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THE POLITICAL ECONOMY OF FISCAL SUPERVISION AND BUDGET DEFICITS: EVIDENCE FROM GERMANY

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Felix Roesel

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The Political Economy of Fiscal Supervision and Budget Deficits: Evidence from Germany

Felix Roesel†
ifo Institute, Dresden Branch

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Abstract

In many federal countries, local governments run large deficits, even when fiscal supervision by state authorities is tight. I investigate to which extent party alignment of governments and fiscal supervisors influences budget deficits. The dataset includes 427 German local governments for the period 2000–2004. I exploit a period after a far-reaching institutional reform that entirely re-distributed political powers on both the government level and the fiscal supervisor level. Results do not show that party alignments of governments and supervisors (co-partisanship) drive short-term deficits. Instead, I find that the ideology of partisan governments and supervisors matters: left-wing local governments run higher deficits than their right-wing counterparts; left-wing supervisors tolerate higher deficits than right-wing supervisors. These findings imply that political independence for fiscal supervisors is recommended.

JEL classification: H62; H74; H77

Keywords: Local government; Budget deficits; Fiscal supervision; Partisan cycle

†ifo Institute – Leibniz Institute for Economic Research at the University of Munich, Dresden Branch, Einsteinstrasse 3, 01069 Dresden, Germany, Phone: +49(0)351/26476-28, E-mail: roesel@ifo.de. A previous draft of this paper circulated under the title "Co-Partisan Buddies or Partisan Bullies? Why State Supervision of Local Government Borrowing Fails" (Ifo Working Paper No. 189, 2014). For helpful comments I would like to thank the Editor James Cloyne, two anonymous referees, Niklas Potrafke, Bruno S. Frey, Kai A. Konrad, Marcel Thum, and the participants of the workshop "Öffentliche Finanzen und Politische Ökonomie II" 2014 in Munich, and the participants of the Brown Bag seminar at the Faculty of Business and Economics of the Technische Universität Dresden. The usual disclaimer applies.

I. Introduction

The bankruptcies of the U.S. cities of Stockton, San Bernardino and Detroit put the issue of excessive local government debt into the spotlight. Although studies have investigated different sources of local indebtedness, such as political business cycles [Ashworth et al. (2005), Veiga and Veiga (2007), Cioffi et al. (2012), Benito et al. (2015)], missing direct democratic institutions [Feld and Kirchgässner (2001)] or spatial dependency [Borck et al. (2015)], they do not reflect one of the main features of local finance: fiscal supervision. In most federal countries such as Austria, Australia, Canada and Germany, but also in some Swiss cantons and in a growing number of U.S. states, state authorities regulate local finance by drawing on a large set of mandatory approvals, reporting rules and intervention rights [Rattsø (2002)]. Local governments should, in principle, not run excessive deficits if their actions are subject to effective supervision. Christofzik and Kessing (2014) show that budget deficits are lower when local governments are subject to tight fiscal supervision. In practice, however, interactions between supervisors and governments establish new sources of distortions and misdirected incentives if both levels are affiliated with political parties.[1]

I present empirical evidence from German local governments supporting concerns of a political bias in fiscal supervision. A far-reaching institutional reform in the largest federal state of Germany, North Rhine-Westphalia, removed former accountabilities and introduced the direct election of both the leaders of local governments and of their fiscal supervisors. At the same time, short-term debt (*Kassenkredite*), which is at the discretion of governments and supervisors, began to rise sharply as shown in Figure 1. The black line shows the evolution of local government short-term debt per capita since 1960. Short-term debt did not play a role in local finance until the 1990s, it increased moderately beginning in 1994, and it has risen dramatically since the 1999 reform. This contrasts with the slowly declining long-term debt between 1999 and 2010 (gray line) which is related to capital spending.

[Figure 1 about here]

[1] The question whether to install an independent or a partisan fiscal supervisor does also apply to higher levels of government, and even supranational institutions. Observers claim that a “strong, independent, non-partisan [EU] Commission is badly needed” and doubt whether a partisan president of the EU Commission will monitor the fiscal performance of EU member states unbiased [Grabbe and Lehne (2013)].

Due to the overall high level of fiscal distress of German municipalities, The Economist (2011) labels them "Hundreds of mini-Greeces" and mentions the failure of "state watchdogs" as one of the main causes, especially in North Rhine-Westphalia. The political economy of fiscal supervision of German local governments is delicate. First, both supervised politicians and their fiscal supervisors are part of local party politics. Second, fiscal supervisors have a great deal of discretion in regulating local governments' finance. Two political economy sources of supervisory failure may arise from this setting: party relations and party values. On the one hand, a partisan overseer may supervise a co-partisan government in a laxer fashion than a non-affiliated government. On the other hand, partisan supervisors may enforce their party values, leading to an ideological bias in fiscal supervision. I test both hypotheses empirically. Results do not show that party alignments of governments and supervisors (co-partisanship) drive short-term deficits. Instead, I find that the ideology of partisan governments and supervisors matters: left-wing local governments run higher deficits than their right-wing counterparts; left-wing supervisors tolerate higher deficits than right-wing supervisors. These findings imply that political independence for fiscal supervisors is recommended.

II. Related literature and hypotheses

Central governments run fiscal policy autonomously, whereas local government finance is monitored and regulated by state authorities in many countries. Fiscal supervision includes mandatory approvals, reporting rules and intervention rights [Rattsø (2002)]. In some states, supervisors have to approve or can veto decisions on local budgets. In this case, the decision on local deficits is shared among two layers of government. If the decision on deficits is divided, both layers of government might be subject to partisan influences. Numerous studies show that ideology and party politics are main drivers of fiscal deficits [for an overview see Eslava (2011)]. In this section, I outline a political economy theory of partisanship and fiscal policy. In a second step, I discuss how partisanship impacts public finance within a setting of local governments and fiscal supervisors.

1. Partisanship and budget deficits

Numerous empirical studies investigated partisan impacts on policy outcomes [seminally Hibbs (1977); for an overview, see Schmidt (1996)]. Papers show that left-wing parties favor a larger public sector and therefore higher governmental expenditures than their right-wing counterparts [e.g., Pettersson-Lidbom (2003), Potrafke (2010a), Bjørnskov and Potrafke (2013)]. However, the implications of this finding for fiscal deficits must be derived carefully. Higher spending levels do not necessarily corresponds with higher deficits when taxes are increased simultaneously. Conversely, tax cuts do not cause an increase in debt if they are combined with reductions in spending. Deficits only arise if either revenues or expenditures are "fixed" for certain reasons. Party attitudes towards the extent of the public sector are such reasons: Higher deficits occur under right-wing governments if these governments enforce ideologically driven tax cuts, but the expenditure level is entirely determined by law or political opportunity. Conversely, if revenues are given, left-wing parties can only finance additional expenditures by increasing deficits.[2] This leads to Hypothesis 1:

Hypothesis 1: Partisanship matters to local government: Left-wing governments run higher deficits than right-wing governments when they face fixed revenues.

