



Munich Personal RePEc Archive

Opportunistic politicians and fiscal outcomes: the curious case of Vorarlberg

Köppl Turyna, Monika

Agenda Austria

1 April 2015

Online at <https://mpra.ub.uni-muenchen.de/64201/>

MPRA Paper No. 64201, posted 11 May 2015 13:37 UTC

Opportunistic politicians and fiscal outcomes: the curious case of Vorarlberg

Monika Köppl–Turyna

Agenda Austria, Schottengasse 1/3 1010 Vienna, Austria

Abstract

Using a unique set of electoral rules present in the Austrian state of Vorarlberg, we explore the question whether local electoral rules affect the size of local governments. We find evidence that party–list system is associated with higher levels of expenditure and that direct elections of the mayor are associated with lower size of the public sector. The results are robust to the possibility that electoral rules might be endogenous to the local economic and geographic conditions.

JEL classifications: H72, H75, H77, D72

Keywords: local expenditure, opportunistic politicians, electoral rules

1. Introduction

The relationship between fiscal federalism and the size of the public sector remains an area in which no clear empirical picture prevails. Recent analyses of fiscal federalism highlight that office–oriented politicians might abuse their power over the local budgets according to own objective functions e.g. involve in rent extraction or corruption. Most theories of competitive federalism support existence of smaller public sectors in decentralized countries, on the basis of the argument that local decision makers are more accountable to local voters and therefore have few opportunities to misbehave. Moreover, if the taxes are raised at the local level, the local population will keep a close watch on the efficiency of provision of public services financed from their own pockets. Therefore, political accountability at the local level should provide a strong incentive to the politicians to reduce inefficient spending as well as involvement in rent seeking. On the other hand, growing

Email address: monika.koeppel-turyna@agenda-austria.at (Monika Köppl–Turyna)

literature on local political budget cycles suggests, that local politicians involve in budget manipulations before elections to increase the prospects of reelection. It has been reported that total expenditure tends to rise before the elections (see e.g. Veiga and Veiga, 2007; Castro and Martins, 2014; Furdas et al., 2015; Galli and Rossi, 2002). The increase in spending is afterwards compensated either by an increase in tax rates or deficit balancing through drops of expenditure shortly after the election has taken place.

In this work, we want to explore whether electoral rules, which affect the incentives of incumbent politicians matter for the size of local government spending using a unique set of electoral rules present in the Austrian federal state of Vorarlberg. Arguably, the three parallel voting systems in place in Vorarlberg represent a unique source of variation in electoral incentives of the incumbents and levels of electoral accountability. According to our knowledge, the only other country in Europe for which such institutional differences in the local election procedures exist is Switzerland.

Previous literature exploiting the differences in local electoral systems focused mostly on Swiss cantonal and municipal elections. Pommerehne (1978) exploits the fact that in the 1970s some Swiss municipalities were direct democracies whereas others used a representative democratic system and finds that the median voter model better reflects the pattern of expenditures if decisions are made directly. Similarly, Feld and Kirchgassner (1999) find that direct democracy has an impact on debt levels of municipalities. Yet, arguably due to lack of a suitable "natural experiment" setting, the literature on the effects of electoral rules on fiscal outcomes at the local level is very scarce.

An important factor for determining the incentives of the local governments to manipulate the expenditure levels is the prospect of reelection. Brender (2003) has observed that reelection prospects substantially affect the fiscal outcomes on the local level. Additionally, possibility of reelection has been found to increase accountability levels and therefore reduce corruption of the mayors (Ferraz and Finan, 2011).

Wide literature addresses the opposite question: whether fiscal performance at the local level affects the reelection probabilities. Following the seminal articles of Nordhaus (1975) and Rogoff et al. (1990), Akhmedov and Zhuravskaya (2004) find that pre-electoral manipulation of fiscal instruments increases the incumbent's chances of getting reelected, while Veiga and Veiga (2007) use data from Portuguese municipalities to find that higher expenditures over the whole term (and specifically in election years) increase the chances of political success. This literature suggests, that incumbents have incentive to expand the budgets of the municipalities in order to affect reelection probabilities.

Finally, as put forward by Drazen and Eslava (2010), voters and incumbents may prefer different types of government expenditures. Therefore, incumbents may try to influence voters by changing the composition of government spending, rather than the total level of public spending. In this perspective, Kneebone and McKenzie (2001) found no evidence of a political budget cycle for Canadian provinces with respect to aggregate spending. However, they found a budgetary cycle for capital expenditures. Arguably, there are reasons to believe that the incumbents not only manipulate different types expenditure before the election, but that the rules lead to different expenditure patterns also outside of the election period.

In the next subsection, we present the institutions present in Vorarlberg and formulate hypotheses about the impact of these institutions on the levels of public expenditure. Section 2 presents the dataset, variables used in the regression as well as the methodology of analysis. Section 3 presents the main results and Section 4 concludes the work.

1.1. Institutions and hypotheses

The state (German: "Bundesland") of Vorarlberg is the westernmost federation state of Austria. It is further divided into 96 municipalities (*Gemeinden*) of diverse size and area. Mostly populated is Dornbirn with 47.420 inhabitants whereas the least populated Dünserberg inhabits only 144 members of the community. Municipalities in Austria and in

particular in Vorarlberg are divided into three administrative categories typically associated with size: normal municipalities, market municipalities and cities. There are currently 80 normal municipalities, 11 market municipalities and 5 cities in Vorarlberg.

