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Elections, Fiscal Policy and Fiscal Illusion*

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Abstract:

This paper tests the joint hypotheses that policymakers engage in fiscal policy opportunism and that voters respond by rewarding that opportunism with higher vote margins. Furthermore, it investigates the impact of fiscal illusion on the previous two dimensions. Empirical results, obtained with a sample of 68 countries from 1960 to 2006, reveal that opportunistic measures of expenditures and revenues generate larger winning margins for the incumbent and that the opportunistic manipulation of fiscal policy instruments is larger when the current government is less likely to be re-elected. Furthermore, fiscal illusion contributes to the entrenchment of incumbent policymakers in office and promotes opportunistic behaviour.

Keywords: fiscal policy, voting, opportunism, fiscal illusion.

JEL codes: D7, E6, H3

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1. Introduction

An extensive literature on vote/popularity functions has shown that the economy influences the vote. Additionally, research on political business cycles (hereafter, PBC) has found evidence that politicians try to manipulate the economy, particularly fiscal policy instruments, in order to woo the electorate and gain reelection. However, these two issues have mostly been addressed independently.¹ A notable exception is Aidt, Veiga and Veiga (2010) that proposes a new test of the rational political business cycle and implements it on a sample of Portuguese local governments. Their results show that opportunistic increases in expenditures lead to larger win-margins for incumbent mayors, and that incumbents are more opportunistic when their win-margin is expected to be small.

The present paper tests, on an international setting, the joint hypotheses that policymakers engage in fiscal policy opportunism and that voters respond by rewarding that opportunism with higher vote margins. The test is implemented for national governments, using a sample of 68 countries and 40 years of data. We allow for opportunism to occur, not only in governments' expenditures, but also on the revenue side. The empirical strategy also builds on the strategic debt models proposed by Persson and Svensson (1989) and Alesina and Tabellini (1990), where the economy exhibits a deficit bias when incumbents anticipate being replaced in the next election by a new government with different objectives.

Furthermore, we address the issue of transparency in fiscal policy by incorporating a measure of fiscal illusion in our regressions.² According to Buchanan (1967), politicians engage in tactics to produce fiscal illusion so that voters overestimate the benefits of public expenditures and underestimate the tax burden. More recently, Alt and Lassen (2006) argued that lack of transparency in fiscal policy encourages PBCs.

The paper is organized as follows. Section 2 presents the literature review, and section 3 the empirical model. The data sources and the fiscal illusion index are described in section 4, and the empirical results are presented and discussed in section 5. Finally, section 6 concludes the paper.

2. Literature review

Research on electoral economics developed in the 1970's with the seminal works of Goodhart and Bhansali (1970), Mueller (1970), and Kramer (1971) for vote/popularity functions, and Nordhaus (1975) and Hibbs (1977) for opportunistic and partisan business cycles. Since then, many papers have been written, but these two topics have mostly been analyzed independently. An exception in this first generation of papers is Frey and Schneider (1978). This study highlighted the importance of analyzing the interrelationship between the economy and the polity, by presenting estimations of popularity functions for the US president, along with government expenditure reaction functions that took into account a re-election motive influenced by the popularity of the incumbent.

The rational expectations revolution brought new challenges to the literature, since rational voters could not be systematically fooled one election after the other by opportunistic politicians. New models were developed where a PBC could result from asymmetries of information between policymakers and voters. In rational opportunistic models, such as Rogoff and Sibert (1988) and Rogoff (1990), incumbents signal their competence to the electorate by manipulating budgetary items. In the former, governments increase distortionary taxes before elections in order to increase expenditures, and/or decrease non-distortionary taxes that are immediately visible by the electorate. Rogoff (1990) emphasizes the composition of expenditure items: before elections, governments increase expenditures that are

immediately visible by the electorate, as opposed to those that only become visible after the election. In Alesina's (1987) model, it is the uncertainty about the ideology of the party that will win the balloting that justifies the appearance of rational partisan cycles.

Regarding the empirical literature, the first generation of papers testing political business cycles made use of national-level data on elections and real macroeconomic variables, such as unemployment and inflation. With the introduction of rational expectations in the models, empirical research re-focused the analysis to economic policy instruments, particularly those of fiscal policy. Tests performed on macroeconomic outcomes generally fail to provide evidence of PBCs,³ but more favorable evidence is found for fiscal policy outcomes. Although the number of papers testing PBC is extensive, the micro incentives for political business cycles have received insufficient attention, as pointed out by Willett and Keil (2004: 414) in their survey of PBCs.

We intend to build on the PBC literature by estimating voting functions and the determinants of opportunistic policies as a system of equations, using a sample of OECD countries over 40 years. To our knowledge, only Aidt, Veiga and Veiga (2010) have presented joint estimations of voting functions and policy reaction functions, but their research deals with local governments for a specific country (Portugal). Akhmedov and Zhurasvskaya (2004) and Drazen and Eslava (2010), also dealing with local governments (in Russia and Colombia respectively), have estimated voting functions and tested for opportunistic cycles in fiscal policy, but did not analyze what drives the opportunistic manipulation.

Furthermore, we address an issue that has been highlighted by the most recent contributions on the topic - the information citizens have to detect and punish opportunistic policies. A consensus seems to have been reached that electoral

budgetary policies are stronger in developing countries (Shi and Svensson, 2006), where voters are inexperienced with electoral politics (Brender and Drazen, 2005; Brender, 2003; Akhmedov and Zhurasvskaya, 2004), politicians are less credible (Keefer and Razvan, 2008), and fiscal policy is less transparent (Alt and Lassen, 2006). We address this issue in our research by analysing the influence of fiscal illusion on electoral results and on opportunistic practices. The hypothesis of fiscal illusion was first introduced by Puviani (1903) but came into the mainstream of economic research with Buchanan (1967). In countries where fiscal illusion is stronger, voters do not take into account the government's intertemporal budget constraint. They tend to overestimate the benefits of recent policies and underestimate the resulting future fiscal burden. Therefore, fiscal illusion increases the popularity of the incumbent politician and contributes to the perpetuation of the ruling class. Edelman (2001) and Caplan (2007) also suggest that a reason for political illusion is political opportunism because politicians want to maximize the probability of success of their opportunistic practices. According to these authors, illusions strengthen the effects on voters of benefits gained from opportunistic increases in expenditures and reductions in taxation. Edelman (2001) discusses the ways in which this information asymmetry is supported by many sources of political illusion.

