-0.15	-0.12	-0.14	-0.13	-0.12
	(0.19)	(0.18)	(0.16)	(0.16)	(0.15)	(0.16)
GDP pc Growth	0.01	-0.11	-0.13+	-0.05	-0.05	-0.14+
	(0.11)	(0.08)	(0.08)	(0.10)	(0.11)	(0.08)
Unemp. Growth	1.32	0.18	-0.28	0.33	0.41	-0.41
	(1.69)	(1.50)	(1.40)	(1.41)	(1.45)	(1.23)
WTO Member	0.24	0.19	0.39	0.36	0.27	0.30
	(0.45)	(0.45)	(0.51)	(0.43)	(0.49)	(0.51)
Reg 659	0.40	0.48	0.23	0.14	0.19	0.26
	(0.60)	(0.61)	(0.66)	(0.65)	(0.61)	(0.58)
Constant	-2.34*	-0.07	0.13	-1.80*	-2.48*	0.24
	(0.75)	(1.80)	(2.60)	(0.51)	(0.60)	(3.05)
Observations	310	310	304	304	304	304
Countries	29	29	25	25	25	25
Pseudo-R^2	0.06	0.11	0.13	0.10	0.09	0.13
AIC	306.44	298.98	287.77	292.52	294.71	288.89
BIC	336.33	340.09	332.37	329.69	331.88	337.21
Prob > χ^2	0.02	0.00	0.00	0.00	0.00	0.00

Bootstrap clustered standard errors (by country) reported in parentheses.

Two-tailed tests: + p< 0.10, * p< 0.05

Table 7: Multilevel Logit Models Using Multiply Imputed Data

	1	2	3	4	5
ln(Emp) 3yr	0.34*	0.31*	0.33*	0.34*	0.25*
	(0.10)	(0.10)	(0.10)	(0.10)	(0.12)
Finance	1.25*	1.17*	1.22*	1.23*	1.25*
	(0.26)	(0.26)	(0.26)	(0.26)	(0.26)
Election, t+1		-0.49+	-0.51+	-0.56*	-0.55*
		(0.26)	(0.26)	(0.27)	(0.27)
Polity		-0.11*	-0.07	-0.10+	-0.10+
		(0.05)	(0.06)	(0.06)	(0.05)
ln(Checks)		0.20	0.17	0.28	0.28
		(0.42)	(0.44)	(0.44)	(0.43)
Connected		0.34	0.32	0.31	0.21
		(0.56)	(0.57)	(0.57)	(0.58)
Right			-0.67*		
			(0.26)		
Left				0.62*	0.01
				(0.26)	(0.53)
L x ln(Emp) 3yr					0.24
					(0.18)
Z Score 3yr	-0.07	-0.09	-0.10	-0.09	-0.09
	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
GDP pc Growth	-0.01	-0.02	-0.03	-0.03	-0.03
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Unemp. Growth	0.30	0.08	0.00	0.08	0.06
	(0.54)	(0.54)	(0.56)	(0.56)	(0.55)
WTO	-0.02	-0.07	-0.11	-0.14	-0.14
	(0.29)	(0.29)	(0.30)	(0.30)	(0.29)
Reg 659	0.09	0.35	0.17	0.16	0.20
	(0.39)	(0.38)	(0.40)	(0.40)	(0.40)
Constant	-1.87*	-1.03	-0.95	-1.37*	-1.12
	(0.42)	(0.64)	(0.66)	(0.68)	(0.70)
Observations	597	597	597	597	597
Countries	49	49	49	49	49
Prob > F	0.00	0.00	0.00	0.00	0.00

Multilevel logit models using multiply imputed data. Random intercepts vary by country. Standard errors reported in parentheses. Two-tailed tests: + p< 0.10, * p< 0.05

standard errors by Rubin (1978)'s rules, which involves combining the average of the the squared standard errors across the 20 imputations (the within variance) with the variance of the estimated coefficients across the imputations (the between variance).

