

Picking Winners by Saving Losers: Partisanship and the Sectoral Allocation of Corporate Bailouts*

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Abstract

Why do firms operating in some sectors of the economy receive more bailouts than others? I argue that the partisanship of elected officials plays a critical but overlooked role in the distribution of corporate bailouts across sectors. Out of concern for the livelihood of their core electoral constituency, labor, left-wing governments are hypothesized as seeking to prevent the bankruptcy of firms operating in employee-rich sectors through the issuance of bailouts. Right-wing governments instead seek to shield capital from the costs associated with bankruptcy by issuing more bailouts to firms operating in sectors of the economy that are capital intense. To test these hypotheses, I construct a new comprehensive dataset of bailout counts by sector-year across the European Economic Area, 1999-2011. While left-wing governments are found to provide one and a half times more bailouts to employee-rich sectors than non-left-wing governments, right-wing governments are not found to target capital-intensive sectors with bailouts. Further, alternative explanations of the sectoral distribution of bailouts, including the dislocation caused by global integration and the presence of other forms of social protection, are not supported by the data.

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1 Introduction

Corporate bailouts are one of the most notorious aspects of the Great Recession. Governments across the globe, facing frozen credit markets and unprecedented declines in demand, committed vast resources to propping up ailing domestic businesses, including banks,¹ automakers,² and airlines.³ Though the impulse to save ailing firms appears universal at first glance, the clustering of bailouts in these three sectors belies the fact that innumerable businesses failed across industries during the downturn that did not receive bailouts, and that bailouts themselves are not a new aspect of economic policymaking. Why do governments provide firms operating in some sectors with bailouts, while they allow firms operating in other sectors to fail?

This question speaks to a broader literature in political economy that seeks to understand why particular firms and industries are favored with targeted policies, while others are not. A longstanding line of inquiry in trade politics, for example, attempts to identify the characteristics common to heavily protected sectors⁴ and to explain these patterns;⁵ similar efforts have been made with regards to industries that are protected from inflows of foreign direct investment (FDI).⁶ Thus by exploring why governments favor some firms and industries over others by providing them with

¹France, Germany, Sweden, the United Kingdom, and the United States provided their financial sectors with support totaling 17.8%, 20.8%, 49.6%, 58.4% and 16.2% of their 2008 GDPs, respectively. See Pontusson and Raess (2012).

²While the US and Canadian governments eased GM and Chrysler through bankruptcy with roughly \$100 billion USD in loans, guarantees, and equity investment, Opel received €3 billion in emergency loans and restructuring assistance from the German, English, Spanish, Polish, and Austrian governments and France provided Peugeot and Renault with €7 billion. See Stanford (2010).

³For example, the Austrian government provided Austrian Airlines Group with €200 million in assistance, (Austria Today, January 19, 2009), the Maltese government provided Air Malta with a €52 million loan guarantee (European Commission, 2011), and the Czech government €100 million to Czech Airlines (European Commission, 2013).

⁴Industries that are heavily shielded with barriers to trade tend to be labor-intensive, low-skilled and low-wage; they are subject to high import penetration; they are declining; and they tend to be characterized by regionally concentrated production but regionally diffuse consumption. See Trefler (1993) and Rodrik (1995) for overviews.

⁵Early work on endogenous protection identified a host of explanations for the varying success of industries in obtaining protection from trade, including on the demand side lobbying capacity and voting strength, and on the supply side, the government's preference to maintain the status quo by minimizing adjustment costs and to achieve social justice goals by insulating the poorest members of society from risk. See Gawande and Krishna (2003) for an overview in which they argue that identifying which of these explanations is best fit by the data is virtually impossible. The contemporary benchmark "Protection for Sale" model, developed by Grossman and Helpman (1994), predicts that policymakers will trade off the demands of industry and consumers such that protection will be highest for industries with organized lobbying capacities and lowest for industries with high import elasticities. These predictions have been shown to hold in countries including the US (Gawande and Bandyopadhyay, 2000; Goldberg and Maggi, 1999), Turkey (Mitra, Thomakos and Ulubaşoğlu, 2002) and India (Bown and Tovar, 2011).

⁶See, for example, Pandya (2007).

bailouts rather than allowing for bankruptcy, the paper expands this enterprise by incorporating a new form of targeted policy. This is of particular relevance given the insight that the removal of one form of protection often leads to the introduction of another, what Bhagwati (1988)[p. 53] famously calls the “Law of Constant Protection.” If we are to fully understand which industries governments favor and why, we need to study all the tools at their disposal.

The anecdotally divergent trends in bailouts outlined above are empirically demonstrated by Figures 1 and 2, the number of bailouts by country-year amongst European Economic Area (EEA)⁷ member states between 1999 and 2011 and Figure 3, the annual number of bailouts by sector amongst the same sample.⁸ The country-year bailout trends in Figure 1 and 2 show that while some countries, such as France, Italy, and Poland, experience bailouts on an annual basis, others, such as the Czech Republic and Portugal, experience virtually none, while others still, such as Iceland and the Netherlands, appear to have sharp, countercyclical spikes centered around the Great Recession. Furthermore, while the largest cluster of bailouts occurs in the finance industry during the Great Recession, bailouts consistently occur in other sectors, including manufacturing and transportation, across time.

I argue that the partisan preferences of governments informs which kinds of firms they deem more deserving of this form of public support. Left-wing governments are commonly thought to shield labor from unemployment and the the business cycle, as it tends to bear the distributional brunt of these phenomena, while right-wing governments prefer to maintain the stable economic environment sought by capital by balancing budgets and limiting inflation (Hibbs, 1987, 1992; Tufte, 1978). In the realm of targeted forms of protection, partisanship has proven to be a relevant factor in explaining variation in barriers to trade, capital flows, and foreign direct investment (FDI).⁹

As left- and right-wing governments’ varying preferences over economic policies come from the internalization of the interests of their core electoral constituencies, they will seek to authorize

⁷The EEA Agreement, signed by all EU member states plus EFTA member states Iceland, Liechtenstein, and Norway, allows signatory EFTA members to take part in the EU common market without becoming EU member states.

⁸The bailout counts come from the EU Commission’s State Aid Register and the EFTA Surveillance Authority. See section 4 for an explanation of the methodology employed to collect the bailout data shown in these figures.

⁹See Dutt and Mitra (2005) and Milner and Judkins (2004) on trade, Quinn and Inclan (1997) on financial openness, and Pinto and Pinto (2008); Pinto (2013) on FDI.

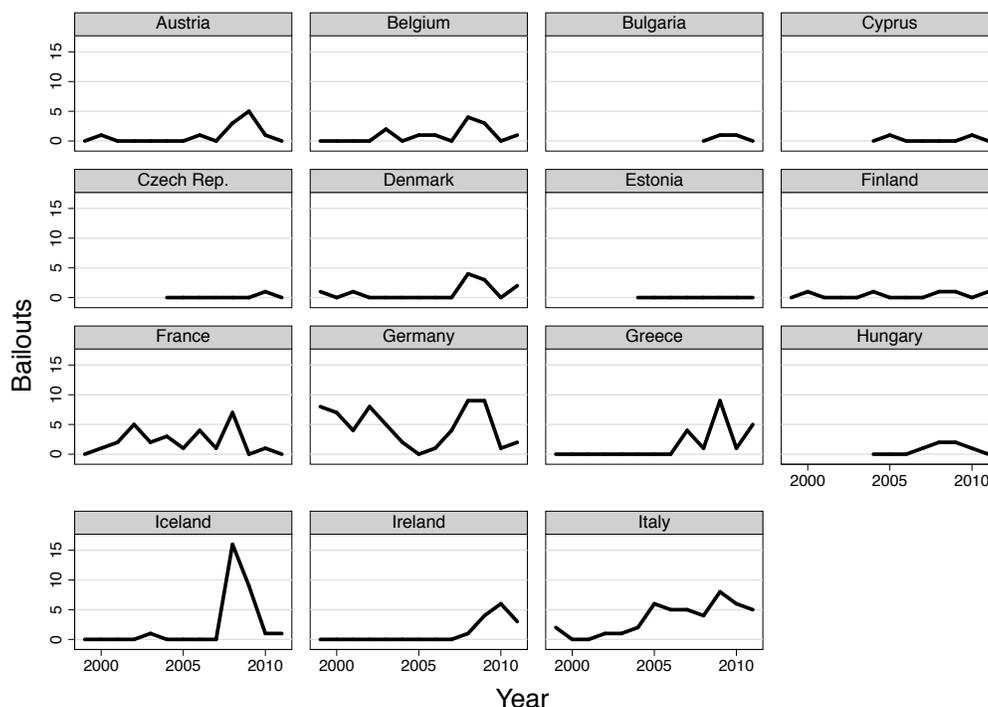


Figure 1: Number of Bailouts by Country and Year. The figures plot the count of bailouts per year across EEA member states. Section 4 describes how the data on bailouts was collected.

bailouts that protect these constituencies' material interests. The impact of bailouts on the interests of labor and capital is a function of their distributional consequences. The primary goal of a bailout is to prevent the target firm from going bankrupt, implying that the winners from bailouts are the losers from bankruptcy. Bankruptcy imposes immediate costs, including the destruction of wealth and the loss of jobs, upon firm stakeholders and upon the stakeholders of counterparty firms that are driven to bankruptcy through contagion effects. The failure of a large automaker, for example, can cause suppliers to also fail, while the failure of a large bank can have the same effect on other financial institutions. The losers from bailouts are those who have to fund them, namely diffuse taxpayers (Keefer, 2002, 2007; Rosas, 2006, 2009). For the case at hand, left-wing governments, concerned with labor-market outcomes, will seek to provide bailouts that prevent bankruptcies that would cause the most unemployment. I hypothesize that they will therefore seek to prevent bankruptcy of firms that operate in the most labor-intensive sectors. Right-wing governments will

