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Vote expectations and pre-electoral tariff cuts in Flemish municipalities

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Abstract

Using data covering 5 election moments (1976-2000) for 308 Flemish municipalities we look for evidence whether local governments reduce the tariffs of the two main local taxes before elections. Election moments are central to both the political budget cycle literature and the strategic debt models. Next to partisan motives, the political budget cycle theory refers to incumbents' opportunistic motives: governments manipulate fiscal policy facing elections to attract voters. According to strategic debt models expenditure drift and less harsh fiscal policies might also be a means to increase the debt burden left to the next government, which in turn will affect the fiscal stance during the next legislation. As such, at least in theory, both winning and loosing governments seem to benefit from pre-electoral tariff reductions and as such we expect to find a great many municipalities to engage into tariff cuts. The dataset however shows this is clearly not the case. We argue that the differences in the fiscal policy reaction of governments facing elections might have to do with their expectations of staying into office. In our analysis we make the decision to cut tariffs depending on the expected vote percentage of the government party (parties).As we do not possess reliable data on the perceived re-election probability measured at the moment elections are upcoming, we rely on proxy variables to measure these vote expectations. Instead of working with post election outcomes, as Pettersson-Lidbom (2001) does, we make use of the percentage of votes which is predicted by an appropriate vote function. This paper contributes to the literature in several ways. By focusing on vote expectations, this analysis is integrating insights of both the PBC-models, the SUD-models and the large literature on vote and popularity functions. Contrary to former research the most visible tariff changes are central to the discussion, rather than changes in tax revenues or tax revenues over GDP. Finally, we hope to extend the knowledge on local fiscal policy.

1. Introduction

For more than 30 years now, political economists have been studying incumbents' behavior in the period surrounding election years. Quite a large amount of studies have been

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testing different versions of the political business cycles models. Alesina (1988) regroups these models in four categories, according to the motives of the politicians and the type of expectations and evaluations formed by voters. The pioneering works of Nordhaus (1975) and Tufte (1978) depict politicians as vote maximizing creatures, desperately trying to stay in office. By manipulating macro-economic conditions they are trying to induce more favorable outcomes and as a consequence an increase in their voter's wealth during the election year. Hibbs (1977) also believes electoral cycles occur, but in his view the incumbent's ideological background is the driving force. These models have in common that the voters are seen as rather naïve myopic citizens, mostly looking backward and rewarding or punishing incumbents for their policy outcomes during the pre-election period. Later models exactly challenge these and other underlying assumptions. Rogoff (1990) & Sibert & Rogoff (1989) for instance doubt that opportunistic incumbents will be able to fool rationally acting, informed voters by manipulating monetary policy while running for office. Secondly they point to the fact that incumbents rarely are facing the opportunity to manipulate monetary policy. Rather they expect to find much more supportive evidence when fiscal policy is studied instead of monetary policy (e.g. political budget or fiscal cycles). As Drazen & Eslava (2003) mention, these voters are welcoming tax cuts, expenditure increases or transfers, regardless of whether these policies are increasing economic prosperity.

Though a large number of empirical studies show results which are in line with the main propositions of the political budget or fiscal cycle models, some puzzling questions remain to be answered. We briefly point to some of them.

Firstly, as Drazen & Eslava (2003) noticed, there is relatively little evidence of increased aggregate spending in years preceding elections. Rather, officials seem to restructure expenditures. Some projects are deprived or put on hold in favor of other policy domains which voters seem to value most. Drazen & Eslava (2003) estimate that this is a way of doubling election returns: by keeping aggregate spending constant conservative voters are served. By recomposing expenditures, the specific electorate is served too.

Secondly, relatively little is known about the interaction of electioneering and the incumbent's institutional context. Tufte (1978) already warned that simple models might insufficiently encompass common pool, agency or veto-players problems in coalition governments. Indeed, as Goodhart (2002), Ashworth & Heyndels (2002), Nelson (2000), Huber et al. (2003) and recently Geys (2006) were investigating, government fragmentation is likely to affect the opportunity to manipulate policy. A further investigation in other institutional characteristics like the interaction of elections for different government levels or the impact of term limits, (Besley & Case, 1995) might also broaden the understanding of incumbents' behavior.

Thirdly, how can we reconcile the fact that the PBC-models expect incumbents to increase expenditures during election years, while studies measuring voters' preferences (Peltzman, 1992) revealed quite convincingly that they do not at all appreciate deficits or less tight fiscal policies? These inadequate findings might have to do with information asymmetries on the side of the voters. Yet, we believe the strategic debt models of Persson & Svensson

(1989) and Alesina & Tabellini (1990) might be very useful for explaining this inconsistency. In these models the incumbent's probability of defeat is the crucial variable, driving him towards strategic behavior. If the incumbents believe they will be voted out of office, why then would they bother to engage in accommodating fiscal policies? In fact, they will, if this fiscal policy can harm the next government. As such, even if politicians are aware of the fact that voters dislike expenditure increases and tax cuts leading to larger deficits, they may consciously engage in this kind of actions, if this helps jeopardizing the fiscal stance of the next government. Looking further to this probability of re-election or defeat and bringing in the literature on vote and popularity functions and strategic debt models therefore seems to offer a promising avenue of research.