Typically, in most European democracies electoral rules at the local level are centrally governed. In federal states, electoral rules may differ at the state level as well e.g. this is the case in Germany and Austria. In Austria the latter is true for most federal states: state law governs electoral laws for municipal elections. A unique exception to this rule is observed in the federal state of Vorarlberg. The electoral rules are set at the local level and since the year 2000 there exist three parallel systems in place: semi-open list for the municipal council together with a direct election of the mayor, semi-open list system often connected with preselection of the list members by the electorate and finally an open election in which each eligible voter freely decides on whom to elect as a the member of the municipal council. Before the year 2000, all municipalities have used a semi-open party system without the direct election of the mayor.

In the semi open-list system, the local parties populate the party lists as well as suggest candidates for the office of the mayor. Eligible electors can place one vote for a list to the municipal council and one vote for a mayor's office candidate. Additionally, each voter may place up to five votes for individual candidates on the chosen list. If in a direct election of the mayor only one candidate stands for the election, voters can still place a Yes/No poll. In 2010, 65 out of 96 municipalities conducted the election according to this system.

The second variant is a different version of a semi open-list party system. It is often preceded by a consultation with the electorate. Parties either send empty polls to the voter who then place the names of desired candidates on the lists, or send a preselected candidates' lists and voters may decide on the order of placement. The mayor is, however, not directly elected but chosen by the council of the municipality among their freshly elected members. In 2010, the system was used in 17 municipalities.

The last system is entirely open. Each voter receives an empty voting sheet at which she is eligible to place names of desired members of the municipal council freely chosen from all members of the community with a passive suffrage. She can choose a number of names up to a double of the arranged seats in the local council. The newly elected members of the council subsequently choose the mayor among themselves. In 2010, this rule was used in 14 municipalities.

We believe that the set of presented rules offers a unique opportunity to explore the research questions. Unlike for the case of cross-country studies and country-level studies, there are comparatively few factors that would affect the fiscal outcomes and differentiate the local entities. Municipalities in the analyzed region differ on grounds of some demographic variables, for which we control, but do not differ in terms of budgeting rules or access to central government transfers, as these are either centrally or regionally (for the whole Bundesland) predetermined. Some differences in the access to financing stem from the fiscal equalization scheme, which aims at reducing the discrepancies between the municipal 'financial strength' (*Finanzkraft*), i.e. providing the means necessary for the municipalities to perform a basic provision of public services and these differences are controlled for as explained in Section 2.

The above-cited literature offers a set of suggestions as for how electoral rules should affect the fiscal outcomes. Firstly, different electoral rules systematically and independently of individual characteristics of the mayor affect the probabilities of reelection. The probability of reelection in turn affects the incentives faced by the politicians in making expenditure decisions. The open system present in certain municipalities in our database is arguably the one in which the mayor has much lower probability of reelection than in the party-list system. Virtually any person in the municipality can become a member of the municipal council which in turns selects the mayor. For this system we expect the expenditure levels to be manipulated in the least. In other words, party-list system compared

to the open system should be associated with higher expenditure levels.

Direct elections of the mayor increase the possibility of reelection. In case the mayor is chosen indirectly from the members of the council, she needs to stand against all the other members, number of which will typically be much higher than the number of candidates standing for a direct election. If this is true, directly elected mayor faces a stronger incentive to manipulate the expenditure levels. High electoral competition, i.e. higher number of candidates standing for direct election should in turn be associated with lower levels of expenditure. Margin of victory, on the other hand, reflects the *a priori* strength of the incumbent politician: the higher the margin of victory, the less incentive there is for the mayor to affect the expenditure. On the hand, however, directly elected mayor does not necessarily have a support of the local council in his executive decisions, as opposed to the indirect system, in which, almost by definition, the mayor faces support of the municipal council. In such a case, expenditure might not be easily manipulable by a directly elected mayor, and the effect will be the opposite.

2. Data and methodology

Data comprises information about 96 municipalities in Vorarlberg between years 2000 and 2013, a total of 1053 observations. Fiscal and demographic data has been obtained from the Austrian Statistical Office database, whereas electoral data has been collected from the electoral database of Land Vorarlberg (Vorarlberg, 2015).

Dependent variables are natural logarithms of current and capital expenditure levels per capita (variables *Current* and *Capital*). Main economic determinants of expenditure levels include, obviously the level of revenue (*Revenue* – natural logarithm per capita), as well as access to local taxation. We include two variables describing local taxation patterns: *Municipal Taxes* and *Communal Taxes*. This distinction is relevant in the Austrian context. Municipal taxes including taxes on local economic activities such as tourist taxes,

administrative fees, trade taxes and property taxes reflect the economic development of the region. On the other hand, communal taxes, are an important proxy for the 'financial strength' of the community and in turn its access to the funding from the fiscal equalization scheme¹. This variable serves as a proxy to the access of a municipality to means transferred via the fiscal equalization scheme.

The most important political variables represent the different sets of electoral rules. Dummy variable *Direct Mayor* takes value 1 for the municipalities, in which the mayor is elected directly and there is one candidate standing for the election. Furthermore, dummy variables 2 – 5 *Candidates* inform how many candidates were participating in the election, in case there was more than one. Similarly, dummy variable *List System* takes value 1 if the party–list system is presented as opposed to the open system. The number of electoral lists between 1 and 5 is taken into account.

We control for the electoral budget cycle. Municipal elections in the region take place every five years, and in our sample the relevant years are 2000, 2005 and 2010. Additionally we control for the margin of victory of the candidates in a direct election and lists in the party–list systems as well as turnout at the elections.