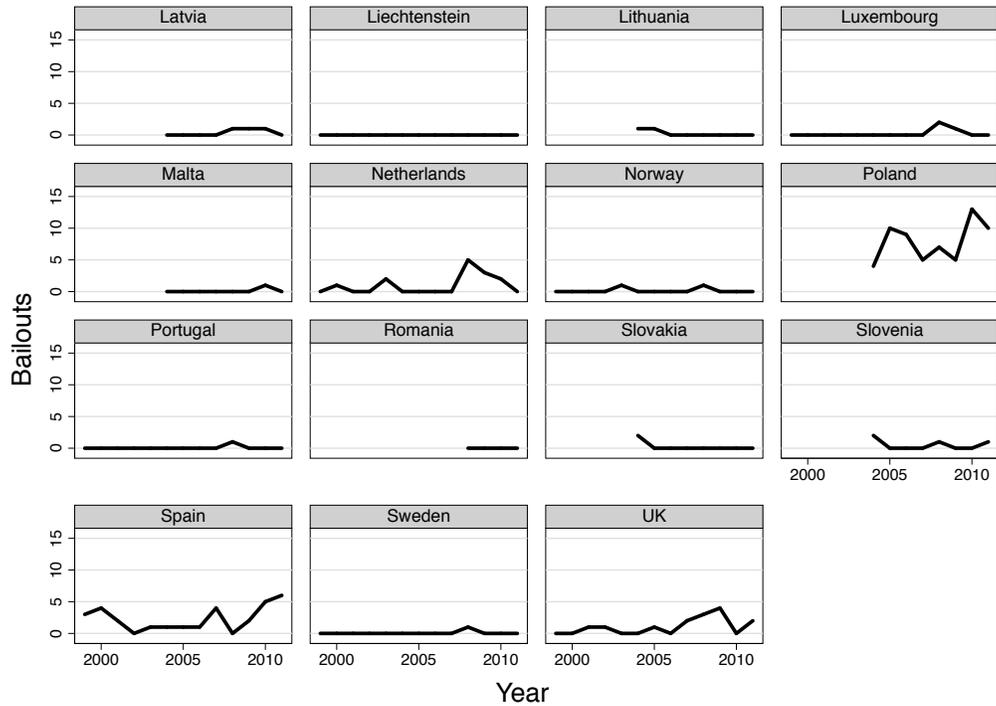


Figure 2: Number of Bailouts by Country and Year, Continued.

instead seek to provide bailouts that prevent bankruptcies that would cause the greatest destruction of wealth. They will therefore target firms in sectors that are the most capital-intensive.

I further explore two alternative explanations of the variation of bailouts across sectors. First, bailouts might be a function of increasing dislocation caused by global economic integration. International financial flows can spark banking crises, while increased import penetration accelerates the rate of failure of industries, potentially increasing the demand for bailouts in sectors that are most subject to these flows. FDI, on the other hand, can act as a substitute for a bailout if ailing domestic firms are acquired using foreign capital. Second, alternative forms of social protection may render bailouts less necessary. Unemployment insurance, for example, can make job loss less disastrous, weakening the incentives governments face to keep domestic firms afloat. Further, industrial subsidization may prevent recipient firms from reaching such a precarious financial situation that bailouts are required.

I test these hypotheses with a new dataset of annual bailout counts by sector across the EEA,

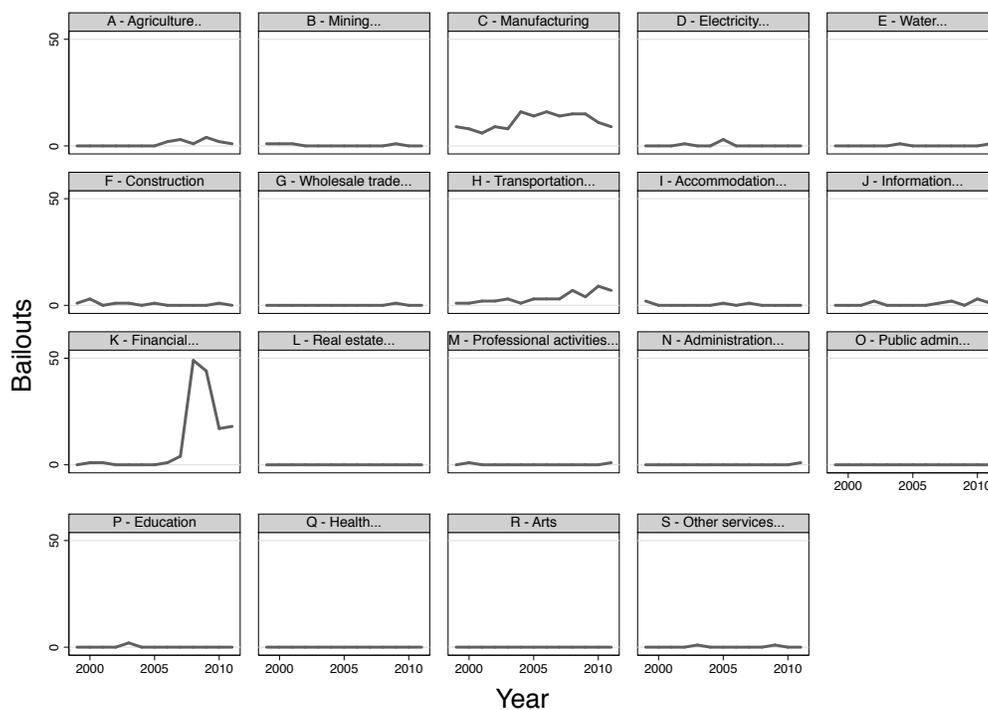


Figure 3: Number of Bailouts by Sector and Year. The figures plot the count of bailouts per sector-year across EEA member states. Section 4 describes how the data on bailouts was collected.

spanning the period from 1999 to 2011. The results of the paper show that governments of differing partisan orientations choose to favor some sectors over others in the economy by providing them with more lifelines. Left-wing governments are shown to provide sectors with sufficiently large shares of employees roughly 1.5 times as many bailouts as non-left-wing governments. Right-wing governments, on the other hand, do not appear to favor sectors with a large share of capital. Further, while I find some extremely limited evidence in support of the hypothesis that countries employ bailouts to protect sectors subject to greater foreign competition, the preferences of left-wing governments regarding bailout targeting holds while controlling for this alternative explanation.

As members of the EEA are obligated to report all issuance of state aid, a portion of which constitutes bailouts, above a certain monetary threshold, the new dataset represents a comprehensive set of bailouts for the sample. By analyzing the full set of bailouts across economic sectors and over time undertaken by these countries, this paper adds valuable insight to the nascent scholarly

study of bailouts. While previous studies examine the determinants (Brown and Dinç, 2005; Couch et al., 2011; Dorsch, 2012; Mian, Sufi and Trebbi, 2010; Rosas, 2006, 2009) and generosity (Keefer, 2002, 2007; Rosas, 2006, 2009) of bailouts, they generally only consider financial sector bailouts in the context of banking crises.¹⁰ As we see bailouts occurring in a variety of sectors in times of prosperity as well as in times of hardship, a unified explanation of bailout provisions can't be adequately tested using such a limited number of cases. By expanding the scope of the inquiry beyond this limited subset of bailouts, this paper tries to resolve this problem.

The paper is structured as follows: first, bailouts are defined, and their distributional consequences are discussed. Second, the paper outlines the partisan and alternative explanations of why governments provide more bailouts to some industries rather than others. Third, the method for collecting annual counts of bailouts by country-sector across the EEA is described as is the nature of the other data used in the empirical investigation. Fourth, the statistical approach used to test the theories previously outlined is delineated and the results of the tests are described. The final section of the paper provides concluding remarks.

2 What is a Bailout?

Bailouts are in essence a targeted policy the government can employ to protect particular firms from bankruptcy. They are defined as government actions, explicitly or implicitly funded by public resources, that seek to avoid the failure or dissolution of a distressed company.¹¹ 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. It is important to note that actions taken by the government in an effort to save an ailing firm need not be successful in order for them to be classified as a bailout as the recipient firm may still fail despite the intervention (Block, 1991-1992). They are delivered in myriad forms, including as cash grants, loans or loan guarantees, the acquisition of troubled assets, equity investment, temporary acquisition or conservatorship, and full nationalization (Wright, 2010).

¹⁰Faccio, Masulis and McConnell (2006), who examine the firm-level determinants of bailouts across sectors, and Nunnari (2011), who examines Congressional roll call voting on the (failed) auto bailout bills of 2008, are exceptions.

¹¹See Faccio, Masulis and McConnell (2006), Rosas (2009), and Wright (2010) for similar definitions.

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 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.

This distinction is critical to the research design of the paper as outlined in Section 4. The European Commission, in conjunction with the European Free Trade Area (EFTA) Surveillance Authority, have mandates to monitor and control the distribution of state aid amongst member states. While these authorities consider state aid to be any government transfer to a business that provides it with economic advantages or that distorts trade or competition, they separate out types of state aid by their motivation, including rescue and restructuring aid that is explicitly used to prevent firms from failing and to support their subsequent restructuring. Thus the distinction between subsidies in general and bailouts in specific observed by European authorities allows me to study these two phenomena independently.

2.1 The Costs and Benefits of Bailouts

As bailouts seek to avoid firm failure, their main benefit comes from shielding those who would suffer the costs associated with bankruptcy. There are three sets of costs associated with the firm becoming bankrupt: first, the firm and its stakeholders experiences direct costs, such as professional fees and the time management spends in administering bankruptcy, and indirect costs, including the unobservable opportunity costs of lost sales, market share, and profits (Warner, 1977; Altman and Hotchkiss, 2006) that negatively impact the firm's employees through the contraction of the firm and its interest holders through a sharp decline in the value and marketability of the bonds, debt,

or equity they hold (Branch, 2002). Second, other firms can be harmed through counterparty or informational contagion. Counterparty contagion occurs when the failure of a given firm impacts other firms either because they are owed payments by the failed firm or because they depend upon future business, now cancelled, with the failed firm. Informational contagion occurs when a firm's failure causes market actors to update their beliefs regarding the health and financial viability of other, similar firms, making it more costly for these other firms to secure financing or to conduct transactions (Levitin, 2011). Third, larger bankruptcies can have a negative economy-wide impact by the destruction of stock market value, 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).

The main cost of a bailout, the burden placed upon taxpayers, varies with the nature of the lifeline. When bailouts are delivered as loan guarantees the cost is the risk placed upon taxpayers that they will have to honor the loan in the case that the recipient defaults. When they come as direct grants, acquisitions, or nationalizations, they involve immediate fiscal costs that are spread across the general tax-paying public (Block, 1991-1992). Frydl and Quintyn (2000) also highlight the importance of the timing of the bailout: bailouts authorized at the earliest stages of a crisis are likely to be less expensive both because the direct fiscal costs are lower prior to the total deterioration of the financial position of the ailing firms and because the costs associated with the disruption of payments systems and credit flows are likely to be less severe.

