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IDEOLOGICAL ALIGNMENT AND THE DISTRIBUTION OF PUBLIC EXPENDITURES

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Abstract

This article revisits the influential partisan alignment hypothesis, which posits that subnational governments aligned with central governments exhibit higher expenditures. To promote their own and their party's re-election chances, central government politicians allocate more resources to ideologically aligned co-partisans at the subnational level. Consequently, aligned subnational governments exhibit higher expenditures than non-aligned ones. This article examines alignment effects in subnational education spending. Education is a crucial test case because, unlike other expenditures, the allocation of education spending is discretionary and often does not follow precise formulas. Using a novel dataset covering 266 subnational regions in 14 countries over 20 years, we offer the first cross-country analysis of alignment effects. Controlling for rival explanations, the findings reveal alignment effects on subnational education expenditures. Furthermore, political institutions matter, as alignment effects are stronger in countries where subnational governments have more discretion over education policy while lacking their own revenue sources (vertical fiscal imbalance). These findings imply that decentralisation might increase educational and socio-economic inequalities.

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Introduction

One of the most noteworthy changes in the structure of government in recent decades has been the transfer of competencies and responsibilities to subnational governments. In countries around the globe, subnational governments are responsible for roughly 40 per cent of total public expenditure, which grants them a crucial role in policymaking (OECD 2016). Not only are they important public employers, they also make major investments in the regional economy and provide essential services like education, healthcare, and childcare. The execution of these essential functions depends on the ability of these subnational governments to raise sufficient tax revenue, which varies substantially among subnational regions (Hooghe *et al.* 2015). Intergovernmental fiscal transfers have long been seen as a way to address these disparities in revenue-raising capacities by redistributing fiscal resources to those subnational governments that need them most. The role these transfers play in equalizing expenditure levels has been extensively discussed by fiscal federalism scholars (Musgrave 1959, 1983; Oates 1972).

However, more recent studies (Grossman 1994; Worthington and Dollery 1998; Khemani 2003; Arulampalam *et al.* 2009) have cast doubt on this inherently functionalist understanding and on the idea that fiscal resources are allocated in ways that serve general welfare interests. Instead, these studies argue that an equally important role is played by the political context in which the allocation of fiscal resources takes place. For instance, central government politicians may have strong incentives to allocate more fiscal resources to their co-partisans at the subnational level in order to buy themselves more political support. But such central government actors might be less likely to perceive a benefit in increasing expenditures when subnational governments are held by opposition parties (Grossman 1994; Worthington and Dollery 1998; Khemani 2003; Arulampalam *et al.* 2009). Several single-country studies have shown that subnational governments aligned with the central government exhibit higher expenditures on

basic services than do unaligned governments, even when controlling for socio-economic and political variables (Costa-i-Font *et al.* 2003; Larcinese *et al.* 2006; Berry *et al.* 2010; Cohen *et al.* 2011; Bracco *et al.* 2015; Simon-Cosano *et al.* 2013).

Yet, all existing studies have focused on individual countries (Worthington and Dollery 1998; Jones *et al.* 1999; Khemani 2003; Arulampalam *et al.* 2009), which limits the variation in potential central-subcentral alignment patterns they can examine and the confounding institutional context factors they can control for. To our knowledge, our study is the first cross-national analysis of the relationship between alignment and subnational expenditure. Our time-series cross-section design allows us to go beyond existing work by examining whether the effect of alignment is conditioned by institutional context factors, particularly by the type and level of decentralization.

To explore these alignment effects, we studied subnational education spending in 266 regions in 14 OECD countries over 20 years. Spending on education is highly relevant in today's 'knowledge economies' (Bell 1973) and is considered to be one of the main policy tools to help advance economic well-being and mitigate the negative effects of globalization (Busemeyer and Garritzmann 2017), deindustrialization (Jensen 2011), and socio-economic inequality (Busemeyer 2015). Unlike other public policy programmes, the allocation of public education spending often does not follow precise formulas but leaves room for discretion (Breunig and Busemeyer 2012; Streeck and Mertens 2011), making it an ideal test case.

We examine whether a subnational government's ideological alignment with a central government is positively correlated with higher per capita expenditure on education. We begin by focusing on variation over time within regions, in order to isolate the effect of ideological alignment. This allows us to control for the effect of unobserved third variables, such as region-specific preferences with respect to education. To examine the role of institutional context

factors, we then test whether the effect of alignment is conditioned by the degree to which subnational governments are dependent on intergovernmental transfers. To this end, we have constructed a novel indicator that captures vertical fiscal imbalance. We expect the effect of alignment to be particularly strong in decentralized contexts where subnational governments have far-reaching authority over education without sufficient revenue sources of their own.

Our time-series cross-section analyses show that ideological alignment is an important predictor of the geographic distribution of public expenditure on education. Subnational governments that are aligned with central governments exhibit higher education expenditures than unaligned governments. The effect of ideological alignment is substantially important and robust across a number of different specifications. Our results also show that the effect of alignment is particularly strong in countries where subnational governments have far-reaching competencies over education and receive a sizable portion of their revenue through intergovernmental transfers. Our findings have several important implications: They suggest that subnational regions with policy preferences divergent from the centre are structurally disadvantaged, an effect that is amplified by decentralized contexts that combine broad subnational competencies with little fiscal autonomy. In line with the theme of this special issue (cf. Däubler *et al.*, this issue), our findings highlight that notwithstanding decentralization's many virtues, it may be important to pay attention to the potential vices of transferring competencies and responsibilities to lower-level governments.

The remainder of the paper is structured as follows: First, we discuss the existing literature and develop theoretical expectations. Subsequently, we introduce our data set and discuss operationalizations and methods. We then present descriptive and analytical results. The final section discusses the results and indicates the implications for future research.

Public expenditures across regions

Subnational governments are responsible for a variety of basic services, but the biggest category of subnational expenditure across OECD countries is education. It accounts for roughly 25 per cent of subnational government expenditure (OECD 2016). But there is large variation in expenditure levels among subnational regions – even within the same country. In countries like Sweden and Denmark, for example, the more generous subnational governments spend two to three times as much per citizen as their less generous peers; in countries like Canada and Switzerland, some governments spend more than ten times as much (Kleider 2014). These discrepancies may become problematic when they are the outcome of subnational governments' varying capacity to raise revenue given their regional tax base. The richer a region is, the bigger its tax base and the better the quality of the services it will be able to provide (Kleider 2017; Prud'homme 1995). Against this background, early fiscal federalism scholars argued that intergovernmental transfers should be allocated in ways that ensured a more even distribution of spending on basic services across regions regardless of their fiscal capacity (Musgrave 1959, 1983; Oates 1972).