Our paper also contributes to the literature on strategic debt models of Persson and Svensson (1989) and Alesina and Tabellini (1990). In these models policymakers with different preferences alternate in office and use government debt to influence the choices of their successors. According to Persson and Svensson (1989) the conservative government, i.e. one which favors lower public expenditures, collects fewer taxes and leaves more public debt than what its successor would prefer, when it anticipates that it will be succeeded by a liberal government. In

Alesina and Tabellini's model, policymakers disagree on the composition of public spending rather than the level, and there is a deficit bias regardless of which party is in office. In both cases governments try to influence the choices of their successors by manipulating the level of debt that they leave when they depart office. The strength of the incentive depends on the expected probability of defeat. Since we do not have data on perceived electoral results from polls for all the countries and all time periods, and instead of working with post election results as in Petterson-Lidbom (2001), we use the estimated outcome of the voting function as a proxy for the expected probability of re-election. Since we estimated a system of equations, we are also able to implement Persson and Svensson (1989)'s suggestion (page 342) to test if the probability of being reelected depends upon the policy pursued.

3. The empirical model

Based on the theoretical arguments presented in the previous section, we expect incumbents to behave more opportunistically when they are more uncertain of winning the election, and we expect opportunistic policies to improve governments' electoral prospects. The empirical model thus tests for the reciprocal influence of opportunistic fiscal policies and the win-margin of incumbents, taking into account the degree of fiscal illusion existent in the country, and other factors that may influence the political business cycle. Our system of two simultaneous equations can be described as follows:

$$MV_{it} = \beta_1 OD_{it} + \sum_{j=2}^m \beta_j X_{it} + \beta_{m+1} FI_{it} + v_i + \delta_t + \varepsilon_{it} \quad (1)$$

$$OD_{it} = \alpha_1 MV_{it} + \sum_{j=2}^n \alpha_j Y_{it} + \alpha_{n+1} FI_{it} + \tau_i + \vartheta_t + \mu_{it} \quad (2)$$

Where $i=1,\dots,68$ identifies the country, and t the legislative election year between 1960 and 2006. Both equations include country fixed effects (ν_i and τ_i) and time fixed effects (δ_i and ϑ_i). The β_1 to β_{m+1} and α_1 to α_{m+1} represent parameters to be estimated, and ε_{it} and μ_{it} the error terms.

In the first equation (Eq. 1), the dependent variable is the margin of victory obtained by the main incumbent party in legislative elections (MV_{it}). We measure the win-margin by the difference between the log of the vote share of the most voted party and the log of the vote share of the largest opposition party. In the second equation (Eq. 2), the dependent variable is a measure of the opportunistic electoral distortion in the fiscal aggregate (OD_{it}). This is proxied by the difference in logs of the share of public expenditures/revenues of GDP in the electoral year and the share over the entire term of office.

We expect the opportunistic distortion to have a positive impact ($\beta_1 > 0$) on the margin of victory of the incumbent when it is implemented through public expenditures, but to have a negative effect when revenues are manipulated. According to the literature on electoral opportunism and the use of debt as a strategic variable, the lower is the expected win-margin, the larger is the incumbents' incentive to generate a positive (negative) distortion in public expenditures (revenues). That is, we expect a negative sign ($\alpha_1 < 0$) for the estimated coefficient associated with the margin of victory when estimating equation 1 for expenditures, and a positive sign when estimating equation 1 for revenues ($\alpha_1 > 0$).

Regarding the influence of fiscal illusion on the margin of victory, we expect a positive sign for the estimated β_{m+1} coefficient. According to Puviani (1903) fiscal illusion leads to the perpetuation of incumbents in power, and therefore, to higher expected win-margins. Additionally, the manipulation of fiscal variables to win

elections and condition the fiscal stances of the next government is expected to be larger in environments where fiscal illusion is stronger (Mourão, 2007). That is, a positive sign is expected for the estimated coefficient associated with α_{n+1} in the case of public expenditures, and a negative one for public revenues.

Matrix **X** in equation 1 comprises variables that may influence the electoral prospects, and that are present in most studies of vote functions for panels of countries.⁴ In order to test if governments are held responsible for the evolution of the economy, the unemployment rate (*unemployment_{it}*) and the inflation rate (*inflation_{it}*) were included as explanatory variables. The win-margin from the previous election captures persistency in voting behavior. To measure the costs of ruling, we include the consecutive number of years the party has been in office (*years in incumbency_{it}*), and a dummy for parties in office for two or more consecutive terms (*re-election_{it}*). The degree of government fractionalization (*government fractionalization_{it}*) measures the probability that two deputies picked at random from among the government parties will be of different parties. Finally, a dummy for OECD countries (*OECD_{it}*) should capture differences in institutions that are likely to influence electoral results. All variables were measured in logarithms, except for the index of government fractionalization and the number of years in office.

In equation 2, column **Y** includes other variables that may help us understand cross-country differences as well as inter-temporal changes in the dimension of political opportunism. Following Wildavsky (1964), who suggested that, to succeed in signaling competence, governments need higher deviations in budget aggregates as budget aggregates increase, we expect the log of term average values for public expenditures (or for public revenues) as shares of GDP (*public exp/rev share_{it}*) to positively influence fiscal opportunism. Parties which stay office longer in (*years in incumbency_{it}*) and run for re-election (*re-election_{it}*) are expected to generate a larger

distortion (Aidt, Veiga and Veiga, 2010). A dummy for the right-wing party in incumbency (*right-wing_{it}*) is also included to test if ideology matters. Although most studies do not take government's partisan orientation into account when investigating the degree of political opportunism, Veiga and Veiga (2007) found that right-wing Portuguese mayors to be less opportunistic than left-wing parties; and, Brug et al. (2007) argued that left-wing governments tend to reduce unemployment through more opportunist policies than right-wing governments, which are more concerned with inflation. The log of the proportion of people over age 65 was included to test for the findings of Simon (1985) and Binstock (2006), who demonstrated that older electors are more reactive to opportunist practices. A dummy for OECD countries and the log of real GDP per capita were also considered as proxies for the level of development of the country and maturity of institutions. Previous studies, namely Shi and Svensson (2006), have found opportunism to be stronger in developing countries.