3 Why Bail Out Firms in Some Sectors and not Others?

In this section I consider a number of reasons why governments provide bailouts to firms some sectors and not in others. I first consider the possibility that a welfare-maximizing social planner could simply authorize bailouts that entail larger benefits than costs, but ultimately conclude that the high degree of uncertainty associated with any given bailout makes this approach virtually impossible. Next I consider my primary explanation for the variation in bailouts that focusses on the partisan preferences of governments: left-wing governments are more likely to assist employee-rich sectors, and right-wing governments capital-rich sectors, with bailouts. I also consider two other

potential political explanations that highlight the role of global integration in making particular sectors more or less likely to receive bailouts, as well as the role of alternative forms of protection, including protection against the risks of unemployment and industrial subsidies, in making bailouts more or less common.

3.1 The Social Planner

One might argue that governments, if they were able to undertake the role of a social planner, could simply choose to authorize bailouts when the benefits, as described above, outweigh the costs. This enterprise is not so simple, however, as measuring the cost of a bailout, both prior to its initiation and after its completion, is extremely difficult, if not impossible. Frydl and Quintyn (2000)[p. 15–23], for example, identify a host of reasons that ex-ante estimates of the cost of a bailout are inaccurate including the speed with which a bailout is undertaken, the measures employed, the impact of the broader macroeconomic climate and the market’s reaction to the government’s measures. To support their assertion, the authors report large differences between the initial estimates of aggregate bailout costs as a percentage of GDP and later estimated costs undertaken during or after the bailout process.¹²

This difficulty is equally present when analysts attempt to measure bailout costs ex-post. According to Reinhart and Rogoff (2009)[p. 163], “estimates of bailout costs vary markedly across studies, depending on the methodology, and vary even more across time, depending on the length of the horizon used to calculate the fiscal impact of the crisis...” Using data from Frydl (1999) and Moe and Vale (2004), they show that the differences in estimated bailout costs as a percentage of GDP for notable major banking crises in the latter half of the 20th century across studies is as high as 51.3% and is generally in the 10% range.¹³ Thus estimating a bailout’s cost, ex-post or ex-ante, is nowhere near an exact science.

An alternative rationale a social planner could use to justify a bailout would be if the failure of the target firm poses systemic risk to the economy. As Levitin (2011) forcefully argues, however,

¹²See Table 1 on page 18 of Frydl and Quintyn (2000). The differences are both positive and negative, depending upon the crisis, implying that initial estimates can both either under- or over-estimate final bailout costs.

¹³See Table 10.9 on page 164 of Reinhart and Rogoff (2009).

there is no clear definition of this term and there are no objective criteria by which to judge whether the failure of any given firms poses it.¹⁴ Systemic risk is therefore better understood in political terms as “the risk of socially unbearable macroeconomic consequences of microeconomic failures” (Levitin, 2011)[p. 446]. Further, identifying systemic risk is not so much about measuring actual macroeconomic outcomes of firm failure, but instead is about determining whether or not society is willing to bear the costs of failure.

The implication is that policymakers faced with the choice of saving an ailing firm operate in a highly uncertain environment. Even an idealized social planner is unlikely to be able to perform a cost-benefit analysis beforehand with a high degree of confidence. Stakeholders across the economy, however, are likely to have some sense of whether they stand to gain or lose from a bailout, even if they are uncertain of the final sums. Thus the decision to authorize a bailout is likely to be the outcome of political processes that allow varying degrees of access to policymaking by those who are harmed by, or who benefit from, the issuance of a lifeline. I therefore turn to political explanations of bailouts decisions next, considering partisanship, global integration, and alternative forms of protection in turn.

3.2 Partisanship

I argue that one key political variable that is likely to impact the decision over which firms receive bailouts is partisanship. As numerous authors have argued, left-leaning governments strive to minimize unemployment and to smooth the business cycle through direct government intervention in free market operations, while right-wing governments prefer to keep inflation in check and to lower spending and balance budgets (Cameron, 1984; Alesina and Rosenthal, 1989; Garrett and Lange, 1991, 1995; Alesina, Roubini and Cohen, 1997; Boix, 1998; Garrett, 1998; Boix, 2000). The primary motivation for this split in policy preferences over various macroeconomic policies is that governments of these different partisan orientations seek to shield their core electoral constituencies, namely labor for left-wing governments and capital for right-wing governments, from their respective

¹⁴Levitin (2011)[p. 443–444, fn. 20] reviews 17 separate definitions and points out that the common understanding is that systemic risk exists if failure poses “substantial risk” to the broader economy. Substantial risk, however, is never clearly defined, and no metrics or benchmarks are forwarded by the literature to measure it.

negative distributional consequences (Hibbs, 1987, 1992; Tufte, 1978).

The affinity of left-wing governments and right-wing governments for certain sets of policy prescriptions reflects the interests of the different electoral coalitions from which they derive support, with left-wing governments reflecting the interests of labor and right-wing governments the interests of capital. This association is reflected in a variety of spheres of economic policy. Milner and Judkins (2004) and Dutt and Mitra (2005), for example, employ the Heckscher-Ohlin model of trade to derive the hypothesis that openness to trade increases the returns to labor in labor-rich countries and decreases it in capital-rich countries. They find that in accordance with these distributional consequences left-wing governments, as protectors of labor, espouse or adopt more open trade policies in developing countries, while they are instead more protectionist in the developed world. Further, Pinto (2013) argues that left-wing governments are more open to, and more successful at wooing, foreign direct investment flows due to their favorable impact on labor in product and factor markets. Finally, Quinn and Inclan (1997) consider the distributional consequences of openness to capital flows by examining its impact on factor markets as well as on macroeconomic policy. They find that left-wing governments, save for those with countries with a high degree of skilled labor, tend to maintain financial closure for longer than right-wing governments. Partisanship further informs decisions over targeted policies by impacting the kinds of industries governments are likely to protect. Pinto and Pinto (2008), for example, argue that left-wing governments promote IFDI in industries where it complements labor and increases wages and that right-wing governments instead promote IFDI in industries where it compliments capital.

The role of partisanship with regards to bailouts is that left-wing governments will be most willing to provide assistance to firms that, if they were to go bankrupt, would cause the most harm to labor through increases in unemployment and decreases in wages. Left-wing governments will therefore be more likely to provide bailouts to firms located in employee-rich industries as the failure of any given firm in such an industry is likely to have a large impact on unemployment and may drive down wages. Further, as the threat of counterparty contagion implies that the failure of one large firm in an employee-rich industry may cause other, similar firms in the same industry to also fail, left-wing governments have a further incentive to avoid a domino effect that could cause

widespread damage to the labor market.

Hypothesis 1. *Left-wing governments will be more likely to authorize bailouts in employee-rich sectors than in employee-poor sectors, ceteris paribus.*

Right-wing governments, on the other hand, will be most interested in protecting firms and industries that are vital to the interests of capital, their core group of support. Thus rather than focussing on labor market impacts, these governments are likely to be concerned with how the failure of a firm will hurt investors. I therefore hypothesize that right-wing governments should be particularly concerned with providing assistance to firms operating in industries that are highly capital-intensive, as the failure of these firms is likely to destroy large amounts of investors' wealth given their liquidation directly and through the impact of counterparty contagion on other, similarly capital-intensive firms operating in the same industry.

Hypothesis 2. *Right-wing governments will be more likely to authorize bailouts in capital-intensive sectors than in sectors that are not capital-intensive, ceteris paribus.*

3.3 Alternative Explanations

3.3.1 Globalization

An alternative explanation of the provision of bailouts is that varying levels and forms of global economic integration make them more or less likely. A number of authors have argued that the high economic volatility associated with increased economic openness can lead to increased government spending to insulate citizens from risk (Cameron, 1978; Katzenstein, 1985; Rodrik, 1998) while others claim that the increased global mobility of capital allowed by economic openness saps the ability of governments to maintain the tax revenues necessary to finance spending (Strange, 1996; Rodrik, 1997; Korpi and Palme, 2003; Allan and Scruggs, 2004). Tanzi (2011) dubs these two competing explanations the “compensation hypothesis” and the “efficiency hypothesis.” The empirical results, however, are so far mixed.¹⁵ Regardless of the net effect of globalization, it certainly increases the degree to which domestic economies are exposed to global shocks, creating

¹⁵See Ha (2008) for an overview.

the potential for much higher degrees of short-term domestic economic dislocation. I consider in turn how financial integration, free trade, and flows of foreign direct investment, all elements of globalization, may make bailouts more or less likely.

In so far as global financial integration increases the likelihood of large-scale financial crises, it increases the number of bailouts that countries are likely to authorize. Though a heated debate exists over the aggregate, long-term costs and benefits of global financial integration, most authors agree that eliminating capital controls and allowing for the free flow of hot money across borders decreases the stability of domestic financial markets and increases the frequency and intensity of financial crises (Demirgüç-Kunt and Detragiache, 1998; Frieden, 2006; Reinhart and Rogoff, 2009). Thus opening up the economy to global flows of capital may lead to a higher frequency of banking failures, in turn increasing the number of opportunities governments have to bail out domestic firms. In so far as financial crises exacerbate or even cause broader recessions, they are still likely to increase the number of firms that are in distress at a given point in time, potentially increasing the number of bailouts that occur on average across sectors.

Hypothesis 3. *Increased financial openness increases the frequency of bailouts ceteris paribus.*

Trade flows may also impact the frequency of bailouts by generating public pressure for new forms of compensatory support given the decline in the use of tariffs. Increases in trade penetration cause the least productive firms in a given sector to contract and often exit (Olley and Pakes, 1996; Roberts and Tybout, 1996; Aw, Chung and Roberts, 2000; Pavcnik, 2002; Melitz, 2003). Those who are impacted by the newfound insecurity brought upon by these forces have strong incentives to lobby for social protection (Rodrik, 1998). Indeed, sectors characterized by high or increasing levels of import penetration tend to have higher barriers to trade put in place (Rodrik, 1995; Gawande and Krishna, 2003). However, the lowering of tariffs brought upon by successive rounds of global trade negotiations has in some cases led to the use of alternative forms of protection. For example, states have often opted to provide non-tariff barriers (NTBs) (Mansfield and Busch, 1995) and increased subsidies to industries formerly shielded from international competition by explicit tariffs as an alternative form of protection (Blais, 1986; Zahariadis, 1995, 1997; Cao, Prakash and

Ward, 2007). In so far as bailouts can be considered narrowly focussed subsidies,¹⁶ it is likely that they will be employed to protect sectors from foreign competition as a substitute for more explicit barriers in the same manner.