Table 7 reproduces the results shown in Table 4 which were estimated by multilevel logit and which included all independent and control variables. The results are broadly consistent with those estimated upon the original data that included missing observations. We see that *ln(Emp) 3yr* and *Finance* still have positive and statistically significant relationships with bailouts. While *Election, t+1* remains significant and negative, *ln(Checks)* and *Connected* remain insignificant. Notably *Polity* now has a stronger negative relationship with bailouts, likely due to the fact that the number of countries has increased significantly (from a maximum of 32 in prior specifications to 49), potentially allowing for more precise estimation of the country-level variables. Right-wing governments are still shown to be less likely to authorize bailouts, and left-wing governments more likely, but the ratio of the standard error of the interaction between left-wing governance and the number of employees to its coefficient has become smaller (from 1.48 in model 5 of Table 4 to 1.33 in model 5 of Table 7).

5 Conclusion

This paper has attempted to answer the question of why some ailing firms are provided with a lifeline while others have been allowed to go bankrupt. It has considered three arguments: first, that large firms, particularly those operating in the financial industry, pose the greatest threat to the economy through systemic risk in case of bankruptcy, and are therefore the most likely targets of government assistance; second, that ailing firms and their stakeholders lobby for government assistance in order to avoid the direct costs of bankruptcy, and that particular firm and country characteristics, such as direct connections to policymaking or limits on the ability of governments to collude with narrow interests in policymaking, impact the effectiveness of this lobbying effort, making bailouts more or less likely; and third, that governments of the left are more likely to authorize bailouts, particularly for employee-rich firms. The arguments are tested against a new dataset of distressed firms, a portion of which receive bailouts, constructed by media keyword

searches. The results show that the systemic risk and partisanship arguments are persuasive, while the special interest lobbying argument is less so.

These findings are an important contribution to existing research on bailouts. The majority of research in political science has only examined governments responses to banking crises and has largely focussed on the special interest lobbying argument (Rosas, 2006, 2009; Keefer, 2002, 2007). The data collected for this project shows that bailouts occur in many other industries, and that ignoring these sectors could therefore introduce significant bias to any empirical evaluation of the causes of bailouts. Further, by integrating work on partisan strategies over macroeconomic management (Alvarez, Garrett and Lange, 1991; Garrett, 1998; Boix, 1998) and industrial protection (Pinto, 2004; Milner and Judkins, 2004; Dutt and Mitra, 2005), the paper introduces a persuasive arguments that can explain patterns in bailouts across industries, as well as across institutional settings that prior authors have identified as having relatively common incentives to provide bailouts.

Finally, the finding that governments of different partisan orientations respond differently to firms in distress calls in to question the assumption held by earlier work that bailouts are universally unpopular, and that only small slices of the electorate push for them. If left-wing governments are responding to pressure by labor groups, or at least are operating in a way that they believe labor will prefer, in providing bailouts to firms that would cause a significant negative impact on labor market if they were to fail, then a larger portion of the public supports bailouts than simply direct firm stakeholders. The potential that public opinion over bailouts falls along partisan lines, and may vary by the sector of the ailing firm, or its size, is worthy of further exploration. To this point, no academic work has rigorously examined the contours of public opinion over bailouts.

References

Adams, Walter and James W. Brock. 1987. "Corporate Size and the Bailout Factor." *Journal of Economic Issues* 21(1):61–85.

Akhigbea, Aigbe, Anna D. Martinb and Ann Marie Whytec. 2005. "Contagion Effects of the World's Largest Bankruptcy: the Case of WorldCom." *The Quarterly Review of Economics and Finance* 45:48–64.

Alesina, Alberto and Howard Rosenthal. 1989. "Partisan Cycles in Congressional Elections and the Macroeconomy." *American Political Science Review* 83:373–398.

Alesina, Alberto, Nouriel Roubini and Gerald D. Cohen. 1997. *Political Cycles and the Macroeconomy*. Cambridge: Massachussetts Institute of Technology Press.

Allison, Paul D. 2002. *Missing Data*. Number 136 *in* "Quantitive Applications in the Social Sciences" Thousand Oaks, CA: Sage Publications, Inc.

Altman, Edward I. 1968. "Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy." *The Journal of Finance* XXIII(4):589–609.