Public expenditure at the local level is typically also determined by demographic and geographic variables. These variables typically include size of the population (Werck et al., 2008; Costa-Font and Moscone, 2009) population density (Sanz et al., 2002), fraction of the elderly and young inhabitants (Hayo and Neumeier, 2012; Veiga and Veiga, 2007), unemployment rates (Foucault et al., 2008) and some country specific controls. Since we dispose of information on the actual number of retired persons, we use this variable instead of population over 65 in the regressions. In fact, in Austria high share of population, for various reasons, becomes retired before the usual legal age, and the actual number of

¹According to the Austrian fiscal equalization law, financial need of the municipality is calculated on the basis of potential income from millage tax and actual income from communal tax.

retired inhabitants is, in this case, a much better measure of demand for social services than the age structure. Additional dummy variables *Markt* and *Stadt* reflect whether the municipality has a 'market municipality' or 'city' status.

One of the concerns when explaining diverse categories of expenditures is that unobserved heterogeneity might influence both types of expenditure, i.e. the errors in the equations might be correlated. Therefore, in the basic regressions, we allow for the possibility of correlated errors and estimate a SUR model with equations explaining the levels of current and capital expenditures. Equations are estimated with municipalities and time fixed effects.

An additional concern is the possibility of endogeneity of the electoral system with respect to the unobserved characteristics of the municipalities, the economic situation as well as levels of political competition. It is also possible that bigger municipalities, and in particular cities might be more likely to adopt certain rules. If this is true, the effect of the electoral rules will be underestimated, as it would merely reflect differences in e.g. returns to scale in the public services provision between larger and smaller municipalities. In the second set of regressions, we allow for the electoral rules to be endogenous and in the first stage regressions explained by the area of the municipality, population density as well as electoral competition levels measured by the number of party lists standing for the elections in the years 1985, 1990 and 1995, thus before the institutional change of the year 2000.

3. Results

Tables 1 and 2 present the results of the estimations, with and without the possibility of endogeneity of the electoral rules. First inspection of the tables reveals, that the municipalities in which the mayor is elected directly by the inhabitants have on average lower levels of capital expenditure. Moreover, in the municipalities in which more than one

candidate stands for the election, the level of electoral competition decreases also the levels of current expenditures. The first observation can be related to the possibility that the mayors and council do not coincide in terms of expenditure planning: problem which does not exist whenever the mayors are elected from the members of the municipal council. The second observation corresponds to the hypothesis that higher electoral competition should be associated with lower levels of expenditure. The latter hypothesis is further supported by the positive and significant sign of the *Margin of victory* variable in Table 2, which suggests that strong candidates correlate with higher capital and current expenditure levels. For the party-list as opposed to the open system, we observe the former to be related to higher levels of both capital and current expenditures. Again, this result can be associated with the hypothesis that probability of reelection affects the levels of expenditure. Additionally, we find evidence of electoral cycles, particularly strong for the case of short-term current expenditure, which collides with previous evidence in the literature.

We test the robustness of the results by excluding cities from the sample (Table 3 in the Appendix), as well as by dividing the sample according to political districts (Tables 4, 5 and 6 in the Appendix). Except for the case of Feldkirch region, which however offers only a few observations and little variation, the main results that direct elections are associated with lower expenditure levels whereas party lists correspond to higher expenditure are robust.

Table 1: Fixed effects SUR model for current and capital expenditures

	(1)		(2)	
	Current	Capital	Current	Capital
Revenue	0.55*** (26.14)	1.48*** (12.79)	0.53*** (25.07)	1.49*** (12.70)
Inhabitants	-0.00*** (-6.55)	0.00*** (3.60)	-0.00*** (-6.56)	0.00*** (3.58)
Pop Under 15	-1.62*** (-6.96)	1.71 (1.35)	-1.19*** (-5.04)	1.48 (1.12)
Pop in Retirement	2.40*** (7.74)	-1.39 (-0.82)	1.79*** (5.66)	-1.05 (-0.60)
Unemployment	-0.70*** (-4.26)	-0.45 (-0.50)	-0.33* (-1.95)	-0.65 (-0.69)
Municipal Taxes	0.11*** (4.75)	-0.19 (-1.49)	0.13*** (5.74)	-0.20 (-1.57)
Communal Taxes	0.02 (1.18)	-0.09 (-0.92)	0.02 (0.83)	-0.09 (-0.88)
1 Year Before	0.05** (2.28)	-0.00 (-0.02)	0.04* (1.96)	0.00 (0.02)
Election Year	0.07*** (3.35)	0.06 (0.54)	0.08*** (3.75)	0.06 (0.50)
1 Year After	0.03* (1.66)	-0.03 (-0.24)	0.03 (1.24)	-0.02 (-0.19)
Direct Mayor	0.02 (0.20)	-1.23*** (-2.61)	-0.05 (-0.60)	-1.19** (-2.51)
2 Candidates	-0.15* (-1.96)	0.46 (1.08)	-0.10 (-1.28)	0.43 (1.01)
3 Candidates	-0.18** (-2.52)	0.63 (1.61)	-0.14** (-1.96)	0.61 (1.54)
4 Candidates	-0.19*** (-2.72)	0.76** (2.04)	-0.15** (-2.30)	0.74** (1.99)
5 Candidates	-0.13** (-2.08)	0.14 (0.41)	-0.12** (-2.05)	0.14 (0.40)
List System	0.07 (0.71)	1.73*** (3.14)	-0.12 (-1.18)	1.84*** (3.20)
1 List	-0.19** (-2.55)	-0.07 (-0.17)	-0.13* (-1.84)	-0.10 (-0.24)
2 Lists	0.08 (1.31)	-0.54 (-1.54)	0.09 (1.38)	-0.55 (-1.55)
3 Lists	0.07 (1.31)	-0.65** (-2.23)	0.07 (1.26)	-0.65** (-2.23)
4 Lists	0.01 (0.20)	-0.62** (-2.45)	0.01 (0.17)	-0.62** (-2.45)
5 Lists	0.05 (1.15)	-0.29 (-1.24)	0.03 (0.82)	-0.28 (-1.20)
Turnout Mayor	0.12** (2.52)	0.50* (1.90)	0.13*** (2.84)	0.49* (1.87)
Turnout Council	-0.32*** (-3.30)	-1.74*** (-3.30)	0.00 (0.04)	-1.91*** (-3.24)
Margin Mayor	-0.01 (-0.17)	0.63* (1.90)	-0.02 (-0.25)	0.63* (1.91)
Margin Council	-0.04 (-0.62)	0.11 (0.32)	-0.05 (-0.78)	0.12 (0.33)
Mum FE	YES	YES	YES	YES
Year	NO	NO	YES	YES
Stadt	0.30*** (3.93)	-0.82* (-1.95)	0.35*** (4.58)	-0.84** (-2.00)
Markt	0.04 (1.46)	0.28* (1.78)	0.06** (2.06)	0.28* (1.72)
Constant	20.38*** (3.22)	95.59*** (2.77)	-25.95*** (-2.81)	121.13** (2.35)
Observations	988	988	988	988