Hypothesis 4. *Sectors that are subject to greater degrees of import penetration experience more bailouts, ceteris paribus.*

While financial integration and openness to trade flows are hypothesized as increasing the probability of bailouts, inflows of foreign direct investment may instead lower it by serving as a substitute to liquidation. Foreign direct investment comes in two forms: greenfield FDI, where a foreign firm establishes a new business entity that acts as its subsidiary in a host country, or brownfield FDI, where a foreign firm acquires or merges with an extant domestic firm in the country (UNCTAD, 2000). As acquisition can act as substitute to bankruptcy (Pastena and Ruland, 1986), brownfield FDI can be a means of saving a domestic firm from liquidation. This substitution effect between failure and foreign acquisition has often been seen during financial crises where foreign firms acquire large numbers of ailing firms in the crisis-stricken host country due to the foreign firms' superior cash position. Sectors that are subject to greater inflows of FDI may therefore see fewer bailouts as the portion of the IFDI that is brownfield may be used to save firms from bankruptcy, obviating the need for government intervention (UNCTAD, 2000; Zhan and Ozawa, 2000).

Hypothesis 5. *Sectors that receive more IFDI experience fewer bailouts, ceteris paribus.*

3.3.2 Alternative Forms of Protection

Bailouts may also be less necessary when industries receive alternative forms of protection. If, for example, employees in ailing firms have access to a robust safety net in the case of job loss, they may be less concerned about the fate of their employer, and therefore may be less strident in pushing for a bailout. Similarly, firms operating in sectors that receive high levels of subsidies may never face the threat of bankruptcy as their losses are underwritten by the state. Bailouts might

¹⁶See the discussion in section 2.

therefore be considered a substitute for alternative forms of protection in so far as the absence of these programs makes the costs associated with bankruptcy greater, or makes bankruptcy more likely in the first place. In this section I consider in turn the impact of these two alternative forms of protection, social protection and subsidization, on the likelihood of bailouts occurring.

An alternative explanatory factor of the incidence of bailouts is the extent to which individuals face labor market risks, including unemployment and lost income (Cusack, Iversen and Rehm, 2006), given the failure of their employer. Varying levels of social protection, including programs such as state-guaranteed health benefits and old age insurance, can insulate employees from these risks (Iversen and Cusack, 2000; Estevez-Abe, Iversen and Soskice, 2001), potentially limiting demands for a bailout. As different elements of social protection mitigate different sources of economic risk (Estevez-Abe, Iversen and Soskice, 2001; Burgoon, 2001), I opt to consider the implications of one relevant form of social protection: the generosity of unemployment protection.

I hypothesize that countries with more generous payments to unemployed individuals will be less likely to see bailouts.¹⁷ Unemployment protection refers to protection from income reduction caused by unemployment. I opt not to consider other labor market policies including employment protection, which institutionalizes employment security, and wage protection, which protects wage levels from market fluctuations (Estevez-Abe, Iversen and Soskice, 2001). As employment and wage protection mitigate risks associated with fluctuations in the market that might slacken demand for labor, causing businesses to lay off some employees or to lower wages, it's unlikely that they have an impact on the livelihood of workers when their employer fails. Unemployment protection, on the other hand, directly supports individuals who lose their jobs through income replacement. Thus in its absence, individuals are more likely to demand measures by the government that keep their employer operating, including bailouts. The absence of the other protections do not have the same impact.

Hypothesis 6. *More generous unemployment protection reduces the likelihood of bailouts ceteris*

¹⁷Though these individuals might instead lobby for unemployment protection to be shored up, such a policy change is likely to face widespread political opposition due to the complexity of such a reform and the broad costs associated with it, including a higher tax burden and increased labor costs. Further, employees of ailing firms operating in countries with weak unemployment protection are likely to find it easier to act collectively in support of the specific benefit of a bailout for their firm, while they might find it more difficult to agitate for the broader benefit of social protection reform that might only come in to effect after the liquidation of their employer.

paribus.

The second alternative form of protection I consider is industrial subsidization; however, its impact is theoretically ambiguous. As industrial subsidies protect politically sensitive sectors from financial distress by providing them with a constant flow of financing, they might lower the probability that recipient firms in the sector require bailouts at all by maintaining their bottom line regardless of their performance. From this perspective, subsidies may operate as a substitute for bailouts in so far as their presence lowers the number of firms in a sector that approach failure and subsequently demand bailouts. Conversely, subsidies may be complementary to bailouts for two reasons: first, the extant literature on the determinants of subsidies highlights a number of the factors identified here as being causes of bailouts, including left-wing governance (Blais, 1986; Cao, Prakash and Ward, 2007) and globalization (Zahariadis, 1995, 1997; Cao, Prakash and Ward, 2007). Second, as discussed in section 2, bailouts are essentially narrowly targeted subsidies with a specific aim. It is therefore possible that the political factors hypothesized as causing bailouts instead are causes of industrial subsidization, of which bailouts are but one form. I therefore present two opposite hypotheses regarding the impact of subsidies on bailouts:

Hypothesis 7.

- *Industrial subsidies increase the likelihood of bailouts, ceteris paribus.*
- *Industrial subsidies decrease the likelihood of bailouts, ceteris paribus.*

4 Research Design

In order to examine the political causes of corporate bailouts, I construct a new dataset comprised of annual bailout counts at the country-sector level for EEA member states between the years of 1999 and 2011. By combining this new dataset with a variety of country and sector level political and economic variables, I am able to estimate a series of negative binomial models using country-sector-year bailout counts as the dependent variable.

The collection of this data is possible due to strict reporting rules on the distribution of state aid, a subset of which is analogous to bailout aid, by EEA members. State aid is considered to

be “any transfer of state resource that conveys an economic advantage on selected firms, and affects trade between [EEA] Member States and distorts competition, or has the potential to do so” (Office of Fair Trading, 2005)[p. 9]. As a result of the passage of EU Procedural Regulation 659/1999, EU member states “accepted their obligation not to grant state aid without prior [European Commission] consent and acknowledged the Commission’s competence to order recovery of illegal aid” (Blauberger, 2009)[p. 721]. Responsibility for the execution of the ruling for non-EU EEA states was given to the European Free Trade Area Surveillance Authority as part of the EEA Agreement. Under both the Treaty on the Functioning of the EU (TFEU) (European Commission, 2012) and the EEA Agreement (European Commission, 1994), state aid is generally prohibited in order to prevent distortions to competition and to intra-EEA trade.¹⁸ As numerous exceptions¹⁹ to the prohibition exist, however, all EEA member states must report any administered state aid valued above a minimum threshold²⁰ to the relevant authorities and the authorities’ decisions over the legality of the aid measures are publicly reported. Both the EU Commission and the EFTA Surveillance Authority provide online access to registers of all state aid decisions.²¹

I collect data on three categories of state aid, two of which, rescue aid and restructuring aid, have been identified as being analogous to bailout aid (Chindooroy, Muller and Notaro, 2007; Głowicka, 2008; Schweiger, 2011). These two forms of aid are given to firms that face bankruptcy or must restructure in order to remain viable. While the two forms of aid are conceptually different, they are generally part of the same process; rescue aid is given to a firm in difficulty²² in order to keep it operating until a restructuring or liquidation plan can be put in place, while restructuring aid is

¹⁸Article 107 (1) of the TFEU prohibits any state aid that “distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods.” See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:12008E107:EN:NOT>. The same prohibition is listed as Article 61 (1) of the EEA Agreement. See <http://www.efta.int/eea/eea-agreement.aspx>.

¹⁹See Articles 107 (2) and (3) of the TFEU and Articles 61 (2) and (3) of the EEA Agreement.

²⁰The threshold is €100,000 of aid to any firm over a three-year period (Office of Fair Trading, 2004).

²¹The EU Commissions reports all decisions in the *Official Journal of the European Union* and records them in a database located at http://ec.europa.eu/competition/state_aid/register/. The EFTA Surveillance Authority reports its own state aid decisions in a separate register located at <http://www.eftasurv.int/state-aid/state-aid-register/>.

²²According to the European Commission’s *Community Guidelines on State Aid for Rescue and Restructuring Firms in Difficulty*, a firm is considered to be in difficulty “where it is unable, whether through its own resources or with the funds it is able to obtain from its owner/shareholders or creditors, to stem losses which, without outside intervention by the public authorities, will almost certainly condemn it to going out of business in the short or medium term” (European Commission, 2004).

the long-term assistance used to implement a restructuring plan that aims at restoring the viability of a firm's operations (Chindooroy, Muller and Notaro, 2007; Głowicka, 2008).

I also include in my dataset a third category of state aid: the subset of cases that fall under the EEA's temporary rules regarding the financial crisis that have as an explicit goal the prevention of financial institution failure. Beginning in December of 2008, the European Commission and the EFTA Surveillance Authority relaxed certain strictures over the distribution of state aid by way of guarantees and recapitalizations in order to protect systemically relevant financial institutions and broader national economies from the impact of the Great Recession through four sets of Guidelines.²³ These measures are justified using TFEU Article 107 (3) (b) (EEA Agreement Article 61 (3) (b)) that exempts state aid that "remedies a serious disturbance in the national economy of a Member State" from the general prohibition. As this exemption allows for the distribution of state aid to financial institutions with macroeconomic goals in mind, such as ensuring the availability of credit in the domestic economy, I only consider cases that fall under the Guidelines that were implemented in order to protect financial institutions from insolvency.²⁴

4.1 Dependent Variable

In order to construct annual counts of bailouts by country-sector, I first examined all decisions made between January 1, 1999 and December 31, 2012 stored in the EU and EFTA state aid registries and recorded every firm that received aid of any of these three categories between January 1, 1999 and December 31, 2011.²⁵ The EC State Aid Register can be searched for decisions made from 2000 onwards that involve particular justifications, including rescuing and restructuring firms in difficulty and remedying serious disturbances in the economy. For EC decisions made in 1999, and

²³The Guidelines cover the application of state aid rules to measures taken to support financial institutions in the context of the financial crisis; the recapitalization of financial institutions; the limitation of aid to the minimum necessary and safeguards put in place to avoid distortions of competition; the treatment of impaired assets in the EEA banking sector; and the return to viability and the assessment of restructuring measures in the financial sector under the state aid rules (EFTA Surveillance Authority, 2012). The Guidelines are stored by the EC Commission at http://ec.europa.eu/competition/state_aid/legislation/temporary.html and the EFTA Surveillance Authority at <http://www.eftasurv.int/state-aid/legal-framework/state-aid-guidelines/>.

