State aid politics in the European Union: explaining variation in aid disbursement in Western European countries

Marco Schito

16th January 2018

Abstract

Government actions aimed at supporting business are called subsidies (in the context of the World Trade Organisation, WTO) or State aid (in the European Union, EU). Governments disburse aid to encourage economic activity in a region, slow the rate of decline of an industry, maintain the incomes of producers, correct market failures, or enhance employment (OECD, 2001). Not all governments, though, support business to the same extent or in the same manner. Why do some Member States grant more State aid than others? Looking at State aid through the lens of distributive policy-making, the projects investigates the politics of State aid, that is, how distributive measures such as State aid come to be. It looks into the attainment of the political preferences of governments, electoral pragmatism, and the dwindling freedom in macroeconomic policy-making that Member States have in face of increased Europeanisation, as suggested by Hofmann (2016). To do so, it builds a model of distributive politics based on the policy-making process developed by Persson and Tabellini (2003). Regression analysis is employed to look at the role that a government's policy preferences, as well as the country's political and electoral institutions, and the influence of the EU all have on aid disbursement. It finds that the policy preferences are conditional on some political institutions of the country, and that different electoral rules give different incentives to pursue distributive measures. It also finds support for the hypothesis that the EU plays a constraining role in distributive politics. The concluding remarks suggest further avenues of research for the project.

1 Introduction

Government actions aimed at supporting business are called subsidies (in the context of the World Trade Organisation, WTO) or State aid (in the European Union, EU). Governments disburse aid to encourage economic activity in a region, slow the rate of decline of an industry, maintain the incomes of producers, correct market failures, or enhance employment (OECD, 2001: 7). Not all governments, though, support business to the same extent or in the same manner. For instance, Germany consistently gives more aid than the UK (in %GDP). Likewise, Spain focuses on aid to specific sectors, while Austria stresses horizontal aid, which has a nationwide scope. The project investigates variation in the disbursement of State aid among EU Member States between 1992 and 2011. The key research question it seeks to answer is, why do some Member States grant more State aid than others?

In the EU, State aid disbursements are controlled in order to ensure fair competition within the Single Market. The European Commission must be notified of and approve all aid that governments grant to business (Cini & McGowan, 2008). As Hofmann (2016: 3-4) points out, there exist political and economic motivations for giving aid, which he identifies with the attainment of the political preferences of governments, electoral pragmatism, and the dwindling freedom in macroeconomic policy-making that Member States have in face of increased Europeanisation. State aid, when allowed, is one of the few economic tools Member States can employ to steer national economic development. Likewise, Chari (2016) finds that some Member States like Germany and Portugal always give more than the European average, while others, like the UK and the Netherlands always give less. Both scholars thus clue in to structural reasons that cannot be explained by the economic environment. Answering the research question through the lens of domestic politics will serve the aim of providing an empirical account with which to test these claims. How, then, to approach the issue of State aid disbursement?

My starting point is in line with the analyses of Aydin (2007a) and Franchino and Mainenti (2013), both of whom see State aid as a distributive policy, which allows for the concentration of benefits and the diffusion of costs. By looking at domestic politics and institutions to explain aid disbursement, the present article sets out three aims. Firstly, it aims to give a comprehensive account of the *politics* of State aid – that is, how policies of distributive nature come to be. Secondly, it looks at how policy preferences have an impact on policy output. It shows how the ex-ante objectives of the parties are affected by institutional constraints, such as the presence of coalition parties, and how different electoral rules offer different kinds of incentives to enact distributive policies (Grossman and Helpman 2005; see also Lancaster, 1986 and Persson & Tabellini, 2003). Finally, it aims to show how domestic politics do not take place within a closed national environment, and that the EU actively affects how aid is disbursed. This, however, needs not apply to State

aid and the EU alone: in a world of growing interdependence, governments find themselves increasingly responsible towards international commitments of various nature (Rose, 2014). All these three aims together seek to test Hoffman's claims about the motivations for giving aid. This project, therefore, contributes to two strands of literature. First, a careful understanding of the politics of State aid contributes to broader literatures on political and electoral institutions and their effect on policy output (Persson & Tabellini, 2000; Tsebelis, 2002). Secondly, the focus on the EU can unearth important relationships between the national and supranational levels of governance, which increase our understanding of European integration and of the impact of Europeanisation of domestic policy-making (Featherstone & Radaelli, 2003; Smith, 1996).

The article is structured as follows. Section 2 focuses on the dependent variable, State aid, and its conceptualisation. Section 3 outlines the theory of democratic policy-making, following Persson and Tabellini (2003), and modifies it accordingly to show the mechanisms whereby domestic institutions and politics affect aid disbursement. Following on this theoretical background I develop testable hypotheses. Section 4 is concerned with the operationalisation of the variables, while Section 5 carries out the statistical analysis and discusses the findings. Finally, the Conclusion offers some implications for future research and for the PhD project in particular.

2 State aid as a distributive policy

A distributive policy, according to Lowi (1964: 690), is characterised by the fact that it can be disaggregated and "dispensed unit by small unit", so that the costs to support few aid recipients are dispersed among many taxpayers. Weingast, Shepsle and Johnsen (1981: 643) echo Lowi by defining distributive policies as "those project, programs [*sic*], and grants that concentrate the benefits in geographically specific constituencies, while spreading their costs across all constituencies through generalized [*sic*] taxation." Governments, thus, support business by offering fiscal and financial incentives such as direct grants, tax deferrals or soft loans (Aydin, 2007a). According to the Commission, State aid refers to "an advantage in any form whatsoever conferred on a selective basis to undertakings by national public authorities" (Damro & Guay, 2016: 74). To qualify as State aid, such a measure needs to satisfy four criteria: cost to public resources, economic advantage, selectivity, and effect on competition and trade (Buigues & Sekkat, 2011: 11). One such case was the recent Irish aid to Apple, which involved tax breaks that the EU estimated to have amounted to €13bn over the years (see European Commission, 2016). This *selective* aid gave Apple an *economic* advantage over its *competitors* by allowing it to use the unpaid *levies* to fund R&D. Therefore, State aid nicely fits with the definition of distributive policy, as it resembles "a state-funded measure that provides a selective financial

benefit to social groups that are geographically concentrated and easy to identify" with taxpayers footing the bill (Franchino & Mainenti, 2013: 502).

The Apple example, moreover, shows why conceptualising State aid as a distributive measure rather than a trade policy tool (as is the case for the broader literature on subsidies within the context of the WTO, see Grossman & Helpman, 2005 and Rickard, 2012) might be more fruitful. State aid is not only a tool governments use to protect domestic producers from international competitors, like tariffs. Rather, it has a multi-faceted nature: as the OECD report above shows, it can be employed to attract business, stem unemployment, develop particular regions, and so forth (see also Besley & Seabright, 1999: 21-5). Regardless of the goal it is meant to achieve, looking at State aid from the angle of distributive politics goes to the source of the issue and is able to tackle a wider range of motivations for giving aid.

State aid in the EU is divided into aid to agriculture, to fisheries, horizontal aid, sectoral aid, and transport aid. Aid is horizontal when it is equally applicable to all undertakings; or sectoral when the measures target specific firms or industries (Buigues & Sekkat, 2011: 11). Horizontal and sectoral aid together are often referred to as "Aid to industry and services". The focus in the present article is on aid to industry and services as a whole, although I aim to disaggregate these indicators in the future in order to reveal "the wrinkles that may lie underneath" (Zahariadis, 2008b: 118). The variation to be explained, therefore, is the different levels of aid disbursed by the Member States. Figure 1 below shows variation in aid disbursement (as %GDP) by country in the EU15 between 1992 and 2011. Why do some Member States of the EU register higher levels of State aid than others?