The view that intergovernmental transfers will be channelled to those subnational governments that need them the most so as to maximize national social welfare is apolitical in many respects (Grossman 1994). More recent studies, however, have pointed out that the allocation of resources is not likely to take place in a political vacuum. Rather, politicians in both central and subnational governments may have interests aside from furthering national welfare. These politicians will interact strategically to pursue these interests, which in turn affects the allocation of public funding. For instance, several studies have drawn attention to the way in which partisan and electoral considerations may determine subnational expenditures (Khemani 2003; Arulampalam *et al.* 2009). In contrast to the earlier fiscal federalism literature, which

portrayed central governments as interested in an ‘optimal fund allocation’, these accounts highlight the opportunistic, vote-seeking behaviour of central government politicians (Grossmann 1994; Levitt and Snyder 1995; Worthington and Dollery 1998; Jones *et al.* 1999; Khemani 2003; Arulampalam *et al.* 2009). In order to improve their own and their party’s chances for re-election, central government politicians are believed to use their own discretion to allocate more resources to partisan-aligned subnational governments (Bracco *et al.* 2015). The receipt of these resources relaxes the budget constraints of aligned subnational governments and permits them to increase their expenditures, which benefits the ruling party at both the subnational and national level (Levitt and Snyder 1995; Arulampalam *et al.* 2009). By contrast, there is little perceived benefit in increasing expenditures in subnational governments held by the opposition party (Grossman 1994). As a result, public expenditures in aligned subnational governments should be higher than in unaligned subnational governments (Arulampalam *et al.* 2009). Numerous empirical studies of individual countries have shown that subnational expenditures are indeed higher in aligned subnational governments than in governments held by opposition parties (Costa-i-Font *et al.* 2003; Larcinese *et al.* 2006; Berry *et al.* 2010; Cohen *et al.* 2011; Bracco *et al.* 2015). But there are also contrasting findings: Jones, Sanguinetti, and Tommasi (1999) argued that aligned Argentinian state governments, in an effort to support the central government’s economic adjustment policies, exhibited lower rather than higher expenditure levels.

One drawback of existing studies is their exclusive focus on electoral incentives. These studies are based on the assumption that central government politicians channel resources to those districts in which they seek re-election, with the aim of buying political support (Grossman 1994; Ansolabehere and Snyder 2006). While the argument about direct electoral payoffs is convincing in single-member district systems like the United States, India, and to some extent

Mexico (Khemani 2003; Costa-i-Font *et al.* 2003) as well as in Poland's municipalities (Kukułowicz and Górecki, this issue), it is less straightforward in other institutional contexts. In proportional representation systems, for instance, where political parties predominate over individual candidates, the effects of transfers on any individual politician's electoral prospects are not as easily discernible. Yet existing evidence of alignment effects in systems where direct electoral payoffs are less apparent suggests that other considerations for channelling resources to aligned subnational governments might also be at play (Golden and Picci 2008). Such considerations might include clientelistic relationships with subnational government politicians (Samuels 2003), or policy-related goals. Rather than being purely self-interest driven, central government politicians might be more willing to transfer resources to aligned governments in the hope that these subnational representatives would be more likely to spend them in a way that was consistent with overarching policy goals. Were policy considerations to constitute a fundamental part of the story, we would expect resources to be allocated to ideologically-aligned governments as well, rather than just to partisan-aligned governments.

Education policy as a most-likely case

The effect of alignment is likely to differ in strength across policy areas. A programme-by-programme analysis conducted in the United States, for example, suggested that partisanship influence is limited when programmes are administered by precise formulas, like social security transfers or veterans' pensions (Levitt and Snyder 1995). By contrast, political manipulation becomes more likely when programmes are not administered by precise formulas or when funding rules are opaque (Levitt and Snyder 1995).

Education or infrastructure investment is typically discretionary rather than formula-driven and therefore more manipulable than entitlement programmes (Breunig and Busemeyer

2012; Streeck and Mertens 2011). Not only is spending on education mostly discretionary, it also tends to be highly visible and highly popular among voters (Busemeyer *et al.* 2017), which makes educational investment key to electoral gains. Several studies have therefore begun to hone in on public education expenditure as a policy area where alignment is likely to have a particularly strong effect (Savage 2000; Thelin 2005).

Studies on the Australian education system, for example, have shown that the system of subnational government funding for education is ‘unhelpfully complex and exceedingly opaque’ (Dowling 2008: 129). This lack of transparency allows resources to be allocated outside of the scope of specific transfer formulae, often in the form of so-called ‘specific purpose payments’ (Bennett and Webb 2008; Worthington and Dollery 1998). But it also provides fertile ground for other ways of channelling resources to aligned governments. For example, research suggests that subnational governments tend to overspend because they know that the central government will likely bail them out when they can no longer service their debt (Rodden 2003).¹ It is plausible that subnational governments aligned with the central government will spend at higher rates in the hope that their co-partisans at the central level will be unable to refuse support given the potential electoral consequences. In addition to this *ex post* means of channelling resources to subnational governments, central governments may also decide to directly carry out a project in a given region. This is particularly plausible when policy competencies are shared between the subnational and the central level.

In line with the broader literature on the relationship between partisan alignment and public expenditure, we would therefore expect alignment between a regional and a central government to correlate with higher regional educational spending, independent of socio-

¹ We thank one of our anonymous reviewers for this suggestion.

² We selected the subnational level with the most meaningful authority over education. In highly centralized countries, we chose the first politically relevant subnational tier. In practice, this tends to coincide with the first level

economic context.

H1: Subnational education expenditure will be higher in subnational governments that are aligned with the central government.

Institutional context factors

Because studies on alignment have focused exclusively on single countries thus far, it has not been possible to analyse conditioning effects of institutional context factors, in particular the level and character of decentralization. In our sample, authority over education is decentralized to varying degrees across the 266 regions and 14 countries, allowing us to examine how decentralization impacts the effect of partisan alignment. The combination of far-reaching subnational policy competencies and scarce ability to generate tax revenue makes a particularly interesting institutional setting for our theory, a situation the comparative decentralization literature has described as ‘vertical fiscal imbalance’ (Rodden and Wibbels 2002).

Vertical fiscal imbalance is problematic because subnational governments face a situation where they are held accountable by voters for their performance in various policy areas, even as they lack the autonomous resources necessary to implement major changes (cf. also León *et al.*, this issue). Without their own revenue sources to fund far-reaching competencies, subnational governments develop a strong dependency on central governments and their willingness to provide fiscal transfers. This dependency provides fertile ground for partisan considerations to have an effect on resource allocation and public expenditure. Without fiscal transfers from the central government, the provision of subnational public goods deteriorates swiftly, as studies on educational spending in Uganda and Argentina suggest (Reinikka and Svensson 2004; Galiani *et al.* 2008). Subnational governments with extensive competencies in the area of education and

little tax autonomy to execute them are therefore concerned with keeping central government resources flowing, which requires strong partisan connections to the centre (Bordignon *et al.* 2013). In light of this literature, we expect the effect of partisan alignment on public education expenditure to be particularly strong in situations of vertical fiscal imbalance.

H2: Vertical imbalance, characterized by high subnational authority over education and low fiscal autonomy, increases the effect of alignment on subnational education expenditure.