Evidence from the sub-national level gives confidence to the theory outlined above. German state governments face a strong asymmetry in fiscal autonomy, as they can spend and borrow autonomously but do not have significant authority to levy or raise taxes. As mentioned by theory, Wagschal (1996), Rodden (2006) and Potrafke et al. (2016) reveal higher deficits for left-wing state governments in Germany.[3]

[2] For example, one may think of the Proposition 13 Tax Reform in California that was implemented in 1978, which limits the property tax rate by constitutional amendment [see Coupal (2004)]. In this view, the strategically multi-period distribution of deficits under an intertemporal budget constraint is a sub-case of the theory I outlined. Persson and Svensson (1989) predict higher deficits of ("stubborn") right-wing governments that face a replacement by the political opponent. If these right-wing governments want to enforce a smaller public sector through lower public expenditures, they may cut taxes and borrow strategically to restrict future governments. Implicitly, this assumes fixed revenues. Conversely, Carlsen (1997) assumes higher deficits of left-wing governments because of asymmetrical reactions to the business cycle under left-wing leadership. While right-wing governments set a pro-cyclical fiscal policy and therefore avoid deficits in all circumstances, left-wing governments run counter-cyclical deficits in times of recession but do not run surpluses in good times. Interestingly, this theory of inter-temporal budget constraints also assumes a fixed level of revenues and/or spending.

[3] Jochimsen and Nuscheler (2011) and Jochimsen and Thomasius (2014) however do not find partisan effects at the German state level.

For the local level, evidence is mixed. García-Sánchez et al. (2011) show that Spanish towns run higher debt levels under left-wing governments than under right-wing governments. Conversely, Pettersson-Lidbom (2001) presents evidence of higher deficits of right-wing governments in Swedish municipalities. Other micro-econometric studies do not find partisan sources of local deficits. Neither Ashworth et al. (2005), Veiga and Veiga (2007), nor Letelier (2011) reveal a significant influence of partisanship on Belgian, Portuguese and Chilean municipal deficits. An explanation for these results might be that studies on local governments do not address the issue of revenue or expenditure constraints. This paper address this issue and presents evidence on German municipalities that face a *de facto* given level of revenues (see Section III for more detail).

2. Partisanship and fiscal supervision

Most federal states have to resolve the trade-off between local autonomy on the one hand and implicit or explicit bailout guarantees of higher levels of government on the other hand [Rodden (2006)]. States therefore installed mechanisms of fiscal supervision to prevent lower levels from adverse actions and to avoid bailout payments.[4] In Austria, Australia, Canada and Germany, for example, state authorities regulate local governments' finances by drawing on a large set of intervention rights. Even in Switzerland that virtually abandons local government bailouts, cantons supervise the fiscal policy of their municipalities. Recently, a growing number of U.S. states experiment with more active and hands-on fiscal supervision of local governments in reaction to an increasing level of municipal fiscal distress [Spiotto (2013)].

One aspect that is frequently overlooked is that supervision induces new sources of misdirected incentives if fiscal supervisors are part of local politics, e.g., in Germany or Austria. First, *co-partisanship* between a supervisor and a government that belongs to the same party may have an influence on fiscal policy [Letelier (2011)]. Partisans in lower levels of government can use party connections to enjoy the laxer debt supervision of aligned fiscal supervisors, e.g., by threatening to not re-nominate a co-partisan supervisor for office [Khemani (2007a)]. Bailout expectations may also increase deficits under co-partisanship [Rodden (2006)]. As a state bailout seems to be more likely if a co-partisan runs the state

[4] For country studies, see Rattsø (2002), Rodden et al. (2003), Steytler (2005).

government, this expectation may result in less fiscal discipline. Hypothesis 2 captures these considerations:[5]

Hypothesis 2: Co-partisanship matters to fiscal supervision: Governments, of any party, run higher deficits under a co-partisan supervisor than under a non-aligned supervisor.

Second, a partisan supervisor may reinforce her ideological values towards budget deficits independently of whether the supervised government belongs to the same party. Khemani (2007a), p. 56 illustrates this for the case of Indian states: "If there is any impact of political partisanship, then co-partisan states should have lower deficits if the party's political incentives are aligned with greater fiscal discipline. However, if the party's own interests are served through greater deficits, then co-partisan states should have higher deficits." The incentives to use supervisory powers to enforce party values are even larger when electoral externalities link different layers of governments [Rodden (2006)]. These externalities arise if the re-election probability of a politician is not only driven by her own reputation but also by the reputation of her co-partisan counterpart at another level of government. In this case, fiscal supervisors are confronted with even stronger incentives to take coherent supervisory actions related to their partisan values (Hypothesis 3).

Hypothesis 3: Partisanship matters to fiscal supervision: Governments, of any party, run higher deficits under a left-wing supervisor than under a right-wing supervisor when local governments face fixed revenues.

To date, little is known about the effects of fiscal supervision on local finance.[6] Few studies focus on the relationship between the central and the first sub-national government level. Rodden (2006) and

[5] Jones et al. (2000) and Cioffi et al. (2012) describe a different perspective. Under strong "top-down" party discipline, national party leaders might be able to put pressure on affiliated sub-national governments to stop unsustainable fiscal policy. Co-partisanship would then lead to sounder fiscal outcomes. However, as the "bottom-up" setting of internal party powers as proposed by Khemani (2007a) appears more plausible for western democracies, I follow the deficit-enforcing theory of co-partisanship.

[6] By contrast, transfers of state governments to affiliated local governments are well-documented [Larcinese et al. (2006), Khemani (2007c), Solé-Ollé and Sorribas-Navarro (2008)].

Khemani (2007a, 2007b) show a deficit-raising effect of co-partisanship between central and state governments in Germany and India, respectively. For the case of Brazilian states and Italian regions, Rodden (2006) and Hallerberg and Stolfi (2008) do not find a significant influence of co-partisanship. Hence, evidence of an impact of co-partisanship on fiscal policy (Hypothesis 2) at the state level is at least mixed. Surprisingly, previous studies have not investigated the local level, albeit the political, institutional and especially supervisory links between local and state governments are much tighter than between state and central governments. Anecdotally, fiscal supervision has been described to be one of the key determinants of local finance [Dollery et al. (2009), Holler (2012)]. As a single exception, Christofzik and Kessing (2014) document lower local deficits when fiscal supervision is tight. The political economy interactions of supervisees and supervisors, however, have not been addressed so far. This paper aims to fill this research gap by drawing on data of German local governments and their supervisors. As shown below, the chosen framework allows the testing of Hypothesis 1 as well as the competing Hypotheses 2 and 3.

III. Institutional background

1. Local government in Germany

Germany has a federal system with a central government, state governments and two layers of local government (municipalities, counties). Municipalities (*Gemeinden*) are responsible for local public services such as public order, waste disposal or cultural institutions and can set their own tax rates on property and local business. Counties (*Landkreise*) constitute the second local government layer and roughly correspond with US counties in terms of population. Counties are mainly responsible for social care (youth and social welfare, accommodation costs of long-term unemployed), public transport, public health, and parts of education.