4. Data sources and the fiscal illusion index

Our panel of data covers 68 democracies⁵ from 1960 to 2006. The main sources of data were Brender and Drazen (2005), the *Database of Political Institutions* (2008), and *International Financial Statistics* (2006).

The Brender and Drazen (2005) database, available at <http://www.tau.ac.il/~drazen>, covers 68 countries from 1960 to 2001. The database was updated through 2006 for three items: (1) the percentage of elderly population with data from the *World Development Indicators* (2006); and (2) the shares of public revenue / expenditures in GDP, and (3) real GDP per capita with data from the *International Financial Statistics* (2006) of the International Monetary Fund. The *Database of Political Institutions* (2008) provided data to create the win-margin variable, the

number of years in office of the most voted party, the dummy for re-election, and the fractionalization of the government. Inflation and unemployment rates were extracted from the *International Financial Statistics* (2006). The index of fiscal illusion was obtained from Mourão (2008), which provides a full description of the variables included in the index, and the methodology used in its construction.⁶

Table 1 specifies the sources of data for each variable used in the paper and presents the descriptive statistics.

<Table 1>

5. Empirical results

Tables 2, 3 and 4 show estimation results for the system of equations described above using alternative specifications and econometric methods. Tests were implemented for fiscal opportunism on expenditures (table 2) and revenues (table 3). Then, we tested the hypothesis of identical coefficients for OECD and non-OECD countries (table 4). In all tables, standard errors are shown in parentheses, and the adjusted R-squared and the numbers of observations are reported at the bottom of the tables. The first two columns of tables 2 and 3, and all columns of table 4, report estimation results using the Generalized Method of Moments (GMM). The set of instrumental variables of each equation includes all exogenous right-hand side variables of both equations, including country and time dummies. To check the robustness of the results, the system of equations was estimated by alternative econometric methods, namely Three-Stage Least Squares (3SLS) and Full Information Maximum Likelihood (FIML).

<Table 2>

Results, presented in table 2, validate our predictions that the manipulation of public expenditures in electoral years influences the win-margin of the main party in

office, and that incumbents who expect lower win-margins generate larger distortions. A one percent increase in public expenditures to GDP relative to the term average increases the win-margin by around 0.17% (table 2, column 1). This effect is particularly relevant if we take into account that, on average, the most voted party wins elections by only 0.89 percentage points⁷ relative to the second party. On the other hand, a one percent increase in the expected margin of victory reduces the distortive expansionary effect in expenditure by 0.07%.

Analyzing the determinants of the win-margin in detail (first part of column 1 in tables 2) we conclude that governing parties are held responsible for economic conditions in the country, as increases in unemployment and inflation reduce their electoral prospectus. In terms of magnitude, it is worth noting that inflation exerts a bigger influence than unemployment, as the estimated coefficient associated with it is significantly higher.⁸ There is evidence that parties who won by a larger margin in the previous election obtain better electoral results in the next balloting. This result confirms the persistence of votes over time, which can be due to ideology, among other factors. Results also suggest the existence of costs of ruling since the number of years in incumbency reduces the electoral prospects, and parties that win elections for two or more consecutive terms of office obtain fewer votes. Furthermore, more fractionalized governments seem to have lower winning-margins, and the same occurs in OECD countries relative to all 68 countries included in the sample.

Regarding the second part of table 2, which examines the determinants of fiscal manipulation in expenditures during electoral years, there is evidence of larger fiscal distortions when the share of public expenditures as a percentage of GDP is already large, and for governments that stay longer in office. Both the re-election dummy and the number of years in office are positive and statistically significant. This

is not surprising if we take into account that incumbents may know there are costs associated to ruling, and therefore, their fear to lose the next balloting increases as time in office goes by. The lower the expected win-margin the larger the incentive to loosen fiscal policy, either to woo the electorate and win the election, or to compromise the choices of the next government. Partisan differences do not seem to influence distortions in expenditures, as the dummy identifying right wing governments turned out not to be statistically significant. There is weak evidence that when the percentage of elderly population is large, distortions in expenditures are more pronounced, and results strongly support that they are smaller in OECD countries than for the entire sample. These last two findings suggest that issues related to information and the quality of institutions may influence the behavior of politicians.

The second column of table 2 reports empirical results for the estimations including the index of fiscal illusion as an explanatory variable in both equations of the system. There is strong evidence that when fiscal illusion is higher, incumbent parties win elections by a larger margin, and therefore, stay longer in office. A one percent increase in the index of fiscal illusion increases the winning margin by around 0.5% percent. Furthermore, the fiscal illusion index turned out to be highly statistically significant in the second equation, suggesting that fiscal illusion promotes the use of public expenditures as a tool to win elections or compromise the budgetary options of the next government. A one percent increase in the index increases the distortion in public expenditures by 0.4%. The influence of the remaining variables stays basically the same, with the exception that the re-election dummy that is no longer statistically significant.

To test the robustness of the results, the system of simultaneous equations was also estimated by two alternative econometric methods: the three stage least

squares (3SLS) and the full information maximum likelihood (FIML). Results, reported in columns 3 and 4 of table 2, are essentially the same as those obtained when using the GMM method. It is worth mentioning that the GMM estimator is more robust than FIML because GMM does not require additional information related to disturbances. The GMM is based on the assumption that disturbances in the equations are not correlated with the set of instrumental variables. With a weighting matrix used in the criterion function, GMM is even more robust than 3SLS in heteroskedasticity and autocorrelation of unknown form (Wooldridge 2002; Hsiao 2002).