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

4. Conclusions

Using a unique set of electoral laws present in the Austrian federal state of Vorarlberg, we analyze how rules of election of municipal councils and mayors affect levels of local expenditure. We find evidence that party-list system is associated with higher levels of expenditure and that direct elections of the mayor are associated with lower size of the

Table 2: Fixed effects IV model for current and capital expenditures

	(1)				(2)			
	Current	Capital	Direct Mayor	List System	Current	Capital	Direct Mayor	List System
Revenue	0.59*** (24.59)	1.50*** (11.18)			0.55*** (22.55)	1.53*** (11.33)		
Inhabitants	-0.00*** (-6.43)	0.00*** (3.44)			-0.00*** (-6.56)	0.00*** (3.40)		
Pop Under 15	-0.96*** (-3.41)	1.94 (1.34)			-1.03*** (-3.93)	1.98 (1.36)		
Pop in Retirement	1.94*** (5.42)	-0.96 (-0.51)			1.70*** (5.01)	-0.83 (-0.44)		
Unemployment	-0.37* (-1.96)	-0.44 (-0.44)			-0.28 (-1.59)	-0.48 (-0.49)		
Municipal Taxes	0.13*** (5.03)	-0.16 (-1.19)			0.13*** (5.40)	-0.16 (-1.19)		
Communal Taxes	-0.01 (-0.36)	-0.13 (-1.19)			0.01 (0.44)	-0.14 (-1.26)		
1 Year Before	0.06*** (2.63)	0.01 (0.11)			0.04** (2.13)	0.02 (0.17)		
Election Year	0.04 (1.57)	0.03 (0.24)			0.06*** (2.86)	0.02 (0.12)		
1 Year After	0.00 (0.19)	-0.02 (-0.17)			0.02 (0.77)	-0.03 (-0.22)		
Direct Mayor	-0.26** (-2.40)	-1.50*** (-2.62)			-0.11 (-1.08)	-1.56*** (-2.73)		
2 Candidates	-0.17** (-2.01)	0.39 (0.90)			-0.11 (-1.38)	0.36 (0.84)		
3 Candidates	-0.18** (-2.31)	0.59 (1.49)			-0.14** (-1.98)	0.58 (1.45)		
4 Candidates	-0.19*** (-2.61)	0.72* (1.93)			-0.16** (-2.34)	0.71* (1.89)		
5 Candidates	-0.13** (-2.01)	0.13 (0.39)			-0.13** (-2.05)	0.13 (0.38)		
List System	1.22*** (4.78)	3.08* (1.77)			0.26 (0.83)	3.54** (2.03)		
1 List	0.04 (0.41)	0.12 (0.24)			-0.07 (-0.79)	0.17 (0.35)		
2 Lists	0.29*** (3.57)	-0.36 (-0.80)			0.15* (1.91)	-0.29 (-0.65)		
3 Lists	0.15*** (2.58)	-0.56* (-1.79)			0.09* (1.67)	-0.53* (-1.70)		
4 Lists	0.01 (0.23)	-0.62** (-2.46)			0.01 (0.24)	-0.62** (-2.45)		
5 Lists	0.06 (1.30)	-0.28 (-1.16)			0.04 (0.96)	-0.27 (-1.13)		
Turnout Mayor	0.27*** (4.50)	0.61* (1.89)			0.18*** (3.06)	0.66** (2.02)		
Turnout Council	-1.15*** (-5.74)	-2.77* (-1.89)			-0.31 (-1.16)	-3.19** (-2.18)		
Margin Mayor	0.15** (2.05)	0.81** (1.99)			0.03 (0.46)	0.87** (2.13)		
Margin Council	-0.46*** (-4.07)	-0.31 (-0.45)			-0.18 (-1.44)	-0.45 (-0.66)		
Mun FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	NO	NO	NO	YES	YES	YES	YES
Stadt	0.30*** (3.67)	-0.87** (-2.04)	-0.24*** (-3.11)	-0.18*** (-2.60)	0.35*** (4.50)	-0.89** (-2.09)	-0.24*** (-3.12)	-0.18*** (-2.62)
Markt	0.04 (1.39)	0.26 (1.62)	0.04 (1.02)	0.04 (1.07)	0.06** (2.00)	0.26 (1.58)	0.04 (0.99)	0.04 (1.08)
Lists1985			0.05** (2.23)	0.14*** (7.43)			0.05** (2.16)	0.15*** (7.56)
Lists1990			-0.01 (-0.34)	-0.05*** (-2.63)			-0.01 (-0.28)	-0.06*** (-2.71)
Lists1995			0.13*** (7.94)	0.01 (0.56)			0.13*** (7.95)	0.01 (0.55)
Area			0.00*** (2.79)	0.00 (0.29)			0.00*** (2.80)	0.00 (0.26)
Pop Density			0.00* (1.65)	0.00*** (2.97)			0.00* (1.69)	0.00*** (2.94)
Constant	30.22*** (4.31)	137.96** (2.08)	-39.75*** (-3.08)	-24.62** (-2.14)	-15.22 (-1.27)	160.55** (2.42)	-39.40*** (-3.05)	-24.15** (-2.09)
Observations	977	977	977	977	977	977	977	977