²⁴As many cases are justified on both grounds – shielding the broader economy from damage and preserving the operations of specific banks – I require that avoiding the bankruptcy of a financial institution is at least one of the stated goals of the state aid.

²⁵Decisions are often made after state aid has been distributed.

for all EEA decisions between 1999 and 2012, I instead read through all recorded decisions and recorded every firm that received a bailout.

As rescue and restructuring aid are often given to the same firm, with an injection of rescue aid to avoid immediate dissolution and a later injection of restructuring aid once a viable, long-term plan for the survival of the firm has been drafted, I consider such a process for a given firm to be a single case of a bailout. Receipt of either form of aid independently is also considered to be a single bailout case. Individual firms appear multiple times in the dataset if they experience multiple spells of bailout financing, where a spell is either the receipt of rescue aid followed by restructuring aid, or the receipt of either form independent of the other. Further, I record all cases regardless of the ultimate decision made by the relevant authority over the legality of the state aid. As I am interested in recording all instances of bailouts, whether or not each case is ultimately considered to be in accordance with state aid rules and regulations is irrelevant. I also exclude all decisions on schemes rather than on individual instances of state aid, as decisions over schemes authorize particular member state programs that establish criteria by which firms can be given subsequent aid and do not identify actual cases of bailouts. This process yields 383 cases of individual firms receiving bailouts.

Due to the difficulty in finding firm-level data and the lack of a valid comparison group of ailing firms within the EEA that do not receive bailouts, I opt to aggregate this count of bailed out firms up to the sectoral level in order to construct a measure of bailouts by country-sector-year. This measure is somewhat similar to the coverage ratios that are commonly used in studies of non-tariff barriers to trade which are calculated for a given industry by counting the number of such barriers applied to all traded goods within an industry, and then dividing this value by the total number of tradable goods (Nogués, Olechowski and Winters, 1986). The EC State Aid Register reports the sector of operation of firms using the NACE Rev. 2 coding scheme at the section level (Eurostat, 2008), the highest level of aggregation that is equivalent to the 1-digit level in other industrial classification schemes such as NAICS or ISIC. I code the sector of bailed out firms found using the EFTA State Aid Register by locating the NACE section that best matches the description of the firm's operations in each decision. The distributions of bailouts by sector and year are shown in

Figure 3 and by country, sector, and year in Figures 1 and 2. The underlying values are reported as Tables 5, 6 and 7 in Appendix A.

Bailouts are clustered largely within particular industries, countries, and years. While manufacturing (NACE Rev. 2 section C), financial and insurance activities (K), and transporting and storage (H) received 150, 135, and 46 bailouts respectively over the 13 years that the panel spans, most other sectors saw less than 10. Further, while Germany and Poland saw 60 and 63 bailouts respectively, and Italy, Spain, Iceland, and France 45, 30, 28, and 27, most other countries saw between 0 and 15 bailouts. Finally, 2008 and 2009 saw 74 and 70 bailouts, while 1999 through 2003 saw at most 15 per year, implying that bailouts are largely countercyclical. This countercyclical dynamic is largely confined to finance, however, as is shown by the large spike in bailouts in panel K of Figure 3 during the Great Recession.

One assumption employed in this approach is that governments undertaking bailouts do so with the express aim of assisting particular firms. It is possible, however, that governments might elect to authorize bailouts in order to curry favor with the recipient groups with the knowledge that the EU Commission or the EFTA Surveillance Authority will decide that the bailouts are in contravention with state aid rules and demand that the government recover the provided assistance. This would allow officials to take credit in the short term for saving a firm, while allowing them to blame the relevant international authority when they are eventually forced to abandon the bailout in the future. Fortunately, the state aid decisions made by both the EU Commission and the EFTA Surveillance Authority report whether or not the aid is deemed to be compatible with the relevant regulations, or whether the aid is illegal and recovery is required. To control for the possibility that governments give bailouts with the knowledge that they will be blocked by the EU Commission or the EFTA Surveillance Authority, models are estimated using an alternative version of the dependent variable that excludes the 62 cases (16%) of state aid in the dataset that are deemed to be incompatible with state aid laws as a robustness check.

4.2 Independent Variables

In order to test the hypotheses outline in Section 3.2, data at the country-year and country-sector-year level is combined with the dependent variable. Summary statistics for country-level variables are shown in Table 1 and for country-sector-level variables in Table 2.

Table 1: Summary Statistics by Country

Variable	Mean	Std. Dev.	Min.	Max.	N
Bailouts	1.19	2.32	0	16	322
Left	0.36	0.48	0	1	288
Right	0.42	0.49	0	1	288
Ideology	2.98	0.9	2	4	187
Financial Integration	12.9	38.59	1.02	243.8	193
Unemployment Growth (%)	0.04	0.24	-0.33	1.51	303
Polcon III	0.47	0.12	0.13	0.72	301
GDP Growth (%)	2.24	3.81	-17.95	12.23	320

Table 2: Summary Statistics by Sector

Variable	Mean	Std. Dev.	Min.	Max.	N
Bailouts	0.06	0.49	0	16	6118
Capital Stock Share (%)	5.99	10.82	0.04	57.12	2680
Employee Share (%)	5.93	5.19	0.07	27.54	3737
Import Penetration (%)	3.86	14.72	0	98.16	5277
Net IFDI/Sector Output (%)	79.08	687.80	0	14923.03	1786
Subsidies/Sector Output (%)	1.25	5.04	0	51.93	3003

To test the impact of partisanship on bailouts, I use two measures. First, I construct a measure of the partisan orientation of the party in power using the Database of Political Institutions (DPI) (Beck et al., 2001). Following common practice,²⁶ I use the the *EXECRLC* variable, which measures the partisanship of the executive, for countries with directly-elected or assembly-elected Presidents, and the *GOVIRLC* variable, which measures the partisanship of the largest government party, for purely Parliamentary countries to construct two dummy variables, *Left* and *Right*, that are equal to 1 if the relevant part of the government is of left or right partisan orientation. I also employ Potrafke's (2009) index of the ideological orientation of governing cabinets as an alternative

²⁶See, for example, Dutt and Mitra (2005), Pinto and Pinto (2008), Gourevitch, Pinto and Weymouth (2010), and Pinto (2013).

measure, *Ideology*. The variable ranges from 1 to 5, with increasing values indicating a more left-wing orientation. While numerous other measures of partisanship exist, both variables have the advantage of measuring changes in partisanship within countries over time, eliminating the potential problem that what is considered to be a left-wing party in one national context might not in another. Further, both measures are available for recent years, with the DPI data ending in 2011, and the Potrafke data in 2009.

In order to examine the interactive effects of partisanship and the nature of particular sectors, I employ two measures from the OECD's *STAN* database (OECD, Various Years^b), *Employee Share* and *Capital Stock Share*. *Employee Share*, used as a measure of the labor intensity of a sector, is calculated as the number of employees in the sector divided by the total number of employees in the economy. The resulting value is multiplied by 100 to express it in percentage terms. *Capital Stock Share*, used as a measure of the relative capital intensity of a sector, is measured as the net capital stock²⁷ in a given sector divided by the total net capital stock in the economy. Again, the value is multiplied by 100 to express it in percentage terms. As left-wing governments are hypothesized as placing more weight on the health of relatively employee-rich sectors, and right-wing governments are hypothesized as placing more weight on preventing failure in relatively capital-rich sectors, two interaction terms, *Left X Employee Share* and *Right X Capital Stock Share*, are constructed as the product of the two sets of partisanship dummies and sectoral measures. I further construct *Ideology X Employee Share* and *Ideology X Capital Stock Share* to use the alternative measure of partisanship.

To examine the impact of the three facets of globalization that might impact bailouts, including flows of trade, capital, and FDI, I employ de facto rather than de jure measures. De jure measures, or explicit barriers such as tariffs, capital controls, and regulatory barriers to IFDI, may be of little meaning if in their absence the country or sector that they are designed to protect isn't actually subject to sizable factor flows.²⁸ To measure the de facto impact of trade flows at the sectoral level, I use *Import Penetration* from the OECD's *STAN* database (OECD, Various Years^b). The

²⁷Net capital stock is the value of all assets in a sector to their owners where valuation reflects market prices for new and used assets.

²⁸See Trefer (1993), Kose et al. (2009), and Pinto (2013) for this discussion as it relates to trade, financial globalization, and FDI respectively.

variable shows imports as a percentage of total domestic demand, and is calculated as $100 \times \frac{IM_i}{(PROD_i - XM_i + IM_i)}$, where XM and IM are imports and exports, $PROD$ is production, and the subscript i indicates the sector.

I use Lane and Milesi-Ferretti's (2007) *External Wealth of Nations* database to construct a de facto measure of financial openness. Following the recommendations of Kose et al. (2009), *Financial Integration* is constructed as the sum of gross stocks of foreign assets and liabilities as a ratio of GDP. Unfortunately this dataset only extends to 2007 is only available at the country-year, and not sectoral, level, so its coverage is limited.

Effective FDI inflows are measured as net flows of FDI for a given sector²⁹ over sectoral GDP. The FDI data come from the OECD's *International Direct Investment Statistics* (OECD, Various Yearsa), and the sectoral production data from the OECD's *STAN* dataset (OECD, Various Yearsb). Unfortunately the FDI data are measured using the NACE Revision 1 format, meaning that a number of sectors that are not equivalent between NACE Revisions 1 and 2 could not be employed.³⁰

In order to test the relationship between social protection and bailouts, I employ two sets of variables, one that measures the generosity of unemployment benefits, and another that measures the extent of industrial subsidization. In order to measure the robustness of the national safety net in the case of job loss, I use *Unemployment Compensation* from the OECD's Social Expenditures Database (SOCX) (Adema, Fron and Ladaique, 2011). The variable is constructed as the sum of public and mandatory private social expenditures compensating individuals for unemployment, including early retirement caused by redundancy or labor market policy, expressed in constant 2000 US dollars per capita. The variable is at the country-year level.

Subsidies/Sector Y, annual subsidies by country-sector-year as a percentage of sectoral production, is used to examine the impact of industrial subsidization. The subsidies values, which come from the European Commission's *State Aid Scoreboard*,³¹ are only available for the manufacturing, transportation, and agricultural sectors. The sectoral production values comes from the OECD's

²⁹Following Pinto (2013), I recode negative values of inflows as 0 as negative values reflect repatriation of capital

³⁰These sectors include NACE Revision 2 sections D, E, J, and M through S.

³¹See http://ec.europa.eu/competition/state_aid/studies_reports/expenditure.html.

STAN database (OECD, Various Years^b).