Finally, when studying the political budget cycle literature we noticed that only a limited number of studies focus on tax policy. As in Rogoff (1990), Alesina et. al (1992), de Haan & Sturm (1997), Schuknecht (2000), Brender & Drazen (2005), Alt & Lassen (2006), Mink & de Haan (2006) to name a few most of the time expenditures, deficits or debt are the fiscal instruments under study. The application of expenditures, deficits or debt as instruments of fiscal policy is rather surprising as scholars in general agree that incumbents prefer to manipulate these budgetary instruments that are most visible to the electorate. As Mikesell (1978) argued, tariff changes are indeed highly visible. They are the subject of public debate and will attract voters' attention and therefore might also show a cyclical pattern. However, except for the analysis by Mikesell (1978), which indeed revealed such a cycle, we only know of some studies looking for support for the political tariffs cycle. Contrary to Mikesell (1978), Nelson (2000) does not find support for the political tariffs cycle. Binet & Pentecôte (2004) find that tax degression may explain a discretionary use of the local taxes by French local incumbents in order to get re-elected.

In this contribution we try to deepen the knowledge concerning political budget cycles by analyzing tariff changes of the two most important Flemish local taxes. We use data covering 5 election moments (1976-2000) for 308 Flemish local governments. We present the results of a panel data study explaining the occurrence of tariff cuts in election years and the years just preceding the elections. Next to variables representing institutional characteristics, we introduce an explanatory variable that measures for the government's expectations of staying into office. Measuring a variable like that is not an easy thing to do. Pettersson-Lidbom (2001), while testing the strategic use of debt models, therefore used an instrumental variable approach. We, however, start from the vote function which has been identified for Flemish municipalities by Vermeir & Heyndels (2006).

The outline of the paper is as follows. Section 2 provides a brief literature review and formulates our research question & hypothesis. Section 3 presents the dataset, the model and the result of the empirical analysis testing the model. Finally some concluding comments are given in section 5.

2. Literature and hypotheses

This paper makes use of some well-established models in fiscal policy literature. In this section we give a brief overview of the theory of the political budget cycles as well as of strategic use of debt models. At the end of this section we discuss the literature and formulate our research question.

Political business/budget cycles

The origin of the literature on the political business cycle lays in the search for an answer on the question whether governments facing elections adjust their policy making. Research on electoral cycles suggest they do. Originally the aim was to stimulate economy by manipulating macro-economic policy (political *business* cycles). Increasing employment or wealth should increase the government's popularity and as a result their chance of getting re-elected. Still, Drazen (2000) concludes that models based on manipulating the economy via monetary policy are unconvincing both theoretically and empirically. Explanations based on fiscal policy (political *budget* cycles – PBC) on the contrary form a stronger basis for a proper model of electoral effects and are usefull in bying votes. For example lowering taxes, increasing expenditures or raising grants before elections could raise the government's chance of re-election. A general overview of the theory of PBC can be found in e.g. Franzese (2002) or Drazen (2000).

Although it originated with Nordhaus (1975) in the mid 1970's, to this day the theory of political business cycles remains a popular research subject for political economists. In due course the ideas of Nordhaus' seminal paper have been further developed starting from different assumptions about the motivation of the incumbents facing elections (first dimension) or about the attitude of the voter (second dimension). Incumbents can be opportunistic or partisan. In opportunistic models politicians are primarily driven by the desire to retain office and care little about policies or outcomes. In partisan models politicians do care about policies and outcomes and exhibit strong partisan ideological differences. Voters can be adaptive or rational. Adaptive or retrospective voters base their expectations about the future policy on past policy. Rational voters are prospective and are concerned about the impact of their vote after the election. They look forward to the future performance of the government or party in question based on current expectations (Price, 1997). Both dimensions brings Alesina (1988) to discern four generations of models.

The first generation models refer to Nordhaus (1975) or Tufte (1978). These models assume that voters are backward looking and evaluate the government on the basis of its past track record. Incumbents are seen as opportunistic office-seeking actors. They adopt expansionary policies –regardless of political ideology– in the late year(s) of their term in office to stimulate the economy. While Nordhaus (1975) focuses on macroeconomic policies incumbents pursue to maximize their votes, Tufte (1978) stresses electoral cycles in directly manipulatory policies, such as transfer payments, to buy votes from myopic voters. Voters,

being the victims of fiscal illusion, do not take the intertemporal budget constraint of the government into account and overestimate the benefits of recent policy and underestimate the the future fiscal burden.