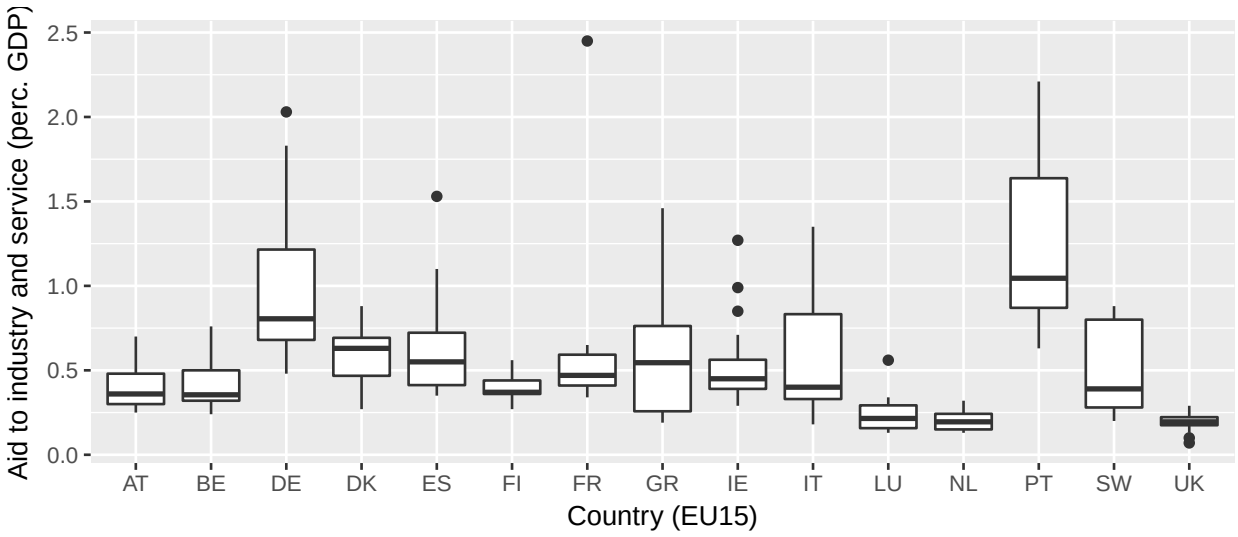

Figure 1: State aid disbursement in the EU15 (perc. GDP), 1992-2011

3 Theories of policy-making and distributive politics

3.1 The democratic policy-making process

Distributive measures, like most other policies, are political decisions. As Hofmann (2016: 3) writes, governments give aid because they are concerned about attaining certain policy goals. State aid can incentivise businesses to act in a way they would not have done without the subsidy. This is a distributive policy insofar as it is a state-funded measure that provides incentives to a small subset of firms in order to achieve a goal that reflects the policy preferences of the government. At the same time, government preferences are an expression of the input of the political system – voters and interest groups. Policy decisions thus reflect societal demands, which are a necessary analytical prior to politics (Moravcsik, 1997). Grossman and Helpman (2005) distinguish between the ex-ante objectives of the parties, and the ex-post objectives of the elected legislators. The ex-ante objectives are influenced by societal demands, from which the ex-post objectives can deviate, depending on the institutional constraints elected officials face.

This process is neatly summarised by Persson and Tabellini (2003: 3), and reported in Figure 2 below. Starting from the top of the left box and going clock-wise, economic outcomes spur societal demands to be directed at the political actors. These demands are aggregated in the policy preferences of the parties and the incumbents (the ex-ante objectives on which politicians campaign). During the policy-making process, the elected legislators encounter institutional constraints that affect the distribution of economic resources among the electorate. The question they face is, "how can subsidies be best allocated in order to attain our policy goals?" There exist a variety of institutions that affect the outcomes: electoral institutions, which is one of the constitutional rules Persson and Tabellini (2003) identify, are one kind. But political outcomes such as the presence of coalition or minority governments, vertical and/or horizontal separation of power (federalism and bicameralism), term limits, and their interaction with the policy preferences of the elected legislators all have an impact on how policy preferences are translated into decisions. Thus, the decision to subsidise firms to attain specific goals might encounter political and institutional constraints which can result in a lower sum being allocated to the firms – or even in no possibility to transfer resources at all. Finally, the policy decisions feed into the markets, creating new economic outcomes.

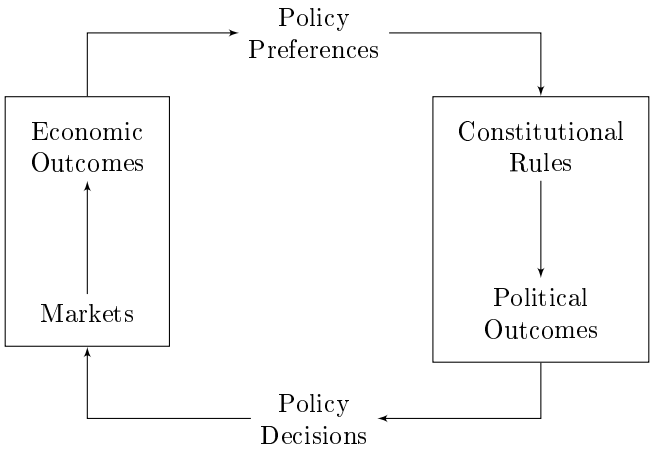

Figure 2: The democratic policy-making process (Persson and Tabellini, 2003)

3.2 A model of distributive politics for State aid: some testable hypotheses

How can this standard model of policy-making be applied to distributive politics? The model in Figure 3 below helps to understand the politics of state support to business.

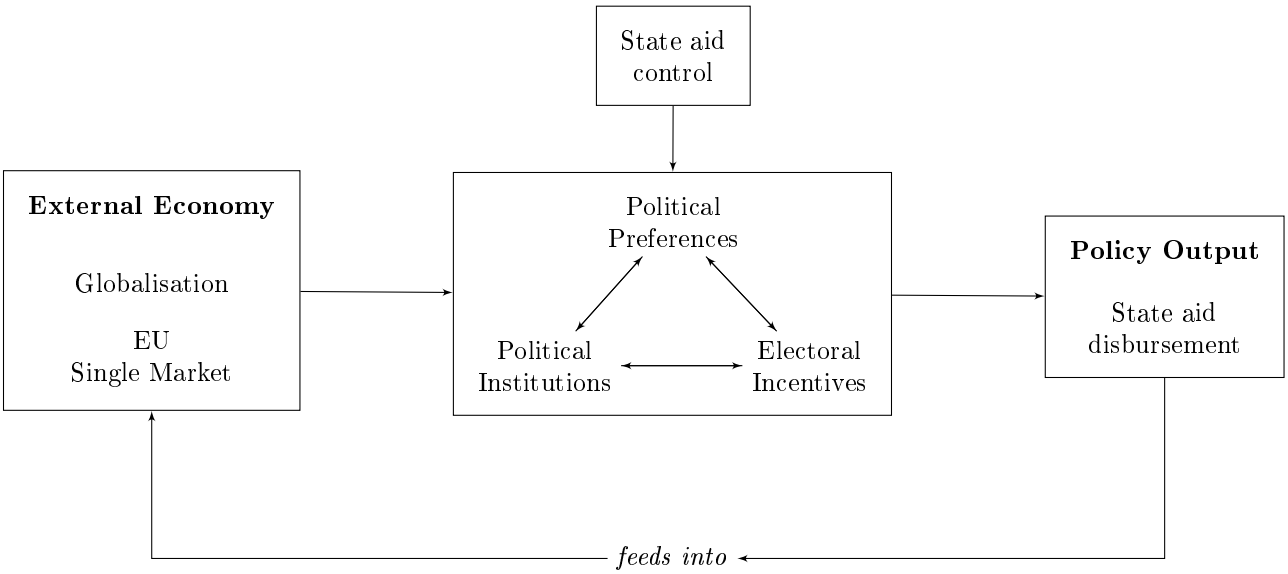

Figure 3: A model of of distributive politcs: State aid in the European Union

Like in Persson and Tabellini (2003), the leftmost box shows that the economic outcomes of the external economy affect societal demands, and therefore the political preferences of the governments. While some studies on trade and distributive policy are explicit in the underlying process by which domestic groups lobby and influence governments (see for instance Ehrlich, 2007; Zahariadis, 2002, 2008b), this project understand

this mechanism to be implicit. In other words, the political preferences of the governments are already assumed to be influenced by societal demands. This choice is motivated by three factors. First is analytical simplicity. When talking about trade policy it is easy to identify those domestic groups who want to ask for protection. This is less so in the case for distributive policies. Which groups are influencing the government? How? And what are their goals? These are not questions that have simple answers. Indeed, and secondly, there is no clear-cut indicator for the influence of domestic groups. For instance, Grossman and Helpman (1994) use a measure of "political power" to show the influence that protectionist groups have over national governments. But one such measure cannot be applied to areas other than trade. Finally, one needs to consider what the political preferences of a government are. The political preference of a government over State aid disbursement should not be equated with a partisan issue. State aid is neither a left- nor a right-wing policy. Studies that have attempted to apply Douglas Hibbs's (1977) partisan theory to subsidy disbursement have found contradictory evidence (e.g. Garrett, 1998; Neven, 1994; Zahariadis, 1997, 2010b). In the EU context this can be explained partly by what Chari and Cavatorta (2002) call "overlap issues". If on the one hand distributive policies have been a hallmark of the Left, in the EU the Commission often conditionally allows State aid when these measures are accompanied by other policies that foster competition in the Single Market, such as privatisation and liberalisation – both of which are typical of the Right. As a result, here I understand these preferences to be about the willingness to disburse subsidies, regardless of the aim. By showing its preferences, a national government is merely signalling its willingness to undertake distributive measures – be it for protectionist goals, to address economic development in a region, to attract business, or because it wants to push parallel issues such as privatisation.