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

public sector. Further step in this research should include party effects as well as party alignment to the federal government as potentially affecting the access to revenues as well as political preferences of the local councils.

References

- Akhmedov, A., Zhuravskaya, E., 2004. Opportunistic political cycles: test in a young democracy setting. *The Quarterly Journal of Economics*, 1301–1338.
- Brender, A., 2003. The effect of fiscal performance on local government election results in israel: 1989–1998. *Journal of Public Economics* 87 (9), 2187–2205.
- Castro, V., Martins, R., 2014. "political cycles and government expenditures: Evidence from portugal".
- Costa-Font, J., Moscone, F., 2009. The impact of decentralization and inter-territorial interactions on spanish health expenditure. In: *Spatial Econometrics*. Springer, pp. 167–184.
- Drazen, A., Eslava, M., 2010. Electoral manipulation via voter-friendly spending: Theory and evidence. *Journal of Development Economics* 92 (1), 39–52.
- Feld, L. P., Kirchgassner, G., 1999. Public debt and budgetary procedures: top down or bottom up? some evidence from swiss municipalities. In: *Fiscal institutions and fiscal performance*. University of Chicago Press, pp. 151–180.
- Ferraz, C., Finan, F., 2011. Electoral accountability and corruption: Evidence from the audits of local governments. *American Economic Review* 101, 1274–1311.
- Foucault, M., Madies, T., Paty, S., 2008. Public spending interactions and local politics. empirical evidence from french municipalities. *Public Choice* 137 (1-2), 57–80.
- Furdas, M. D., Homolkova, K., Kis-Katos, K., 2015. "local political budget cycles in a federation: Evidence from west german cities".
- Galli, E., Rossi, S. P., 2002. Political budget cycles: the case of the western german länder. *Public Choice* 110 (3-4), 283–303.

- Hayo, B., Neumeier, F., 2012. Leaders' impact on public spending priorities: The case of the german laender. *Kyklos* 65 (4), 480–511.
- Kneebone, R. D., McKenzie, K. J., 2001. Electoral and partisan cycles in fiscal policy: An examination of canadian provinces. *International Tax and Public Finance* 8 (5-6), 753–774.
- Nordhaus, W. D., 1975. The political business cycle. *The Review of Economic Studies*, 169–190.
- Pommerehne, W. W., 1978. Institutional approaches to public expenditure: Empirical evidence from swiss municipalities. *Journal of Public Economics* 9 (2), 255–280.
- Rogoff, K., et al., 1990. Equilibrium political budget cycles. *American Economic Review* 80 (1), 21–36.
- Sanz, I., Velazquez, F. J., de Economía Europea, G., 2002. Determinants of the composition of government expenditure by functions. Universidad Complutense de Madrid. Grupo de Economía Europea.
- Veiga, L. G., Veiga, F. J., 2007. Political business cycles at the municipal level. *Public Choice* 131 (1-2), 45–64.
- Vorarlberg, 2015.
URL <http://www.vorarlberg.at/wahlen>
- Werck, K., Heyndels, B., Geys, B., 2008. The impact of central places on spatial spending patterns: evidence from flemish local government cultural expenditures. *Journal of Cultural Economics* 32 (1), 35–58.