As an additional robustness test, we used an alternative measure for the win-margin consisting on the (log) ratio between the vote share of the most voted party and the sum of votes shares of all the other parties. Empirical results obtained for this alternative variable⁹ do not differ significantly from those reported here.

We then proceeded by performing the estimations of the system of equations using public revenues instead of public expenditures as the fiscal policy variable (Table 3). Results for equation 1 (reported in the first part of the table), reveal that reductions in public revenues in electoral years relative to the term average increase the electoral chances of incumbents: a one percent reduction increases the win-margin by around 0.38%. It is important to realize that this effect is considerably larger than the one obtained for expenditures (0.17%). Regarding the remaining variables included in the vote-functions, their impact on the win-margin is basically the same as in the previous table.

<Table 3>

Estimation results for equation 2 (second part of table 3) suggest that higher expected win-margins decrease politicians' incentive to manipulate public revenues in electoral years: a one percent increase in the win-margin increases the dependent

variable (the percentage deviation of the share of public revenues to GDP in electoral years relative to the term average of the variable) by 0.04%. The share of public revenues in GDP has a positive effect on the electoral distortion in revenues, that is, the larger they are the less public revenues in balloting years are below their term average. This is probably due to a scale effect. Results for expenditures (Table 2) suggest that when the public sector is bigger, deviations of public expenditures from term averages in electoral moments also tend to be large. Since a large share of public expenditures on GDP is usually associated with a higher weight of public revenues, it is comprehensible that if expenditures are increased in electoral years revenues cannot be manipulated as much, otherwise this behavior would generate a very large deficit. Another interesting result is the positive sign of the estimated coefficient associated with years in incumbency, as in Table 2 for expenditures. Thus, there is evidence that less experienced politicians tend to use revenues as their strategic variable, while those with more experience favor expenditures. Results for the remaining variables are basically the same as for expenditures, in terms of significance and expected sign of the estimated coefficient, except for the real GDP per capita that now turns out to be statistically significant. In countries where real GDP per capita is higher the manipulation of public revenues for strategic electoral purposes seems to be smaller. This result corroborates the one obtained for the dummy identifying OECD countries.

As for fiscal illusion, it continues to contribute to the perpetuation of politicians in office (the estimated coefficient associated with the index is positive and statistically significant in equation 1), and to induce the strategic use of fiscal policy instruments (in this case, revenues) as a tool to win elections and restrain the budgetary options of the next government. The results obtained for estimations using 3SLS and FIML are similar to those generated by GMM.

Given that the dummy for OECD countries is statistically significant in all specifications of Tables 2 and 3, we run separate regressions for OECD and non-OECD countries. This procedure is line with Brender and Drazen (2007), and Alt and Lassen (2006), who suggested splitting the samples according to the level of development of the countries and the maturity of democracy. As can be seen from Table 4, opportunistic distortions in fiscal variables have a larger electoral reward, that is, increase the win-margin of incumbents more in non-OECD countries than in OECD countries, particularly when public expenditures are used as the political tool.¹⁰ On the other hand, there is not much difference between OECD and non-OECD countries regarding the impact of expected electoral results on opportunistic distortions in public revenues, although for expenditures the impact is larger in OECD countries.

<Table 4>

Fiscal illusion promotes higher win-margins in both cases, but the impact is larger in non OECD countries where the institutions are less mature.¹¹ There is also evidence that our measures for opportunist distortions are more influenced by fiscal illusion in non-OECD countries.¹² Regarding the economic variables, it is also worth noticing that unemployment exerts a bigger influence on the win-margin in elections occurring in non-OECD countries, while voters from OECD countries are more sensitive to inflation. Re-elected parties win by smaller margins in non-OECD countries and government fractionalization seems to exert a bigger influence on electoral results in OECD countries.¹³ It is also worth noticing that when we split the sample, the dummy for right-wing governments now turns out to be statistically significant in the four regressions of table 4, suggesting that right-wing parties are less inclined to manipulate fiscal policy instruments with political purposes. This result is in accordance with Aidt, Veiga and Veiga (2010) and Veiga and Veiga

(2007), who found that in Portugal, right-wing mayors behave less opportunistically than left-wing ones. For the other variables, empirical results remain essentially the same as those presented in Tables 2 and 3.¹⁴

6. Conclusion

The innovation of this paper is to address the determinants of fiscal policy choices in electoral years, in particular whether fear to be removed from office induces increases in expenditures and reductions in public revenues. In order to do so, we estimate a system of equations where vote expectations explain changes in fiscal policy variables in electoral years, and where these changes influence electoral results. The analysis also takes into account the economic, political and institutional situation of the country. This research is implemented using a large sample covering 68 countries and legislative election years from 1960 to 2006.

Empirical results reveal that expectations of getting voted out of office lead governments to increase expenditures and reduce revenues in electoral years, in accordance with opportunistic budgetary models (Rogoff and Sibert 1988) and strategic debt models (Persson and Svensson 1998; Alesina and Tabellini 1990). Furthermore, there is evidence that strategic manipulation of fiscal variables generates votes for the incumbent.

Additionally, we find that higher levels of fiscal illusion promote the strategic use of budgetary items for political purposes and larger win-margins for the most voted party, contributing to the perpetuation of politicians in power (Puviani 1903; Buchanan 1967). By generating a wrong perception of government budget aggregates from the voters' and taxpayers' perspectives, fiscal illusion erodes the quality of democracy in at least two ways. On one hand, by creating a favorable environment for political opportunism, it increases rent-seeking behavior, political

corruption, and distrust between voters and elected agents. On the other hand, by perpetuating politicians in power, it reduces political competition, and prevents the renewal of the ruling class. In OECD countries win-margins are lower and the degree of fiscal manipulation is also less pronounced. For public revenues, increases in real GDP are also associated with less political manipulation of the budgetary item.

There is also evidence that voters hold politicians accountable for the economic situation of the country, and that OECD voters are more sensitive to inflation while non-OECD voters react more to unemployment. Time spent in office lowers the margin of victory in the next election, and more fractionalized governments achieve worse electoral results. Larger public sectors and years in incumbency promote the strategic use of expenditures for political purposes, but reduce this behavior in revenues. Re-elected politicians are more opportunistic, and there is also some evidence of right-wing governments being less opportunistic.