H1: The more the political preferences of a domestic government signal its willingness to undertake distributive measures, the higher State aid is.

However, these political preferences that governments are sending out can be constrained by political institutions. The presence of multiple parties in coalition governments and of multiple veto players whose agreement is necessary for the policy to be finalised, can dilute a government's commitment to distributive measures (Hartmann, 2014; Tsebelis, 2002). Institutions and political outcomes matter because they fragment state power. Research suggests that multi-party coalitions "weaken" the government in the sense that smaller coalition partners might not allow the senior partner (usually the winner of the election) to pursue its policy preferences (Roubini & Sachs, 1989). The underlying rationale, as Hartmann (2014: 102-3) shows, lies with veto player analysis. Tsebelis (2002) distinguishes between institutional and partisan veto players. The former are second chambers, presidents, courts, and other institutional features such as federalism; the latter are political players, such as coalition partners or opposition parties. In both cases, the effect is to stymie

pursuit of the preferred policies. Veto player theory, therefore, is partial to the "inertia hypothesis", whereby more government partners find it more difficult to change the size of the deficit (i.e., the status quo, see Alesina & Perotti, 1995 and Franzese, 2002). Applied to State aid, this would mean that in the presence of coalitions and multiple veto players, governments might find it more difficult to pursue the preferred political preferences.

H2a: The political preferences of a domestic government on distributive measures are less impactful when the government is made up by a coalition of multiple parties. This implies lower State aid.

H2b: The political preferences of a domestic government on distributive measures are less impactful the more numerous and ideologically distant partisan and institutional veto players are. This implies lower State aid.

There is a further element that hinders the attainment of policy goals: supranational State aid control. Top-down approaches to Europeanisation show how this process re-orients the political and economic dynamics of the EU so that they become part of the organisational logic of national politics and policy-making (Ladrech, 1994: 69). Indeed, during the 20th century, States widely employed subsidies in order to promote national industrial champions up until the early 1980s. From the late 1980s onwards, once the Single Market project became centrepiece in the European project, the Commission began to adopt far more stringent rules on State aid control (Kassim & Lyons, 2013). These became more refined over time, leading to a "hardening" of the State aid regime, which was previously based on soft rules, if not informal norms, even (Cini, 2001). Successive regulations established guidelines and fines (as the record-breaking fine to Apple shows). Council Regulation 659/1999 codified the process of assessing the legality of State aid (Zahariadis, 2010a: 955), whereas with the 2005 State Aid Action Plan (SAAP), the Commission aimed for "less and better targeted aid" by switching from a legalistic to an economic approach (Coppi, 2011).[1]

H3: Supranational control negatively affects State aid.

Finally, electoral institutions influence a government's choice on *how* to support business. Politicians have a limited amount they can spend, and need to choose to whom and how to allocate resources; therefore, they will be more likely to listen to those constituents whose input will be crucial during re-election (Zahariadis, 2008b: 11). The way votes are translated into seats thus becomes an incredibly powerful incentive for governments to provide aid. Different electoral institutions create different incentives for politicians to acquiesce to societal demands (Aydin, 2007a). One such electoral institution is district magnitude, which determines the number of legislators acquiring a seat in a voting district (Persson & Tabellini, 2003: 16). Lower district magnitudes imply fewer votes-to-seats translations, and therefore a more direct tie of the incumbent's identity to the

[1] In 2012 the Commission enacted the State Aid Modernisation initiative, which built on the SAAP in order to promote efficiency in public spending and growth-enhancing approaches (Micheau, 2016). However, since 2012 is beyond the sample of interest, it will not be taken into account.

territorial base (Aydin, 2007a; Lancaster, 1986). Since the recipients of distributive (or targeted) measures are narrow groups of citizens, smaller districts provide politicians with the incentives to enact distributive measures – exactly because there is a clear accountability link between the incumbent and the constituents. Economists such as Dewatripont and Seabright (2006) argue along similar lines that wasteful spending is a by-product of accountability, and politicians fund projects that are wasteful as a way to signal that they have been "good politicians" by attending to the needs of their constituents, who will in turn reward them. Given that smaller electoral districts foster greater accountability (it is easier to understand who is responsible for what than in larger multi-member districts), electoral pragmatism could indeed be a reason for increased spending on aid. On the contrary, larger districts imply that electoral competition is more dispersed. As a consequence, broader spending programmes, like education or healthcare, are the winning strategy for incumbents to retain power (Edwards & Thames, 2007).

H4: Lower district magnitude is associated with larger spending in State aid.

As Carey and Shugart (1995) argue, however, district magnitude is only one of several electoral rules. Other key features include the extent to which electoral systems "create incentives for legislators to cast personal votes" (Edwards & Thames, 2007: 340). In large districts, the importance of politicians to establish a unique reputation to distinguish themselves increases (Carey & Shugart, 1995: 430). The effect of district magnitude on aid disbursement should be conditioned by incentives to cultivate personal votes, and vice-versa. Therefore, the relationship in H4 should reverse for higher district magnitudes (higher incentives to cast personal votes) in candidate-centred systems (bigger-district systems), since intra-party competition pushes politicians to provide particularistic spending (Edwards & Thames, 2007: 341).

H5: In candidate-centred systems, the higher the district magnitude, the higher the spending in State aid. Likewise, in bigger-district systems, there are more incentives for legislators to cast personal votes, leading to more spending in State aid.

These hypotheses that focus on the middle-section boxes of the model in Figure 3 are at the core of the politics of State aid in the EU, and more generally speaking of distributive politics in the presence of international commitments.[2] To reiterate, they also aim to test Herwig Hofmann's claims as laid out in the introduction. The end result, present in the rightmost box, is the distributive policy: the amount of State aid a government managed to disburse.

[2]Even though there is no equivalent to the tightness of EU State aid control in other parts of the world, international commitments to institutions such as the WTO or the International Monetary Fund, can also affect the amount of subsidies a country gives.

4 Data and measurement

4.1 The dependent variable

The above hypotheses are tested for 15 Western European countries between 1992 and 2011. The sample is constrained in space because of data availability in Eastern European countries on the Veto Player Index variable, although I plan to expand the analysis in this direction.

The variation to be explained, as stated above, is State aid disbursement. Following the literature, this is operationalised as a percentage of the country's GDP, to take into account the different economic size of the Member States. Official data from the Commission, recorded in the State aid Scoreboard, are used (European Commission, 2017). The Scoreboard includes,

> "all existing aid measures to manufacturing industries, services...agriculture, fisheries and transport for which the Commission adopted a formal decision or received an information fiche from the Member States in relation to measures qualifying for exemption under the General Block Exemption Regulation (GBER), Agricultural Block Exemption Regulation (ABER) or the Fishery and Aquaculture Block Exemption Regulation."[3]

Out of all these measures, only aid to industry and services is taken into account. In future research, I plan to better differentiate between horizontal and sectoral aid, and include aid to agriculture, in order to better understand the manner in which governments support businesses. For instance, countries such as Austria and the Netherlands focus on policy objectives like R&D, while others such as Portugal and Ireland are more keen on disbursing aid for specific sectors, and some others such as Belgium and Italy stress regional assistance (Aydin, 2007a). Differentiating between these kinds of aid helps with a better understanding of State aid politics.

The choice of the Scoreboard over different datasets such as National Account Statistics (NAS) and the WTO's Agreement on Subsidies and Countervailing measures (SCM agreement) is justified in light of its comprehensiveness. The Scoreboard provides the most encompassing definition of subsidies, which covers multiple kinds of transactions in all economic sectors. NAS only cover cash subsidies (thus grossly underestimating the amount of each distributive measure), while the WTO SCM agreement does not cover services and is more pertinent when subsidies are conceptualised as a trade policy tool (Buigues & Sekkat, 2011). Neither, however, is the case for the EU, as was shown above.

[3] The Commission also differentiates between non-crisis and crisis aid. The focus here is on non-crisis aid only.

4.2 Explanatory and control variables

Policy preference

Policy preference is understood as being a government's willingness to undertake distributive measures. These ex-ante objectives, therefore, can be extracted by looking at data from estimated party positions during electoral competition. The Comparative Manifesto Project (CMP, see Volkans et al., 2017), is a good starting place. This choice echoes Persson and Tabellini (2003: 17), whereby economic policy outcomes are determined by the parties' commitment to their platform. However, the CMP does not include an indicator of the willingness to undertake distributive measures. The measure used here is "Economic Orthodoxy" (coded as "per414" in the CMP), whereby competing parties signal the need for economically healthy government policy-making. In other words, this indicator measures the salience of issues such as reduction of budget deficits and fiscal retrenchment. The more salient this issue, the fewer distributive measures governments are willing to undertake. To be sure, this is far from being a perfect measure, although it is potentially better than a crude Left-Right dichotomy, as the above discussion on partisan theory and subsidies shows.