Data and measurement

This article studies the effect of alignment on regional education spending and examines how this effect is moderated by subnational competencies. We provide the first cross-national analysis of alignment effects. To this end, we have compiled a new data set that includes cross-national time-series data on subnational public education spending as well as information on the ideological positions of central and subnational governments. Our data set covers 266 regions² in 14 advanced democracies³ between 1990 and 2010. The combination of temporal and spatial observations provides us with sufficient variation in central-subcentral government combinations to examine alignment effects and effectively isolate this effect from socio-economic context factors.

² We selected the subnational level with the most meaningful authority over education. In highly centralized countries, we chose the first politically relevant subnational tier. In practice, this tends to coincide with the first level of the Regional Authority Index (Hooghe *et al.* 2015; cf. Online Appendix B).

³ Australia, Austria, Belgium, Canada, Denmark, Germany, Italy, Japan, Norway, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

Our dependent variable is REGIONAL PER CAPITA SPENDING ON EDUCATION.⁴ The data have been collected from national statistics offices (Kleider 2014) and are therefore highly reliable. The comparability of regional spending data was simplified by the introduction of the ‘Classification of the Functions of Government’ (COFOG) system in 1993. The COFOG system is a procedure of standardizing governments’ bookkeeping. The system splits government expenditure into functional groups, making expenditure within each functional group comparable. To ensure cross-country and temporal comparability, our per capita spending data are deflated and transformed into international dollars.⁵

Our main independent variable is the extent to which regional governments are aligned with central governments. We distinguish between two types of alignment: partisan alignment and ideological alignment. We code regional governments as PARTISAN-ALIGNED when the largest government party is the same at the national and the regional level. This straightforward partisan-based measure captures alignment patterns particularly well in two-party systems where regionalist parties are absent, for instance in the United States and Austria. In these cases, alignments between the governing parties at both levels is easily identified. But this partisan-

⁴ One reason why we expect expenditures to increase in aligned cases is that central government politicians should be more likely to channel fiscal transfers to ideological proximate governments. We therefore test whether our model can also predict spending on fiscal transfers. As cross-sectional grant data is unavailable, we exemplarily analyse the Australian case. We use the same variable specifications and estimation techniques (see Appendix H). The effect of ideological alignment on per capita spending on educational grants is statistically significant. That is, ideological alignment between the Australian federal government and state governments leads to higher educational grants. This finding raises confidence in our results since it suggest that grants ultimately trickle down to higher spending.

⁵ We discuss the collection process and comparability of this data in the Appendix. We dropped some observations that seem caused by changing accountancy rules rather than by substantial changes (i.e. all Todofuken in 2003; Newfoundland and Labrador in 2006; as well as Vienna in 2001).

alignment measure falls short in capturing the central-subcentral alignments in multi-party systems where coalition governments are frequent (cf. also Masseti and Schakel, this issue, on regionalist parties and on regional government formation). In such cases, alignment may be better captured by a measure of ideological proximity between national and regional governments. We therefore created a second measure: IDEOLOGICAL ALIGNMENT.

To capture ideological alignment, we compiled a new data set that includes information on the partisan composition of national and subnational cabinets and their ideological positions. We first identified the ideological position of the political parties that form the government at the national and subnational level.⁶ Ideological positions were derived from party manifestos using the MARPOR/CMP data (Volkens *et al.* 2016). The literature on measuring party positions is broad, and discussions about the number of policy dimensions are ongoing. We measured party positions on the ‘state-market’ ideological dimension, since it tends to be more comparable across countries and tiers of government than other dimensions (Röth 2017). More specifically, we used Röth’s (2017) transformation of the MARPOR data, as it provides reliable and precise estimations.⁷

⁶ A description of the identification of regional governments and coding decisions are described in Online Appendix B-C.

⁷ The primary reason for using MAPOR data are the temporal limitations of other datasets, including the Chapel Hill Expert Survey (CHES). The CHES starts later in time and does not cover all of our cases. These limitations would severely affect our estimations, especially our region-fixed effects models which require sufficient time points. Yet, our transformation of the MARPOR data resembles the CHES placements on the economic dimension closely. We use theoretically useful issues from the MARPOR-group to measure the latent construct of ‘market liberalism’ with a latent mixed response model (Röth 2017). The correlations between our measure and the CHES market liberalism item are very high, ranging from 0.75 in Italy to 0.95 in Germany. See Röth *et al.* (2017) for another application using the same procedure.

Because no comparative data on subnational parties' policy positions is available, we used manifesto data on their respective national co-partisans as a proxy. We did so by matching regional parties to the temporally closest national manifesto of the same party, a procedure based on the assumption that parties have comparable positions at both levels of governance. Some single-country studies on party positions have suggested that there are ideological differences between regional and national branches of the same party (Bräuninger and Debus 2011; Alonso *et al.* 2013), but based on some existing regional manifesto data we can show that these differences are not very pronounced in the European context.⁸ Simply put, while regional parties certainly differ from their national co-partisans to a certain degree, the variation is surprisingly small, and much smaller than the variation between parties. Mueller and Bernauer (this issue) confirm this for the Swiss case, showing that party unity has increased over time and is higher for education than for other policy areas.

We then weighed these ideological positions by the respective seat shares of these parties, before we calculated ideological alignment as the proximity between the incumbent regional government and the incumbent national government. A value of 1 indicates exact ideological resemblance between the regional and central government, and a value of 0 the maximal possible distance.

Our ideological alignment measure captures alignment patterns particularly well in multi-party systems where coalition governments are frequent. In the case of coalition governments, the degree to which a regional government is aligned with the central government may be

⁸ The correlations between positions from national and regional party manifestos are 0.88 in Germany and 0.77 in Spain. For the US, we correlated parties' regional senate and legislative ideal point measures with MARPOR-based positions at the national level. US state governors were a noteworthy exception: because we found only low correspondence (correlation of 0.53), we used alternative ideological positions for US governors, utilizing a standard source (cf. Online Appendix B).

influenced by smaller coalition partners at both levels. To illustrate, imagine a scenario where the governing coalition at the central level consists of a larger Social Democratic Party and a smaller Green Party. We can now identify a series of subnational governments that might be ideologically aligned though not necessarily partisan-aligned with the coalition government at the central level. For instance, we would consider a regional government dominated by the Green Party as ideologically aligned with the governing coalition at the central level, but not as partisan-aligned, since the dominant party is not the same at both levels. Even if the dominant party were the same at both levels, the junior coalition partner might still influence the nature of this alignment. In our scenario, a regional government consisting of a Social Democratic Party and other left-leaning parties might be considered more strongly aligned with the central government than a regional coalition government consisting of a Social Democratic Party and several centre-right parties. These nuances are captured by our ideological alignment measure, but not by our partisan-alignment measure. Our ideological alignment measure might also be more apt at capturing alignment patterns in the presence of regionalist parties or regional party branches that are distinct from national party organizations, for example, in Canada or in Belgium (cf. Deschouwer and van Haute, this issue, on the Belgian case).