Appendix – The Fiscal Illusion Index

Data for the fiscal illusion Index was obtained from Mourão (2008), who empirically evaluated the extension of fiscal illusion in 68 democracies since 1960. The index was constructed taking into consideration multiple dimensions that may influence fiscal illusion, including the perspectives of those who exert public power and of those who are ruled.

After identifying the theoretical framework, twenty-six variables were chosen and included in the index computation. Table A.1 presents a list of the variables grouped according to the dimension of fiscal illusion they are associated with. After normalizing the variables, the method chosen to explain the variance of the observed data through a few linear combinations of the original data was a specific technique belonging to the group of the Multivariate Analysis—the Multiway Principal Components Analysis (MPCA). Then, each normalized variable with a significant factor loading (greater than 0.7) had a weight equal to the square of the factor loading divided by the explained variation by factor. At the end, each intermediate composite indicator had a weight equal to its proportion of the variance as explained by all of the factors.

<Table A.1>

The final value given to each country-year observation was re-scaled using the percentile rank and now considered all weighted values. The index obtained reveal that fiscal illusion varies greatly around the world, and across time. Austria, Luxembourg, Netherlands, and New Zealand have the lowest values, while Mali, Pakistan, Russia, and Sri Lanka have the highest average values over the time spam. There are considerable changes over time: between 1980 and 1995, there was a significant decrease in the average value of the index across countries, and after 1995, the index remained stable in most countries.

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¹ See Drazen (2000) and Mueller (2003) for surveys on economic performance and political success.

² Puviani (1903) pioneered the literature on political illusion, understood as practices adopted by politicians to deceive voters and perpetuate the power of the ruling class. According to Puviani, fiscal illusion is the most important form of political illusion.

³ Hibbs (1977), McCallum (1978), Paldam (1979), Beck (1982) and Franzese (2002).

⁴ See Chappell and Veiga (2000), among others. Paldam (2004) presents a survey on vote and popularity functions.

⁵ Argentina, Australia, Austria, Belgium, Bolivia, Brazil, Bulgaria, Canada, Chile, Colombia, Costa Rica, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, El Salvador, Estonia, Fiji, Finland, France, Germany, Greece, Guatemala, Honduras, Hungary, Iceland, India, Ireland, Israel, Italy, Japan, South Korea, Lithuania, Luxembourg, Madagascar, Malaysia, Mali, Mauritius, Mexico, Nepal, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Trinidad and Tobago, Turkey, UK, USA, Uruguay and Venezuela.

⁶ Refer to the appendix for a brief explanation.

⁷ Table 1 shows that the mean of the Win-margin is equal to -0,116. The anti-log of -0.116 equals 0.89 percentage points.

⁸ Therefore, the measures of opportunism have influence above and beyond their effects on economic conditions suggesting that opportunism is of the Rogoff and Sibert (1988) variety and not so much of the Nordhaus (1975) type.

⁹ Available from the authors upon request.

¹⁰ A Wald-test allows us to reject the hypothesis of equal coefficients at the 10% significance level.

¹¹ A Wald-test allows us to reject the hypothesis of equal coefficients at the 5% significance level.

¹² A Wald-test allows us to reject the hypothesis of equal coefficients at the 5% significance level.

¹³ A Wald-test allows us to reject the hypothesis of equal coefficients at the 1% significance level.

¹⁴ Results for OECD and non-OECD countries using 3SLS and FIML are available from the authors upon request, and they are very similar to those obtained by the GMM.

References

- Aidt, T., F. Veiga and L. Veiga. 2010. Election Results and Opportunistic Policies: A New Test of the Rational Political Business Cycle Model. *Public Choice*, forthcoming. DOI 10.1007/s11127-010-9644-3.
- Akhmedov, A. and E. Zhuravskaya. 2004. Opportunistic Political Cycles: Test in a Young Democracy Setting. *Quarterly Journal of Economics* 119: 1301-1338.
- Alesina, A. 1987. Macroeconomic Policy in a Two-Party System as a Repeated Game. *Quarterly Journal of Economics* 102: 651-678.
- Alesina, A. and G. Tabellini. 1990. A Positive Theory of Fiscal Deficits and Government Debt. *Review of Economic Studies* 57: 403-414.
- Alt, J. and D. Lassen. 2006. Transparency, Political Polarization, and Political Budget Cycles in OECD Countries. *American Journal of Political Science* 50(3): 530-550.
- Beck, N. 1982. Parties, Administrations and Macroeconomic Outcomes. *American Political Science Review* 76: 83-93.
- Binstock, R. 2006. Older voters and the 2004 election. *The Gerontologist* 46(3): 382-384
- Brender, A. 2003. The Effect of Fiscal Performance on Local Government Election Results in Israel: 1989-1998. *Journal of Public Economics* 87: 2187-2205.
- Brender, A. and A. Drazen. 2005. Political Budget Cycles in New Versus Established Democracies. *Journal of Monetary Economics* 52(7): 1271-1295.
- Brender, A., and A. Drazen. 2007. Electoral Fiscal Policy in New, Old, and Fragile Democracies. *Comparative Economic Studies* 49(3): 446-66.
- Brug, W.; C. Eijk and M. Franklin. 2007. *The Economy and the Vote: Economic Conditions and Elections in Fifteen Countries*. Cambridge: Cambridge University Press.