Contrary to Nordhaus (1975) and Tufte (1978) Hibbs (1977, 1987) assumes partisan rather than opportunistic incumbents. As in the first generation models, voters are expected to judge retrospectively. In Hibbs' models (1977, 1987) incumbents contest and voters adjudicate elections in partisan terms. Elections are thus ideological driven. Incumbents will try to earn a policy making reputation that attracts voters in accordance with their ideology. Incumbents of the right favour low taxes, prefer low inflation to low unemployment and are sensitive to balanced budgets, while incumbents of the left promote larger budgets, low unemployment levels and accept unbalanced budgets.

In third generation models incumbents are office-seeking, while voters are expected to have rational expectations so they cannot be deceived over long periods. The models of Cukierman & Meltzer (1986), Rogoff & Sibert (1988) and Rogoff (1990) are standards to refer to. Despite the new insights these models provide, the central thesis of electoral cycles concerning fiscal policy survives even when voters are not myopic and gullible as long as voters experience a temporary information asymmetry regarding the incumbents' competence level. While each candidate is assumed to know his own level of competency, voters are uncertain about the competency of the incumbents. Voters want to elect the more competent politician and form rational expectations about the incumbents' competency based on observable current fiscal policy outcomes. With the objective of raising re-election probability incumbents can signal their competency by for example cutting taxes or raising easily observed spending before elections. If voters enjoy the benefits of these policies before they can evaluate the full cost of them, incumbents will try to signal or feign their competency transferring the bills to post-election moments. According to Alesina (1989, 63) the budgetary process is sufficiently complicated, that even relatively informed and attentive voters may be fooled at least temporarily.

Finally Alesina (1987, 1988), Alesina & Rosenthal (1995) and Alesina et al. (1997) create a model in which partisan incumbents try to attract rational or prospective voters. Their models extend the ideas of the third generation models, but next to competence elections outcome too is uncertain. In these models voters could foresee what leftist or rightist governments would bring about, but they don't know the outcome of elections. Consequently, agents' expectations have to be a weighted average of the outcome under both right and left victories.

Still evidence is mixed and conclusions are differed. Geys (2006) points out that support for electoral cycles is more robust in developing democracies relative to developed countries. Secondly, the political, economic, institutional, structural and strategic context in which incumbents operate determinate the incentives to 'electioneer'. Finally, policy adjustments (i.e. budgets, expenditures, taxes, investments) to influence the voter's decision-making are relatively well-established while evidence for pre-electoral shifts in real outcomes (i.e. gross

domestic product, inflation or unemployment) is at best ambiguous[1]. While there is little evidence of electoral cycles in outcomes, the evidence for electoral cycles in policy instruments is stronger.

In this paper we look for evidence of an electoral cycle in pre-electoral tax policy in Flemish municipalities. The setting of local governments excludes monetary policy as an instrument for pre-electoral opportunistic behavior. Monetary decisions have a federal or even European dimension. At the local level policy decisions with high visibility are more appropriate to have an impact on voters' behaviour. The policy changes that voters are most sensible to are those that are most visible or that send the strongest signals at the moment of elections. Thus, incumbent governments signal as efficient as possible in election years by focussing on policies that can be easily observed and verified by voters. Drazen (2000) arguments that a government's competence can be signalled prior to elections by changing its fiscal policy.

Mostly budgetary variables as expenditures, transfers, surplus/deficit and debt are used to prove a political budget cycle.[2] But also revenue information and more specific tax revenue information can be helpful explaining cycling behaviour. In this paper the dependent variable of the analysis will be tariff cuts. Tariff cuts before elections could give the voter the impression that the government is efficient since expenditures can be paid with a reduced tax burden. There is no doubt that tariff changes are visible and strong. Wagner (1971) already mentioned that tariff changes are a relatively visible form of tax legislation changes to voters. Tariff changes get public attention, legislative debate and voter attention (Mikesell, 1978), but possibly the strongest effect is that ceteris paribus all voters experience a reduced tax demand. Tariff cuts thus meet the condition Tufte (1978) stipulates that a measure to manipulate vote behavior 'must yield clear and immediate economic benefits to a large number of voters'. Other modifications of the tax laws (tax base changes, additional exemptions,…) tend to be less visible, are not always well understood by the general public (Nelson, 2000) and rarely reduce tax demand by all taxpayers.

Strategic use of debt

To be completed soon.

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[1] It's not difficult to see that it is for incumbents much easier to manipulate policy instruments than macroeconomic outcomes as gross domestic product, inflation or unemployment. The basic difference is that governments control their own policy instruments whereas they can only hope to have some indirect impact on the economy. Economic performance is the outcome of a myriad of decisions taken by consumers, workers, producers as well as governments, national and local, in the country but also internationally (Blais & Nadeau, 1992, 390).