4.3 Controls

4.3.1 Veto Players

Veto players, or the individual or collective actors who have to agree in order to change the legislative status quo (Tsebelis, 2002)[p. 2], may limit the authorization of bailouts, either by preventing governments from acting on their preference to save particular firms, or by blocking narrow, target firm-specific interests from successfully lobbying for support. As a bailout is a relatively rare event that the government generally must authorize through legislative activity,³² institutional features that make political action more difficult will make bailouts less likely to occur.³³ Higher numbers of veto players, and greater ideological differences between them, prevent policy change and ensure policy stability, therefore making bailouts less likely (Keefer, 2002, 2007). Henisz's (2000) *Polcon III* is employed to measure veto players. The variable is constructed first by counting the number of independent branches of government with veto power in a given country and then by adjusting this value to take in to account partisan misalignment both across and within these branches. Final values range from 0 to 1. Higher values, representing both more and more heterogenous veto points, are expected to increase policy stability and therefore to lower the number of bailouts authorized.

4.3.2 Economic Conditions

The concentration of bailouts during the Great Recession implies that they may be a countercyclical policy. When the economy is contracting, resources employed in a failing firm might have a more difficult time finding new uses given bankruptcy than they would during good times. Further, during extremely sharp downturns, lack of access to credit can make the bankruptcy process particularly painful.³⁴ Prevailing economic conditions are therefore likely to drive bailout decisions. *GDP*

³²Certain exceptions include instances where bailouts are authorized by other parts of the government, such as a central bank.

³³Rosas (2006, 2009) argues that democratic institutions also limit the likelihood and generosity of bailouts. As the sample of countries analyzed here is largely comprised of stable democracies, the time invariant nature of this variable renders it incompatible with a within-country statistical approach.

³⁴As Rattner (2010) describes in his recounting of the decision by the Obama administration to provide GM and Chrysler with bailouts, the frozen credit market at the time made access to the debtor-in-possession financing that

Growth, the annual percentage growth in GDP, from the World Bank’s *World Development Indicators* (*World Development Indicators*, Various Years) is used to measure the underlying national economic climate.

5 Data Analysis

5.1 Estimation Strategy

The structure of the data, annual counts of bailouts by country-sector, poses a number of statistical challenges. First, count outcomes can’t be modeled using ordinary least squares as doing so can lead to inefficient, inconsistent, and biased estimates (Long, 1997). Second, the panel structure of the data implies that special techniques will be required in order to address the dependence of observations within panel identifiers across time, as likelihood-based models assume that constituent observations are independent (Hilbe, 2011). Third, and relatedly, the clustering of years within sectors within countries further exacerbates problems caused by the lack of independence across observations.

In order to address these issue, I estimate two sets of models: a core set of negative binomial models, followed by a set of multilevel Poisson models as a robustness check. As a first core set of models, I estimate unconditional negative binomial models with two-way fixed effects, controlling for country-industry and year. In general, negative binomial models expressly allow for count data while relaxing the limiting assumption of equidispersion employed by Poisson count data estimators by parameterizing overdispersion (Hilbe, 2011).³⁵ While the conditional negative binomial fixed effects proposed by Hausman, Hall and Griliches (1984) approximates a within-unit estimator for panel count data, Allison and Waterman (2002) show that this approach fails to fully account for unit heterogeneity. As an alternative, Allison and Waterman (2002) suggest the unconditional negative binomial fixed effects model which can be estimated as a standard negative binomial model that includes unit dummies. Such a model provides results that can be interpreted in the same

is generally used to keep firms in operation during bankruptcy proceedings extremely difficult. In the absence of government resources to compensate for the lack of debtor-in-possession financing, the firms would likely have ceased operations and been forced to liquidate rather than restructure, creating a particularly costly outcome.

³⁵Overdispersion occurs when the conditional variance of a dataset is greater than the conditional mean.

vein as OLS fixed-effects panel models where the coefficients represent the effects of covariates within units over time. In order to control for contemporaneous shocks across units, I include year fixed-effects in addition to the country-industry (unit) fixed-effects that are essential to the model. In order to partially address the clustered nature of the data, I estimate robust standard errors clustered by country.

The first set of unconditional fixed effects negative binomial models, reported in section 5.2, take the following form:

$$y_{ijt} \sim \text{negative binomial}(\text{mean} = \exp(X_{it}\beta + Z_{jt}\zeta + \lambda_{ij} + \gamma_t + \epsilon_{ijt}), \text{dispersion} = 1 + \alpha \times \exp(\cdot)) \quad (1)$$

In the mean equation, i indexes country, j sector, and t year. y_{ijt} represents the count of bailouts that occur in each country-sector-year. X_{it} represents a matrix of country-year independent variables and β the associated coefficients, while Z_{jt} represents a matrix of country-industry-year independent variables and ζ the associated coefficients. λ_{ij} and γ_t represent matrices of country-industry and year fixed-effects, while ϵ_{ijt} represents the error term. In the dispersion equation, α represents the overdispersion parameter and the \cdot implies that the terms contained within $\exp(\cdot)$ are the same as those found in the specification of the mean. These models therefore show the impact of the independent variable within county-industries over time.

Due to some limitations with this approach, I further estimate a set of multilevel Poisson models as a robustness check that are reported in Appendix B.1. As the negative binomial approach only allows for clustering at one level, it fails to fully account for the multilevel structure of the data, potentially leading to a downward bias in estimated standard errors (Primo, Jacobsmeier and Milyo, 2007). Further, cluster-robust standard errors tend to be biased downwards, especially given few clusters (Cameron, Gelbach and Miller, 2008) and multilevel interaction terms (Leoni, 2009). Therefore as a specification check I also estimate a second set of multilevel Poisson models with random intercepts that vary by country and industry. While these results, reported in Appendix B.1, better address the clustering of the data, the imposition of the equidispersion assumption implied by Poisson models means that they don't address overdispersion in the data as well.

The coefficients in negative binomial models can easily be transformed in to a format that allows

for the interpretation of substantive effects. The incidence rate ratio (IRR), for example, can be calculated for coefficient β associated with variable X as $\exp(\beta \times \delta)$. The result indicates the factor change in the dependent variable given a unit shift of value δ on X . IRR values above one therefore indicate an increase in the number of bailouts associated with a shift in in the dependent variable, while values less than one indicate a decrease. Statistical significance of an IRR requires that it be distinguishable from one rather than zero. Further, the percentage change in the dependent variable associated with the unit shift δ can be subsequently calculated as $100 \times (\text{IRR} - 1)$.

5.2 Unconditional Fixed Effects Negative Binomial Models

The results of the unconditional fixed effects models are shown in Tables 3 and 4. While Table 3 examines the interactive impact of partisanship on bailouts by sector, Table 4 examines the impact of globalization and social protection. I opt to estimate these models separately for two reasons: first, the inconsistency in coverage across countries, sectors, and years of the various independent variables implies that the estimating sample will not be the same between models that use different sets of covariates. Second, as the alternative explanations of bailouts seem not to be borne out in the data when considered independently, there is little virtue in considering them in tandem with the the somewhat stronger predictors of bailouts associated with the partisanship explanation.

Table 3 reports the results of a series of unconditional negative binomial fixed effects models that examine the interactive effect of partisanship and sector-specific characteristics on bailout counts while controlling for political constraints and economic growth. Models 1 and 2 estimate the impact of left-wing governance and employment intensity on bailouts. Model 1 includes *Left* and *Employee Share* independently. As we see, neither left-wing governance nor the share of an economy's employees in a given sector has an impact on bailout counts independently. Moving to Model 2, we see that the interaction between these two variables is positive and statistically significant, suggesting that left-wing government provide more bailouts to sectors with a higher employment share.

Models 3 and 4 examine the impact of right-wing governance and capital stock share. Right-wing governments appear to exert an independent negative impact on bailout counts, perhaps out of an

Table 3: Partisan Preferences Models

	1	2	3	4	5	6
Left	0.23 (0.25)	-0.36 (0.35)				
Left x Employee Share		0.06* (0.02)				
Right			-0.48* (0.22)	0.21 (0.56)		
Right x Capital Stock Share				-0.16 (0.12)		
Ideology					-0.50* (0.18)	-0.29 (0.34)
Ideology x Employee Share					0.04* (0.02)	
Ideology x Capital Stock Share						0.06 (0.04)
Employee Share	0.33 (0.21)	0.28 (0.17)			0.03 (0.25)	
Capital Stock Share			-0.86 (0.60)	-0.80 (0.56)		-1.53* (0.59)
Polcon III	2.39* (1.18)	2.45* (1.22)	5.12* (1.11)	5.61* (1.32)	0.14 (1.40)	2.72 (2.02)
GDP Growth	-0.27* (0.09)	-0.24* (0.09)	-0.33* (0.13)	-0.34* (0.13)	-0.29* (0.13)	-0.47* (0.19)
Constant	-18.38* (1.91)	-19.22* (1.84)	-27.76 (24.97)	-20.32* (1.40)	-14.36* (1.96)	-21.98* (1.71)
ln(α)	-0.68 ⁺ (0.41)	-0.89 (0.60)	0.02 (0.29)	-0.04 (0.35)	-0.26 (0.35)	0.10 (0.30)
Observations	3606	3606	2557	2557	2829	2148
Countries	22	22	15	15	17	12
Prob > χ^2	0.0	0.0	0.0	0.0	0.0	0.0
AIC	827.2	894.0	546.4	543.3	673.0	495.1
Country-Sector F.E	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes

Unconditional fixed effects negative binomial models. Dependent variable is the annual count of bailouts by country-sector. Sector is defined by NACE Revision 2 codes. Robust standard errors, clustered by country, reported in parentheses.

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

ideological predisposition against market intervention. *Capital Stock Share* exerts no independent influence. In Model 4, however, we see that the interaction term is statistically insignificant, disconfirming the hypothesis that right-wing governments seek to protect sectors that possess a high degree of the economy's capital stock.

Models 5 and 6 replicate Models 2 and 4 respectively but use *Ideology* as an alternative measure of partisanship. Remember that higher values on this variable indicate a more left-leaning government. The results are consistent with the prior findings. Given the positive and statistically significant interaction term of *Ideology* and *Employee Share*, it would again appear that by this measure, left-leaning governments provide more bailouts to firms in sectors with a higher employee share. Though the interaction term between ideology and capital stock share is now correctly, positively signed, it remains statistically insignificant.