To operationalize VERTICAL FISCAL IMBALANCE, which we expect to amplify the effect of partisan alignment, we require a measure of regional governments' discretion over education policy and a measure of their ability to generate tax revenues. To measure regional governments' discretion over education policy, we developed a Regional Educational Authority Index (Garrizmann *et al.* 2017) that closely follows the more general Regional Authority Index (RAI) created by Hooghe *et al.* (2015). We distinguished between the 'scope' and 'depth' of

subnational governments' authority over education policy.⁹ The 'scope' of subnational governments' authority over education refers to the number of educational sectors that regional governments control. More precisely, we coded whether regional governments have authority over primary, secondary, and tertiary education, or over only one of these sectors. The 'depth' of a subnational government's authority over education refers to the extent to which that subnational government's decisions in any of these sectors is subject to a veto from the central government. We then combined scope and depth in a multiplicative index that ranges from 0 to 4. To capture the second vital component of vertical fiscal imbalance – the regional government's ability to generate its own tax revenues – we included the 'fiscal autonomy' sub-dimension of the well-established RAI (Hooghe *et al.* 2015). The fiscal autonomy sub-dimension ranges from 0 to 4, with 0 identifying regions that cannot levy any taxes, and 4 identifying regions that can set the tax rate and the tax base for major taxes. Values of 1 and 2 describe regions with leeway over tax rates and the bases of minor taxes, whereas a value of 3 includes the ability to set the rate of one major tax.

To measure fiscal imbalance, we then combined our Regional Educational Authority Index with the fiscal autonomy sub-dimension of the RAI (Hooghe *et al.* 2015) into an index of vertical imbalance, with three different categories (see Table 1).

TABLE 1 here

Figure 1 provides an overview of the distributions of our three most important variables: education spending, alignment, and authority. Several striking observations stand out. First, education spending per capita varies on the regional level from 0 to 5426 international dollars

⁹ See Appendix B for a precise description of the procedure and country profiles.

per year. Even within countries, there is considerable variation between different regions and over time. Second, alignment patterns also vary substantially across countries. In countries like Australia and Japan, ideological and partisan alignment are similar. In other countries, for example in Belgium and Switzerland, partisan alignment is practically absent but ideological alignment is widespread. This is due to organizationally independent parties at the regional level and to complex coalition dynamics (cf. Deschouwer and van Haute, this issue, and Mueller and Bernauer, this issue). The degree of authority over education also varies considerably across countries. Interestingly, variation in regional education expenditure correlates with the degree of authority over education. For example, regions in Switzerland, Canada, Germany, and the US have wide-ranging authority over education and also show higher levels of variation in education spending across their regions.

FIGURE 1 here

Control Variables

Drawing on the broader welfare state literature, we would expect left-leaning subnational governments to spend more on education than right-leaning subnational governments. We therefore controlled for the economic left-right IDEOLOGY of regional governments. Furthermore, we included a number of common socio-economic control variables, following existing country-level studies on education policy (Busemeyer 2015; Garritzmann 2016; Jensen 2011). In contrast to the existing literature, however, our variables are measured at the regional level. Data are provided by the OECD Regional Database and complemented with data from national statistics offices. We controlled for the PERCENTAGE OF POPULATION UNDER 15, expecting that a higher percentage of under-15s leads to more efficient teacher-student ratios and

therefore reduced per capita spending on education. The same argument applies to POPULATION DENSITY: spending on education per capita should be lower in densely populated areas. We also included the level of, and the change in, GDP PER CAPITA, expecting that spending would increase with economic capacity. The UNEMPLOYMENT RATE controls for adverse economic conditions that might restrict the ability of governments to increase educational spending. We included both the level and the change in regional unemployment. Finally, the delivery of education and of public services in general is usually more expensive in remote areas. To capture this effect, we introduced a new variable to the literature: MOUNTAINOUS REGIONS. Infrastructure in mountains is more expensive, and tendencies towards urbanization have left mountainous and sparsely populated areas with very high teacher-student ratios. With population density constant, distances in mountains are still more difficult to pass, forcing students to travel longer hours in difficult terrain and compelling politicians to maintain schools with low enrolment. Additionally, tests showed that mountainous regions systematically lean more to the political right and might introduce bias into samples, including partisan variables. We measured MOUNTAINOUS REGIONS using the Eurostat classification scheme (Eurostat 2016) and complemented non-European regions with ArcGIS (2016) data in combination with population density measures.¹⁰

Identification strategy

Since we are interested in whether partisan and ideological alignment lead to an increase of subnational education spending, we examined yearly changes in per capita spending as our dependent variable. We started with a very conservative estimation that included region-fixed

¹⁰ See Appendix for details.

effects and autoregressive error terms to correct for serial correlation (Table 2, Models 1-2). By using region-fixed effects, we concentrated on the expenditure changes within regions over time and ignore cross-regional variation. This helped us to control for the fact that particular regional factors could generate both partisan alignment and higher educational spending. We then relaxed our controls and dropped region-fixed effect in order to analyse the conditioning effect of fiscal and political decentralization, since these contextual factors are mostly time-invariant within regions. Instead, we estimated a three-level model with random slopes and random intercepts and add interactions, as described below (Table 2, Models 3-5). Repeated time observations are nested in subnational regions, which in turn are nested in countries. This estimation procedure drops traditional assumptions about constant error variance and the independence of observations, both of which are commonly violated by time-series cross-section designs.

Results

The results of our conservative GLS estimation with region-fixed effects and autoregressive errors show that ideological alignment has a significant and positive effect on per capita education spending (Table 2, Model 1). A one-unit change in ideological alignment leads to an increase of 63 international dollars per capita.

TABLE 2 here

This finding supports our first hypothesis: subnational education expenditures tend to increase in regions that are ideologically aligned with the central government. In contrast to ideological alignment, the effect of partisan alignment fails to reach conventional levels of

significance (Table 2, Model 2). This indicates that there are many instances where strict organizational alignment is not present, but where ideological similarity leads governments to privilege their ideological allies at another level of government.

Before discussing these results in more depth, let us turn towards our second hypothesis. Since the inclusion of region-fixed effects does not allow us to examine the conditioning effect of time-invariant institutional factors, we use a three-level regression model to test our second hypothesis. We estimated an interaction effect between ideological alignment and vertical fiscal imbalance (Table 2, Model 3). We treated our vertical fiscal imbalance index as a categorical measure, using ‘no imbalance’ as our baseline category. The interaction effect is graphically depicted in Figure 2. We find strong evidence for our second hypothesis: at high degrees of vertical fiscal imbalance, ideological alignment has a positive and statistically significant effect on education spending. In other words, ideological alignment increases education expenditure in regions that depend on vertical fiscal transfers from the central government (e.g., the Australian states). The effect of ideological alignment on education expenditure, on the other hand, is not significant in regions that have low or no vertical fiscal imbalance.