[2] Blais & Nadeau (1992) show that spending is increased in election years in Canadian provinces. Alesina (1988) finds a significant election year increase in net transfer over GNP for the U.S. Shi & Svensson (2003) consider a panel data set of 91 countries and find that in an election year the government surplus falls significantly. Brender & Drazen (2005) look for budget cycles using expenditures, transfers and the balance in a large cross-section of countries. Geys' (2006) analysis of local public debt data for 296 Flemish municipalities provides empirical support for opportunistic policy cycles.

Discussion

We build on the literature on the political budget cycles. Our work makes advances in three ways. The extension of this work to previous research firstly goes back to Tufte's (1978) statement that electoral cycles require opportunity and motive. Cyclic behavior thus is likely to be stronger when firstly there is political ability to manipulate policy and secondly when there is more need for them. When ability and need are present, then what makes the government to decide to really act opportunistic or strategically? Where political budget cycle literature starts from the assumption that a government changes fiscal policy to get re-elected and the strategic debt models assumes that "the government knows that it will be replaced" (Persson & Svensson, 1989 : 325), this paper goes back one more step in the decision-making process. Contrary to the literature on political budget cycles and strategic use of debt, we assume that the government is uncertain about its political future since elections always have to be awaited for. Yet a government facing elections has to choose "a" pre-electoral policy with each different post-electoral consequences. What makes a government to choose the policy that is likely to create or correspond with the ultimate electoral outcomes? In their research to explore the determinants of municipal tax rates in British Colombia Brett & Pinkse (2000, 713) already mentioned that "information on the political fortunes of local councillors are needed". Rogoff (1990, 30) is more explicit when he states that "the *prospect* of being able to run for re-election again raises the temptation to distort fiscal policy". In accordance with these authors we expect governments to follow different policies relative to the *expected* electoral outcome, so policy depends on the number of votes the government expects to poll. Remarkably, to the best of our knowledge, literature on political budget cycles has not yet introduced an explicit measure for this decisive factor. Still the adjoining literature on the strategic use of debt is familiar with the role of electoral outcome expectations on fiscal policy. Nevertheless we only find Pettersson-Lidbom (2001) who introduced a measure for these expectations. His variable "*probability of electoral defeat*" is explanatory for the accumulation of debt in Swedish local governments. The Pettersson-Lidbom variable is ex-post measured and is constructed only on historic electoral data. This paper introduces an explanatory variable for pre-electoral tariff reductions that is not only based on historic electoral results but also counts for other political and economic effects. This variable is found in the literature on vote and popularity functions and expresses the expected vote percentage of the government party (or parties). Frey & Schneider (1978) explicitly recognised before that governments differentiate their policies according to their perceived popularity level.

Secondly we analyse data from Flemish municipalities and thus focus on local governments while empirical evidence on the PBC so far is mostly drawn from country-level data sets. Exceptions are Geys (2006), Drazen & Eslava (2005), Binet & Pentecôte (2004), Veiga & Veiga (2004) and Brender (2003) who also use local datasets.[3] Still we think that a

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[3] Drazen & Eslava (2005) find a pre-electoral increase in targeted expenditures, combined with a contraction of other types of expenditures, and a voter response to targeting in Colombian municipalities in the period 1987-2000. Binet & Pentecôte (2004) show that election-motivated tax manipulation in French municipalities can be done by tariff cuts Veiga & Veiga (2004) find that expenditures of Portuguese municipalities over the 1979-2000 period increase in pre-election periods, especially on items that are highly visible to the electorate (e.g., highways and

local-level context offers some benefits. Our setting has the advantage that municipalities have a homogeneous context. Flemish municipalities share common political and constitutional systems, experience common economic and monetary shocks, employ similar budgetary processes, have identical electoral rules and voter preferences are reasonably homogeneous across municipalities. Unlike studies using country data, we are able to control for institutions and economic conditions that have been found in the literature to play an important role in determining fiscal policy choices. This allows us to focus more specifically on the question of interest. Another advantage is that municipal data allows us to test our model on a large number of observations, whereas studies focussing on higher government levels are constrained by the limited number of observations. Geys (2006) already used data from Flemish municipalities to look for the existence of political budget cycles. Geys (2006) argues that the level of political fragmentation of the government affects both the need for and possibility to engage in opportunistic policy cycles. Local public debt data of Flemish municipalities provides empirical support for this contention. Our paper looks for evidence in the strategic context and focuses on tarrif changes rather than on public debt data. Also strategic use of debt models have been tested on local governments before. Pettersson-Lidbom (2001) finds that Swedish local governments indeed accumulate more debt when facing a higher probability of defeat

Thirdly this paper explains tariff cuts by the government's vote expectations. *Tariff changes* as such are rarely used in PBC research. We are acquainted with only the research of Mikesell (1978), Nelson (2000) and Binet & Pentecôte (2004) that measure for tariff changes[4]. *Tax rates* defined as tax revenues as a share of GDP are more common[5]. *Tax revenues* are another measure in the study of the political manipulation of tax policy[6]. Such data may be a less accurate reflection of elected officials' intentions, as taxes paid also reflect economic conditions. We are convinced that in a panel of Flemish local authorities it is better to look for tariff reductions since the system of taxation is identical for all municipalities. The taxes under research are both surcharge taxes of which each municipality has to set their own tariff (including 0) while the tax bases are founded on the same legislation. Consequently voters can easily compare their hometown tariffs with those of neighbouring municipalities or

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streets). Brender (2003) shows that fiscal performance of Israeli mayors substantially affected their re-election probability in the 1998 campaign, but not in the 1989 and 1993 campaigns.