I focus on the largest German state in terms of population, North Rhine-Westphalia, to rule out noise from institutional differences between German states. In North Rhine-Westphalia, there are 427 local governments in total (396 municipalities, and 31 counties which group 7 to 24 municipalities).[7] Since

[7] 23 large urban municipalities (*Kreisfreie Städte*) execute both municipality's and county's powers as one.

1999, political powers within local governments in North Rhine-Westphalia are divided between a directly elected head of government (municipalities: mayor, counties: county administrator) on the one hand and a local council on the other hand. A proportional system is implemented for local council elections. Usually, the head of government is a member of a political party and holds powerful rights, especially assuming the day-to-day management of local administrations. The local council decides on more general issues, e.g., local statutes. Mayors, county administrators and local councils are elected for five years in elections held on the same day statewide.

Local governments in North Rhine-Westphalia are in high fiscal distress. North Rhine-Westphalia covers approximately 22% of the German population (2010), but 36% of local governments' total debt (44.5 billion Euro) and 48% of local governments' short-term debt (18.8 billion Euro) [Federal Statistical Office (2013a)]. Moreover, local governments in North Rhine-Westphalia run the highest property and business tax rates on average in Germany, while state-funded grants have been declining for years [Federal Statistical Office (2013b), Agency of Information and Technology of North Rhine-Westphalia (2014)]. Given a vital business tax competition between German municipalities [Buettner (2001)], local governments in North Rhine-Westphalia can no longer raise taxes on a large scale. Industrial representatives expressed their deep worries that North Rhine-Westphalia is falling behind in attracting businesses because of high business tax rates and call for tax cuts [IHK Cologne (2009)]. Altogether, local governments in North Rhine-Westphalia face a *de facto* constraint on revenues that may allow partisan differences to come into action.

2. Fiscal supervision of local government debt

In Germany, and also in North Rhine-Westphalia, local governments can spend and borrow autonomously but are subject to fiscal supervision. All federal states have implemented a broad set of budget oversight instruments to monitor their local governments (*Kommunalaufsicht*). The fiscal supervisor has the right to request information on local affairs, approve decisions on specific topics and suspend illegal decisions made by the local council or the government. In more extreme cases, the fiscal supervisor can substitute local governments' decisions, dissolve the local council or appoint a regulator to take over local decisions. Notably, all of these regulation steps are entirely at the discretion of the supervisor. The instruments and the intervention powers of fiscal supervisors differ substantially between German states. In some states, the local budget has to be approved by the supervisor; other states only receive the local budget for information [for overviews, see Brüning and Vogelgesang (2009), Glöckner and Mühlenkamp (2009), Holler (2012)].

In North Rhine-Westphalia, municipalities are supervised by the county administrators who act on behalf of the state government in exercising fiscal supervision. Counties in turn are directly supervised by the state administration. Fiscal supervision includes the monitoring of long-term and short-term debt. Long-term debt is solely allowed to finance capital spending given a sound fiscal perspective, and has to be passed by the local council. The fiscal supervisor can veto the budget within one month.[8] Short-term debt is treated differently. The head of the local government decides on short-term debt in order to ensure the liquidity of the local authority. The local council cannot intervene in specific short-term debt decisions of the government.[9] The sharp increase in short-term debt in recent years (see Figure 1) however cannot be explained by liquidity purposes only. Legal literature deems the evolution of short-term debt to be obviously illegal [Heinemann et al. (2009)]. The fiscal supervisors would have the right to restrict local governments' short-term debt, but the exercise of this right is at their discretion.

The institutional setting provides a fatal opportunity for both strategic "buddy" deals between the supervised government and the fiscal supervisor and for ideological supervision. On the one hand, municipal party sections decide whether to re-nominate the fiscal supervisor (county administrator) running for office again.[10] Municipal party sections are often led by the mayor whose actions are subject to the supervision of the county administrator. To ensure her re-nomination, a partisan supervisor might be vulnerable to pressure and slackens supervision of municipalities. Second, supervised municipal politicians are often members of the county council that monitors the actions of the county administrator (i.e., the fiscal supervisor of municipalities) and enacts the county's budget. This provides further opportunities to put pressure on the fiscal supervisor. Heinemann et al. (2009), p. 185 report on the "specific risk

[8] In other German states, the budget not only has to be notified but also has to be approved by the supervisor.
[9] The council can only set out a general short-term debt ceiling. Usually, this ceiling is generously sized and will be raised in times of fiscal distress.
[10] There are no term limits. Politicians are allowed to compete for re-election.

of politically motivated collusion or coercion situations, e.g., between the county administrator and the mayor of the supervised municipality" (own translation by the author). Left-wing mayors, in particular, are said to use party connections to exert pressure on fiscal supervisors [Holtkamp (2000)].

On the other hand, there is also evidence that supports the ideology hypothesis for fiscal supervisors. Glöckner and Mühlenkamp (2009), p. 415 suspect a "partisan-driven political logic of action by the supervisory authority" (translation by the author) in German states. In North Rhine-Westphalia, electoral externalities are important, because one observes a sharp polarization and tight races between right-wing and left-wing parties. Thus, partisan supervisors should take coherent policy actions according to their parties' values. An ideological behavior of supervisors is therefore as likely as a co-partisan favoritism. Ultimately, this is an empirical matter.

IV. Empirical strategy

1. Identification

Reverse causality concerns are some of the most common issues of empirical political economy models [see Eslava (2011)]. On the one hand, numerous studies on political business cycles show that politicians borrow in order to ensure re-election (see, e.g., Potrafke 2010b). On the other hand, empirical evidence shows that excessive budget deficits reduce the probability of governments to be re-elected [Brender and Drazen (2008)]. Thus, partisanship may impact fiscal outcomes, but also vice versa. Reverse causality of deficits and electoral outcomes becomes even more complicated in the case of vertical co-partisanship. Because of electoral externalities between different layers of government in a federal system, fiscal outcomes and electoral results of multiple layers of government are no longer independent.