This indicator is operationalised as an average government position weighted by the number of cabinet seats each party has, and by the number of months in office of the government for each year. Thus, for instance, in the year 2003, Austria had two different cabinets: Schüssel I and Schüssel II. Schüssel I only governed during January, whereas for the remaining 11 months Schüssel II governed. The Schüssel I cabinet had 12 seats, evenly split between ÖVP and FPÖ. The Schüssel II cabinet also has 12 seats, eight for the ÖVP, three for the FPÖ, and one independent. In the 1999 elections the saliency of the economic orthodoxy issue for the FPÖ was 0.601, while it was 0.401 for the ÖVP. This applies to the Schüssel I cabinet. In the 2002, the saliency was 1.499 for the FPÖ and 0.924 for the ÖVP.[4] Thus, the average score for the year 2003 for Austria is:

$$\text{Pref.}_{AT03} = [(0.601 \times \tfrac{6}{12}) + (0.401 \times \tfrac{6}{12})] \times \tfrac{1}{12} + [(1.499 \times \tfrac{3}{12}) + (0.924 \times \tfrac{8}{12})] \times \tfrac{11}{12} = 0.949938$$

Coalition party

This is a simple dummy variable that takes the value of 0 for single-party governments and 1 otherwise. Like the measure above, it is weighted by months, so in-between values are possible.

Veto Player Index

Following Jahn (2011), veto players are operationalised on the basis of their number and their ideological distance on the left-right spectrum. Veto players are (a) coalition governments, (b) second chambers, and (c)

[4] Independents are scored as 0.

Presidents. This index is chosen over similar alternatives, such as Schmidt (1996) and Birchfield and Crepaz (1998), which are additive measures of the number of veto players (veto points), thus making it difficult to understand which players matter; Henisz (2000), where actors' positions are assumed rather than empirical; and even Tsebelis (2002), which is a time-invariant index. For both coalition and veto players, given the negative effect of the operationalisation of the policy preference variable, the interactive effect of H2a and H2b should be reversed.

Supranational control

As various studies on Europeanisation and on State aid control have shown, quantitatively capturing the effect of the EU on domestic policy is a Herculean feat (Mendez, Wishlade & Yuill, 2008; Töller, 2010; Zahariadis, 2008a). A second-best option, used in other studies (Franchino & Mainenti, 2013; Zahariadis, 2010a), is to employ a dummy variable of a European regulation meant to control State aid disbursement. As was mentioned before, two initiatives, Council Regulation 659/1999 and the SAAP in 2005 could be used. The former is preferred for two reasons. First, because according to Micheau (2016: 28), it marked "a turning point in the introduction of hard law in the State aid area." And secondly because following the Regulation, average State aid levels in the EU15 noticeably fell and stabilised between 0.45 and 0.55% of the Member States' GDP, as Figure 8 in the Appendix shows.

District magnitude

Here I use a measure of tier-weighted average district magnitude normalised by assembly size, with a lower bound of nearly 0 and an upper bound of 100 (Franchino & Mainenti, 2013). Lower values of district magnitude should be associated with more distributive measures. Data are taken from the ESPV dataset by Johnson and Wallack (2012) and from the work by Franchino and Mainenti (2013, 2016).

Personal vote

This index echoes that developed by Carey and Shugart (1995), made of three indicators, each taking the values of 0, 1 or 2: ballot (whether party leaders control ballots and ranks); pool (whether votes are pooled across the whole party); and vote (whether voters cat votes for a single party). The personal vote index is an average score of these three indicators, as per Edwards and Thames (2007). The higher the average score, the more candidate-centred the system.

Control variables

Since State aid disbursement has effects on competition and trade in the Single Market, and since it has often been used to foster economic development, I control for real economic growth and trade openness. I also control for the timing of the election, since it might affect electoral incentives to disburse aid, as suggested by

the Political Business Cycle (PBC) literature (Nordhaus, 1975). The literature, however, is sceptical about the validity of the PBC on distributive measures, and has found little to no proof of this (see Aydin, 2007b; Franchino & Mainenti, 2013; Neven, 1994; Zahariadis, 1997). Finally, I control for the number of years a country has been a Member State: more years in the EU might point out to a higher internalisation of the rules on State aid control, and thus fewer subsidies.

4.3 Descriptive statistics

Table 1 shows the descriptive statistics for the dependent and explanatory variables. All time-variant variables are lagged by one year.

Table 1: Descriptive statistics

Variable	*Mean*	*St. Dev.*	*Min*	*Max*	*N*
State aid	0.54	0.40	0.07	2.45	291
Policy Preference	2.29	2.87	0.00	17.48	291
Coalition	0.68	0.46	0	1	291
Veto Players	4.81	5.76	0.00	25.01	291
Regulation	0.62	0.49	0	1	291
District Magnitude	15.22	27.27	0.15	100	291
Personal Vote	0.79	0.45	0	1.67	291

5 Results and discussion

Since the dataset contains values relative to each country for a number of years, a cross-sectional-time-series analysis is employed. Preliminary diagnostics revealed the presence of both heteroscedasticity and serial correlation. Therefore, I use a panel-corrected standard errors controlling for common autocorrelation of first order (AR1), since it can be assumed that expenditures in the previous time period are going to be highly correlated with those of the next time period (Beck & Katz, 1995). Table 2 shows the results for six different models. Model 1 focuses on H1, Model 2 on H2a, while Model 3 also includes H2b. This choice is dictated by the fact that the Veto Players Index used here already accounts for the presence of coalition governments as veto players (see Hartmann, 2014). Model 4 tests H4, Model 5 contains the explanatory variables without

controls, while Model 6 is the full specification.[5]

Table 2: State aid disbursement in the EU15, 1992-2011

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Policy Preference	-0.003	-0.023**	-0.035***		-0.039***	-0.034***
	(0.010)	(0.010)	(0.009)		(0.009)	(0.009)
Coalition		-0.157	-0.217**		-0.238**	-0.172
		(0.103)	(0.110)		(0.118)	(0.116)
Policy Preference × Coalition		0.038**	0.095***		0.098***	0.090***
		(0.016)	(0.024)		(0.003)	(0.026)
Veto Players			0.009		0.006	0.004
			(0.006)		(0.006)	(0.006)
Policy Preference ×Veto Players			-0.005***		-0.005***	-0.005***
			(0.001)		(0.001)	(0.001)
Regulation					-0.112**	-0.110**
					(0.054)	(0.053)
District Magnitude				-0.002**	-0.005***	-0.007***
				(0.001)	(0.002)	(0.001)
Personal Vote					-0.307***	-0.375***
					(0.111)	(0.096)
District Magnitude × Personal Vote					0.002	0.006***
					(0.002)	(0.002)
Years in the EU	-0.003	-0.002	-0.004*	-0.001		0.004
	(0.003)	(0.002)	(0.002)	(0.003)		(0.003)
Real Economic Growth	0.003	0.002	0.002	0.002		0.003
	(0.005)	(0.005)	(0.006)	(0.005)		(0.005)
Trade Openness	-0.002***	-0.002***	-0.002***	-0.002***		-0.002***
	(0.000)	(0.000)	(0.000)	(0.000)		(0.000)
Election	0.037	0.038	0.033	0.038		0.026
	(0.028)	(0.028)	(0.028)	(0.028)		(0.026)
Constant	0.784***	0.849***	0.918***	0.751***	1.060***	1.124***
	(0.080)	(0.085)	(0.091)	(0.625)	(0.137)	(0.121)
R^2	0.131	0.152	0.192	0.142	0.207	0.242
Wald's χ^2	39.531***	51.583***	61.285***	48.882***	44.871***	79.019***
N	291	291	291	291	291	291

Prais-Winsten regressions with panel-corrected standard errors and common AR1 error correction. PCSE in parentheses. ***p < 0.01; p** < 0.05; p*<0.1.

H1 is robust for most models except for Model 1. This means that the more salient the issues of fiscal retrenchment and deficit reduction become, the less inclined governments are towards distributive spending. The smallness of the coefficient in Model 1 compared to the other models suggests the ex-ante objectives are very difficult to reach exactly because of the constraining effects of political institutions. In other words, the policy output almost never corresponds to the policy preferences parties include in their manifestos.