[4] Mikesell (1978) shows that tariff cuts in American states have been concentrated in the latter years of the electoral cycle in the period 1960-1977. Tariff increases on the contrary are more likely to occur in the year immediately after election years than in election years. Working on a similar but larger dataset (1946-1993) Nelson (2000) affirmed the occurrence of tariff increases, while he finds little evidence that U.S. state politicians strategically time tariff cuts to occur around election periods. Binet & Pentecôte (2004) show that tariff cuts are used for election-motivated tax manipulation in French municipalities.

[5] To name only two of them Bizer & Durlauf (1990) demonstrate that average tax rates follow a pattern consistent with a political tax cycle and van der Ploeg (1989) shows that a government cuts the tax rate towards election eve in order to gain votes.

[6] Poterba (1994) finds tax increases to be significantly smaller in election years than at other times. Yoo (1998) shows that Japanese tax revenues decrease with a statistically significant amount in the year immediately before the elections of the House of Representatives.

municipalities with the same characteristics.[7] This makes a pre-electoral tariff cut an ideal instrument for incumbents to signal their competence prior to elections.

In this paper the expected vote percentage of a government facing elections is anticipated to be decisive in the government's pre-electoral fiscal policy. Two main situations can be distinguished. Firstly, the government can stand for office in the conviction that the current government stays in office, which means that they expect to collect at least 50% of the votes. Still the government can be expected to enforce tariff cuts to maximize votes. The more votes, the more political power the government enjoys during the next term, but the government may also attempt to flatter itself by being as popular as possible or to safeguard itself against any undesirable uncertain events (van der Ploeg, 1989). In the second situation the government parties do not await to get in a majority of the votes. In this situation two strategies can be followed. If the government anticipates to reach nearly 50% of the votes, it can decide to act opportunistic by reducing tariffs on the assumption that this brings in the necessary additional votes to obtain again the majority of the votes. If on the contrary the government, whatever policy followed to gain additional votes, expects a minority of the votes, it can decide to act strategically and reduce taxes to saddle the next government with higher debts. The strategic use of debt models have given evidence and explanation of such behaviour.

If tariff cuts serve, at least in theory, both winning and loosing incumbents, why then do not all governments reduce tariffs before elections? Firstly, governments prospecting a large majority may not change pre-electoral fiscal policy since the prolongation of the government is expected to be safeguarded. Secondly the government may expect to loose only just majority. If the government then doubts the impact of a pre-electoral tariff cut to be sufficient to lift the initial prospected outcome to a final majority of the votes, we expect the government not to cut tariffs.[8] Reducing taxes before elections but after all still losing elections, moreover with a smaller shortage of votes, means also a smaller surplus of votes for the current opposition parties. As a consequence the possibility that one ore more of the current government parties will be part of the following government raises. The decision by the current government to cut a tariff would reduce the scope for policymaking of the next government, of which the chance that at least one of the current government parties may be part of raises the smaller the electoral defeat. A government not convinced of electoral victory after a tariff cut is thus not expected to cut tariffs. If on the contrary the government expects to be thrown back with heavy losses, the chance that one of the government parties will be part of the next governments is small, so they can –as already described– be expected to reduce tariffs to go strategically into debt.

To summarize, in this paper we look for evidence whether pre-electoral tax behaviour depends on the government's prospects of the electoral results.

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[7] The theory on yardstick competition suggests that this comparison influences inhabitants in their votes (Besley & Case, 1995)

[8] Remark that the role of uncertainty about electoral outcome in pre-electoral *debt policy* is doubted by Persson & Svensson (1989, 342). In their paper on the strategic use of debt they assume that incumbents are sure that they will be replaced in the next government, but they conjecture –without further proof or evidence– that uncertainty about whether the current government is succeeded or remains in power would not fundamentally change their pre-electoral debt policy.

4. Empirical analysis

In this section we empirically asses whether the prospects of electoral outcome is decisive in pre-electoral tax policy. Section 4.1 familiarizes the unacquainted reader with some crucial characteristics of Flemish local governments and their functioning. Section 4.2 outlines our dependent variable. Section 4.3 gives a presentation of the methodology and the empirical model. Finally section 4.4 presents the empirical results.

4.1 Institutional context

In this empirical part of the paper we use a panel data set from 1976 to 2000 for 308 Flemish municipalities. Our dataset consists of no earlier data because of the municipal amalgation operation in 1976[9].