Appendix

Table 3: Fixed effects IV model for current and capital expenditures - no cities

	(1)				(2)			
	Current	Capital	Direct Mayor	List System	Current	Capital	Direct Mayor	List System
Revenue	0.60*** (23.86)	1.47*** (11.61)			0.56*** (22.26)	1.52*** (11.07)		
Inhabitants	-0.00*** (-6.35)	0.00*** (3.35)			-0.00*** (-5.77)	0.00*** (3.01)		
Pop Under 15	-0.78*** (-2.66)	1.56 (1.05)			-0.89*** (-3.27)	1.71 (1.14)		
Pop in Retirement	1.96*** (5.36)	-1.29 (-0.70)			1.73*** (5.04)	-0.96 (-0.51)		
Unemployment	-0.29 (-1.48)	-0.52 (-0.52)			-0.23 (-1.24)	-0.62 (-0.62)		
Municipal Taxes	0.13*** (4.90)	-0.19 (-1.34)			0.13*** (5.16)	-0.18 (-1.30)		
Communal Taxes	-0.00 (-0.16)	-0.12 (-1.03)			0.01 (0.63)	-0.14 (-1.22)		
1 Year Before	0.06*** (2.67)	0.03 (0.23)			0.05** (2.25)	0.04 (0.39)		
Election Year	0.03 (1.37)	0.09 (0.75)			0.06** (2.56)	0.05 (0.42)		
1 Year After	0.00 (0.03)	0.03 (0.21)			0.01 (0.59)	0.01 (0.06)		
Direct Mayor	-0.34*** (-2.82)	-1.17* (-1.91)			-0.19 (-1.63)	-1.39** (-2.17)		
2 Candidates	-0.11 (-1.14)	0.37 (0.76)			-0.07 (-0.75)	0.31 (0.62)		
3 Candidates	-0.13 (-1.39)	0.55 (1.19)			-0.11 (-1.24)	0.52 (1.11)		
4 Candidates	-0.13 (-1.49)	0.64 (1.45)			-0.12 (-1.43)	0.62 (1.40)		
5 Candidates	-0.10 (-1.24)	0.12 (0.31)			-0.11 (-1.49)	0.14 (0.34)		
List System	1.44*** (5.20)	1.74 (1.24)			0.50 (1.44)	3.11 (1.63)		
1 List	0.01 (0.13)	0.11 (0.23)			-0.09 (-0.94)	0.25 (0.50)		
2 Lists	0.27*** (3.10)	-0.38 (-0.87)			0.14* (1.67)	-0.20 (-0.43)		
3 Lists	0.10 (1.59)	-0.46 (-1.38)			0.05 (0.88)	-0.38 (-1.13)		
4 Lists	-0.06 (-0.97)	-0.42 (-1.44)			-0.05 (-0.91)	-0.43 (-1.47)		
5 Lists	0.01 (0.11)	-0.12 (-0.44)			-0.01 (-0.15)	-0.10 (-0.36)		
Turnout Mayor	0.29*** (4.73)	0.47 (1.51)			0.20*** (3.36)	0.59* (1.78)		
Turnout Council	-1.30*** (-5.93)	-1.72 (-1.55)			-0.48 (-1.63)	-2.91* (-1.82)		
Margin Mayor	0.16** (2.05)	0.64* (1.67)			0.04 (0.58)	0.80* (1.92)		
Margin Council	-0.55*** (-4.62)	0.15 (0.25)			-0.28** (-2.08)	-0.25 (-0.35)		
Mun FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	NO	NO	NO	YES	YES	YES	YES
Markt	0.10*** (2.79)	0.15 (0.82)	0.04 (0.94)	0.04 (1.01)	0.10*** (3.03)	0.15 (0.82)	0.04 (0.91)	0.04 (1.01)
Listen1985			0.05** (2.02)	0.14*** (7.01)			0.04** (1.96)	0.14*** (7.13)
Listen1990			-0.01 (-0.28)	-0.05** (-2.49)			-0.01 (-0.24)	-0.05** (-2.56)
Listen1995			0.13*** (7.74)	0.01 (0.57)			0.13*** (7.76)	0.01 (0.55)
Area			0.00*** (2.97)	0.00 (0.40)			0.00*** (2.97)	0.00 (0.38)
Pop Density			0.00* (1.68)	0.00*** (2.86)			0.00* (1.70)	0.00*** (2.84)
Constant	33.09*** (4.53)	98.38*** (2.67)	-42.62*** (-3.18)	-25.45** (-2.12)	-8.66 (-0.69)	159.02** (2.30)	-42.35*** (-3.16)	-24.90** (-2.08)
Observations	944	944	944	944	944	944	944	944

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Fixed effects IV model for current and capital expenditures - Region Bludenz, no cities

			(1)				(2)	
	Current	Capital	Direct Mayor	List System	Current	Capital	Direct Mayor	List System
Revenue	0.54*** (10.81)	1.18*** (4.69)			0.51*** (10.75)	1.20*** (4.65)		
Inhabitants	-0.00*** (-3.65)	-0.00 (-0.59)			-0.00** (-1.72)	-0.00 (-0.70)		
Pop Under 15	0.72 (0.99)	0.06 (0.02)			0.64 (0.95)	0.09 (0.02)		
Pop in Retirement	3.15*** (4.60)	-0.09 (-0.03)			2.49*** (3.76)	0.21 (0.06)		
Unemployment	0.73* (1.74)	-2.42 (-1.14)			0.88** (2.23)	-2.51 (-1.17)		
Municipal Taxes	0.09** (2.18)	-0.13 (-0.65)			0.13*** (3.25)	-0.15 (-0.72)		
Communal Taxes	0.10** (2.28)	-0.09 (-0.39)			0.08* (1.88)	-0.08 (-0.33)		
1 Year Before	0.11*** (3.00)	0.05 (0.26)			0.08** (2.30)	0.07 (0.33)		
Election Year	0.02 (0.49)	0.14 (0.65)			0.07* (1.72)	0.11 (0.51)		
1 Year After	-0.02 (-0.37)	0.02 (0.09)			0.00 (0.11)	0.01 (0.04)		
Direct Mayor	-1.11*** (-4.07)	-1.35 (-0.98)			-0.35 (-1.25)	-1.77 (-1.14)		
2 Candidates	-0.00 (-0.00)	-2.01** (-2.03)			0.25 (1.32)	-2.13** (-2.03)		
3 Candidates	0.10 (0.61)	-1.19 (-1.42)			0.22 (1.41)	-1.25 (-1.45)		
4 Candidates	0.17 (1.04)	-1.16 (-1.43)			0.18 (1.20)	-1.17 (-1.42)		
5 Candidates	0.12 (0.75)	-1.87** (-2.36)			0.17 (1.17)	-1.90** (-2.37)		
List System	2.12*** (3.71)	5.90** (2.04)			-0.14 (-0.20)	7.06* (1.81)		
1 List	-0.46*** (-3.01)	0.06 (0.08)			-0.36** (-2.42)	0.01 (0.01)		
2 Lists	0.56*** (3.32)	-0.08 (-0.09)			0.25 (1.42)	0.08 (0.08)		
3 Lists	0.06 (0.52)	0.07 (0.12)			0.03 (0.26)	0.09 (0.14)		
4 Lists	-0.06 (-0.61)	-0.34 (-0.66)			-0.11 (-1.15)	-0.31 (-0.61)		
5 Lists	0.14 (1.38)	-0.43 (-0.84)			-0.07 (-0.66)	-0.33 (-0.57)		
Turnout Mayor	0.04 (0.26)	0.31 (0.44)			-0.03 (-0.25)	0.34 (0.48)		
Turnout Council	-1.72*** (-3.52)	-3.63 (-1.46)			0.08 (0.12)	-4.52 (-1.33)		
Margin Mayor	0.52*** (2.65)	0.37 (0.37)			0.00 (0.01)	0.62 (0.52)		
Margin Council	-1.20*** (-5.01)	0.04 (0.03)			-0.46* (-1.67)	-0.33 (-0.22)		
Mun FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	NO	NO	NO	YES	YES	YES	YES
Markt	0.14* (1.66)	0.79* (1.82)	0.18** (2.22)	0.19** (2.41)	0.16** (1.97)	0.78* (1.79)	0.18** (2.22)	0.19** (2.42)
Listen1985			0.39*** (9.97)	0.41*** (10.61)			0.39*** (9.85)	0.41*** (10.60)
Listen1990			-0.23*** (-5.49)	-0.20*** (-4.92)			-0.23*** (-5.47)	-0.20*** (-4.93)
Listen1995			-0.07* (-1.86)	-0.11*** (-2.94)			-0.07* (-1.83)	-0.11*** (-2.97)
Area			0.00*** (4.52)	0.00*** (4.78)			0.00*** (4.52)	0.00*** (4.81)
Pop Density			0.00*** (5.44)	0.00*** (6.01)			0.00*** (5.47)	0.00*** (6.05)
Constant	-323.63** (-1.97)	-549.47 (-0.66)	-266.56 (-1.34)	-87.22 (-0.45)	-401.79*** (-2.58)	-516.85 (-0.61)	-270.98 (-1.36)	-89.60 (-0.46)
Observations	287	287	287	287	287	287	287	287