In terms of controls, *GDP Growth* has a negative and statistically significant coefficient across specifications, implying that bailouts are a countercyclical policy. *Polcon III* also generally has a significant coefficient, though it holds a positive, rather than negative, sign. This appears to contradict the findings of Keefer (2002, 2007) that veto players limit the capacity of special interest to obtain the bailouts they seek.

5.2.1 Substantive Effects

Following Hilbe (2011)[Appendix A], I calculate the incidence rate ratio of the interaction term *Left X Employee Share*, holding *Left* at 1, at the mean value of *Employee Share* (5.9) and at its maximum value (27.5) in the sample, to get a sense of its substantive impact. The IRR moves from a statistically insignificant value of 0.937 (0.36, 1.51)³⁶ to a significant value of 3.70 (2.90, 4.51). The implication is that while there is no statistically significant difference between left and non-left governments in terms of bailout authorizations for industries with average levels of employee shares, at high values, left-wing governments authorize many more bailouts than non-left-wing governments.

The IRR for the interaction term is plotted for all values of *Employee Share* in Figure 4. Notably,

³⁶As previously discussed, an IRR equal to 1 implies that the variable has no impact.

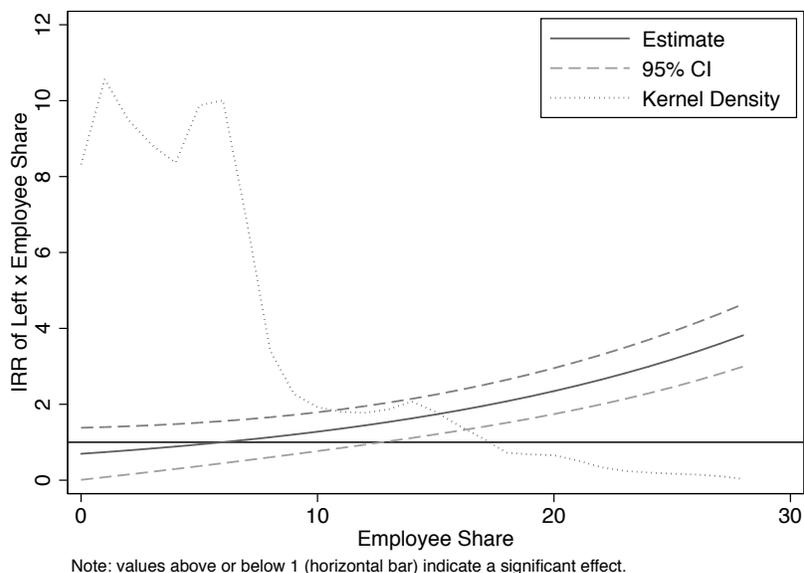


Figure 4: Plot of the IRR of *Left X Employee Share*

the interaction term only becomes significant for values of *Employee Share* above 12, or values in the 87th percentile of its distribution. At this point, the IRR of the interaction term is 1.53 (1.02, 2.04), implying that left-wing governments provide 1.53 times as many bailouts to sectors with 12% of the total employees in the economy as non-left governments do.

The fact that the interaction term is only significant for the upper 13% of the distribution of sectors by employment shares may initially appear to dampen the importance of this finding. However, the average value of *Employee Share* for two sectors, manufacturing (C) and wholesale and retail trade (G) is 15.4 and 16.4 respectively, both of which are above this threshold. As manufacturing receives 150 bailouts across the sample, and wholesale and retail trade receives only 1, we see that this finding implies that the link between left-wing governments and employee share manifests itself as left-wing governments authorizing more bailouts in the manufacturing sector. Further, these 151 bailouts represent 39% of all of the bailouts in the sample, a significant value.

In order to examine whether the interaction term *Right X Capital Stock Share* has substantive significance of some values of the distribution of its constituent terms, I repeat the above exercise, calculating its IRR at the mean and maximum values of *Right*. Unfortunately, the interaction term is insignificant at all values. Thus while we can say that left-wing governments do appear to have

a preference for providing labor-rich sectors with bailouts, we can not say the same for right-wing governments and capital-rich sectors.

Next I examine the impact of the globalization and social protection variables independently and then assess their impact on left-wing governance. The results are shown in table 4. Models 1 through 3 employ the three globalization measures independently due to their varying degrees of missingness. As we see in Model 1, *Import Penetration* has a statistically significant and negative impact on bailouts, implying that sectors that are subject to great foreign competition via trade in fact receive fewer bailouts. This result contradicts the hypothesis that the dislocating effect of trade competition drives bailouts. Similarly, the impact of FDI inflows at the sectoral level appears to be positive and statistically significant, though substantively small. This again contradicts the hypothesis that FDI can act as a substitute to a bailout. Further, model 3 finds that effective financial integration has no significant impact on bailout counts.

Models 4 and 5 employ the two measure of social protection, *Unemployment Compensation* and *Subsidies/Sector Y*. As neither variable appears to have any impact of the provision of bailouts, the theorized links between alternative forms of protection and bailouts do not seem to hold water when faced with the data.

Models 5 and 6 reexamine the previous finding of an interaction between left-wing governance and sectoral employee share while controlling for the two measure of globalization that were found to have some impact, *IM Penetration* and *Net IFDI/Sector Y*. The interaction term remains statistically significant and positive even while controlling for these two variables.

5.3 Robustness Checks

The strength of the interaction between left-wing governance and employee share is corroborated by two means: first, table 8 in Appendix B.1 reports results from identical multilevel Poisson models with random intercepts varying at the country and sector level. While these models better account for the clustered nature of the data, they may not adequately address overdispersion in the data. Regardless, the results again mirror the original ones, with left-wing governments providing more bailouts to sectors with a higher share of employees. Second, Table 10 in Appendix B.2

Table 4: Globalization and Social Protection Models

	1	2	3	4	5	6	7
IM Penetration	-0.17*					-0.11 ⁺	
	(0.08)					(0.07)	
Net IFDI/Sector Y		0.00*					-0.00
		(0.00)					(0.00)
Financial Integration			-0.06				
			(0.26)				
Unemployment Compensation				-0.00			
				(0.00)			
Subsidies/Sector Y					0.00		
					(0.03)		
Left						-0.52	-0.73
						(0.41)	(0.47)
Left x Employee Share						0.05*	0.08*
						(0.02)	(0.03)
Employee Share						-0.07	0.22
						(0.29)	(0.23)
Polcon III	1.80	1.14	-1.56	0.93	0.81	3.24 ⁺	1.65
	(1.30)	(1.12)	(1.62)	(1.41)	(1.32)	(1.78)	(1.43)
GDP Growth	-0.26*	-0.31*	-0.54*	-0.38*	-0.26*	-0.38*	-0.25*
	(0.08)	(0.09)	(0.12)	(0.09)	(0.11)	(0.14)	(0.10)
Constant	-18.18*	-15.93*	-14.65*	-16.30*	-17.27*	-17.11*	-18.42*
	(1.16)	(1.23)	(2.83)	(1.49)	(1.24)	(2.14)	(4.17)
ln(α)	-0.27	-0.53	-13.32	-0.14	-0.47	-0.82	-1.26
	(0.35)	(0.38)	(15.77)	(0.31)	(0.39)	(1.08)	(0.81)
Observations	4962	1786	3591	4047	3003	3188	1573
Countries	28	23	26	21	21	22	22
Prob > χ^2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AIC	923.4	823.8	593.4	954.7	841.3	651.2	676.0
Country-Sector F.E	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Unconditional fixed effects negative binomial models. Dependent variable is the annual count of bailouts by country-sector. Robust standard errors, clustered by country, are reported in parentheses. Two-tailed tests: $p < 0.10$, * $p < 0.05$

reports results from unconditional fixed effects negative binomial models that exclude state aid cases that were deemed to be inconsistent with EEA rules by the relevant legal authority. The results remain virtually unchanged, allowing us to say with some confidence that governments are not simply authorizing bailouts in order to achieve short-term political gains, knowing that they will be invalidated by subsequent legal decisions.

6 Conclusion

In this paper I have argued that corporate bailouts may be driven by partisan preferences, economic dislocation caused by global integration, and by limited social social protection. By using a novel data set of annual counts of bailouts at the sectoral level across the EEA, I have found that the only hypothesized relationship that holds in the data is that left-wing governments provide more bailouts to employee-rich sectors than do non-left-wing governments. The finding is robust to different econometric specifications, alternative measures of partisanship, and the inclusion of measures of global integration and social protection.

Given the widespread controversy of bailouts, both within the US and abroad, they are a topic of much debate in the media and in the popular press.³⁷ As financial crises continue to elicit banking rescues in the Eurozone, public interest in bailouts is unlikely to wane. The findings of this study add a valuable contribution to the public discourse on the causes of bailouts by moving beyond analyses of single bailouts by systematically considering their causes across sectors and, by considering the many cases where bailouts do not occur, avoiding methodological issues associated with selection on the dependent variable. Further, understanding the causes of bailouts speaks to a broader puzzle of the apparently inexorable growth of the role of the government in the economy (Lindert, 2004; Tanzi, 2011).

The findings also show that by focusing largely on the case of finance, the extant literature that explores the determinants and generosity of bailouts completely overlooks the political dynamics that occur in other sectors. While governments across the EEA appear to have universally opted to assist their financial sectors during the Great Recession, we see that over the longer term,

³⁷See, for example, Reich and Donahue (1985), Rattner (2010) and Barofsky (2012).

governments of different partisan stripes have exhibited a much greater degree of variation over their willingness to assist other sectors in the economy. Thus while Keefer (2002, 2007) and Rosas (2006, 2009) claim that institutional features such as elections and veto players impact bailout decisions in the financial sector, their failure to consider the many bailouts that occur across the economy limits their perspective on the matter, and only tells one part of the bailout story.

One lingering question that the results pose is as to why some similar sectors receive vastly different numbers of bailouts. Manufacturing firms, for example, are consistently provided with lifelines, while those operating in the similarly employee-intense wholesale and retail trade sector are not. This disjuncture became very apparent, for example, when Germany decided to bail out Opel, an automaker, but not Arcandor, a retailing and travel group, in 2009. Despite Arcandor's aggressive lobbying of the German government to provide it with state aid and the fact that the Social Democratic Party spoke in favor of protecting the company and its 43,000 employees, Chancellor Merkel refused to provide assistance and the firm entered liquidation.³⁸ Developing a theoretical explanation for this difference in the fact of manufacturing as opposed to retail firms and testing it against the data at hand would be a fruitful avenue for future research.

³⁸See Financial Times, June 9, 2009 and Financial Times, June 10, 2009.

