# Conditional political budget cycles: a review of recent evidence

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**Abstract** Until recently, most research on political budget cycles was based on the (often implicit) presumption that these cycles do not differ across countries. However, more recent studies focus on heterogeneity. This paper surveys studies examining the factors conditioning the occurrence and strength of manipulation of fiscal policy for electoral purposes, at the aggregate level or at the level of a particular type of government expenditure. Conditioning factors discussed include: the level of development, institutional quality, age and level of democracy, electoral rules and form of government, transparency of the political process, the presence of checks and balances, and fiscal rules.

**Keywords** Political budget cycles · Conditionality · Survey

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#### 1 Introduction

Political budget cycle (PBC) research examines election cycles in public spending, taxes and budget deficits. One line of research poses that the incumbent uses fiscal policy for reelection purposes.<sup>2</sup> Older theoretical PBC models emphasize the incumbent's intention to secure reelection by maximizing his expected vote share at the next election (Nordhaus 1975). It is assumed that the electorate is backward looking and evaluates the government on the basis of its past track record. As a result, these models imply that governments, regardless of ideological orientation, adopt expansionary fiscal policies before elections in order to stimulate the economy.<sup>3</sup> More recent PBC models emphasize the role of temporary information asymmetries regarding the politicians' competence level in explaining electoral cycles in fiscal policy. In these models, signaling is the driving force behind the PBC (see, e.g., Rogoff and Sibert 1988; Persson and Tabellini 2002; Shi and Svensson 2006). For instance, in the moral hazard model of political competition of Shi and Svensson (2006), politicians may behave opportunistically even if most voters know the government's policy, but some voters are uninformed. The larger is the number of voters that fail (ex ante) to distinguish election-motivated fiscal policy manipulations from incumbent competence, the more the incumbent profits from boosting expenditures before an election.

Pelzman (1992) was among the first to argue against this view of opportunistic manipulation of fiscal policy for electoral purposes, showing that US voters punish politicians who let government spending increase, no matter whether this increase is financed by taxes or borrowing. He also finds that especially welfare spending is poisonous politically.

Another explanation for election-motivated public spending—that is not at odds with Pelzman's view that voters are fiscal conservatives—is based on the presumption that some pivotal groups of voters are targeted at the expense of others. Hence, electoral manipulation is present, but does not necessarily show up in aggregate expenditure (Drazen and Eslava 2006, 2010).<sup>5</sup> Some recent studies based on regional data provide support for this argument, i.e., they find no evidence of a cycle in aggregate spending but identify election-motivated

<sup>&</sup>lt;sup>5</sup>Rogoff's (1990) signaling model also has implications for the composition of government spending but yields a different prediction. The model assumes information asymmetries about the incumbent's competence in administering the production of public goods. Voters observe taxes and current expenditures contemporaneously but not governmental investment expenditures, and use this information to form inferences



<sup>&</sup>lt;sup>1</sup>Whereas several older studies (e.g., Paldam 1979) focus on electoral cycles in economic outcomes (often referred to as political business cycles), subsequent research has focused on such cycles in government instruments, such as fiscal policy. As to election cycles in economic outcomes, Franzese (2002, p. 378) concludes that "the empirical literature uncovers some possible, but inconsistent and weak evidence for electoral cycles in macroeconomic outcomes, with evidence for cycles in real variables generally weakest (but not wholly absent)." See Eslava (2011) for a more recent and broad survey on the political economy of budget deficits.

<sup>&</sup>lt;sup>2</sup>This presumes that voting behavior is at least in part determined by economic outcomes. There is substantial evidence for this; see, for instance, Paldam (2003).

<sup>&</sup>lt;sup>3</sup>If the incumbent is sure to be reelected there is no need for this manipulation (Frey and Schneider 1978a, 1978b). For recent studies investigating whether electoral competitiveness influences the degree to which governments manipulate fiscal policy we refer to Alt and Rose (2009), Efthyvoulou (2012), Aidt et al. (2011), and Veiga and Veiga (2012). Also term limits may condition the occurrence of PBCs. See, for instance, Besley and Case (1995, 2003), Veiga and Veiga (2007), and Schneider (2010). These contextual features of PBCs are not discussed in the present review.