H2a, on the contrary, is robust to all models. It is significant and presents the correct sign. However, this is not the case for H2b, since the interaction term boasts the sign opposite to the one hypothesised. The presence of coalition increases the magnitude of the marginal effect of the government's political preference over aid

[5]H3 is not tested separately because it is a dichotomous variable that depends on the EU, not the Member States. As such, the model could hide severe heterogeneity.

disbursement. This means that the positive coefficient makes the reductive effect of policy preferences on aid disbursement decline in the presence of coalition governments (see Brambor, Clark & Golder, 2006).[6] On the other hand, more numerous and more ideologically distant veto players actually *decrease* the marginal effect of the political preferences. One possible reason for this is offered by Zahariadis (2008b: 91-3). In his analysis, Zahariadis uses an index of veto points based on Lijphart's (2012) division of power along the executive-parties and federal-unitary lines. He also distinguishes between collective and competitive veto points, following Birchfield and Crepaz (1998). Both kinds of veto points, he writes, should increase subsidisation because they force bargaining between political actors so as to accommodate a larger number of constituents (in the case of collective veto points) and because they provide more access points for lobbying legislators (for competitive veto points, see also Ehrlich, 2007). Indeed, substituting the Veto Players Index variable with collective and competitive veto points bears the same, significant results that support Zahariadis's hypothesis. However, there are two problems with this. Firstly, the use of veto points instead of veto players creates confusion as to who exactly is in charge or which institutions are relevant to policy-making. Secondly, the reasoning used by Zahariadis of competitive veto points as access points is more apt for an analysis of trade policy than distributive politics.[7] Further research should thus better investigate the role of veto players in distributive politics. H2a also remains positive in both Model 2 and 3, although the coefficient in Models 3, 5 and 6 is almost three times as large. Figures 4 and 5 show the interaction effects for H2a and H2b. As suggested by Berry, Golder and Milton (2012), the plots include a superimposed histogram of the frequency of the conditional variable (coalition or veto players).[8]

[6] This is also tested transforming the Coalition variable in an effectively dichotomous one (with no in-between values), but the results do not change.

[7] The reason for this is explained in section 3.2.

[8] Due to the incompatibility of the statistical package used to calculate the models with plotting (panelAR for R), all plots are based on a simple OLS regression model, reported in the Appendix (Table 3). The OLS coefficients are slightly different, but they do not change sign, and they are statistically significant in the same way, although there is a tendency to overfitting. Differences between the two models are reported in the same table.

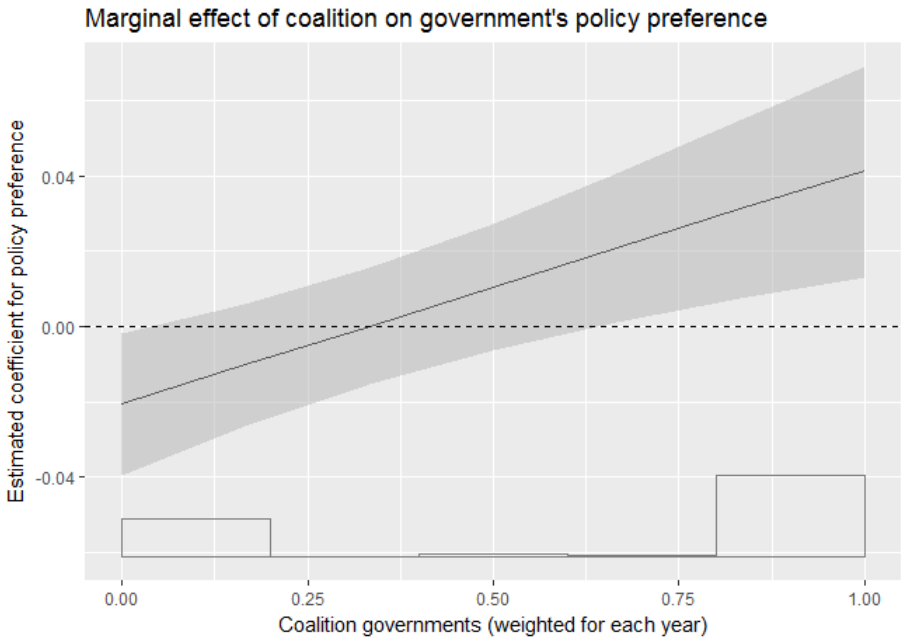

Figure 4: Marginal effect of coalition on policy preferences

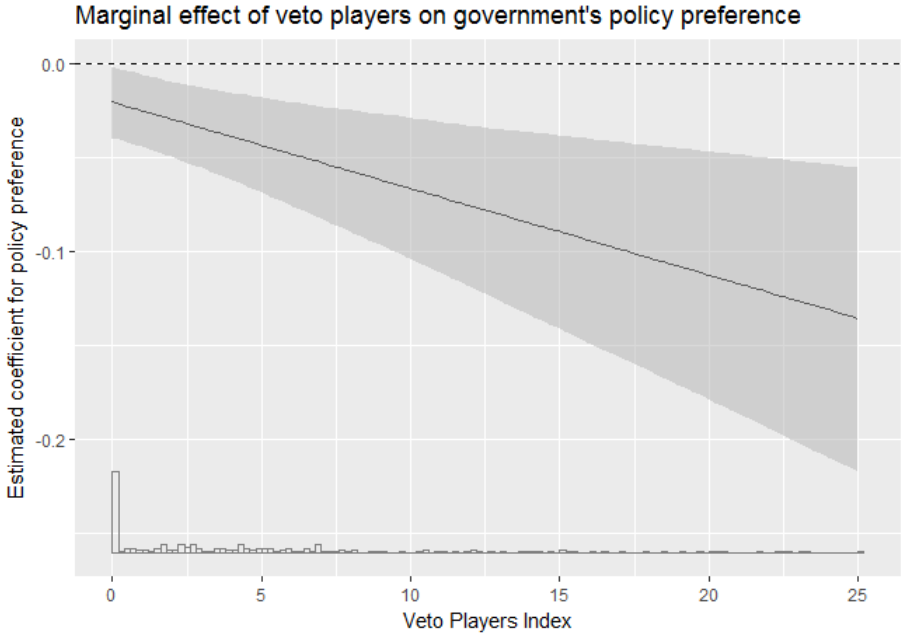

Figure 5: Marginal effect of veto players on policy preferences

H3 is fully supported in both Models 5 and 6 (without and with controls, respectively). Hard-law controls of State aid do push countries to disburse less aid. This does not mean, however, that whereas the Commission always tries to reduce aid disbursement, national governments always push for more. On the contrary, as some scholars pointed out, governments might welcome the efforts of the Commission to rein in State aid so as to alleviate the pressure faced by domestic constituents (Smith, 2001: 226).

Model 4 also supports H4. At lower levels of district magnitude, distributive measures, including State aid, will be more intense. This supports Persson and Tabellini's (2003: 17) idea that smaller district steer electoral competition towards narrower constituencies, making them the primary beneficiaries of electoral promises. Targeted programmes are thus better at seeking narrow support. This could also support Hofmann's idea that governments are electorally pragmatic when disbursing aid, although they do not seem to do so following electoral cycles – the timing of the election is never significant, supporting most of the literature's finding on this. In addition, this result lends credence to Dewatripont and Seabright's (2006) economic model of "wasteful spending".

Finally, as Carey and Shugart (1995) suggest, the way district magnitude creates electoral incentives might be conditional on whether the electoral system is party- or candidate-centred, and vice-versa. In the latter system, bigger districts might actually increase distributive spending because candidates need to distinguish themselves from the rest. This is H5, tested in Models 5 and 6. The results show that there is some, albeit incomplete, support for this hypothesis. Since all interactions are logically symmetric (Berry et al., 2012), Figures 6 and 7 show respectively the effects of district magnitude on aid disbursement as the system moves from party- to candidate-centred (Edwards & Thames, 2007), and of personal reputation on aid disbursement as district magnitude increases (Carey & Shugart, 1995: 431).[9] Both halves of the hypotheses are supported: the marginal effect on spending of each variable is always positively related to the other and is of non-trivial magnitude.

[9] This was not done for H2a and H2b because symmetry was not theoretically tenable.