Local governments in Belgium (and thus also Flanders) have a parliamentary system consisting of the local council (the legislative body) and the College of Mayor and Alderman (the executive body). Elections are hold every 6 years at the second Sunday of October. So election mandates are planned, that allows us to verify the opportunistic hypothesis. Incumbents can be indefinitely re-elected (i.e. there are no binding term limits), so they can design their policy towards re-election. The number of seats in the local council and the College depends on the size of the municipality. While the College consists of 2 to 10 members, the council comprises of 7 to 55 politicians. The composition of the College is determined by the party (or parties) holding a majority position in the council. They appoint the alderman and propose a mayor from among their councillors (the mayor is then officially appointed by the King). Local power thus rests (nearly) completely in the hands of the parties holding a majority position in the local council. Seats in the council are allocated using a system of proportional representation (PR), such that each party is allocated a certain number of seats in proportion to the votes it obtains in the elections. It is well established that PR-systems are inherently more unstable than pluralist electoral systems, which makes them more likely to be sensitive to opportunistic political business cycles and strategic use of debt models.

The Flemish municipalities enjoy a far-reaching autonomy in their fiscal policies. As long as their initiatives are not prohibited explicitly by federal legislation, they are authorized to pursue any policy to promote the interests of their constituents – and to decide independently on the level and structure of revenues to finance these initiatives. The most important expenditures are public administration, public safety, education and social services. At the revenue side, grants from higher levels of government (which are for the most part unconditional), dividends from municipal associations in charge of electricity and gas distribution, and taxation are the most important sources of revenue. Taxation, the focal point of the current paper, generates the most important part of the Flemish municipalities' revenues (viz. over 47% of all revenues in 2002). Approximately 83% of this tax income derives from surcharge taxes on regional and federal taxes on immovable property (i.e. the local property tax – LPT) and labour (i.e. the local income tax – LIT). The higher government defines both tax bases and municipalities are free to

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[9] The large-scale municipal amalgamation operation in 1976 reduced the number of municipalities in Belgium from 2359 to 589 (308 in Flanders, 19 in Brussels and 262 in Wallonia) and constituted the beginning of the current municipal landscape.

set any tax rate (including 0). Importantly, the federal or regional governments collect both surcharge taxes and transfer these revenues to the municipalities. However, besides the surcharge taxes mentioned above, municipalities can (and do) also collect local taxes of which they set the tax base as well as the tax rate. In fact, the average Flemish municipality collects about 15 of such taxes and the most 'exotic' taxes can be found among the more than 120 local taxes that are currently in use: taxes on private swimming pools, on balconies, on transportation of drunken persons, on dogs, boats and so on.

4.2 Dependent variable

This analysis explains the occurrence of tariff cuts of the surcharge tax on immovable property (local property tax – LPT) as well as of the surcharge tax on labour (local income tax – LIT) in the year of an the year before elections. Vermeir & Heyndels (2006) show in their research on the electoral cost of tax policy in Flemish municipalities that the level of both the local property tax rate (LPTR) and the income tax rate (LITR) have a negative influence on the vote for the government parties, which shows that Flemish voters indeed are sensible to tax policy changes.[10] Since the impact of both local taxes on the vote is ex post facto proven, we expect the changes in these taxes to be attractive to use opportunistic or strategically before elections. That's why we use tariff cuts on both taxes as dependent variable of the analysis. Remark that incumbents could also cut tariffs of other local taxes to show their compentence. Still we enter only the local income tax and the local property tax in our model. Firstly Ashworth & Heyndels (2000) show that local politicians prefer changes of the given taxes to realize a fall in tax revenue.[11] Secondly, tariff reductions of income and property taxes affect almost all inhabitants, which makes tariff changes highly visible to the electorate.[12] Thirdly both taxes are surcharge taxes that do not differ between municipalities except for the tariff. Other local taxes vary in frequency and have individual municipal tax codes.

The dependent variable is measured dichotomously and equals 1 if the government has decided to cut tariffs of the income or property taxes or both in the election year or the year before. It takes the value 0 otherwise. No distinction is given to the magnitude of the tariff reduction. We take the year of the election as well as the year before elections into account since election-induced changes in tax policy are not limited to the year of the election, but might already occur the year prior to the election. As table 1 shows, this is not unlikely given the fixed 6-year legislative term, which implies perfect knowledge of election dates (Geys, 2006, 11). Table 1 shows the frequency of tariff reductions of both taxes in election years t and the five forgoing years in the period 1977-2006.

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[10] The impact of income tax rate on the vote is smaller and not significant. Vermeir & Heyndels (2006) suggest that this could be due to the fact that local income taxes are witheld by the employer, whereas the collection of the property tax is more explicit.
[11] Ashworth & Heyndels (2000, 126) show that if local politicians were asked how they would prefer to realize a given fall in tax revenue, 94,5% of the respondents would realize this by lowering the income or property taxes or both of them.
[12] Other local taxes levy for example some events (e.g. a movie performance), situations (e.g. having a swimming pool) or nuisance (e.g. environmental damage).