<sup>&</sup>lt;sup>4</sup>Brender (2003) and Brender and Drazen (2008) report similar findings for elections in Israel and a sample of 74 countries, respectively. For the case of Brazil, Arvate et al. (2009) also find that a fiscal surplus may enhance the reelection chances of state governors, depending on how 'sophisticated' voters are. However, Aidt et al. (2011), Klomp and de Haan (2012) and Jones et al. (2012) report that election-induced deficits enhance the incumbents' reelection prospects.

increases in spending categories that are visible and easily targeted, such as construction of roads and physical structures (Gonzales 2002; Kneebone and McKenzie 2001; Drazen and Eslava 2006, 2010). Likewise, Potrafke (2010) reports an increase in the growth of public health expenditure in election years, while Thies and Porche (2007) and Klomp and de Haan (2013b) find a positive and significant effect of upcoming elections on government support for the agricultural sector.<sup>6</sup> Veiga and Veiga (2012) use a sample of all Portuguese mainland municipalities covering ten elections over the 1979–2005 period and report an election effect in government transfers to these municipalities; their evidence suggests that the central government targets municipalities where it expects greater losses of votes.

Until recently, most research was based on the (often implicit) presumption that election cycles do not differ across countries. However, current research addresses heterogeneity, asking under what circumstances a PBC is more likely to occur. The present paper reviews this line of literature. There are two papers that come close to ours. First, as part of their analysis of the contextual determinants of incumbents' abilities and incentives to engineer political budget cycles in government spending in American states, Alt and Rose (2009) briefly review previous studies. Focusing on US states has the advantage that they have similar constitutional settings, unlike cross-sections of countries as used by most studies surveyed here. However, as acknowledged by Alt and Rosen, it also implies that several contextutal features cannot be studied, such as the level of development, the quality of institutions, and how long democracy has been in place, while recent research as discussed below suggests that these contextual features are important. Alt and Rose argue that two kinds of contextual features are dominant in contemporary thinking about PBCs, namely political institutions and voter characteristics on the one hand, and the temporal proximity and expected closeness of the election on the other. The recent literature as discussed in this survey focuses primarily on the first feature.

Second, Franzese and Jusko (2006) review older studies on contextual election (and partisan) cycles. In line with the main message of the present paper, these authors conclude that "electoral cycles do seem to be highly *context conditional*, rather than being of fixed magnitude and fixed content" (Franzese and Jusko 2006: p. 550). Contextual features discussed by these authors include: efficacy of fiscal policy instruments, coalition versus one-party party governments, single versus multi-member electoral districts, and election competitiveness. Our paper differs, as we do not cover more recent papers only but also focus on contextual features that mostly are not discussed by Franzese and Jusko (2006).

Appendix 4 summarizes the recent literature on conditional political budget cycles. Several papers report evidence suggesting that the occurrence and strength of manipulation of fiscal policy for electoral purposes depend on factors, such as the level of development (Shi and Svensson 2006), institutional quality (Shi and Svensson 2006), age of democracy (Brender and Drazen 2005), level of democracy (Gonzales 2002), constitutional provisions determining electoral rules and form of government (Persson and Tabellini

<sup>&</sup>lt;sup>7</sup>In their empirical analysis, Alt and Rose focus on government spending, arguing that PBCs are stronger in spending than in taxes and deficits. In contrast, a substantive part of the recent literature as summarized in Sect. 2 of this review also reports PBCs in budget deficits.



concerning the incumbent's competence. The model gives rise to a separating equilibrium, in which the competent incumbent has an incentive to increase easily observed current expenditures and reduce less visible capital expenditures.