- Buchanan, J. 1967. *Public Finance in Democratic Process: Fiscal Institutions and Individual Choice*. Chapel Hill: University of North Carolina Press
- Caplan, B. 2007. *The Myth of the Rational Voter*. Princeton: Princeton University Press.
- Chappell, H. and L. Veiga. 2000. Economics and elections in Western Europe: 1960-1997. *Electoral Studies* 19: 183-197.
- DPI. 2008. *Database of Political Institutions*. Washington, DC: World Bank.
- Drazen, A. 2000. *Political Economy in Macroeconomics*. Princeton University Press: New Jersey.
- Drazen, A. and M. Eslava. 2010. Electoral manipulation via voter-friendly spending: Theory and evidence. *Journal of Development Economics* 92(1): 39-52.
- Edelman, M. 2001. *The Politics of Misinformation: Communication, Society and Politics*. Cambridge: Cambridge University Press.
- Franzese, R. J. 2002. Electoral and Partisan Cycles in Economic Policies and Outcomes. *Annual Review of Political Science* 5: 369-421.
- Frey, B. and F. Schneider. 1978. An Empirical Study of Politico-Economic Interaction in the United States. *Review of Economics and Statistics* 60: 174-183.
- Goodhart, C.A.E. and R.J. Bhansali. 1970. Political economy. *Political Studies* 18: 43-106.
- Hibbs, D. 1977. Political Parties and Macroeconomic Policy. *The American Political Science Review* 7: 1467-1487.
- Hsiao, C. 2002. *Analysis of Panel Data*. Cambridge: Cambridge University Press.
- IFS. 2006. *International Financial Statistics*. New York: International Monetary Fund.
- Keefer, P. and R. Vlaicu. 2008. Democracy, Credibility, and Clientelism. *Journal of Law, Economics, and Organization* 24(2): 371-406.

- Kramer, G.H. 1971. Short-term Fluctuations in US Voting Behavior, 1896-1964. *American Political Science Review* 65: 131-143.
- McCallum, B. 1978. The political business cycle: an empirical test. *Southern Economic Journal* 44: 504-515.
- Mourão, P. 2007. The Economics of Illusion: A Discussion Based in Fiscal Illusion. *Journal of Public Finance and Public Choice* 25(1): 67-86.
- Mourão, P. 2008. Towards a Puviani's Fiscal Illusion Index. *Hacienda Publica Espanola/Revista de Economía Publica* 187(4): 49-86.
- Mueller, D. 2003. *Public Choice III*. Cambridge University Press, Cambridge, UK.
- Mueller, J. E. 1970. Presidential popularity from Truman to Johnson. *American Political Science Review* 64: 18-23.
- Nordhaus, W. 1975. The Political Business Cycle. *Review of Economic Studies* 42: 169-90.
- Paldam, M. 1979. Is there an electoral cycle? A Comparative Study of National Accounts. *Scandinavian Journal of Economics* 81: 323-342.
- Paldam, M. 2004. Are Vote and Popularity Functions Economically Correct? In Rowley, Charles K. and Friedrich Schneider, Eds., *The Encyclopedia of Public Choice*, Vol. I, Kluwer Academic Publishers: 49-59.
- Persson, T. and L. Svensson. 1989. Why a Stubborn Conservative Would run a Deficit: Policy with Time-Inconsistent Preferences. *The Quarterly Journal of Economics* 104(2): 325-345.
- Petterson-Lidbom P. 2001. An empirical Investigation of the Strategic Use of Debt. *Journal of Political Economy* 109(3): 570-583.
- Puviani, A. 1903. *Teoria della illusione finanziaria*, Palermo: Sandron.
- Rogoff, K. 1990. Equilibrium Political Budget Cycles. *American Economic Review* 80: 21-36.

- Rogoff, K. and A. Sibert. 1988. Elections and Macroeconomic Policy Cycles. *Review of Economics Studies* 55: 1-16.
- Shi, M. and J. Svensson. 2006. Political budget cycles: Do they differ across countries and why? *Journal of Public Economics* 90: 1367– 1389.
- Simon, H. 1985. *Human nature in politics: The dialogue of Psychology with Political Science*. *The American Political Science Review* 79(2): 293-304
- Veiga L. and F. Veiga. 2007. Political Business Cycles at the Municipal Level. *Public Choice* 131: 45-64.
- Wildavsky, A. 1964. *The Politics of the Budgetary Process*. Boston: Little, Brown and Company.
- Willett, T. and M. Keil. 2004. Political Business Cycles in Rowley, C.K. and F. Schneider, eds., *The Encyclopedia of Public Choice*, Kluwer Academic Publishers, Dordrecht, The Netherlands: 411-415.
- Wooldridge, J. 2002. *Econometric Analysis of Cross Section and Panel Data*. Cambridge, MA: MIT Press.

Table A.1 Dimensions and variables included in the fiscal illusion index

Dimensions	Variables
<i>Composition of Public Revenues</i>	Herfindahl Index of Public Revenues
	Percentage of taxes on goods and services in total taxes revenues
	Ratio between indirect and direct taxes revenues
<i>Composition of Public Debt</i>	Percentage of Public Debt in the Gross National Income
	Percentage of short-term public debt in the national public debt
<i>Relevance of certain revenue sources</i>	Percentage of taxes on transfers, on inheritances and gifts in total taxes revenues
	Percentage of taxes on corporate profits in total taxes revenues
<i>Number of governmental Ministries</i>	Size of cabinets
<i>Immaturity level of the democracies</i>	Percentage of invalid votes in parliamentary elections
	International country risk
<i>Effectiveness of public accounts (considering Money creation, inflation on rates and public debt)</i>	M2 (annual growth rates),
	Real Public Budget, according to Forte (2004)
<i>Governmental rent-seeking</i>	Government confidence (in public polls)
	Percentage of public employees in the active population
<i>Composition of Public Capital outlays</i>	Percentage of expenditures on capital transfers in the total expenditures
<i>Relevance of trade taxes</i>	Openness of the economy
	Percentage of trade taxes in total taxes revenues
<i>Electorate and Parliamentary supervision on governmental activity</i>	Number of nonprofit organizations per million of people
	Average value of radio receptors, tv sets and newspapers per capita
	Number of governmental checks and balances
	Parliamentary power in the Democracy
	Percentage of education expenditures in the total expenditures
	Percentage of higher school complete in the total population
	Percentage of answers stating 'economic growth' as the most important national issue
<i>Public expenditures manipulation</i>	Herfindahl Index of Public Expenditures
	Percentage of capital and current transfers in the total expenditures