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A Data Description

Table 5 reports the number of bailouts by countries in the dataset, while Table 6 reports bailouts by sector and Table 7 reports bailouts by year.

Table 5: Bailouts by Country

Country	Sector-Years	Bailouts
Austria	247	11
Belgium	247	12
Bulgaria	76	2
Cyprus	152	2
Czech Rep.	152	1
Denmark	247	11
Estonia	152	0
FRG/Germany	247	60
Finland	247	5
France	247	27
Greece	247	20
Hungary	152	6
Iceland	247	28
Ireland	247	14
Italy	247	45
Latvia	152	3
Liechtenstein	247	0
Lithuania	152	2
Luxembourg	247	3
Malta	152	1
Netherlands	247	13
Norway	247	2
Poland	152	63
Portugal	247	1
Romania	76	0
Slovakia	152	2
Slovenia	152	4
Spain	247	30
Sweden	247	1
UK	247	14
Total	6118	383

Table 6: Bailouts by Sector

NACE	Sector	Bailouts
A	Agriculture, forestry, and fishing	13
B	Mining and quarrying	4
C	Manufacturing	150
D	Electricity, gas, steam and air conditioning supply	4
E	Water supply; sewerage; waste management and remediation activities	2
F	Construction	8
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	1
H	Transporting and storage	46
I	Accommodation and food service activities	4
J	Information and communication	9
K	Financial and insurance activities	135
L	Real estate activities	0
M	Professional, scientific and technical activities	2
N	Administrative and support service activities	1
O	Public administration and defence; compulsory social security	0
P	Education	2
Q	Human health and social work activities	0
R	Arts, entertainment and recreation	0
S	Other services activities	2
-	Total	383

B Robustness Checks

B.1 Multilevel Poisson Models

The multilevel Poisson models estimated in table 8 are comprised of three levels, tji : (1) the country-industry-year, (2) the country-industry, and (3) the country. The subscript indexes are reversed in order to indicate the nature of clustering. The models take the following form:

$$y_{tji} \sim \text{Poisson}(\exp(X_{ti}\beta + Z_{tj}\zeta + \phi_{ji}^{(2)} + \phi_i^{(3)} + \gamma_t + \epsilon_{tji})) \quad (2)$$

Again, X_{ti} represents a matrix of country-year independent variables and β the associated coefficients, while Z_{tj} represents a matrix of country-industry-year independent variables and ζ the associated coefficients. $\phi_{ji}^{(2)}$, distributed as $\phi_{ji}^{(2)} \sim N(0, \psi^{(2)})$ and $\phi_i^{(3)}$, distributed as $\phi_i^{(3)} \sim N(0, \psi^{(3)})$ are random intercept that vary at the sector and country levels respectively. γ_t represents a vector of year fixed effects. I opt to include the years as a fixed effect and not as a random intercept due to the small amount of variance expected over only 13 years.

Table 8 reports the results from identical models estimated previously as the negative binomial models shown in Table 3. The results are virtually identical. While the interaction of *Left* and *Employee Share* has a positive and statistically significant impact on bailout counts, the interaction of *Right* and *Capital Stock Share* does not. *Ideology* in conjunction with *Employee Share* has a positive coefficient, though it is now only statistically significant at the $p < 0.10$ level.

Table 9 estimates replicates the models shown in Table 4 as multilevel Poisson models. Unfortunately, the final model of that table could not be replicated as it failed to converge. Regardless, the results are quite consistent between the negative binomial and multilevel Poisson specifications with the exception that *Financial Integration* and *Unemployment Compensation* becoming statistically significant, though the former variable only at the $p < 0.10$ level and the latter having an effect that is not of substantive significance.

Table 7: Bailouts by Year

Year	Bailouts
1999	14
2000	15
2001	10
2002	15
2003	15
2004	18
2005	22
2006	22
2007	26
2008	74
2009	70
2010	43
2011	39
Total	383

B.2 Results Excluding Negative Decisions

Table 10 reports unconditional negative binomial estimates identical to those shown in in Table ?? save for the use of a different dependent variable. Rather than including all cases of state aid by country-sector-year reported by the EU Commission and the EFTA Surveillance Authority, only those cases that are deemed to be in accordance with state aid law are kept. By excluding cases of state aid that is deemed illegal by either authority, the hope is to eliminate the possibility that the results are driven by governments who authorize bailouts in order to gain short-term credit knowing that they will be able to blame international authorities in the future when the aid has to be returned.

Table 8: Partisan Preferences Multilevel Poisson Models

	1	2	3	4	5	6
Left	0.13 (0.28)	-0.79* (0.40)				
Left × Employee Share		0.09*** (0.03)				
Right			0.01 (0.27)	0.40 (0.36)		
Right × Capital Stock Share				-0.07 (0.05)		
Ideology					-0.41 (0.22)	-0.24 (0.21)
Ideology × Employee Share					0.03 (0.02)	
Ideology × Capital Stock Share						0.01 (0.02)
Employee Share	0.22*** (0.04)	0.14** (0.05)	0.22*** (0.04)	0.21*** (0.04)	0.10 (0.09)	0.21*** (0.05)
Capital Stock Share	0.00 (0.03)	0.01 (0.03)	0.00 (0.03)	0.04 (0.04)	0.01 (0.03)	-0.03 (0.07)
Polcon	4.50** (1.56)	4.49** (1.55)	4.14** (1.47)	4.20** (1.48)	2.56 (1.56)	2.50 (1.55)
GDP Growth	-0.25* (0.10)	-0.21* (0.10)	-0.26** (0.10)	-0.27** (0.10)	-0.25* (0.11)	-0.28* (0.11)
Intercept	-8.35*** (1.22)	-7.86*** (1.20)	-8.04*** (1.08)	-8.22*** (1.09)	-5.72*** (1.53)	-6.36*** (1.51)
AIC	569.67	559.58	569.90	569.09	525.83	528.21
BIC	685.26	680.95	685.49	690.46	632.61	634.99
Log Likelihood	-264.84	-258.79	-264.95	-263.54	-243.92	-245.11
Deviance	529.67	517.58	529.90	527.09	487.83	490.21
Observations	2391	2391	2391	2391	2038	2038
Countries	19	19	19	19	19	19
Sectors	14	14	14	14	12	12
Variance: Countries	3.88	3.45	3.89	3.95	3.98	4.36
Variance: Sectors	1.48	1.51	1.45	1.44	1.41	1.40

Multilevel poisson models. Random coefficients vary country and sector. Models include year fixed effects. Dependent variable is the count of bailouts that occur in each country-sector-year. Standard errors are reported in parentheses.

Two-tailed tests: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, $p < 0.1$

Table 9: Globalization and Social Protection Multilevel Poisson Models

	1	2	3	4	5	6
IM Penetration	-0.04*** (0.01)					-0.03** (0.01)
Net IFDI/Sector Y		0.00*** (0.00)				
Financial Integration			-0.24 (0.14)			
Unemployment Compensation				0.00** (0.00)		
Subsidies/Sector Y					-0.01 (0.02)	
Left						-0.51 (0.36)
Left × Employee Share						0.05* (0.02)
Employee Share						0.05 (0.04)
Polcon	1.85* (0.93)	1.39 (0.97)	-0.65 (1.45)	0.26 (0.64)	1.03 (0.92)	3.69** (1.34)
GDP Growth	-0.19*** (0.03)	-0.29*** (0.06)	-0.46*** (0.12)	-0.13*** (0.03)	-0.20** (0.06)	-0.30*** (0.09)
Intercept	-6.78*** (0.91)	-4.22*** (0.93)	-2.84** (0.99)	-2.58*** (0.39)	-5.73*** (0.87)	-6.83*** (1.12)
AIC	952.89	867.30	592.63	1834.36	862.43	658.33
BIC	1070.06	966.08	679.24	1941.55	970.56	785.74
Log Likelihood	-458.45	-415.65	-282.31	-900.18	-413.22	-308.17
Deviance	916.89	831.30	564.63	1800.36	826.43	616.33
Observations	4962	1786	3591	4047	3003	3188
Countries	28	23	26	21	21	22
Sectors	18	9	19	19	16	18
Variance: Countries	2.59	2.94	2.05	0.01	2.37	1.92
Variance: Sectors	6.85	3.33	3.09	0.01	4.51	4.46

Multilevel poisson models. Random coefficients vary country and sector. Models include year fixed effects. Dependent variable is the count of bailouts that occur in each country-sector-year. Standard errors are reported in parentheses.

Two-tailed tests: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, $p < 0.1$

Table 10: Models Excluding Illegal Bailouts

	1	2	3	4	5	6
Left	0.42 (0.29)	-0.13 (0.30)				
Left x Employee Share		0.06* (0.02)				
Right			-0.49 ⁺ (0.25)	-0.19 (0.67)		
Right x Capital Stock Share				-0.07 (0.12)		
Ideology					-0.44* (0.20)	-0.29 (0.33)
Ideology x Employee Share					0.05* (0.02)	
Ideology x Capital Stock Share						0.07 (0.06)
Employee Share	0.47* (0.22)	0.40* (0.18)			0.18 (0.39)	
Capital Stock Share			-0.45 (0.59)	-0.47 (0.58)		-1.53* (0.61)
Polcon III	4.38* (1.72)	4.53* (1.76)	7.33* (2.13)	7.51* (2.29)	1.19 (2.16)	3.93 (2.67)
GDP Growth	-0.36* (0.12)	-0.32* (0.12)	-0.39* (0.11)	-0.39* (0.11)	-0.45* (0.14)	-0.63* (0.14)
Constant	-21.50* (2.16)	-22.54* (2.05)	-20.32* (1.78)	-20.48* (1.99)	-18.22* (3.00)	-35.67 (26.01)
ln(α)	-0.72 (0.47)	-0.90 (0.71)	-0.36 (0.41)	-0.42 (0.53)	-0.35 (0.55)	-0.20 (0.44)
Observations	3263	3263	2224	2224	2524	1853
Countries	22	22	15	15	17	12
Prob > χ^2	0.0	0.0	0.0	0.0	0.0	0.0
AIC	698.2	696.1	476.6	436.1	555.5	387.5
Country-Sector F.E	Yes	Yes	Yes	Yes	Yes	Yes
Year F.E.	Yes	Yes	Yes	Yes	Yes	Yes

Unconditional fixed effects negative binomial models. Dependent variable is the annual count of bailouts deemed to be in accordance with state aid rules by country-sector. Sector is defined by NACE Revision 2 codes. Robust standard errors, clustered by country, reported in parentheses.

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