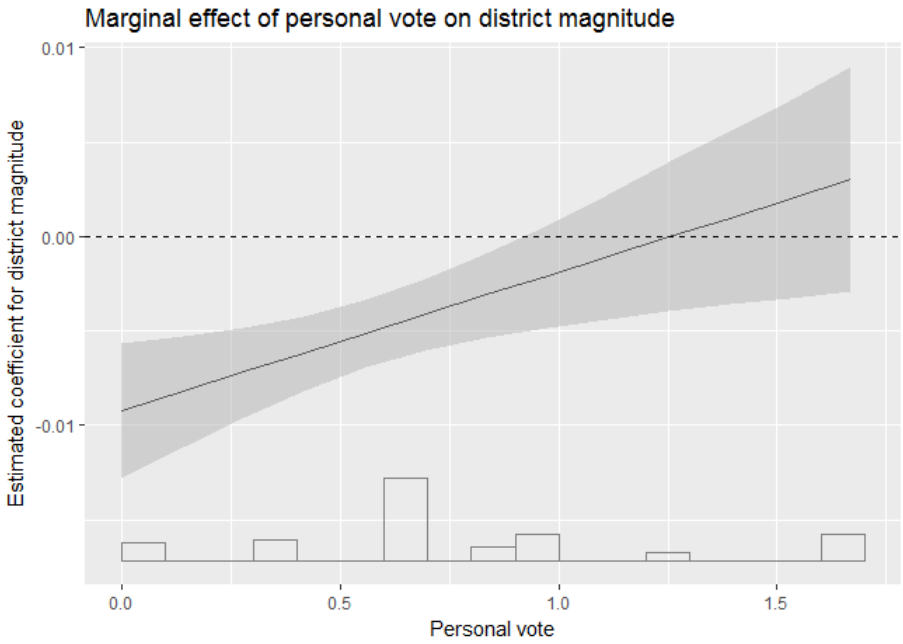

Figure 6: Marginal effect of personal vote on district magnitude

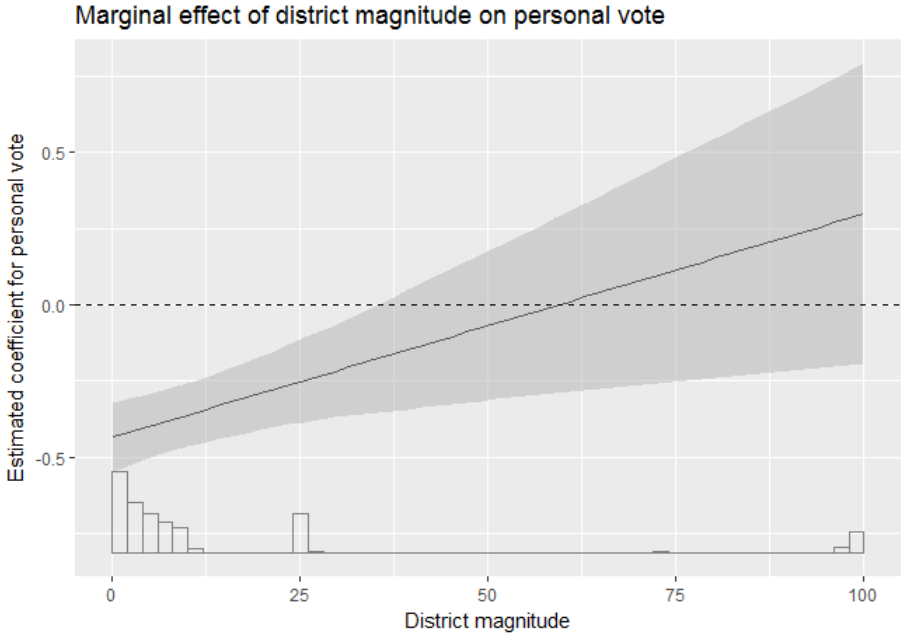

Figure 7: Marginal effect of district magnitude on personal vote

A final, interesting, note concerns the variable Trade Openness, which in all models where it is present is negative and significant: countries with higher trade openness are less likely to disburse aid. This makes sense in the EU context, where the average trade openness is fairly high for the sample countries (89.05% of the GDP), and where the goal of the EU is to foster competition and trade. Increased openness, therefore, forces companies to adjust to international competition and make them less dependent on subsidies, which is perfectly in line with the goal of the Commission in competition policy (see Aydin, 2007b: 119-20).

In sum, of the six hypotheses (counting H2a and H2b as separate), three (H2a, H3 and H4) are confirmed and relatively robust to different specifications. Two (H1 and H5) find partial support, and another (H2b) is found to go opposite to the hypothesised direction. Model 6 accounts for roughly one fourth of the variation in aid disbursement. This relatively low figure should not surprise, since country-fixed effects were not introduced, and preliminary diagnostics found the presence of heteroscedasticity, which lowers the explanatory power of the model, and which PCSE can only partially fix. In conclusion, as was suggested in the introduction, domestic politics and institutions do matter. The question policy-maker ask, "how can subsidies be best allocated in order to attain our policy goals?", can indeed be answered by looking at State aid through the lens of domestic institutions and distributive politics.

6 Concluding remarks and further research developments

The goal of this article was to give a comprehensive account of State aid politics in the EU. It sought to ask the question, why do some Member State give more aid than others? Looking at aid disbursement in Western European countries between 1992 and 2011, it used domestic politics and institutions to explain this variation. The hypotheses that were developed aimed to understand whether aid disbursement depends on the government's willingness to achieve policy objectives, on politicians' electoral pragmatism, and how the EU affects distributive measures, as suggested by Hofmann (2016). It conceptualised State aid as a distributive measure, as per Aydin (2007a) and Franchino and Mainenti (2013). This allowed to have a wider range of motivations for giving aid compared to the trade policy literature. The findings, therefore, contribute to scholarship on distributive politics and possibly political economics. The statistical analysis found that political and electoral institutions mostly matter, and that the EU does negatively affect aid disbursement.

Where to go from here? The PhD project should build on these findings to expand research. Immediate research developments include (but are not limited to): (a) better operationalisation of the policy preference variable; (b) investigation of the role of veto players in distributive politics; (c) expansion of the sample

to the EU27;[10] (d) further robustness checks for the statistical models, using different specifications; and (e) disaggregate aid to industry and services into horizontal and sectoral aid, and expand the analysis to regional and agricultural aid. The project also aims to qualitatively investigate State aid policy in some European countries, as further robustness checks for the statistical analysis. Case selection is therefore an additional issue to take into account (Seawright & Gerring, 2008). A potential method that can be employed is suggested by Seawright (2016: 98-104): once the scenario of interest (typical, deviant, extreme, influential or pathway case study) is selected, Monte Carlo simulations can account for the propensity for success of each case-selection rule with respect to the given goal. The next few months will thus be dedicated to these research developments.

[10] Croatia is excluded, having accessed the EU in 2013.