Altman, Edward I and Edith Hotchkiss. 2006. *Corporate Financial Distress and Bankruptcy*. Hoboken, NJ: John Wiley & Sons.

Alvarez, Lizette and Stephen Labaton. September 22, 2001. "A Nation Challenged: An Airline Bailout." *New York Times* p. C5.

Alvarez, R. Michael, Geoffrey Garrett and Peter Lange. 1991. "Government Partisanship, Labor Organization, and Macroeconomic Performance." *The American Political Science Review* 85(2):539–556.

Andrews, Edmun L. December 1, 2001. "Europe Toughens Up on Job Cuts." *New York Times* p. C1.

Anomymous. September 11, 2001. "Layoffs, Bankruptcies Shake European Airlines." *Facts on File World News Digest* .

Anonymous. January 13, 2003. "French Government Throws Cold Water on Air Lib Rescue Plan." *Agence France-Presse* .

Anonymous. October 4, 2001. "Government Rescues Air New Zealand." *The Irish Examiner* .

Ayotte, Kenneth and David A. Skeel. 2010. "Bankruptcy or Bailouts?" *Journal of Corporation Law* 35(3):469–498.

Beck, Thorsten, Philip E. Keefer, George R. Clarke, Patrich Walsh and Alberto Groff. 2001. "New Tools in Comparative Political Economy: The Database of Political Institutions." *World Bank Economic Review* 15(1):165–176.

Bergman, Nittai K and Efraim Benmelech. N.d. "Bankruptcy and the Collateral Channel." Forthcoming, *The Journal of Finance*.

Blais, AndrÉ. 1986. "The Political Economy of Public Subsidies." *Comparative Political Studies* 19(2):201–216.

Blau, Benjamin M., Tyler J. Brough and Diana W. Thomas. 2011. "Corporate Lobbying, Political Connections, and the 2008 Troubled Asset Relief Program." Working Paper, Utah State University.

Blauberger, Michael. 2009. "Of 'Good' and 'Bad' Subsidies: European State Aid Control through Soft and Hard Law." *West European Politics* 32(4):719–737.

Block, Cheryl D. 1991-1992. "Overt and Covert Bailouts: Developing a Public Bailout Policy." *Indiana Law Journal* 67:951–1038.

Boix, Carles. 1998. *Political Parties, Growth, and Equality: Conservative and Social Democratic Economic Strategies in the World Economy*. New York: Cambridge University Press.

Boix, Carles. 2000. "Partisan Governments, the International Economy, and Macroeconomic Policies in Advanced Nations, 1960-93." *World Politics* 53(1):38–73.

Branch, Ben. 2002. "The Costs of Bankruptcy: A Review." *International Review of Financial Analysis* 11:39–57.

Brown, Craig O. and I. Serger Dinç. 2005. "The Politics of Bank Failures: Evidence From Emerging Markets." *The Quarterly Journal of Economics* pp. 1413–1444.

Broz, J. Lawrence. 2005. "Congressional Politics of International Financial Rescues." *American Journal of Political Science* 49(3):479–496.

Broz, J. Lawrence. 2011. "The United States Congress and IMF financing, 1944–2009." *The Review of International Organizations* 6(3-4):341–368. 10.1007/s11558-011-9108-7.
URL: *http://dx.doi.org/10.1007/s11558-011-9108-7*

Brunel, Claire and Gary Clyde Hufbauer. 2009. "Money for the Auto Industry: Consistent with WTO Rules?" *Peterson Institute for International Economics Policy Brief* (PB09-04).

Cameron, A. Colin, Jonah B. Gelbach and Douglas L. Miller. 2008. "Bootstrap-Based Improvements for Inference with Clustered Errors." *Review of Economics and Statistics* 90(3):414–427.

Cameron, David. 1984. Social Democracy, Corporatism, Labor Quiescence, and the Representation of Economic Interests in Advanced Capitalist Society. In *Order and Conflict in Contemporary Capitalism*, ed. Jorn Goldthorpe. New York: Oxford University Press pp. 143–178.