Table 1   Decrease of LITR, LPTR, LPTR and/or LITR in election years (t) and foregoing years in Flemish municipalities over the period 1977-2006

Decrease in\year	t-5	t-4	t-3	t-2	t-1	t
LITR	2,35%	1,56%	3,12%	6,23%	7,92%	7,79%
LPTR	1,06%	1,87%	3,08%	4,46%[13]	7,39%	6,57%
LPTR and/or LITR	3,08%	2,66%	4,81%	8,44%	12,99%	10,71%

4.3 Empirical model

In this section we present our empirical model. We look for evidence whether pre-electoral tax behaviour depends on the government's prospects of the electoral result. Prospects of the electoral result have already been used by Pettersson-Lidbom (2001) to explain debt policy. If we follow his model to explain pre-electoral tariff policy in Flemish municipalities, we could explain *pre-electoral tariff reductions* (PTR) as a function of the incumbent's probability of electoral defeat (D_{it}). More formally,

$$PTR_{it} = \alpha_0 + \alpha_1 D_{it} + \alpha_2 Y_{it} + u_{it} ; \qquad\qquad (1)$$

where i = 1,..., N; t = election years 1976, 1982, 1988, 1994, 2000

D_{it} is the pre-electoral estimation of the incumbent's probability of electoral defeat, Y_{it} is a vector of variables affecting fiscal policy and u_{it} is an error term. Index i denotes local governments and index t election years 1976, 1982, 1988, 1994 and 2000.

Pettersson-Lidbom (2001) uses ex post election outcome as a proxy variable to estimate the probability of electoral defeat (D_{it}). To correct for endogeneity and measurement error problems associated with the proxy he uses an instrumental variable approach. Doing this Pettersson-Lidbom creates an auxiliary equation that links the unobservable variable, that is, the expectation of electoral defeat, to a set of explanatory variables. This set of explanatory variables is restricted to historic vote results and the frequency of previous government changes.

Still we believe that other variables, like economic, other political and tax variables can have an impact on upcoming electoral results. We refer to what has been studied intensively in the literature on vote functions. Vote functions have shown their accuracy in measuring the support for the government at votes. In general these functions explain the vote (or the change in the vote) for the government at elections by (the change in) economic, political and tax variables (Nannestad & Paldam, 1994). Mughan (1987, 198) even makes clear that the primary purpose is not explanation but forecasting – "predicting the outcome of an event before it occurs". If these vote functions indeed give the government an indication of upcoming election results, they can tune their tax behaviour to them. Since the number of votes is the principal condition for the continuation of the government, we take the expected number of votes as explanatory variable in our model to explain pre-electoral fiscal policy. Of course the continuation of the government

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[13] We do not take into account LPTR decreases of the year 1980 in almost every municipality. A circular letter enforced municipalities to reduce LPTR to compensate for the equalization of taxes on immovable property in 1979 (Pacolet & Van De Putte, 2000, 30).

depends on the final electoral results.

Vermeir & Heyndels (2006) recently developed a vote function model for Flemish municipalities in which they find empirical evidence for yardstick voting. This vote function estimates the vote percentage of the government party (or parties) by a number of economic and fiscal variables and can be written as following :

$$V_{it}^{[t-6,t]} = \beta_1\, V_{it-6}^{[t-6,t]} + \beta_2\, T_{it} + \beta_3 \sum_{j=1}^{n} w_{ij}T_{jt} + \beta_4\, X_{it} + \lambda_t + \beta_5\, P_{it} + \eta_i + \varepsilon_{it} \qquad (2)$$

where: $i = 1,..., N$; t = election years 1976, 1982, 1988, 1994, 2000

Our model is based on the Pettersson-Lidbom model, but replaces his crucial variable −probability of electoral defeat (D_{it})− by Vermeir & Heyndels' (2006) dependent variable $V_{it}^{[t-6,t]}$ −the vote percentage obtained at election year t in municipality i by the party (or parties[14]) that was (were) in government over the previous legislature. Our main argument to change Pettersson-Lidbom's (2001) D_{it} by Vermeir & Heyndels' (2006) $V_{it}^{[t-6,t]}$ is that Pettersson-Lidbom (2001) uses ex post election outcome as a proxy variable to estimate the probability of electoral defeat. Since pre-electoral tax decisions are based on the perception of the electoral results before elections, final electoral outcome has no impact on this decision. Therefore Vermeir & Heyndels' (2006) $V_{it}^{[t-6,t]}$ is a better explanatory variable to explain pre-electoral tariff reductions since all variables used in their vote function are variables of which the governments can be acquainted with or can be estimated before elections. Governments thus can use this information to estimate their vote percentage at the next elections. Other advantages of this replacement are firstly that more explanatory variables than historic election results are introduced and secondly this methodological choice avoids endogeneity and measurement error problems which makes an instrumental variable approach needless. Different variables are explanatory in the Vermeir & Heyndels (2006) vote function for Flemish municipalities. The vote percentage of the same party (parties) six years before in the previous elections ($V_{it-6}^{[t-6,t]}$) is introduced to control for the influence for past events.[15] T_{it} are tax and expenditure variables in municipality i in election year t. This vector includes the local income tax rate and the local property tax rate in the year of the election as indicators of local tax policy. Also per capita expenditures are included to measure for the quantity (and/or quality) of public output. As the theory on yardstick competition (Besley & Case, 1995) suggests that tax rates in neighbouring municipalities (T_{jt}) influence inhabitants in their votes, Vermeir & Heyndels (2006) also takes