FIGURE 2 here

Substantially, this means that ideological alignment with the central government has a particularly strong effect on education expenditure in institutional contexts where regional governments have substantial authority over education but little ability to generate their own tax revenue. This institutional context creates a strong dependence on fiscal transfers from the

central government, which paves the way for strong alignment effects. Overall, we observe that vertical fiscal imbalance drives the effect of ideological as well as partisan alignment, although the interaction with partisan alignment is not statistically significant (see Online Appendix D). The effect of partisan alignment (Table 1, Model 4), by contrast, is not statistically significant and does not seem to be conditioned by vertical fiscal dependence.¹¹

Turning to the ideological positioning of regional governments, we find that this does not have an independent effect on regional education expenditure (Table 2, Models 1-4).¹² To explore more complicated causal mechanisms, we considered an interactive effect between a regional government's ideological positioning and its ideological alignment with the central government. For instance, it is plausible that alignment among left-leaning governments at the subnational and central level leads to higher educational spending, whereas alignment among right-leaning governments might not have such effects. Our results suggest that the marginal effect of alignment is positive when the governments involved are left-leaning and negative when they are right leaning, as expected, but the effect fails to reach conventional levels of statistical significance (Table 2, Model 5).¹³

¹¹ For a graphical interpretation of this interaction effect, see Online Appendix G.1.

¹² There are several possible explanations for this outcome. First, spending on education might not have the same partisan dynamics as other areas of social spending, partly because its redistributive effects differ (Garrizmann 2016). Second, we used yearly changes in spending as our dependent variable, and yearly measures of ideological positioning, both of which make it more difficult to detect the cumulative effects of left-wing party incumbency (Garrizmann and Seng 2016; Huber and Stephens 2001). Third, there might be more complicated interaction effects between the ideological positions of regional governments and the scope conditions under which they matter.

¹³ For a graphical interpretation, see Appendix Figure G.2. Analysing countries individually we find instances of an interactive effect between ideological alignment and regional government ideology. In the US, for instance, alignment among left-leaning governments increases per capita spending whereas alignment among right-leaning

Causal mechanisms

The results of our statistical analysis strongly support our hypothesis that a subnational government's ideological alignment with the central government is associated with increased levels of per capita spending on education, but they cannot deliver more in-depth insights into exactly *how* central governments allocate more funds to aligned regional governments. We therefore seek to elaborate on potential causal mechanisms with a series of brief and illustrative case studies that draw on country-specific secondary literature and on interviews with policy experts. Based on our understanding of political budgeting processes, we assume that there is no single monocausal channel that explains our findings, but rather a complex web of several mechanisms that are simultaneously at work in the different countries. Since we can assume that most of the countries have simultaneous mechanisms at work, we have structured our case study material by mechanism rather than by country. We identified three different mechanisms: 'intergovernmental transfers', 'bailouts', and 'privatization under shared responsibilities', as well as a general context factor that makes politically motivated resource allocation more likely, which we entitled 'opaque funding rules'.¹⁴

One mechanism that has already been discussed extensively by previous research and which we confirmed in the case of regional education spending is the allocation of *intergovernmental transfers* to aligned subnational governments. Since vertical fiscal imbalance is particularly strong in Australia, with regional governments accounting for 40 per cent of public expenditure and only 16 per cent of tax revenue, it provides an ideal test case for

governments lowers spending levels (see Appendix Figure G.3). Yet, this effect does not seem to be generalizable across countries.

¹⁴ For reasons of space, the following illustration is brief. We offer a longer discussion of the mechanisms and of additional country cases in Online Appendix I.

examining the allocation of intergovernmental transfers (Keating and Klatt 2013: 414). While general purpose payments (GPP) in Australia are allocated by an independent commission based on specific funding formulae, so-called specific purpose payments (SPPs) are ‘generally made outside the scope of fiscal equalization and thus are subject to political manipulation’ (Worthington and Dollery 1998: 303). Several studies on the determinants of SPP-allocation have shown that education-related payments are significantly higher when the same party controls government at the national and state level (Worthington and Dollery 1998: 301).¹⁵ Similar effects were found in Spain, where intergovernmental transfers in aligned regions tended to increase right before regional elections (Solé-Ollé and Sorribas-Navarro 2008: 2308), as well as in the US (Fisher and Papke 2000) and the UK (John and Ward 2001).

A second mechanism relates to instances where regional governments overspend their education budgets and central governments step in to account for their deficits (‘bailout’). The Austrian case provides a particularly illustrative example. In theory, regional governments in Austria only administer federal funding, which is allocated on the basis of a strict formula and leaves governments little room for manoeuvre. In practice, though, regional governments tend to overspend their budgets, for example by hiring more teachers than assigned by the staff plans, and are then bailed out by the central government. More concretely, between 2006 and 2010, ‘the number of positions at general compulsory schools that were not included in the initial budget almost doubled from 1039 to 2063 positions’ (Nusche *et al.* 2016: 23). There is evidence that parties can use overspending and bailouts as a means of shaping education funding to be in line with their interests (Nusche *et al.* 2016: 97).

A third mechanism of how aligned governments may receive more resources relates to instances of *shared responsibilities with the central government*. This is especially important in

¹⁵ Spending on SPPs made up about 11 per cent of the Australian federal government’s total budget in 2006/2007.

countries where funding responsibilities for different school types lie with different levels of government. In Australia, for instance, public schools are mainly funded by the regional governments, whereas private schools are funded by the federal government (Dowling 2008). Consequently, the more private schools a region has, the more federal monies it receives. This situation creates leeway for political manipulation. Research on the Australian case has shown that right-leaning federal governments have increased spending to private schools at much faster rates than left-leaning governments have (Dowling 2008; Edwards *et al.* 1985; Wilkinson *et al.* 2006; Keating and Klatt 2013: 417) thereby favouring right-leaning parties at the regional level.

Opaque funding rules and a lack of transparency provide the context in which politically motivated resource allocation thrives, although they are by no means a necessary condition for each of these mechanisms to work. The more transparent and the more earmarked public budgets are, the more difficult it is for central governments to manipulate the allocation of resources in favour of aligned subnational governments. When funding rules are opaque, on the other hand, the allocation of resources is more likely to be used for political reasons. In the United Kingdom, for instance, funds are in theory allocated to each of the devolved regions via a straightforward formula known as the ‘Barnett formula’. The Barnett formula allocates funds according to a simple calculation based on population growth and existing funding levels in the regions (Ferguson *et al.* 2003). In practice, however, ‘the actual operation of the Barnett formula is curiously opaque [...] and the relationship between the published Barnett process and the budget outcomes is still hidden from scrutiny’ (Christie and Swales 2010: 765). Since the actual regional expenditures do not seem to fit the Barnett formula, studies have suggested that the exact funding amounts are subject to a political bargaining process, which they call a ‘formula plus influence system’ (Christie and Swales 2010).

Taken together, these brief illustrative case studies point to several possible causal mechanisms that may explain increased expenditures in aligned regions and lend additional support to our regression findings.

Discussion: Birds of a feather flock together

The allocation of fiscal resources to subnational governments, long regarded as a way of serving national welfare interests by levelling out subnational fiscal disparities, has been re-evaluated in the more recent work on fiscal federalism. A growing number of studies have challenged the established functionalist perspective on transfers and instead have highlighted the underlying political dynamics that affect resource allocation to subnational governments. Empirical evidence based on several single-country studies suggests that rather than mitigating fiscal disparities, intergovernmental transfers are allocated to those subnational governments that are ideologically aligned with the central government. Incoming transfers allow aligned subnational governments to increase their expenditure on essential services, which in turn is likely to benefit both subnational and central government politicians in the next elections. Yet no previous study has examined whether the effect of partisan alignment is generalizable across diverse political, economic, and cultural environments, and whether it is conditioned by institutional context variables.