Cao, Xun, Aseem Prakash and Michael D. Ward. 2007. "Protecting Jobs in the Age of Globalization: Examining the Relative Salience of Social Welfare and Industrial Subsidies in OECD Countries." *International Studies Quarterly* 51(2):301–327.

Chang, Richard S. February 23, 2010. "Spyker Completes Deal for Saab." *New York Times* .

Couch, Jim F., Mark D. Foster, Keith Malone and David L. Black. 2011. "An Analysis of the Financial Services Bailout Vote." *Cato Journal* 31(1):119–128.

Data Catalog. Various Years. Technical report World Bank Washington, D.C.: .

Dimitras, A I, S H Zanakis and C Zopounidis. 1996. "A Survey of Business Failures with an Emphasis on Prediction Methods and Industrial Applications." *European Journal of Operational Research* 90(487-513).

Dorsch, Michael. N.d. "Bailout for sale? The vote to save Wall Street." *Public Choice*. Forthcoming. 10.1007/s11127-011-9888-6.
URL: *http://dx.doi.org/10.1007/s11127-011-9888-6*

Dutt, Pushan and Devashish Mitra. 2005. "Political Ideology and Endogenous Trade Policy: An Empirical Investigation." *The Review of Economics and Statistics* 87(1):59–72.

Faccio, Mara. 2006. "Politically Connected Firms." *American Economic Review* 96(1):369–386.

Faccio, Mara, Ronald W. Masulis and John J. McConnell. 2006. "Political Connections and Corporate Bailouts." *The Journal of Finance* LXI(6):2597–2635.

Ferris, Stephen P., Narayanan Jayaraman and Anil K. Makhija. 1997. "The Response of Competitors to Announcements of Bankruptcies: An Empirical Examination of Contagion and Competitive Effects." *Journal of Corporate Finance* 3:367–395.

Garrett, Geoffrey. 1998. *Partisan Politics in the Global Economy*. New York: Cambridge University Press.

Garrett, Geoffrey and Peter Lange. 1991. "Political responses to interdependence: what's "left" for the left?" *International Organization* 45(04):539–564.

Garrett, Geoffrey and Peter Lange. 1995. "Internationalization, Institutions, and Political Change." *International Organization* 49(4):627–655.

Gilson, Stuart C. 1990. "Bankruptcy, Boards, Banks and Blockholders." *Journal of Financial Economics* 27:355–387.

Gilson, Stuart C and M R Vetsuypens. 1994. "Creditor Control in Financially Distressed Firms: Empirical Evidence." *Washington University Law Quarterly* 72:1005–1025.

Graham, Carol, Robert Litan and Sandip Sukhtankar. 2002. "Cooking the Books: The Cost to the Economy." *The Brookings Institutions Policy Brief* 106.

Gup, Benton E. 2004. What Does Too Big to Fail Mean? In *Too Big to Fail: Policies and Practices in Government Bailouts*, ed. Benton E. Gup. Westport, CT: Praeger Publishers pp. 29–48.

Harden, Jeffrey J. 2011. "A Bootstrap Method for Conducting Statistical Inference with Clustered Data." *State Politics and Policy Quarterly* 11(2):223–246.

Holloway, Grant. September 10, 2001. "Ansett Fate Still Up in the Air." *CNN* .

Honaker, James and Gary King. 2010. "What to Do about Missing Values in Time-Series Cross-Section Data." *American Journal of Political Science* 54(2):561–581.

Jiang, Zhan, Kenneth A. Kim and Hao Zhang. 2010. "An empirical study of corporate bailouts from around the world: 1987-2005." Working Paper, SUNY Buffalo School of Management.

Keefer, Philip. 2002. When Do Special Interests Run Rampant? Disentangling the Role in Banking Crises of Elections, Incomplete Information, and Checks and Balances. Policy Research Working Paper 2543 World Bank.

Keefer, Philip. 2007. "Elections, Special Interests, and Financial Crisis." *International Organization* 61(Summer):607–641.

King, Gary, James Honaker, Anne Joseph and Kenneth Scheve. 2001. "Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation." *The American Political Science Review* 95(1):49–69.