<sup>&</sup>lt;sup>6</sup>There is similar evidence for lower levels of government. For instance, Schneider (2010) finds that even though incumbents on the German state level reduce deficit spending and maintain a balanced budget they do increase social transfers in the pre-election period, while Dahlberg and Mörk (2011) report a statistically significant election year effect in local public employment in Finland and Sweden.

2003), transparency of the political process (Alt and Lassen 2006a, 2006b), the presence of checks and balances (Streb and Torrens 2012) or credible fiscal rules (Rose 2006; Alt and Rose 2009).

Section 2 of this survey takes stock of the empirical evidence on heterogeneity in election cycles in fiscal policy across countries that is based on aggregate data, while Sect. 3 discusses empirical studies using disaggregated data, i.e., papers taking the second perspective on the occurrence of PBCs. Section 4 discusses what the research surveyed has taught us and also identifies possibilities for future research.

## 2 Heterogeneity: aggregate level

# 2.1 Level of development

Several recent papers propose that the level of economic development is an important contextual feature for PBCs. In more advanced countries PBCs seem to be less likely. Brender and Drazen (2005) even argue that until recently a PBC was generally thought to be a phenomenon of less developed economies. Indeed, there is substantial evidence that PBCs occur in less developed countries. For instance, Schuknecht (1996) reports a PBC in his sample of 35 developing countries over the 1975–92 period. Likewise, Block (2002) finds for a cross-section of 44 Sub-Saharan African countries that the government's budget deficit increases by 1.2 percentage points in election years.

At the same time, there are numerous recent papers concluding that PBCs occur in industrial countries as well. For instance, Tujula and Wolswijk (2007) find support for a PBC in their sample of OECD countries for the 1975–2002 period. Mink and De Haan (2006) provide similar evidence for European Union (EU) member states after the start of the monetary union. Buti and Van Den Noord (2004) also find evidence of electoral spending expansions in EU countries. Likewise, Efthyvoulou (2012) reports for the 27 EU member states over the 1997–2008 period that incumbent governments tend to manipulate fiscal policy in order to maximize their chances of being reelected. Using data on 65 democracies in a semi-pooled model in which all control variables have a homogenous impact, while the effect of the PBC variable is allowed to vary across countries, Klomp and de Haan (2012) find no PBC effect in most countries. The countries for which they find a significant election effect in fiscal policy are very diverse. Some of them are developing countries, while others are industrial countries.

The fact that there are political budget cycles in industrial countries does not imply that the likelihood that such cycles occur is the same in developing and industrial countries. For their large sample of countries Shi and Svensson (2006) find that, on average, government deficits as a share of GDP increase by almost one percentage point in election years, implying that, on average, fiscal deficits increase by 22 % in election years. However, systematic differences seem to exist between industrial and developing countries. Specifically, political budget cycles are large in developing countries but small or nonexistent in industrial countries. Similarly, Streb et al. (2009) find that the budget surplus falls by 0.4 % of GDP in

<sup>&</sup>lt;sup>9</sup>There is also some evidence based on local elections in established democracies. For instance, using data from 278 Portuguese municipalities from 1979 to 2005, Aidt et al. (2011) report support for an election effect. They also find that the magnitude of the opportunistic distortion increases the win-margin and conversely, that the win-margin has a negative effect on the opportunistic distortion.



<sup>&</sup>lt;sup>8</sup>For additional papers on PBCs in the EU, we refer to Andrikouplos et al. (2004) and Donahue and Warin (2007).

election years in non-OECD countries, while the effect in OECD countries is less than half of that.

In a more recent study, Klomp and de Haan (2013a) examine differences between developing and industrial countries. They employ data on some 70 democratic countries for the 1970–2007 period. Using the Pooled Mean Group (PMG) estimator to test whether PBCs exist in their sample, they find that elections have a significant short-run effect on the budget balance and government spending. On average, elections increase government spending by 0.6 % and decrease the budget balance by 0.8 %. They also find that the occurrence of a PBC is conditional on the level of development: the short-run election effect is much stronger in developing countries than in industrial countries. In addition, they report for industrial countries a small but significant negative long-run election effect on government spending and a positive effect on the budget balance. This implies that although fiscal policy turns expansionary before the elections, after the elections governments take restrictive measures to redress the resulting fiscal imbalances, perhaps because voters dislike budget deficits (Pelzman 1992).