We found that per capita spending on education increased at a faster rate among aligned subnational regions than among non-aligned subnational governments, even when controlling for a large variety of socio-economic context variables. Our results further suggest that *ideological* alignment is a better measure of that relationship than *partisan* alignment in contexts of regionalist or multi-party systems. A second major finding is that decentralized systems marked by high vertical fiscal imbalance further amplify the effect of ideological alignment. The lack of

fiscal autonomy in subnational governments, coupled with their substantial authority over education, makes them particularly dependent on subsidies from central governments and lays the groundwork for political alignment dynamics. Our study not only extends fiscal federalism research on alignment effects but also contributes to the literature on partisan predictors of welfare and education policy, which thus far has completely neglected the role of partisan and ideological alignment in multilevel systems.

Our findings have several important implications: First, they suggest that decentralized systems marked by vertical fiscal imbalance intensify political opportunism and its effect on public expenditure. Like the other contributions in this special issue, our findings thus imply that decentralization has both ‘vices and virtues’. Second, our study has important normative implications: From a democratic-theory perspective, it is worrisome that alignment has such a strong effect, as it implies that regions with policy preferences divergent from the centre are structurally disadvantaged. Alignment dynamics may also deepen inequality in opportunities and affect social mobility, since some children may receive better funding for their education simply because they live in aligned regions.

Although we have made important headway in compiling comparable cross-national data on subnational education expenditure and party position, more work is needed to develop more fine-grained measures of partisan and ideological alignment and to extend the coverage of our data to other countries. Future research may also shed more light on the underlying motivations of central government politicians and the exact channels through which they distribute funds to aligned subnational governments. We have suggested several motives, such as electoral and policy considerations, and we have hinted at three possible mechanisms through which funds are channelled to aligned subnational regions but our analysis has remained mainly illustrative. Another interesting future addition could involve complementing our macro-level analysis with

demand-side data on public preferences in order to better understand whether and how voters reward or punish incumbent parties for seeking out resources from central governments.

References

- Alonso, S., B. Gómez, and L. Cabeza (2013). 'Measuring centre–periphery preferences: The regional manifestos project', *Regional and Federal Studies*, 23:2, 189-211.
- Ansolabehere, S., and J.M. Snyder (2006). 'Party control of state government and the distribution of public expenditures', *The Scandinavian Journal of Economics*, 108:4, 547-569.
- Arulampalam, W., S. Dasgupta, A. Dhillon, and B. Dutta (2009). 'Electoral goals and center-state transfers: A theoretical model and empirical evidence from India', *Journal of Development Economics*, 88:1, 103-119.
- Bell, D. (1973). *The Coming of Post-Industrial Society*. New York: Basic Books.
- Bennett, S, and R. Webb (2008). 'Specific purpose payments and the Australian federal system'. *Australian Parliamentary Library Research Paper*, 17.
- Berry, C. R., B.C. Burden, and W.G. Howell (2010). 'The president and the distribution of federal spending'. *American Political Science Review*, 104:4, 783-799.
- Bordignon, M., M. Gamalerio, and G. Turati (2013). 'Decentralization, vertical fiscal imbalance, and political selection', *CESifo Working Paper Series*, 4459.
- Bracco, E., B. Lockwood, F. Porcelli, and M. Redoano (2015). 'Intergovernmental grants as signals and the alignment effect: Theory and evidence', *Journal of Public Economics*, 123, 78-91.
- Bräuninger, T., and M. Debus (2011). *Parteienwettbewerb in den deutschen Bundesländern*. Wiesbaden: VS.
- Breunig, C. and M.R. Busemeyer (2012). 'Fiscal austerity and the trade-off between public investment and social spending', *Journal of European Public Policy*, 19:6, 921-938.
- Busemeyer, M.R. (2015). *Skills and Inequality: Partisan Politics and the Political Economy of Education Reforms in Western Welfare States*. Cambridge: Cambridge University Press.
- Busemeyer, M.R. and J.L. Garrizmann (2017). 'The effect of economic globalization on compensatory and social investment policies compared: A multi-level analysis of OECD countries', *DaWS Working Paper Series*, 2, 1-29.
- Busemeyer, M.R., J.L. Garrizmann, E. Neimanns, and R. Nezi (2017). 'Investing in education in Europe: Evidence from a new comparative survey of public opinion', *Journal of European Social Policy*

- Christie, A., and J.L. Swales (2010). 'The Barnett allocation mechanism: Formula plus influence?' *Regional Studies*, 44(6), 761-775.
- Cohen, L., J. Coval, and C. Malloy (2011). 'Do powerful politicians cause corporate downsizing?', *Journal of Political Economy*, 119:6, 1015-1060.
- Costa-i-Font, J., E. Rodriguez-Oreggia, and D. Lunapla (2003). 'Political competition and pork-barrel politics in the allocation of public investment in Mexico', *Public Choice*, 116:1-2, 185-204.
- Dowling, A. (2008). "'Unhelpfully complex and exceedingly opaque": Australia's school funding system', *Australian Journal of Education*, 52(2), 129-150.
- Edwards, T., J. Fitz, and G. Whitty (1985). 'Private schools and public funding: A comparison of recent policies in England and Australia', *Comparative Education* 21, 39-45.
- Eurostat (2016). *Regional typologies overview*. http://ec.europa.eu/eurostat/statistics-explained/index.php/Regional_typologies_overview#Mountain_regions (accessed 1 Jan 2017).
- Ferguson, L., P.G. McGregor, J.K. Swales, and K. Turner (2003). 'The regional distribution of public expenditures in the UK: An exposition and critique of the Barnett formula', in: J. Monnesland (ed.) *Regional Public Finance: European Research in Regional Science*. Pion Ltd, 191-207.
- Fisher, R.C., and L. Papke (2000). 'Local government responses to education grants', *National Tax Journal*, LIII(1), 153-168.
- Galiani, S., Gertler, P., and Scharfgrödsky, E. (2008). 'School decentralization: Helping the good get better, but leaving the poor behind', *Journal of Public Economics*, 92:10, 2106-2120.
- Garrizmann, J.L. (2016) *The Political Economy of Higher Education Finance: The Politics of Tuition Fees and Subsidies in OECD Countries, 1945-2015*. Basingstoke: Palgrave Macmillan.
- Garrizmann, J.L., H. Kleider, and L. Röth (2017). 'Party ideology and education spending in multi-level systems', paper presented at the EPSA Conference, Milan.
- Garrizmann, J.L., and K. Seng (2016). 'Party politics and education spending: Challenging some common wisdom', *Journal of European Public Policy*, 23(4): 510-530.
- Golden, M.A., and L. Picci (2008). 'Pork-barrel politics in postwar Italy, 1953-94', *American Journal of Political Science*, 52:2, 268-289.