Kumar, P Ravi and V Ravi. 2007. "Bankruptcy Prediction in Banks and Firms Via Statistical and Intelligent Techniques - A Review." *European Journal of Operational Research* 180:1–28.

Lawless, Robert M., Stephen P. Ferris, Narayanan Jayaraman and Anil K. Makhija. 1996. "Industry-Wide Effects of Corporate Bankruptcy Announcements." *Bankruptcy Developments Journal* 12:293–317.

Leoni, Eduardo L. 2009. "Analyzing Multiple Surveys: Results from Monte Carlo Experiments." Columbia University Department of Political Science.

Levitin, Adam J. 2011. "In Defense of Bailouts." *Georgetown Law Journal* 99(2):435–514.

Lyall, Sarah. March 22, 2009. "Sweden Says No to Saving Saab." *New York Times* p. A1.

Marshall, Monty G, Ted Robert Gurr and Keith Jaggers. 2011. *Polity IV Project: Dataset Users' Manual*. Arlington: Polity IV PRoject.

Massey, Ray and Brett Arends. September 22, 2001. "Airlines Bailed Out; Brown Invokes War Contingency Plans to Kepp the Fleets Flying." *Daily Mail* .

Mian, Atif, Amir Sufi and Fracesco Trebbi. 2010. "The Political Economy of the US Mortgage Default Crisis." *American Economic Review* 100:1967–1998.

Milner, Helen V. and Benjamin Judkins. 2004. "Partisanship, Trade Policy, and Globalization: Is There a Left-Right Divide on Trade Policy?" *International Studies Quarterly* 48(1):95–120.

Mossman, Charles E, Geoffrey G Bell, L Mick Swartz and Harry Turtle. 1998. "An Empirical Comparison of Bankruptcy Models." *The Financial Review* 33:35–54.

Nunnari, Salvatore. 2011. "The Political Economy of the U.S. Auto Industry Crisis." Working Paper, California Insitute of Technology Division of the Humanities and Social Sciences.

Pinto, Pablo M. 2004. Domestic Coalitions and the Political Economy of Foreign Direct Investment PhD thesis University of California, San Diego.

Pinto, Pablo M. and Santiago M. Pinto. 2008. "The Politics of Investment: Partisanship and the Sectoral Allocation of Foreign Direct Investment." *Economics and Politics* 20(2):216–254.

Primo, David M., Matthew L. Jacobsmeier and Jeffrey Milyo. 2007. "Estimating the Impact of State Policies and Institutions with Mixed-Level Data." *State Politics and Policy Quarterly* 7(4):446–459.

Reich, Robert B. 1985. "Bailout: A Comparative Study in Law and Industrial Structure." *Yale Journal on Regulation* 2(163):163–224.

Rodrik, Dani. 1995. "Political Economy of Trade Policy." *Handbook of International Economics* 3:1457–1494.

Rosas, Guillermo. 2006. "Bageot or Bailout? An Analysis of Government Response to Banking Crises." *American Journal of Political Science* 50(1):175–191.

Rosas, Guillermo. 2009. *Curbing Bailouts: Bank Crises and Democratic Accountability in Comparative Perspective*. Ann Arbor, Mich: University of Michigan Press.

Rosas, Guillermo and Nathan Jensen. 2010. After the Storm: The Long-Run Impact of Bank Bailouts. In *Bailouts: Public Money, Private Profit*, ed. Robert E. Wright. Columbia UP pp. 108–145.

Rubin, Donald B. 1978. *Multiple Imputation for Nonresponse in Surveys*. New York: John Wiley.

Schwartz, Nelson D. December 14, 2009. "Chinese Company Buys Rights to Make Old Saab Models." *New York Times* .

Stanford, Jim. 2010. "The geography of auto globalization and the politics of auto bailouts." *Camrbdige Journal of Regions, Economy and Society* 3:383–405.

Takashi, Yoshio and Alison Tudor. September 25, 2009. "Japan Airlines Asks Government for a New Bailout." *The Wall Street Journal Europe* .