The exceptional evolution of local government institutions in North Rhine-Westphalia gives a simple but efficacious opportunity to address these concerns to considerable extent. A far-reaching institutional reform entirely re-distributed the political powers at both layers of local government (municipalities and counties). Until 1999, local government leadership was divided. At the municipal level, mayors worked in an honorary capacity and carried out mainly representative tasks, while a city manager as the chief of the local administration executed the operative management of the municipality. Both leading officials were elected by the local council. In 1999, this parliamentary system was replaced by a presidential system: the functions of the city manager and mayor were conjoined, and direct elections were introduced. The county level was treated analogously: the former functions of an honorary county administrator and an operating county manager were merged into one. Since 1999, a directly elected county administrator supervises the municipalities. Hence, former accountabilities of *both* government and supervision have vanished. This is especially true for the case of short-term debt because the function held responsible for short-term debt (city managers) and its supervision (county managers) no longer exist. I therefore assume that the electoral chances of the candidates running for the newly created mayors' offices in 1999 cannot be driven by their own previous local budget performance.[11] There have not been further local elections between 1999 and 2004. Thus, reverse causality can be ruled out to substantial extent which reduces a potential bias in OLS estimates. For robustness exercises, I will later investigate an extended period up to the year 2010.[12] However, long-run results have to be interpreted in a prudent way due to more serious reverse causality concerns.[13]

2. Data

The dataset includes all 427 local governments (396 municipalities, 31 counties) of North Rhine-Westphalia for the first period of direct local elections from 2000 to 2004 (2,135 observations). Financial and socio-demographic data are provided by the Agency of Information and Technology of North Rhine-Westphalia (2013, 2014) and the Federal Employment Agency (2013); data on local election outcomes and officeholders are taken from the Ministry of the Interior of North Rhine-Westphalia (2014), and some are hand-collected. Financial data were deflated by a uniform GDP deflator for North Rhine-Westphalia to generate data in 2012 prices [Regional Accounts VGRdL (2014)].

[11] Some of the mayoral candidates in 1999 had previously been a part of local politics as members of the local council or had served as honorary mayors. However, they could not influence short-term deficits in these positions. Only 27.3% of all elected mayors in 1999 previously served as city managers and may have issued short-term debt. Moreover, one out of four of these mayors has not been affiliated with a political party [Gehne (2000)]. In addition, the reform of the electoral system and of the competences of the local politicians in 1999 has been that massive, that former short-term debt performance should not have an impact on the first election outcomes.

[12] Because of significant reforms I restricted the data set to the period up to 2010: In 2011, an extensive bailout package for municipalities in fiscal distress has been implemented by the state government (*Stärkungspakt Stadtfinanzen*). In addition, the supervision on these municipalities has switched over from the county administrator to the state administration.

[13] Outcomes of the second direct election of the head of government in 2004 might have been driven by fiscal policy of the first generation of directly elected governments.

Short-term (long-term) deficits are measured as the absolute annual change of short-term (long-term) debt per capita. Financial data include deficits of the core budget of local governments; deficits of extra budgets are not covered.[14] For robustness exercises, I also use the short-term loan finance quotient (ratio of short-term deficit and total spending) as an alternative measure of annual budget deficits. The main variables of interest, the measures of being a left-wing or a right-wing head of local government and being subject to a left-wing or right-wing supervision,[15] are coded binary because of a clear left-right classification of the parties in office.[16] Hence, I can compute a co-partisanship dummy that is equal to 1 if the local government and its supervisor belong to the same ideology (either right-wing or left-wing) and do not face problems related to measuring the degree of alignment between different government layers [Solé-Ollé and Sorribas-Navarro (2008), Letelier (2011)].

3. Descriptive statistics

Table 1 presents the summary statistics. For reasons of stationarity, I use deficits (absolute changes in debt stocks) rather than the debt stocks shown in Figure 1 above. On average, short-term deficits amounted to 25 Euro in real terms per capita per year, while long-term deficits were at 4 Euro per capita on average. In most cases, local governments in North Rhine-Westphalia have been led by right-wing parties (68%). Left-wing governments account for 20%, non-partisan governments for 12% of all cases. In 64% of all observations, the head of the local government and the fiscal supervisor belong to the same party (co-partisanship).

[Table 1 about here]

Beside partisan issues, socio-demographics may drive local deficits. I use several variables which I also include in first differences to ensure stationarity. First, in cases of high unemployment rates, local governments have to bear additional social expenditures. I include the number of unemployed per 1,000

[14] This data restriction should not change the results for short-term debt substantially because core budget short-term debt accounts for more than 99% of total local government short-term debt in North Rhine-Westphalia [Federal Statistical Office (2013a)].
[15] There have been no non-partisan supervisors.
[16] The conservative CDU and the liberal FDP are treated as "right-wing", the social democratic SPD and the Green Party (Bündnis 90/Die Grünen) are treated as "left-wing" parties. In addition, there are also non-partisan governments. The partisan variable of the head of government is coded by a certain party if this party was in office for the whole year. In cases of leadership changes during the year, deficits are treated to be still determined by her predecessor to ensure a correct accountability for the annual deficit.

capita as a proxy for local labor market problems.[17] Second, larger municipalities are said to run higher expenditures per capita than smaller municipalities, e.g., because of rising crowding costs [Wildasin (1986)]. To control for this additional source of deficits, I include the population size. Third, declining intergovernmental grants from higher levels of government may force local governments to borrow more if other sources of revenues are depleted. Therefore, the estimations include the received intergovernmental grants from the state government (*Schlüsselzuweisungen*). The first difference of the area covered by buildings captures the increase of local wealth, (property) tax base and the popularity of a certain municipality. Fifth, the far-reaching structural change in the densely populated Ruhr district has not yet been completed. Supporting the shift of the local economy from coal and other heavy industries to services may cause additional local government spending and deficits. I use the share of industrial employees as a proxy for this specific economic condition. Spillover effects may force local governments to run deficits. For instance, in-commuters cause additional public expenditures but do only partially contribute to local governments' revenues because the income tax has to be paid at the place of residence. The share of in-commuters of all employees that have their workplace in the local government covers this potential deficit-forcing channel. Lastly, dummies related to the locally dominating religious denomination cover deep-rooted cultural aspects which may influence local fiscal behavior.

I include variables that account for further political economy theories. First, following the weak government hypothesis, one may expect a deficit-increasing effect of a fragmented council [Roubini and Sachs (1989)]. Therefore, I add a dummy that equals 1 if neither right-wing nor left-wing parties hold an absolute majority in the local council (fragmented council) and 0 otherwise. Second, I include a dummy variable that measures whether the party of the head of government holds an absolute majority in the local council. This was true in about 68% of all cases between 2000 and 2004 (see Table 1). The impact of this variable is not clear: if the government can rely on a majority in the council, it might be easier to enact fiscal consolidation and deficit reductions. At the same time, the system of checks and balances among the executive and legislative branch of local government is weak, and deficits may increase.

[17] At the municipal level, the common unemployment rate is not available.

4. Regression design

As the baseline specification, I estimate a Pooled OLS model with standard errors clustered at the local government level and year fixed effects. Like many other studies which investigate cross-sectional differences in municipal debt, the setting of this paper is characterized by low time variation in main explanatory variables of interest. Cabasés et al. (2007) employ Pooled OLS, and Letelier (2011) uses a Random Effects framework to study the influence of institutions on local government debt. Due to the empirical setup, both studies cannot include local government fixed effects.