- Grossman, P.J. (1994). 'A political theory of intergovernmental grants', *Public Choice*, 78(3-4), 295-303.
- Hooghe, L., G. Marks, A. Schakel, S. Chapman Osterkat, S. Niedzwiecki, and S. Shair-Rosenfield (2015). *A Postfunctionalist Theory of Governance. Volume I: Measuring Regional Authority*. Oxford: Oxford University Press.
- Jensen, C. (2011). 'Capitalist systems, deindustrialization, and the politics of public education', *Comparative Political Studies*, 44:4, 412-435.
- John, P., and H. Ward (2001). 'Political manipulation in a majoritarian democracy: Central government targeting of public funds to English subnational government, in space and across time', *British Journal of Politics and International Relations*, 3(3), 308-339.
- Jones, M.P., P. Sanguinetti, and M. Tommasi (1999). 'Politics, institutions, and public-sector spending in the Argentine provinces', in: J. Poterba and J. von Hagen (eds.) *Fiscal Institutions and Fiscal Performance*. Chicago: University of Chicago Press, 135-150.
- Keating, J., and M. Klatt (2013). 'Australian concurrent federalism and its implications for the Gonski Review', *Journal of Education Policy*, 28(4), 411-426.
- Khemani, S. (2003). 'Partisan politics and intergovernmental transfers in India', *World Bank Publications*, Vol. 3016.
- Kleider, H. (2014). 'Decentralization and the Welfare State: Territorial Disparities, Regional Governments and Political Parties. Doctoral Dissertation' Chapel Hill: University of North Carolina at Chapel Hill.
- Kleider, H. (2017). 'Redistributive policies in decentralised systems: The effect of decentralisation on subnational social spending', *European Journal of Political Research* doi: 10.1111/1475-6765.12229
- Larcinese, V., L. Rizzo, and C. Testa (2006). 'Allocating the US federal budget to the states: The impact of the president', *Journal of Politics*, 68:2, 447-456.
- Levitt, S. D., and J.M. Snyder Jr. (1995). 'Political parties and the distribution of federal outlays', *American Journal of Political Science*, 39(4), 958-980.
- Musgrave, R.A. (1959). *Theory of Public Finance: A Study in Public Economy*. New York: McGraw-Hill.
- Musgrave, R.A. (1983). 'Public finance, now and then'. *FinanzArchiv/Public Finance Analysis*, 1, 1-13.

- Nusche, D., T. Radinger, M.R. Busemeyer, and H. Theisens (2016). OECD Reviews of School Resources: Austria 2016, *OECD Reviews of School Resources*, OECD Publishing, Paris.
- Oates, W.E. (1972). *Fiscal Federalism*. New York: Harcourt Brace Jovanovich.
- OECD (2016). *OECD Regions at a Glance 2016*. Paris: OECD Publishing.
- Prud'Homme, R. (1995). 'The Dangers of Decentralization', *The World Bank Research Observer*, 10:2, 201-220.
- Reinikka, R., and J. Svensson (2004). 'Local capture: Evidence from a central government transfer program in Uganda', *The Quarterly Journal of Economics*, 119:2, 679-705.
- Rodden, J. (2003). 'Reviving Leviathan: fiscal federalism and the growth of government', *International Organization*, 57:4, 695-729.
- Rodden, J., and E. Wibbels (2002). 'Beyond the Fiction of Federalism: Macroeconomic Management in Multitiered Systems', *World Politics*, 54(4), 494-531.
- Röth, L. (2017). 'Equivalence presupposes validity. Toward comparable party positions on the market dimension', EPSA Conference paper, June 22–24, 2017, Milan.
- Röth, L., Afonso, A., & Spies, D. C. (2017). The impact of Populist Radical Right Parties on socio-economic policies. *European Political Science Review*, 1-26.
- Samuels, D. (2003). *Ambition, Federalism, and Legislative Politics in Brazil*. Cambridge: Cambridge University Press.
- Savage, J.D. (2000). *Funding science in America: Congress, universities, and the politics of the academic pork barrel*. Cambridge: Cambridge University Press.
- Simon-Cosano, P., Lago-Peñas, S., and Vaquero, A. (2013). 'On the political determinants of intergovernmental grants in decentralized countries: The case of Spain', *Publius: The Journal of Federalism*, 44(1), 135-156.
- Solé-Ollé, A., and P. Sorribas-Navarro (2008). 'The effects of partisan alignment on the allocation of intergovernmental transfers: Differences-in-differences estimates for Spain', *Journal of Public Economics*, 92:12, 2302-2319.
- Streeck, W., and D. Mertens (2011). 'Fiscal austerity and public investment: Is the possible the enemy of the necessary?' *MPIfG Discussion Paper*, No. 11/12.
- Thelin, J.R. (2004). 'Higher education and the public trough'. in: J. Edward and M. Parsons (eds.) *Public Funding of Higher Education: Changing Contexts and New Rationales*. Baltimore: Johns Hopkins University Press, 21-39.

- Volken, A., P. Lehmann, T. Matthieß, N. Merz, and S. Regel (2016). *The Manifesto Data Collection. Manifesto Project (MRG/CMP/MARPOR). Version 2016b*. Berlin: WZB.
- Wilkinson, I.R., B.J. Caldwell, R.J.W. Selleck, J. Harris, and P. Dettman (2006). *A History of State Aid to Non-governmental Schools in Australia*. Australian Department of Education, Science and Training.
- Worthington, A.C., and B.E. Dollery (1998). 'The political determination of intergovernmental grants in Australia', *Public Choice*, 94(3-4), 299-315.

Table 1: Vertical fiscal imbalance

Coding	Cases
[Fiscal Autonomy (0-4), Authority over Education (0-4)] ¹⁶	
No imbalance (0)	
Regions are fiscally balanced when either their fiscal autonomy is very high (=4) or their authority over education authority is very low (=1). In the first scenario, they have sufficient fiscal autonomy to finance even far-reaching education projects; in the second scenario, there is little pressure for them to spend. [fiscal autonomy = 4 or authority over education = 1]	States (US), Cantons (Switzerland), Navarra and País Vasco (Spain), Provinces (Canada), [all: fiscal autonomy = 4; authority = 4]; Todufuken (Japan), Regions (Norway), Län (Sweden), Regions (Italy), Amtskommuner (Denmark) [all: fiscal autonomy = 3; authority = 1]; Länder (Austria) [fiscal autonomy = 2; authority = 1].
Low imbalance (1)	
Regions have low imbalance when they have discretion over at least one major tax rate (=3) and when they exercise substantial authority over education (=3 or 4). [fiscal autonomy = 3 and authority over education = 3 or 4]	Autonomous Communities (Spain, except Navarra and País Vasco), Communities (Belgium) [all: fiscal autonomy = 3; authority = 3]
High imbalance (2)	
Regions have a high fiscal imbalance when they do not have discretion over any major tax (< 3) and exercise authority over education (4, 3, or 2) [fiscal autonomy < 3 and authority over education= 2, 3, or 4]	Territories (Australia) [fiscal autonomy = 2 and authority = 2]; Länder (Germany) [fiscal autonomy = 2 and authority = 4]; England, Wales, Scotland ¹⁷ [all fiscal autonomy = 0 and authority = 4]; Northern Ireland [fiscal autonomy = 1 and authority = 4].
Note: Authors' compilation, as discussed in the text and Online Appendix.	