Warner, Jerold B. 1977. "Bankruptcy Costs: Some Evidence." *The Journal of Finance* 32(2):337–345.

Wright, Robert E. 2010. Hybrid Failures and Bailouts: Social Costs, Private Profits. In *Bailouts: Public Money, Private Profit*, ed. Robert E. Wright. Columbia UP pp. 18–47.

Zahariadis, Nikolaos. 1995. *Markets, States, and Public Policy: Privatization in Britain and France*. Ann Arbor, MI: University of Michigan Press.

Zahariadis, Nikolaos. 1997. "Why State Subsidies? Evidence from European Community Countries, 1981-1986." *International Studies Quarterly* 41(2):341–354.

Zahariadis, Nikolaos. 2010. "Disrection by the rules: European state aid policy and the 1999 Procedural Regulation." *Journal of European Public Policy* 17(7):954–970.

A Appendix

Table 8: Distressed Firms and Bailouts by Country

Country	Number of Bailouts	Number of Firms	Ratio
USA	30	190	0.16
Japan	12	46	0.26
UK	12	60	0.20
France	12	26	0.46
ROK	10	37	0.27
FRG/Germany	9	41	0.22
Italy	8	19	0.42
Russia	7	16	0.44
Belgium	5	8	0.62
Mexico	4	20	0.20
Canada	3	17	0.18
Indonesia	3	7	0.43
Norway	3	7	0.43
PRC	3	5	0.60
Netherlands	3	8	0.38
Greece	2	3	0.67
Malaysia	2	3	0.67
Spain	2	6	0.33
New Zealand	2	2	1.00
Thailand	2	4	0.50
Ireland	2	5	0.40
Czech Rep.	1	4	0.25
Kazakhstan	1	1	1.00
Nigeria	1	1	1.00
Switzerland	1	6	0.17
Finland	1	1	1.00
Poland	1	9	0.11
Hungary	1	1	1.00
Israel	1	2	0.50
UAE	1	1	1.00
Philippines	1	2	0.50
Latvia	1	1	1.00
Brazil	1	6	0.17
Romania	1	1	1.00
Denmark	1	4	0.25
India	1	2	0.50
Portugal	1	1	1.00
Austria	0	1	0.00
Luxembourg	0	2	0.00
Bosnia-Herz	0	1	0.00
Taiwan	0	4	0.00
Slovakia	0	2	0.00
Bulgaria	0	1	0.00
Singapore	0	2	0.00
Australia	0	3	0.00

Sweden	0	2	0.00
S. Africa	0	1	0.00
Ghana	0	1	0.00
Argentina	0	4	0.00

Table 9: Distressed Firms and Bailouts by Industry

NAICS	Industry	Distressed	Bailouts	Ratio
31	Manufacturing	156	34	0.22
52	Finance & Insurance	108	53	0.49
48	Transportation	92	33	0.36
51	Information	60	5	0.08
23	Construction	32	5	0.16
44	Retail Trade	30	1	0.03
42	Wholesale Trade	25	6	0.24
53	Real Estate	18	2	0.11
22	Utilities	18	5	0.28
54	Professional Services	13	3	0.23
81	Other Services	12	2	0.17
71	Arts, Recreation	12	2	0.17
21	Natural Resources	11	1	0.09
72	Hospitality	7	0	0.00
62	Health Care	2	0	0.00
61	Educational Services	1	0	0.00

Table 10: Distressed Firms and Bailouts by Year

Year	Distressed	Bailouts	Ratio
1987	14	4	0.29
1988	3	1	0.33
1989	4	1	0.25
1990	11	3	0.27
1991	17	5	0.29
1992	18	2	0.11
1993	16	2	0.12
1994	15	7	0.47
1995	11	1	0.09
1996	29	10	0.34
1997	28	10	0.36
1998	28	11	0.39
1999	31	5	0.16
2000	25	8	0.32
2001	56	14	0.25
2002	60	13	0.22
2003	39	6	0.15
2004	30	7	0.23
2005	19	0	0.00
2006	5	1	0.20
2007	19	1	0.05
2008	51	20	0.39
2009	55	20	0.36
2010	13	0	0.00