However, this strategy might be associated with a potential omitted variable bias. This paper tackles the possibility of an omitted variable bias in three ways. First, reverse causality can be ruled out to large extent because of the 1999 electoral reform discussed above. Second, I include a broad set of control variables ranging from labor market conditions, demographic measures even to local religious denomination. Given that religious denomination is associated with deep-rooted local culture it may cover debt attitude as well as political preferences [Dyson (2014)]. Third, I include district fixed effects. In North Rhine-Westphalia, five districts (*Regierungsbezirke*) exist which highly coincide with cultural borders [see, e.g., Neuhaus et al. (2004)]. This allows me to control for common time-invariant unobservable characteristics of municipalities within the same district.

The estimation equation is specified as follows:

$$D_{it} = \alpha + \beta_1 L_{it} + \beta_2 C_{it} + \beta_3 L_{it} C_{it} + \sum \theta_k X_{kit} + \tau T_i + \gamma R_i + \delta Y_t + \varepsilon_{it} \quad (1)$$

D_{it} measures the short-term deficit per capita of local government i in year t. The regression includes a set of k control variables (X), year fixed effects (Y), district fixed effects (R), and local government type fixed effects (T) which equals 1 for counties and 0 for municipalities. Due to stationary concerns, all socio-demographic and fiscal controls are measured in first differences, although results do not change substantially when the regressions are estimated in levels. To separate partisan and co-partisan effects, I use interaction terms. L_{it} equals 1 if a government is affiliated with a left-wing party and 0 for a right-wing party.[18] In the baseline setting, I exclude non-partisan governments. C_{it} is equal to 1 in cases of co-partisanship (same party affiliation of governments and fiscal supervisors). The interaction term $L_{it}C_{it}$ captures the case of left-wing co-partisanship. This set of dummies covers all possible cases of relationships between governments and supervisors and allows to test of the three guiding hypothesis introduces above (see Table 2). Right-wing governments under left-wing supervision represent the base category, while β_1 measures the converse constellation. β_2 gives the marginal effect for a right-wing co-partisan relationship; the sum of the coefficients β_1, β_2 and β_3 captures left-wing co-partisanship.

[Table 2 about here]

As introduced above, Hypothesis 1 states that left-wing governments run higher deficits than right-wing governments. If this case, each term of the first row in Table 2 ($\beta_1 + \beta_2 + \beta_3$ respectively β_1) should be larger than its counterpart in the second row (zero and β_2):

$$\beta_1 + \beta_2 + \beta_3 > 0 \text{ and } \beta_1 > \beta_2 \quad (2)$$

Subtracting β_2 from both sides of the second condition yields:

$$\beta_1 + \beta_2 + \beta_3 > 0 \text{ and } \beta_1 - \beta_2 > 0 \quad (3)$$

If co-partisanship matters (Hypothesis 2), local governments' deficits should be higher under co-partisanship than under adversary supervision, independent of a left-right affiliation. Hence, coefficient β_2 should be greater than zero (right-wing co-partisanship), and the term $\beta_1 + \beta_2 + \beta_3$ should be significantly greater than β_1 (left-wing co-partisanship). Because one can subtract β_1 on both sides of the first condition, (4) shows the formalization of Hypothesis 2:

$$\beta_2 + \beta_3 > 0 \text{ and } \beta_2 > 0 \quad (4)$$

Conversely, if political values dominate co-partisanship in supervision, an ideological supervisor force her political attitude on the issue of debt independently of the party of the government (Hypothesis 3). Formally, this leads to (5) that competes with (4):

[18] In 1999, about 97% of all partisan politicians have been a member of their nominating party [data based on Gehne (2000)]. However, also the small amount of politicians who are not party members may show loyalty to their nominating party given the vital party competition in North Rhine-Westphalia.

$$\beta_2 + \beta_3 > 0 \text{ and } \beta_2 < 0 \tag{5}$$

The results for the question of partisan or co-partisan oversight policy are mainly driven by the sign of β_2 and $\beta_2 + \beta_3$. If the signs of these terms point in the same direction, the hypothesis of co-partisan favoritism can be confirmed. If there is a significant, but different sign, evidence of ideological supervision is found.

V. Results

1. Baseline results

The results of the baseline specifications are shown in Table 3. Model 1 is the most parsimonious specification, Models 2 and 3 include local government type fixed effects, district fixed effects and additional variables. A positive sign indicates higher deficits and lower surpluses; a negative sign shows greater fiscal discipline. The coefficient for the interaction term $(L \times C)$, β_3, is statistically significant and greater than zero at the 1% level in all specifications. Conversely, β_2 is smaller than zero and also significant at the 1% level. The coefficient for left-wing governments (β_1) also differs significantly from zero and is always greater than β_2. The inclusion of additional controls does not change the signs and order of any coefficient of interest. I find a significant but very small substitution effect of short-term and long-term debt of about 6 Cent (Model 3).

[Table 3 about here]

However, as regression results of the interacted variables cannot be interpreted themselves, I calculated the marginal effects proposed in Table 2. Table 4 shows the results for the period from 2000 to 2004, calculated for Model 1 in Table 3. Partisanship matters to government as well as to supervision: While left-wing governments run higher short-term deficits than right-wing governments, governments under left-wing supervision run even higher deficits than under right-wing supervision. The marginal effect for left-wing co-partisanship remains insignificant due to a small number of observations. For a larger sample up to 2010, one observes a highly significant result.

[Table 4 about here]

The results are in line with the theory on partisan behavior. As described above, local governments' revenues in North Rhine-Westphalia are constrained by both an increasingly exhausted tax base and declining state transfers. Given that left-wing governments prefer higher expenditure levels, the only way to finance these additional expenditures is to run higher deficits (governments) or to tolerate higher deficits (supervisors). Altogether, Hypotheses 1 and 3 can be confirmed: Ideology matters and dominates the incentives resulting from party connections.

All partisan effects are substantial. Hypothetically, a left-wing government switching from a right-wing to a left-wing supervisor would increase the short-term deficit by 87 Euro per capita which is 85% of a standard deviation in the period from 2000 to 2004 (see Figure 2, left-hand side).[19] This effect remains almost constant for the period from 2000 to 2010.[20] Also a right-wing government facing a left-wing instead of a right-wing supervisor would run higher short-term deficits (34% to 39% of a standard deviation). Positive bars at the right-hand side of Figure 2 show that changing from a right-wing to a left-wing government would lead to higher deficits, too. Interestingly, the effects of an ideological switch of the supervisor are about 20 to 30 percentage points larger than changes in government (compare left-hand side bars to right-hand side bars in Figure 2). Empirical studies on local finance should therefore always address fiscal supervision rather than focusing on the local government level only.

[Figure 2 about here]

2. Robustness tests

I carry out several robustness tests which are compared to the baseline results in Table 5 (column 1). First, differences between municipalities and counties may drive the results. Municipalities are supervised by county administrators whereas counties are directly supervised by the state administration. I exclude local governments of the county type to account for differences in supervision intensity between county administrators and state authorities (Model 2). The remaining more homogenous sample includes municipalities only. All partisan results hold under this specification. Second, if fiscal supervision is

[19] Note that positive signs indicate a larger deficit. The standard deviation for the period from 2000 to 2004 is 102.62 (see Table 1). The switch of a left-wing government from a left-wing to a right-wing supervisor would lower the short term deficit by $51.80 - (-35.63) = 87.43$; this gives an effect of $87.43/102.62 = 85\%$.