Table 1. Sources of data and descriptive statistics: electoral years, 1960-2006

	Sources	DPI	DPI	DPI	DPI	IFS	IFS	DPI	B&D(2005) updated	Own calculations	B&D(2005) updated	Own calculations	B&D(2005) updated	B&D(2005) updated	Mourão (2008)
	Variables	Win-margin, percentual points (log)	Years in office of the most voted party	Re- election (dummy)	Right- wing (dummy)	Unemployment rate (log)	Inflation Rate (log)	Government fractionali- zation	Public Expenditures in GDP, term average (log)	Distortion in Public Expenditures, percentual points (log)	Public Revenues in GDP, term average (log)	Distortion in public revenues, percentual points (log)	% People more than 65 years-old (log)	Real GDP per capita (log)	Fiscal Illusion Index (log)
All	Observations	235	243	231	302	275	230	230	230	230	230	230	230	230	230
	Maximum	3.912	35	1	1	4.021	3.045	1	4.228	0.379	4.039	0.476	2.996	10.821	-0,373
	Minimum	-1,759	1	0	0	0.211	-0,069	0.007	2.012	-0,492	1.953	-0,559	0.693	5.613	-1,361
	Mean	-0,116	4.782	0.817	0.406	3.028	0.096	0.394	3.201	-0,008	3.099	-0,021	1.913	8.375	-0,724
	Stand. Deviation	0.678	5.230	0.387	0.492	1.313	0.191	0.218	0.437	0.089	0.454	0.092	0.617	1.081	0.180
OECD=1	Observations	157	159	157	153	153	153	155	159	159	158	159	154	159	160
	Maximum	1.078	15	1	1	3.998	0.693	1	3.989	0.371	3.914	0.236	2.833	10.057	-0,507
	Minimum	-1,601	1	0	0	0.211	-0,011	0.109	2.012	-0,492	2.051	-0,559	0.693	5.613	-1,115
	Mean	-0,265	3.877	0.777	0.461	2.115	0.069	0.329	3.324	-0,011	3.248	-0,017	1.622	7.887	-0,794
	Stand. Deviation	0.497	2.701	0.417	0.499	1.112	0.092	0.121	0.404	0.075	0.413	0.072	0.542	0.963	0.124
OECD=0	Observations	106	112	108	100	101	108	111	106	112	103	105	110	107	109
	Maximum	3.912	35	1	1	4.021	3.045	1	4.228	0.379	4.039	0.476	2.996	10.821	-0,373
	Minimum	-1,759	1	0	0	0.234	-0,069	0.007	2.175	-0,307	1.953	-0,472	1.262	7.279	-1,361
	Mean	0.045	5.101	0.851	0.356	3.728	0.126	0.381	3.075	-0,003	2.947	-0,026	2.457	9.163	-0,661
	Stand. Deviation	0.803	5.121	0.357	0.479	1.4711	0.258	0.189	0.434	0.101	0.444	0.109	0.294	0.738	0.164

Legend: DPI: Database of Political Institutions (2008), IFS: International Financial Statistics (2006), B&D(2005): Brender and Drazen (2005)

Table 2. Win-margin and distortions in public expenditures

	GMM 1	GMM 2	3SLS	FIML
Equation 1	Win-Margin	Win-Margin	Win-Margin	Win-Margin
Distortion in expenditures	0,167 a (0,056)	0,151 a (0,060)	0,144 a (0,057)	0,148 a (0,059)
Unemployment	-0,006 b (0,003)	-0,008 b (0,004)	-0,008 b (0,003)	-0,008 b (0,003)
Inflation	-0,355 b (0,178)	-0,386 b (0,188)	-0,368 b (0,179)	-0,379 b (0,179)
Win-Margin (previous election)	0,527 a (0,077)	0,555 a (0,080)	0,529 a (0,076)	0,545 a (0,078)
Years in incumbency	-0,010 a (0,004)	-0,012 a (0,004)	-0,011 a (0,004)	-0,011 a (0,004)
Re-election	-0,177 b (0,078)	-0,160 c (0,081)	-0,152 c (0,077)	-0,157 c (0,079)
Government fractionalization	-1,317 a (0,379)	-1,173 a (0,396)	-1,117 a (0,377)	-1,151 a (0,388)
OECD	-0,095 a (0,032)	-0,098 a (0,035)	-0,093 a (0,033)	-0,096 a (0,033)
Fiscal illusion index		0,489 a (0,151)	0,466 b (0,195)	0,480 b (0,201)
Adjusted R2	0.534	0.57	0.551	0.550
Number of observations	220	220	220	220
Equation 2	Distortion in expenditures	Distortion in expenditures	Distortion in expenditures	Distortion in expenditures
Win-margin	-0,071 a (0,021)	-0,078 a (0,023)	-0,075 a (0,022)	-0,077 a (0,022)
Public expenditures share	0,066 a (0,018)	0,069 a (0,019)	0,066 a (0,018)	0,067 a (0,018)
Years in incumbency	0,011 c (0,006)	0,010 c (0,006)	0,010 c (0,006)	0,010 c (0,006)
Re-election	0,011 b (0,005)	0,011 (0,010)	0,003 (0,017)	0,003 (0,017)
Right-wing	-0,018 (0,012)	-0,021 (0,012)	-0,019 (0,012)	-0,019 (0,012)
% population over 65 years-old	0,005 c (0,002)	0,004 c (0,002)	0,004 b (0,002)	0,004 b (0,002)
OECD	-0,013 a (0,004)	-0,015 a (0,004)	-0,014 a (0,004)	-0,014 a (0,004)
Real GDP per capita	0,007 (0,008)	0,008 (0,008)	0,008 (0,008)	0,008 (0,008)
Fiscal illusion index		0,414 a (0,104)	0,398 a (0,100)	0,406 a (0,102)
Adjusted R2	0.334	0.321	0.358	0.353
Number of observations	220	220	220	220

Notes: Significance level: 1% (a); 5% (b); 10% (c). Standard errors between parentheses. System of simultaneous equations estimated by the method at the top of the column. Models estimated with a constant and with dummy variables for country and time specific effects.