¹⁶ Authority over education is very symmetrically distributed, but fiscal authority in some cases varies across regions within countries. For example, Scotland, Navarra, and the Basque Countries enjoy special fiscal treatment.

¹⁷ Scotland is formally in the second category because it has potential powers of taxation, but the Scottish government has never made use of its fiscal authority (Hooghe *et al.* 2010).

Table 2: Regression results

	Region fixed effects		Three-level model		
	(1)	(2)	(3)	(4)	(5)
Ideological alignment	62.669*		-30.691		46.085
	(28.932)		(16.408)		(40.403)
Partisan alignment		4.695		-0.373	
		(6.576)		(3.511)	
Low fiscal imbalance*ideological alignment			73.537		
			(68.584)		
High fiscal imbalance*ideological alignment			134.148***		
			(39.999)		
Low fiscal imbalance*partisan alignment				19.790	
				(12.680)	
High fiscal imbalance*partisan alignment				7.788	
				(8.002)	
Low fiscal imbalance			-59.393	-4.225	
			(61.692)	(11.823)	
High fiscal imbalance			-110.525**	-2.221	
			(36.283)	(11.115)	
Regional government ideology	-13.981	-6.910	-0.200	-1.767	68.635
	(22.229)	(22.469)	(9.333)	(9.462)	(51.398)
Ideological alignment*regional government ideology					-92.210
					(66.273)
Population under 15	-2.596	-2.606	-0.359	-0.253	-0.345
	(1.969)	(1.969)	(0.466)	(0.465)	(0.465)
Δ Regional GDP per capita	0.002	0.002	0.000	0.001	0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Regional GDP per capita	0.001	0.001	0.000	0.001*	0.000
	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)
Population density (log)	-94.333	-101.281	-1.261	-1.101	-1.125
	(74.036)	(73.979)	(1.110)	(1.108)	(1.107)
Δ Regional unemployment rate	0.187	0.176	0.163	0.172	0.174
	(0.118)	(0.117)	(0.090)	(0.090)	(0.090)
Regional unemployment rate	0.281	0.259	0.126	0.144	0.151
	(0.191)	(0.191)	(0.106)	(0.106)	(0.107)
Fiscal imbalance					1.015
					(5.169)
Mountainous region			-1.975	-1.596	-1.608
			(2.097)	(2.089)	(2.098)
Number of regions per country				-0.347	-0.320
				(0.304)	(0.311)
Constant	456.814	537.549	44.644*	22.570	-9.117
	(371.135)	(369.149)	(22.502)	(18.207)	(37.295)
N	2968	2968	2968	2968	2968
N (countries)	14	14	14	14	14

Standard errors in parentheses * p<0.05 ** p<0.01 *** p<0.001

Figure 1

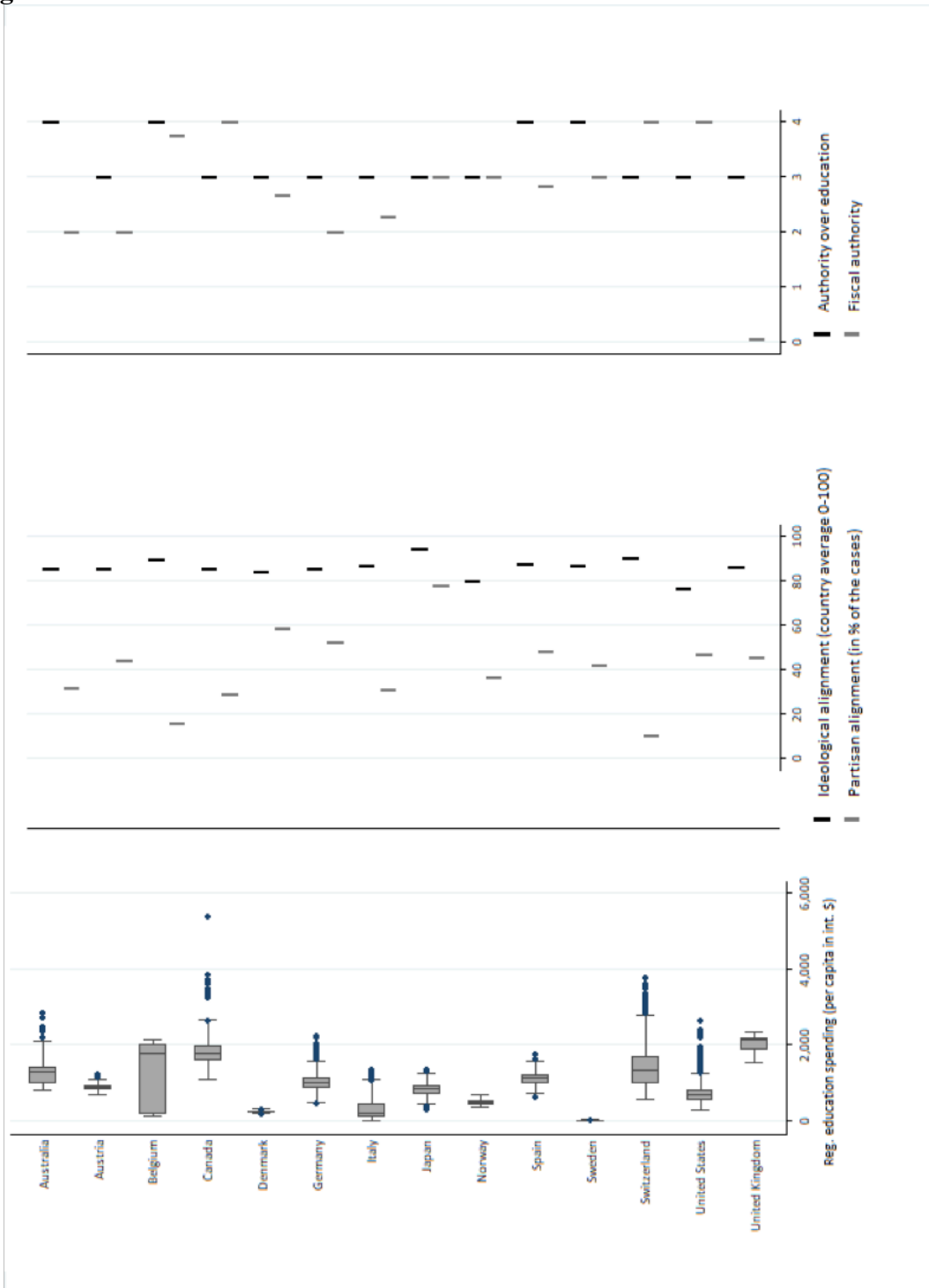


Figure 2