[20] The calculation for the 2000 to 2010 period gives: $(56.14 - (-30.53))/131.08 = 66\%$. Descriptive statistics for the 2000 to 2010 are available upon request.

driven by ideology, this bias should not only be visible in the case of partisan governments, but also in the case of non-partisan governments. All results are robust to the inclusion of non-partisan governments (Model 3). I conclude that results are not driven by governments which are not affiliated with a political party. Third, I test whether results depend on the baseline estimation strategy (Pooled OLS). I re-estimated the baseline specification with Random Effects and Between Effects (Models 4 and 5). The results referring to these models are similar to the Pooled OLS model. Thus, results do not depend on a certain estimation technique. Fourth, all results hold in a long-term perspective. I extend the dataset to the year 2010 (Model 6). Inferences do not change albeit reverse causality might be a more serious issue in this specification. I conclude that results are not driven by a certain time period. Fifth, the measurement of annual deficits might be an issue. The absolute deficit per capita does not account for the size of the local budget which might be higher for certain reasons, e.g., special local needs. I substitute annual short-term deficits per capita as the dependent variable by the loan finance quotient which measures the ratio of short-term deficits and total spending. The loan finance quotient, however, leads to the same signs of all coefficients (Model 7). Hence, findings are also robust to a different way of measuring budget deficits.

[Table 5 about here]

Finally, I exploit the asymmetric supervisory rules for long-term and short-term debt. As shown in Section III, long-term debt is subject to strict rules, whereas short-term debt is at the discretion of governments and fiscal supervisors. Therefore, one should expect that (co-)partisanship matters to short-term deficits, but not to long-term deficits. Table 6 gives results of a pseudo treatment specification in which I substitute short-term deficits by long-term deficits (Models 3 and 4). As expected, partisanship does not have an effect on long-term deficits because the relevant transmission channel is missing. This test provides further evidence for the findings in the case of short-term debt.

[Table 6 about here]

VI. Conclusion

I investigated whether partisanship of governments and fiscal supervisors has an impact on local government budget deficits. I show that partisanship matters to both government and to fiscal supervision: Left-wing governments run higher short-term deficits than right-wing governments, and left-wing supervisors tolerate higher deficits than their right-wing counterparts. Ideology even dominates the incentives resulting from party connections between affiliated levels of government.

These findings have important implications for the debate on the optimal design and extent of fiscal supervision. Following Khemani (2007a), Glöckner and Mühlenkamp (2009), Grabbe and Lehne (2013) or Spiotto (2013), one could advocate an independent supervisory agency or board in order to avoid partisan distortions. Two other German federal states, which also suffer from local fiscal distress, adopted reforms along this consideration. In 2008, Saarland shifted all supervisory powers to a central state agency. For municipalities in the state of Hesse, bailout payments from the state government come with direct supervision by the state administration. However, these reforms remain incomplete because the new supervisors are appointed by the state government and are not immune to partisan influences, either.

An independent local government debt agency, however, suffers from a lack of democratic legitimacy. Strengthening the accountability for local decisions might be a more democratic way to limit local government debt. One step could be the implementation of quasi-automatic direct democratic decisions on local budgets [Feld and Kirchgässner (2001)]. Further research is needed for a better understanding of efficacious supervision regimes that solve the trade-off between independence and legitimacy. A systematic cross-national study on this important issue as recommended by Rattsø (2002) is still missing.

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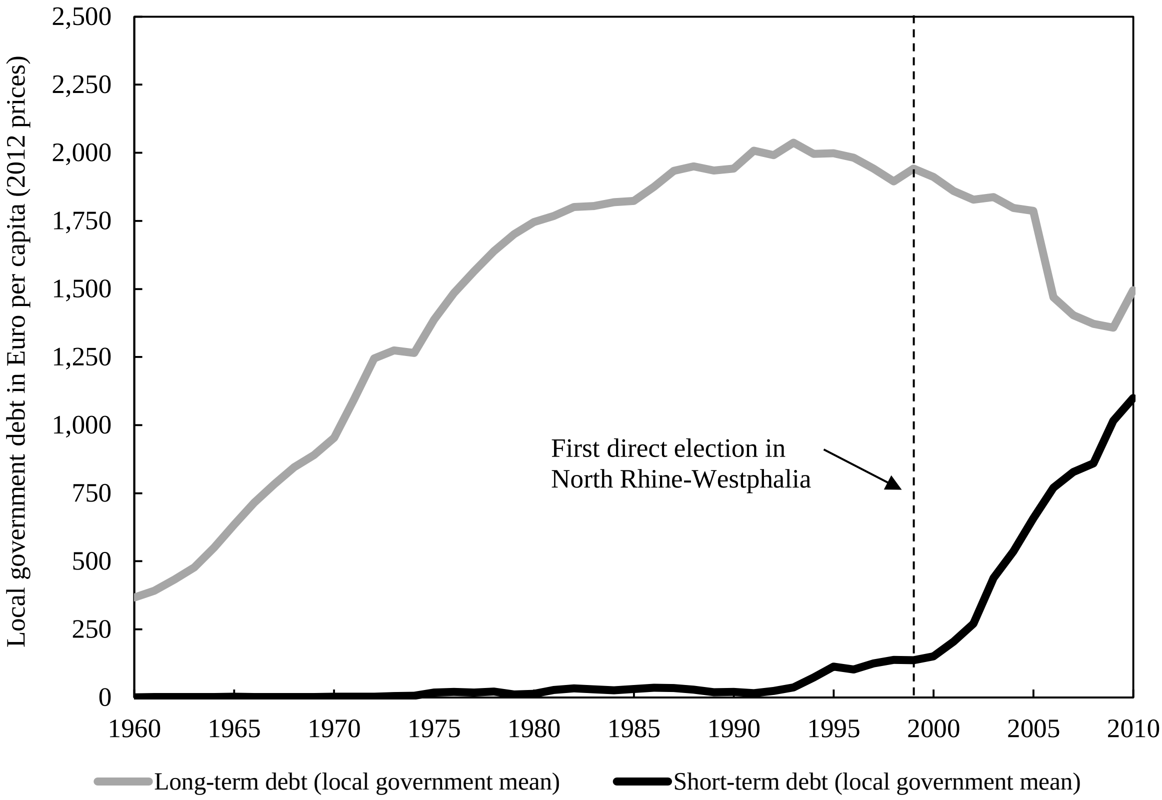
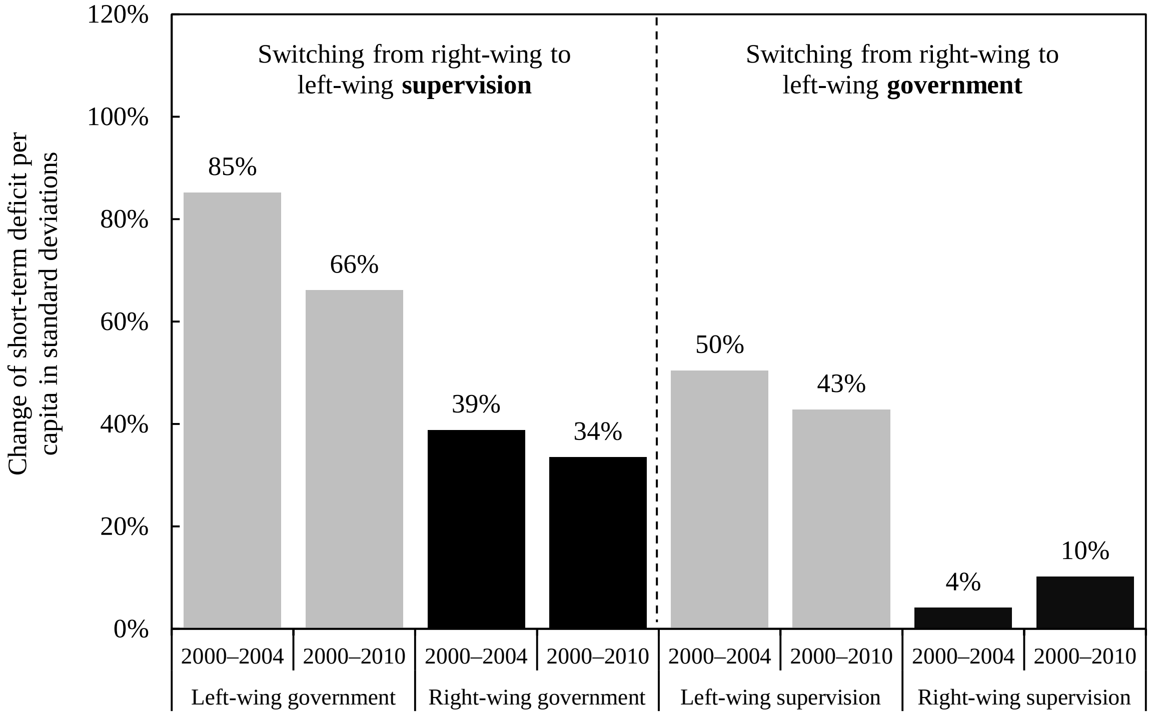
Figures