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Fixed effects IV model for current and capital expenditures - Region Bregenz, no cities

			(1)				(2)	
	Current	Capital	Direct Mayor	List System	Current	Capital	Direct Mayor	List System
Revenue	0.47*** (9.71)	1.96*** (8.51)			0.45*** (9.74)	1.94*** (8.18)		
Inhabitants	-0.00* (-1.84)	0.00*** (4.65)			-0.00 (-1.63)	0.00*** (4.63)		
Pop Under 15	-0.94* (-1.65)	2.77 (1.04)			-1.02* (-1.95)	2.72 (1.02)		
Pop in Retirement	1.30** (2.10)	2.06 (0.71)			0.92 (1.56)	1.82 (0.60)		
Unemployment	-0.88** (-2.35)	-1.33 (-0.76)			-0.80** (-2.32)	-1.28 (-0.72)		
Municipal Taxes	0.18*** (3.14)	-0.78*** (-2.84)			0.20*** (3.71)	-0.77*** (-2.76)		
Communal Taxes	-0.06 (-1.45)	0.09 (0.43)			-0.08* (-1.87)	0.08 (0.39)		
1 Year Before	0.02 (0.54)	-0.14 (-0.85)			0.01 (0.36)	-0.14 (-0.87)		
Election Year	0.03 (0.85)	0.08 (0.45)			0.05 (1.37)	0.09 (0.49)		
1 Year After	-0.00 (-0.12)	-0.02 (-0.11)			0.00 (0.03)	-0.02 (-0.09)		
Direct Mayor	-0.26 (-0.84)	-1.74 (-1.18)			-0.15 (-0.52)	-1.67 (-1.11)		
2 Candidates	-0.21 (-0.82)	1.46 (1.20)			-0.25 (-1.04)	1.44 (1.18)		
3 Candidates	-0.15 (-0.65)	1.58 (1.45)			-0.16 (-0.75)	1.58 (1.45)		
4 Candidates	-0.33* (-1.72)	1.06 (1.18)			-0.30* (-1.68)	1.08 (1.19)		
5 Candidates	-0.10 (-0.67)	0.76 (1.07)			-0.12 (-0.85)	0.74 (1.05)		
List System	2.12** (2.43)	1.62 (0.39)			1.32 (1.51)	1.12 (0.25)		
1 List	0.60* (1.66)	1.39 (0.82)			0.39 (1.14)	1.26 (0.71)		
2 Lists	0.77** (2.25)	0.81 (0.50)			0.55* (1.68)	0.67 (0.40)		
3 Lists	0.54** (2.16)	0.26 (0.22)			0.39 (1.60)	0.16 (0.13)		
4 Lists	0.10 (0.73)	0.39 (0.58)			0.05 (0.40)	0.35 (0.53)		
5 Lists	0.11 (0.76)	0.00 (0.00)			0.05 (0.35)	-0.04 (-0.05)		
Turnout Mayor	0.43*** (3.32)	0.59 (0.96)			0.36*** (2.94)	0.54 (0.86)		
Turnout Council	-1.35** (-2.56)	-1.24 (-0.50)			-0.75 (-1.33)	-0.86 (-0.30)		
Margin Mayor	0.16 (1.23)	0.26 (0.43)			0.13 (1.08)	0.24 (0.40)		
Margin Council	-1.12** (-2.34)	-0.39 (-0.17)			-0.78* (-1.68)	-0.18 (-0.07)		
Mun FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	NO	NO	NO	YES	YES	YES	YES
Markt	0.16* (1.93)	-0.58 (-1.49)	0.01 (0.16)	-0.10 (-1.39)	0.12 (1.49)	-0.61 (-1.51)	0.01 (0.16)	-0.10 (-1.39)
Listen1985			-0.18*** (-5.13)	0.04 (1.35)			-0.18*** (-5.12)	0.05 (1.40)
Listen1990			0.20*** (5.01)	0.07** (1.98)			0.20*** (5.00)	0.07* (1.94)
Listen1995			0.13*** (3.63)	-0.09*** (-2.83)			0.13*** (3.64)	-0.09*** (-2.81)
Area			0.01*** (4.26)	0.00* (1.68)			0.01*** (4.24)	0.00* (1.68)
Pop Density			0.00 (1.54)	0.00*** (3.29)			0.00 (1.54)	0.00*** (3.28)
Constant	-266.44** (-2.41)	-482.22 (-0.93)	508.05*** (3.28)	698.47*** (4.96)	-250.82** (-2.48)	-472.25 (-0.91)	507.86*** (3.28)	697.20*** (4.95)
Observations	410	410	410	410	410	410	410	410