Appendix

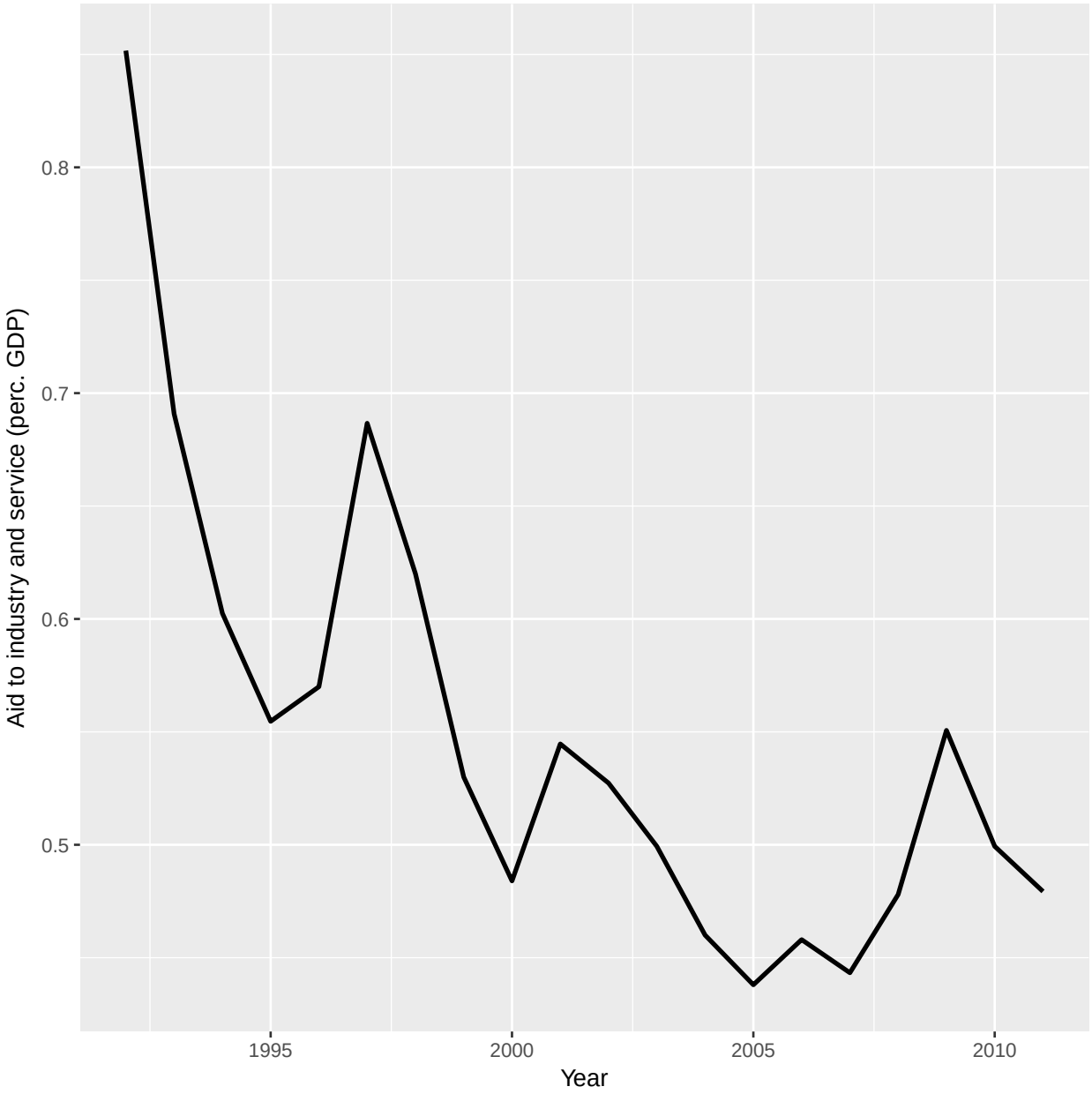

Figure 8: Average Aid to industry and services in the EU15 (perc. GDP), 1992-2011

Table 3: State aid disbursement in the EU15, 1992-2011

	OLS Model	Panel Model	Difference
Policy Preference	-0.020**	-0.034***	0.014
	(0.009)	(0.009)	-
Coalition	-0.082	-0.172	0.091
	(0.075)	(0.116)	-0.041
Policy Preference × Coalition	0.061***	0.090***	-0.29
	(0.017)	(0.026)	-0.009
Veto Players	0.008	0.004	0.004
	(0.006)	(0.006)	-
Policy Preference ×Veto Players	-0.004***	-0.005***	-0.001
	(0.001)	(0.001)	-
Regulation	-0.135***	-0.110**	0.025
	(0.043)	(0.053)	-0.010
District Magnitude	-0.009***	-0.007***	0.002
	(0.002)	(0.001)	0.001
Personal Vote	-0.434***	-0.375***	-0.059
	(0.057)	(0.096)	-0.039
District Magnitude × Personal Vote	0.007***	0.006***	0.001
	(0.003)	(0.002)	0.001
Years in the EU	0.006***	0.004	0.002
	(0.002)	(0.003)	-0.001
Real Economic Growth	0.003	0.003	-
	(0.008)	(0.005)	0.003
Trade Openness	-0.002***	-0.002***	-
	(0.000)	(0.000)	-
Election	0.051	0.026	0.025
	(0.045)	(0.026)	0.019
Constant	1.067***	1.124***	-0.057
	(0.072)	(0.121)	-0.049
Adjusted R^2	0.327	0.242	0.085
F-statistic	11.84***		
	on 13 and 277df		

OLS regression vs Panel regression with AR1 error correction and PCSE.
Standard errors and PCSE in parentheses. ***p $<$ 0.01; p** $<$ 0.05; p*$<$0.1.

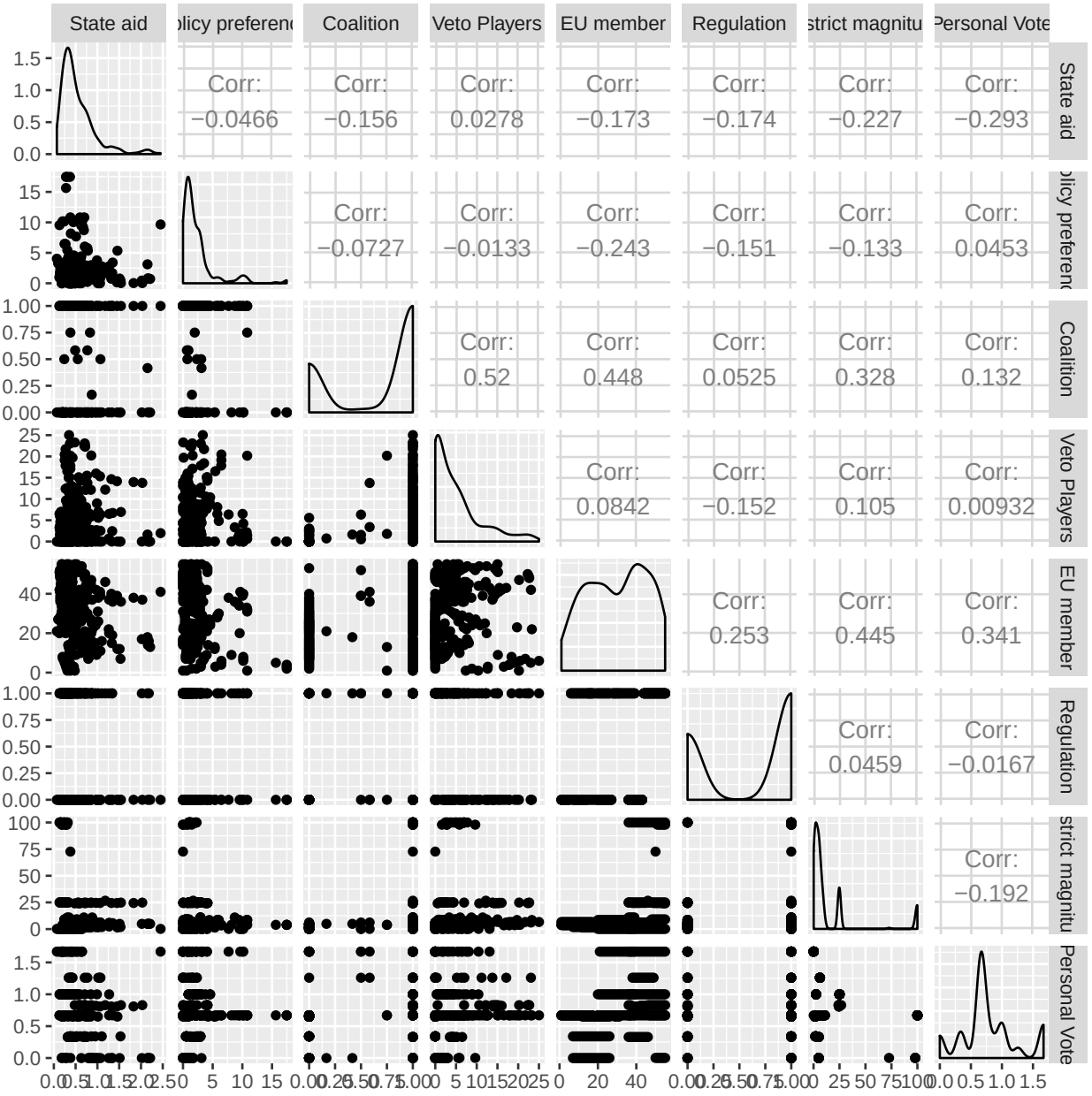

Figure 9: Correlation matrix of the variables

References

Alesina, A. & Perotti, R. (1995). Fiscal expansions and adjustments in OECD countries. *Economic policy*, *10*(21), 205–248.

Aydin, U. (2007a). *Politics of State Aid in the European Union: Subsidies as Distributive Politics* [Unpublished].

Aydin, U. (2007b). Promoting industries in the global economy: subsidies in OECD countries, 1989 to 1995. *Journal of European Public Policy*, *14*(1), 115–131.

Beck, N. & Katz, J. N. (1995). What To Do (and Not to Do) with Time-Series Cross-Section Data. *American Political Science Review*, *89*(3), 634–647.

Berry, W. D., Golder, M. & Milton, D. (2012). Improving tests of theories positing interaction. *The Journal of Politics*, *74*(3), 653–671.

Besley, T. & Seabright, P. (1999). The effects and policy implications of state aids to industry: an economic analysis. *Economic Policy*, *14*(28), 14–53.

Birchfield, V. & Crepaz, M. M. (1998). The impact of constitutional structures and collective and competitive veto points on income inequality in industrialized democracies. *European Journal of Political Research*, *34*(2), 175–200.

Brambor, T., Clark, W. R. & Golder, M. (2006). Understanding interaction models: Improving empirical analyses. *Political Analysis*, *14*(1), 63–82.

Buigues, P.-A. & Sekkat, K. (2011). Public subsidies to business: an international comparison. *Journal of Industry, Competition and Trade*, *11*(1), 1–24.

Carey, J. M. & Shugart, M. S. (1995). Incentives to cultivate a personal vote: A rank ordering of electoral formulas. *Electoral studies*, *14*(4), 417–439.