Figure 1: Local government short-term and long-term debt in North Rhine-Westphalia, 1960–2010



Notes: Extra budgets included. Data: Federal Statistical Office (2013a, 2014).

Figure 2: Marginal effect of a hypothetical switch from left-wing to right-wing supervision and left-wing to right-wing government



Notes: Positive signs indicate a larger deficit per capita.

Tables

Table 1: Descriptives, 2000–2004

	Obs.	*Mean*	*Std. Der.*	*Min.*	*Max.*
Short-term deficit (Euro per capita[a])	2,135	24.88	102.62	-730.97	1,564.90
Long-term deficit (Euro per capita[a])	2,135	4.76	133.63	-2,214.58	943.23
Short-term loan finance quotient (%)	2,135	1.10	4.54	-32.27	47.28
Long-term loan finance quotient (%)	2,135	0.25	6.48	-78.77	45.64
Right-wing government	2,135	0.68	0.46	0	1
Left-wing government	2,135	0.20	0.40	0	1
Non-partisan government	2,135	0.12	0.32	0	1
Co-partisanship	2,135	0.64	0.48	0	1
Right-wing government $\times$ *Co-partisanship*	2,135	0.59	0.49	0	1
Left-wing government $\times$ *Co-partisanship*	2,135	0.05	0.22	0	1
Population (in 1,000 inhabitants)	2,135	67.20	118.00	4.26	969.71
Old-age dependency ratio	2,135	0.44	0.05	0.26	0.73
Unemployment (per 1,000 capita)	2,135	0.04	0.01	0.02	0.08
State grants (Euro per capita[a])	2,135	197.11	121.10	-69.15	607.47
Area covered by buildings (in % of total area)	2,135	0.13	0.08	0.02	0.46
Share of industrial employees	2,135	0.28	0.16	0	0.72
Share of in-commuters	2,135	0.54	0.13	0.15	0.83
Catholic majority	2,135	0.66	0.47	0	1
Fragmented council	2,135	0.17	0.37	0	1
Affiliated council (Abs. majority of government party[b])	2,135	0.69	0.46	0	1

Notes: a) Financial data in 2012 prices. b) Partisan majorities only. Data: Agency of Information and Technology of North Rhine-Westphalia (2013, 2014), Federal Employment Agency (2013), Ministry of the Interior of North Rhine-Westphalia (2014).

Table 2: Calculating the marginal effects of partisanship in government and supervision

		Supervisor	
		Left-wing	*Right-wing*
Local government	*Left-wing*	$\beta_1 + \beta_2 + \beta_3$	β_1
	Right-wing	0	β_2

Notes: Coefficients refer to Equation 1.

Table 3: Baseline results (Pooled OLS)

	Short-term deficit per capita		
	(1)	(2)	(3)
Left-wing government (L)	-35.63**	-64.06***	-61.20***
	(15.60)	(20.52)	(20.61)
Co-partisanship (C)	-39.86***	-74.38***	-72.37***
	(14.99)	(19.44)	(19.51)
Left-wing government × Co-partisanship ($L \times C$)	127.30***	149.81***	144.21***
	(36.52)	(42.81)	(43.15)
Δ*Population*		-7.15*	-7.99**
		(3.99)	(3.93)
Δ*Old-age dependency ratio*		-320.07	-322.22
		(483.67)	(480.71)
Δ*Unemployment*		-0.00**	-0.00**
		(0.00)	(0.00)
Δ*State grants*		-0.05	-0.05
		(0.05)	(0.04)
Δ*Area covered by buildings*		-907.66**	-879.00**
		(389.37)	(393.66)
Δ*Share of industrial employees*		49.49	52.06
		(95.95)	(93.76)
Δ*Share of in-commuters*		6.48	20.31
		(175.39)	(171.18)
Catholic majority		-3.05	-3.56
		(9.21)	(9.23)
Fragmented council		-0.77	-0.13
		(10.98)	(10.86)
Affiliated council		7.80	9.86
		(15.77)	(15.73)
Long-term deficit per capita			-0.06**
			(0.03)
Constant	82.97***	98.80***	94.09***
	(16.71)	(24.91)	(24.87)
Period	2000–2004	2000–2004	2000–2004
Time fixed effects	YES	YES	YES
District fixed effects	NO	YES	YES
Local government type fixed effects	NO	YES	YES
Non-partisan governments included	NO	NO	NO
Counties included	YES	YES	YES
Obs.	1,880	1,880	1,880
Adj. R^2	0.07	0.13	0.14
Akaike	22,715.06	22,621.50	22,609.92

Notes: Standard errors clustered at the local government level in parentheses. Significance levels: *: p<0.1; **: p<0.05; ***: p<0.01.