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[14] The vote share corresponds with the sum of the share of the coalition partners in the case of coalition governments.

[15] Remark that this lagged term implies that our estimation is effectively limited to the 1982-2000 periods. Another implication is that the dataset does not contain data of all Flemish municipalities since it is sometimes impossible to calculate previous election results of the government. Parties may split up, merge with another party, simply disappear or change their names. Our dataset only contains observations of which previous election results can be undisputebly calculated.

into account information on tax rates in neighbouring municipalities.[16] X_{it} is a vector of municipality characteristics measuring for economic developments and municipalities' political characteristics. The literature on economic voting suggest that governments are held accountable for economic developments[17] so income per capita and unemployment rate are introduced in X_{it}. Political characteristics are represented in vote function (2) by the number of government parties to measure for clarity of responsability. The more coalition partners, the less clear the responsability of each coalition partner for policy and economic developments. To capture for the impact of national or regional politics, Vermeir & Heyndels (2006) include party-year dummies (P_{it}). As Revelli (2002) shows, local elections sometimes can be considered as referenda for national politics. Given the Belgian multi-level situation local party popularity could be influenced by the corresponding national party popularity. Year effects and municipality fixed effects are included by respectively λ_{it} and η_i.[18]

When replacing D(it) by $V_{it}^{[t-6,t]}$ equation (1) can be written as :

$$PTR_{it} = \alpha_0 + \alpha_1 V_{it}^{[t-6,t]} + \alpha_2 Y_{it} + u_{it} ; \tag{3}$$

This paper estimates $PTR_{it,t-1}$ as mentioned in equation (3). $V_{it}^{[t-6,t]}$ is the result of the Vermeir & Heyndels (2006) analysis. Variable Y_{it} in equation (3) stands for variables affecting fiscal policy. Although we expect strategical or opportunistic motivations for pre-electoral tax reductions, other motivations could explain tax reductions. For these −mainly financial− variables we add control variables. ΔEXP_{it} looks for the existence of expenditure decreases. A decrease in expenditures could explain a tax reduction, so the relation is expected to be negative. Actually we do not expect a significant impact of ΔEXP_{it} since this is opposite to the theory of the political budget cycles. On the contrary, the political budget cycle theory expects opportunistic governments to increase expenditures to gain votes. Another possible argument than the opportunistic or the strategic ones to reduce taxes would be a raise in other revenue. ΔREV_{it} controls for increases of revenue other than those from the taxes on property and labour. We expect a positive impact. Debt creation or the use of earlier amassed surplusses is also a way to finance tax reductions. $\Delta DEBT_{it}$ and $\Delta SURP_{it}$ measure for both possible explanations. The first relation is expected to be positive, while the opposite is true for the second. When we replace Y_{it} in equation (3) with these control variables, equation (3) can be written as :

$$PTR_{it} = \alpha_0 + \alpha_1 V_{it}^{[t-6,t]} + \alpha_2 \Delta EXP_{it} + \alpha_3 \Delta REV_{it} + \alpha_4 \Delta DEBT_{it} + \alpha_5 \Delta SURP_{it} + u_{it} \tag{4}$$

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[16] The unweighted averages of local income tax rates and local property tax rates in border-sharing municipalities are introduced to measure for influences of neighbouring tax policy.

[17] Remark that these economic variables are the result of macro-economic policy which is mainly a federal and regional responsibility. Despite their objective to interfere local governments may still have a (marginal) influence or may be held accountable by the electorate. Local governments can e.g. approve the layout of additional company grounds or decide to lower local company taxes to stimulate local economic activity.

[18] For further details on this vote function we refer to Vermeir & Heyndels (2006).

where i = 1,..., N; t = 1976, 1982, 1988, 1994, 2000

Remark that manipulation of policy may be easier for strong, one-party governments and become more difficult the larger the number of parties. Thus more fragmented governments are expected to be less susceptible to pre-electoral tax reductions (Geys, 2006). Yet we didn't introduce a fragmentation variable in equation (4) since $V_{it}^{[t-6,t]}$ already measures for the impact of government fragmentation.

4.4 Results

To be completed soon.

5. Conclusion

To be completed soon.

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