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Fixed effects IV model for current and capital expenditures - Region Feldkirch, nocities

			(1)				(2)	
	Current	Capital	Direct Mayor	List System	Current	Capital	Direct Mayor	List System
Revenue	0.58*** (9.25)	1.50*** (3.88)			0.50*** (7.80)	1.48*** (3.55)		
Inhabitants	-0.00*** (-2.63)	0.00* (1.68)			-0.00 (-1.55)	0.00 (1.63)		
Pop Under 15	-0.93* (-1.66)	3.00 (0.87)			-1.09** (-2.02)	2.94 (0.84)		
Pop in Retirement	1.05 (1.09)	5.00 (0.84)			1.05 (1.15)	5.06 (0.85)		
Unemployment	-1.39*** (-3.50)	1.96 (0.80)			-1.04*** (-2.62)	2.05 (0.80)		
Municipal Taxes	0.12 (1.42)	-0.23 (-0.45)			0.02 (0.18)	-0.26 (-0.47)		
Communal Taxes	0.02 (0.33)	-0.14 (-0.36)			0.11* (1.73)	-0.11 (-0.27)		
1 Year Before	0.06* (1.75)	0.14 (0.62)			0.05 (1.39)	0.13 (0.59)		
Election Year	0.06 (1.59)	0.14 (0.57)			0.09** (2.32)	0.15 (0.58)		
1 Year After	0.04 (1.01)	0.17 (0.72)			0.06 (1.58)	0.17 (0.73)		
Direct Mayor	0.10 (0.62)	-0.94 (-0.91)			0.14 (0.85)	-0.93 (-0.90)		
2 Candidates	-0.24* (-1.82)	-0.79 (-0.99)			-0.07 (-0.56)	-0.74 (-0.86)		
3 Candidates	-0.28*** (-2.40)	-0.41 (-0.57)			-0.15 (-1.31)	-0.37 (-0.49)		
4 Candidates	-0.23** (-2.26)	-0.07 (-0.11)			-0.14 (-1.41)	-0.05 (-0.07)		
List System	0.68 (1.27)	4.97 (1.50)			-0.53 (-0.84)	4.64 (1.13)		
1 List	-0.22 (-0.92)	1.79 (1.22)			-0.44* (-1.83)	1.72 (1.11)		
2 Lists	0.05 (0.32)	0.85 (0.86)			-0.07 (-0.42)	0.81 (0.79)		
3 Lists	0.03 (0.52)	-0.30 (-0.86)			-0.02 (-0.37)	-0.32 (-0.86)		
4 Lists	-0.06 (-1.28)	-0.57** (-2.08)			-0.04 (-1.06)	-0.56** (-2.06)		
Turnout Mayor	0.11 (0.89)	0.66 (0.89)			-0.04 (-0.33)	0.62 (0.77)		
Turnout Council	-0.88*** (-2.73)	-3.19 (-1.60)			0.13 (0.29)	-2.91 (-1.01)		
Margin Mayor	-0.09 (-0.62)	1.95** (2.13)			-0.19 (-1.31)	1.92** (2.04)		
Margin Council	-0.01 (-0.05)	-1.61 (-1.10)			0.20 (0.85)	-1.54 (-1.00)		
Mun FE	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	NO	NO	NO	NO	YES	YES	YES	YES
Markt	0.11 (1.29)	-0.14 (-0.27)	-0.35*** (-4.62)	-0.20*** (-3.32)	0.06 (0.71)	-0.15 (-0.28)	-0.35*** (-4.62)	-0.20*** (-3.31)
Listen1985			-0.19*** (-4.04)	-0.03 (-0.83)			-0.19*** (-4.05)	-0.03 (-0.86)
Listen1990			0.19*** (5.22)	0.10*** (3.48)			0.20*** (5.23)	0.11*** (3.51)
Listen1995			0.13*** (5.96)	0.00 (0.03)			0.13*** (5.96)	0.00 (0.01)
Area			0.02*** (5.69)	0.01*** (2.59)			0.02*** (5.68)	0.01*** (2.58)
Pop Density			0.00* (1.75)	0.00** (2.26)			0.00* (1.74)	0.00** (2.26)
Constant	182.84 (0.79)	-1150.74 (-0.81)	180.21 (0.66)	1121.48*** (5.09)	239.25 (1.08)	-1168.99 (-0.82)	180.46 (0.66)	1122.96*** (5.10)
Observations	233	233	233	233	233	233	233	233

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$