Table 4: Marginal effects of partisanship in government and supervision on short-term deficits (Euro per capita)

<table>
<tr><td colspan="2" rowspan="2">2000–2004</td><td colspan="2">Supervisor</td></tr>
<tr><td>Left-wing</td><td>Right-wing</td></tr>
<tr><td rowspan="2">Local government</td><td>Left-wing</td><td>51.80
(36.24)</td><td>-35.63**
(15.60)</td></tr>
<tr><td>Right-wing</td><td>0.00
Base category</td><td>-39.86***
(14.99)</td></tr>
<tr><td colspan="2" rowspan="2">2000–2010</td><td colspan="2">Supervisor</td></tr>
<tr><td>Left-wing</td><td>Right-wing</td></tr>
<tr><td rowspan="2">Local government</td><td>Left-wing</td><td>56.14**
(26.47)</td><td>-30.53**
(22.09)</td></tr>
<tr><td>Right-wing</td><td>0.00
Base category</td><td>-43.92***
(14.41)</td></tr>
</table>

Notes: Standard errors clustered at the local government level in parentheses. Significance levels: *: p<0.1; **: p<0.05; ***: p<0.01. The calculated effects are based on Model 1 in Table 3.

Table 5: Robustness tests

	Short-term deficit per capita						Short-term loan finance quotient
	Baseline	Counties excluded	Non-partisan gov. included	RE	BE	Extended period	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Left-wing government (L)	-64.06***	-79.17***	-19.38**	-63.29***	-68.92***	-46.34***	-2.06***
	(20.52)	(25.36)	(8.79)	(16.32)	(16.38)	(14.38)	(0.73)
Co-partisanship (C)	-74.38***	-90.39***	-38.66***	-74.45***	-77.61***	-54.92***	-2.33***
	(19.44)	(25.37)	(10.76)	(13.16)	(13.20)	(11.94)	(0.66)
Left-wing government × Co-partisanship (L × C)	149.81***	169.46***	95.98**	147.41***	162.49***	121.98***	4.71***
	(42.81)	(47.54)	(38.83)	(23.45)	(23.64)	(27.22)	(1.34)
Δ*Population*	-7.15*	-16.13**	-6.13	-2.56	-19.78***	-22.12***	-0.22
	(3.99)	(7.65)	(3.89)	(3.95)	(5.52)	(5.48)	(0.14)
Δ*Old-age dependency ratio*	-320.07	-427.24	-578.22	-245.62	-418.17	-363.89	1.33
	(483.67)	(493.77)	(407.78)	(495.80)	(756.50)	(482.96)	(19.76)
Δ*Unemployment*	-0.00**	-0.00*	-0.00***	-0.00***	-0.00***	-0.00***	-0.00*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Δ*State grants*	-0.05	-0.05	-0.06	-0.06	0.24	-0.13***	-0.00
	(0.05)	(0.05)	(0.04)	(0.04)	(0.19)	(0.03)	(0.00)
Δ*Area covered by buildings*	-907.66**	-917.39**	-433.45	-844.16**	-1379.62	-400.86	-49.22**
	(389.37)	(390.35)	(329.06)	(407.79)	(1096.82)	(299.32)	(23.70)
Δ*Share of industrial employees*	49.49	49.53	33.57	43.33	195.96	-45.96	2.14
	(95.95)	(95.57)	(88.49)	(60.98)	(185.31)	(40.26)	(5.28)
Δ*Share of in-commuters*	6.48	6.02	55.62	70.52	-815.08	36.74	-4.20
	(175.39)	(180.83)	(155.45)	(228.54)	(680.13)	(201.20)	(8.20)
Catholic majority	-3.05	-2.86	-7.87	-4.33	0.70	-6.67	-0.38
	(9.21)	(9.74)	(8.04)	(7.53)	(7.69)	(8.60)	(0.33)
Fragmented council	-0.77	-2.36	4.10	0.00	-1.41	7.57	0.13
	(10.98)	(10.99)	(7.37)	(12.54)	(12.63)	(10.58)	(0.50)
Affiliated council	7.80	7.22	20.75**	9.00	5.20	8.23	0.18
	(15.77)	(16.11)	(10.37)	(13.39)	(13.48)	(13.37)	(0.60)
Constant	98.80***	116.80***	57.59***	86.02***	110.55***	80.11***	3.49***
	(24.91)	(29.69)	(15.21)	(20.89)	(21.44)	(21.93)	(0.93)
Period	2000-2004	2000-2004	2000-2004	2000-2004	2000-2004	2000-2010	2000-2004
Time fixed effects	YES	YES	YES	YES	YES	YES	YES
District fixed effects	YES	YES	YES	YES	YES	YES	YES
Local government type fixed effects	YES	NO	YES	YES	YES	YES	YES
Non-partisan governments included	YES	YES	NO	YES	YES	YES	YES
Counties included	YES	NO	YES	YES	YES	YES	YES
Obs.	1,880	1,725	2,135	1,880	1,880	3,674	1,880
Adj. R^2	0.13	0.14	0.12	0.13	0.32	0.13	0.10
Akaike	22,621.50	20,879.81	25,598.42	–	4,077.65	45,379.95	10,935.12

Notes: Standard errors clustered at the local government level in parentheses. Significance levels: *: p<0.1; **: p<0.05; ***: p<0.01.

Table 6: Placebo test: Long-term deficits (Euro per capita)

	Short-term deficit per capita		Long-term deficit per capita	
	(1)	(2)	(3)	(4)
Left-wing government (L)	-64.06***	-49.54***	44.91	9.21
	(20.52)	(14.65)	(27.51)	(13.61)
Co-partisanship (C)	-74.38***	-55.15***	31.56	11.43
	(19.44)	(12.00)	(21.20)	(11.32)
Left-wing government × Co-partisanship (L × C)	149.81***	126.34***	-87.60***	-5.34
	(42.81)	(27.13)	(32.05)	(16.44)
Period	2000–2004	2000–2010	2000–2004	2000–2010
Further control variables	YES	YES	YES	YES
Time fixed effects	YES	YES	YES	YES
District fixed effects	YES	YES	YES	YES
Local government type fixed effects	YES	YES	YES	YES
Non-partisan governments included	NO	NO	NO	NO
Counties included	YES	YES	YES	YES
Obs.	1,880	4,038	1,880	4,038
Adj. R^2	0.13	0.16	0.04	0.03
Akaike	22,621.50	50,263.97	23,690.37	52,321.00

Notes: Standard errors clustered at the local government level in parentheses. Models 1 and 2 are taken from Table 5 (Models 1 and 6). All estimations include a constant and the full set of control variables (see Table 5). Significance levels: *: p<0.1; **: p<0.05; ***: p<0.01.