Table 3. Win-margin and distortions in public revenues

	GMM 1	GMM 2	3SLS	FIML
Equation 1	Win-Margin	Win-Margin	Win-Margin	Win-Margin
Distortion in revenues	-0,383 a (0,114)	-0,392 a (0,115)	-0,377 a (0,111)	-0,385 a (0,113)
Unemployment	-0,008 b (0,003)	-0,008 b (0,003)	-0,008 b (0,003)	-0,008 b (0,003)
Inflation	-0,329 (0,256)	-0,329 c (0,197)	-0,316 c (0,189)	-0,322 c (0,193)
Win-Margin (previous election)	0,525 a (0,076)	0,524 a (0,076)	0,504 a (0,073)	0,514 a (0,074)
Years in incumbency	-0,013 a (0,004)	-0,012 a (0,004)	-0,012 a (0,004)	-0,012 a (0,004)
Re-election	-0,171 b (0,079)	-0,171 b (0,079)	-0,163 b (0,076)	-0,167 b (0,078)
Government fractionalization	-1,119 a (0,372)	-1,211 a (0,382)	-1,164 a (0,367)	-1,187 a (0,374)
OECD	-0,096 a (0,034)	-0,095 a (0,035)	-0,091 a (0,034)	-0,093 a (0,035)
Fiscal illusion index		0,501 a (0,151)	0,481 a (0,145)	0,491 a (0,148)
Adjusted R2	0.521	0.567	0.545	0.565
Number of observations	228	228	228	228
Equation 2	Distortion in revenues	Distortion in revenues	Distortion in revenues	Distortion in revenues
Win-margin	0,037 a (0,012)	0,036 a (0,012)	0,034 a (0,011)	0,035 a (0,011)
Public revenues share	0,086 a (0,019)	0,085 a (0,018)	0,081 a (0,017)	0,083 a (0,018)
Years in incumbency	0,012 c (0,007)	0,012 c (0,006)	0,011 c (0,006)	0,011 c (0,006)
Re-election	-0,033 c (0,017)	-0,034 c (0,017)	-0,032 c (0,016)	-0,033 c (0,016)
right-wing	-0,018 -0,014	-0,019 (0,013)	-0,018 (0,012)	-0,019 (0,012)
% population over 65 years-old	-0,003 c (0,002)	-0,003 c (0,002)	-0,003 c (0,002)	-0,003 c (0,002)
OECD	0,011 a (0,003)	0,012 a (0,003)	0,011 a (0,003)	0,011 a (0,003)
Real GDP per capita	0,036 b (0,015)	0,037 b (0,016)	0,035 b (0,015)	0,036 b (0,015)
Fiscal illusion index		-0,222 b (0,098)	-0,211 b (0,093)	-0,217 b (0,096)
Adjusted R2	0.163	0.194	0.173	0.184
Number of observations	228	228	228	228

Notes: Significance level: 1% (a); 5% (b); 10% (c). Standard errors between parentheses. System of simultaneous equations estimated by the method at the top of the column. Models estimated with a constant and with dummy variables for country and time specific effects.

Table 4. OECD versus non-OECD countries

	OECD country	Non-OECD country	OECD country	Non-OECD country
Equation 1	Win-Margin	Win-Margin	Win-Margin	Win-Margin
Distortion in revenues	-0,501 a (0,119)	-0,572 a (0,204)		
Distortion in expenditures			0,359 a (0,156)	0,739 a (0,121)
Unemployment	-0,005 a (0,001)	-0,034 a (0,003)	-0,006 a (0,001)	-0,029 a (0,003)
Inflation	-0,726 a (0,048)	-0,496 a (0,055)	-0,783 a (0,048)	-0,477 a (0,071)
Win-Margin (previous election)	0,382 a (0,018)	0,543 a (0,021)	0,325 a (0,019)	0,581 a (0,022)
Years in incumbency	-0,021 a (0,002)	-0,022 a (0,002)	-0,027 a (0,002)	-0,018 a (0,002)
Re-election	-0,059 a (0,011)	-0,546 a (0,036)	-0,044 a (0,012)	-0,598 a (0,039)
Government fractionalization	-1,816 a (0,083)	-0,549 a (0,115)	-2,019 a (0,085)	-0,719 a (0,122)
Fiscal illusion index	0,335 a (0,048)	0,511 a (0,064)	0,276 a (0,069)	0,395 a (0,048)
Adjusted R2	0.658	0.477	0.641	0.479
Number of observations	150	100	150	100
Equation 2	Distortion in revenues	Distortion in revenues	Distortion in expenditures	Distortion in expenditures
Win.margin	0,033 a (0,012)	0,037 a (0,006)	-0,049 a (0,013)	-0,011 a (0,002)
Public revenues share	0,076 a (0,003)	0,137 a (0,007)		
Public expenditures share			0,044 a (0,004)	0,079 a (0,006)
Years in incumbency	0,007 c (0,004)	0,013 b (0,006)	0,008 c (0,004)	0,019 c (0,009)
Re-election	-0,059 a (0,004)	0,016 b (0,007)	0,017 a (0,004)	0,024 a (0,007)
Right-wing	0,028 a (0,003)	0,043 a (0,004)	-0,021 a (0,003)	-0,007 b (0,004)
% population over 65 years old	-0,007 a (0,001)	-0,002 a (0,001)	0,009 a (0,001)	0.001 (0,001)
Real GDP per capita	0,082 c (0,042)	0,041 c (0,022)	0,254 a (0,048)	0,136 a (0,022)
Fiscal illusion index	-0,111 a (0,014)	-0,171 a (0,014)	0,072 a (0,016)	0,092 a (0,013)
Adjusted R2	0.276	0.232	0.232	0.198
Number of observations	150	100	150	100

Notes: Significance level: 1% (a); 5% (b); 10% (c). Standard errors between parentheses. System of simultaneous equations estimated by GMM (with a heteroskedasticity and autocorrelation robust weighting matrix). Models estimated with a constant and with dummy variables for country and time specific effects.

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