Chari, R. S. (2016). Evolution of Aid in the EU: Classifying Different Types of Countries, and the Financial and Economic Crisis. In H. Hofmann & C. Micheau (Eds.), *State Aid Law of the European Union* (pp. 12–17). Oxford: Oxford University Press.

Chari, R. S. & Cavatorta, F. (2002). Economic Actors' Political Activity in 'Overlap Issues': Privatisation and EU State Aid Control. *West European Politics*, *25*(4), 119–142.

Cini, M. (2001). The soft law approach: Commission rule-making in the EU's state aid regime. *Journal of European Public Policy*, *8*(2), 192–207.

Cini, M. & McGowan, L. (2008). State Aid Policy. In *Competition Policy in the European Union* (2nd ed., pp. 135–159). Macmillan Education UK.

Coppi, L. (2011). The role of economics in State aid analysis and the balancing test. In E. Szyszczak (Ed.),

Research handbook on European state aid law. Cheltenham, UK and Northampton, MA, USA: Edward Elgar Publishing.

Damro, C. & Guay, T. (2016). *European Competition Policy and Globalization.* Springer.

Dewatripont, M. & Seabright, P. (2006). "Wasteful" Public Spending and State Aid Control. *Journal of the European Economic Association*, *4*(2-3), 513–522.

Edwards, M. S. & Thames, F. C. (2007). District magnitude, personal votes, and government expenditures. *Electoral Studies*, *26*(2), 338–345.

Ehrlich, S. D. (2007). Access to Protection: Domestic Institutions and Trade Policy in Democracies. *International Organization*, *61*(3), 571–605.

European Commission. (2016). *State aid: Ireland gave illegal tax benefits to Apple worth up to €13 billion - Press Release IP/16/2923.* Retrieved from `http://europa.eu/rapid/press-release_IP-16-2923_en.htm`

European Commission. (2017). *Competition - State Aid Scoreboard 2016.* Retrieved 2017-04-20, from `http://ec.europa.eu/competition/state_aid/scoreboard/index_en.html`

Featherstone, K. & Radaelli, C. M. (2003). *The Politics of Europeanization.* Oxford University Press.

Franchino, F. & Mainenti, M. (2013). Electoral Institutions and Distributive Policies in Parliamentary Systems: An Application to State Aid Measures in EU Countries. *West European Politics*, *36*(3), 498–520.

Franchino, F. & Mainenti, M. (2016). The electoral foundations to noncompliance: addressing the puzzle of unlawful state aid in the European Union. *Journal of Public Policy*, *36*(3), 407–436.

Franzese, R. J. (2002). *Macroeconomic Policies of Developed Democracies.* Cambridge University Press.

Garrett, G. (1998). *Partisan Politics in the Global Economy.* Cambridge University Press.

Grossman, G. M. & Helpman, E. (1994). Protection for Sale. *American Economic Review*, *84*(4), 833–850.

Grossman, G. M. & Helpman, E. (2005). A protectionist bias in majoritarian politics. *The Quarterly Journal of Economics*, *120*(4), 1239–1282.

Hartmann, S. (2014). *Partisan Policy-Making in Western Europe: How Ideology Influences the Content of Government Policies.* Springer.

Henisz, W. J. (2000). The institutional environment for economic growth. *Economics & Politics*, *12*(1), 1–31.

Hibbs, D. A. (1977). Political parties and macroeconomic policy. *American Political Science Review*, *71*(04), 1467–1487.

Hofmann, H. (2016). State Aid Review in a Multi-level System: Motivations for Aid, Why Control It, and the Evolution of State Aid Law in the EU. In H. Hofmann & C. Micheau (Eds.), *State Aid Law of the*

European Union (pp. 3–11). Oxford, New York: Oxford University Press.

Jahn, D. (2011). The veto player approach in macro-comparative politics: Concepts and measurement. In T. König, G. Tsebelis & M. Debus (Eds.), *Reform Processes and Policy Change: Veto Players and Decision-Making in Modern Democracies* (pp. 43–68). Springer.

Johnson, J. W. & Wallack, J. S. (2012). *Electoral Systems and the Personal Vote Database.* Retrieved 2017-10-23, from `hdl.handle.net/1902.1/17901`

Kassim, H. & Lyons, B. (2013). The New Political Economy of EU State Aid Policy. *Journal of Industry, Competition and Trade*, *13*(1), 1–21.

Ladrech, R. (1994). Europeanization of domestic politics and institutions: The case of France. *JCMS: Journal of Common Market Studies*, *32*(1), 69–88.

Lancaster, T. D. (1986). Electoral structures and pork barrel politics. *International Political Science Review*, *7*(1), 67–81. Retrieved 2017-04-03, from `http://ips.sagepub.com/content/7/1/67.short`

Lijphart, A. (2012). *Patterns of democracy: Government forms and performance in thirty-six countries.* Yale University Press.

Lowi, T. J. (1964). American business, public policy, case-studies, and political theory. *World Politics*, *16*(04), 677–715.

Mendez, C., Wishlade, F. & Yuill, D. (2008). Made to measure? Europeanization, goodness of fit and adaptation pressures in EU competition policy and regional aid. *Journal of Comparative Policy Analysis*, *10*(3), 279–298.

Micheau, C. (2016). Evolution of State Aid Rules: Conceptions, Challenges, and Outcomes. In H. Hofmann & C. Micheau (Eds.), *State Aid Law of the European Union* (pp. 18–35). Oxford University Press.

Moravcsik, A. (1997). Taking preferences seriously: A liberal theory of international politics. *International organization*, *51*(4), 513–553.

Neven, D. J. (1994). *The Political Economy of State Aids in the European Community: Some Econometric Evidence* (CEPR Discussion Paper No. 945).

Nordhaus, W. D. (1975). The political business cycle. *The review of economic studies*, *42*(2), 169–190.

OECD. (2001). *Competition Policy in Subsidies and State Aid* (DAFFE/CLP(2001)24). OECD.

Persson, T. & Tabellini, G. E. (2000). *Political economics: explaining economic policy.* MIT press.

Persson, T. & Tabellini, G. E. (2003). *The economic effects of constitutions.* MIT press.

Rickard, S. J. (2012). A Non-Tariff Protectionist Bias in Majoritarian Politics: Government Subsidies and Electoral Institutions. *International Studies Quarterly*, *56*(4), 777–785.

Rose, R. (2014). Responsible party government in a world of interdependence. *West European Politics*, *37*(2), 253–269.

Roubini, N. & Sachs, J. D. (1989). Political and economic determinants of budget deficits in the industrial democracies. *European Economic Review*, *33*(5), 903–933.

Schmidt, M. G. (1996). When parties matter: A review of the possibilities and limits of partisan influence on public policy. *European Journal of Political Research*, *30*(2), 155–183.

Seawright, J. (2016). *Multi-method social science: Combining qualitative and quantitative tools*. Cambridge University Press.

Seawright, J. & Gerring, J. (2008). Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options. *Political Research Quarterly*, *61*(2), 294–308.

Smith, M. P. (1996). Integration in small steps: The European commission and member-state aid to industry. *West European Politics*, *19*(3), 563–582.

Smith, M. P. (2001). How Adaptable is the European Commission? The Case of State Aid Regulation. *Journal of Public Policy*, *21*(3), 219–238.

Töller, A. E. (2010). Measuring and comparing the Europeanization of national legislation: A research note. *JCMS: Journal of Common Market Studies*, *48*(2), 417–444.

Tsebelis, G. (2002). *Veto players: How political institutions work*. Princeton University Press.

Volkans, A., Lehman, P., Matthieß, T., Merz, N., Regel, S. & Weßels, B. (2017). *The Manifesto Data Collection. Manifesto Project (MRG/CMP/MARPOR). Version 2017a.* Retrieved 2017-10-23, from `https://doi.org/10.25522/manifesto.mpds.2017a`

Weingast, B. R., Shepsle, K. A. & Johnsen, C. (1981). The political economy of benefits and costs: A neoclassical approach to distributive politics. *Journal of Political Economy*, *89*(4), 642–664.

Zahariadis, N. (1997). Why state subsidies? Evidence from European Community countries, 1981–1986. *International Studies Quarterly*, *41*(2), 341–354.

Zahariadis, N. (2002). The political economy of state subsidies in Europe. *Policy Studies Journal*, *30*(2), 285–298.

Zahariadis, N. (2008a). Europeanization as program implementation: effective and democratic? *Journal of Comparative Policy Analysis*, *10*(3), 221–238.

Zahariadis, N. (2008b). *State subsidies in the global economy*. New York: Palgrave Macmillan.

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

Zahariadis, N. (2010b). State Aid and Partisan Government in the European Union. *Social Science Quarterly*, *91*(2), 436–454.