Several papers argue that the difference in intensity of PBCs across industrial and developing countries is caused by more fundamental factors. Shi and Svensson (2006) suggest that these differences are due to differences in the institutional environment, while Brender and Drazen (2005) argue that these differences are caused by countries' experiences with democracy. Alt and Lassen (Alt and Lassen 2006a, 2006b) point to differences in fiscal policy transparency and Streb and Torrens (2012) attribute differences in PBCs between developing and industrial countries to the presence of checks and balances. These and other political economy arguments put forward to explain why PBCs may differ across countries will be discussed below.

# 2.2 Institutional quality and media access

Arguably, the incentives of politicians to use fiscal policy for election purposes depend on the politico-institutional environment. Specifically, the more private benefits politicians gain when in power (i.e., larger rents from remaining in power), the stronger are their incentives to influence the voters' perceptions prior to an election. Moreover, the more voters that (ex ante) fail to distinguish pre-electoral manipulations from incumbent competence, the larger is the return for the incumbent to boost spending prior to an election. Shi and Svensson (2006) use cross-country data on government corruption and rent-seeking activities (as proxies for the quality of the institutional environment<sup>11</sup>), and data on access to free media (proxied by radios per capita multiplied by the Freedom House indicator of free media) to control for these institutional differences. <sup>12</sup> Their results suggest that these variables explain

<sup>&</sup>lt;sup>12</sup>There is some related research on the intermediary role of media between the electorate and politicians. A good example is the study by Besley and Burgess (2002). Based on panel data for Indian states from 1958 to 1992, they examine how responsive state governments in India are to several shocks. They find that wider newspaper circulation is associated with government being more responsive to falls in food production and



<sup>&</sup>lt;sup>10</sup>Brender and Drazen (2005) find that if the sample of industrial countries contains only established democracies, the political budget cycle found in the group of industrial countries as a whole disappears. Likewise, while there is a statistically significant election effect in their sample of developing countries as a whole, this is due entirely to the new democracies. We will discuss this argument in more detail below.

<sup>&</sup>lt;sup>11</sup>To be more precise, they use the Transparency International index of corruption and the sum of five indicators of the International Country Risk Guide (ICRG). The indicators used from the latter source are: rule of law, corruption in government, quality of the bureaucracy, risk of expropriation of private investment, and risk of repudiation of contracts.

a substantial part of the variation in the magnitudes of the political budget cycles between industrial and developing countries. Alt and Rose (2009) report that election cycles in government spending in US states are strongest in states with the lowest levels of newspaper circulation.

# 2.3 Age and level of democracy

Several recent papers have examined whether how long a country has been a democracy affects the occurrence of election-induced cycles in fiscal policy, the main argument being that the more familiarity voters have with elections, the more difficult it may become for politicians to 'fool' them. As Brender and Drazen (2005, pp. 1289–1290) argue:

in economies in which the electorate has a lot of experience with elections, and where the collection and reporting of the relevant data to evaluate economic policy are common, voters would be unlikely to 'fall' for the trick of making the economy look good right before elections. In contrast, fiscal manipulation may work when voters lack the necessary information to draw such inferences, as well as the ability to process that information correctly. This would reflect a lack of experience with an electoral system, of the availability of data, and of media experienced in finding, disseminating and analyzing the relevant data. This is more likely to characterize a new democracy.

Apart from the evidence presented by Brender and Drazen (2005, 2007) as summarized in Appendix 1, some other studies also find evidence for this learning effect. For instance, Akhmedov and Zhuravskaya (2004) examine regional elections in Russia after its transition to democracy using monthly data between 1996 and 2003. Their evidence suggests that sizeable political budget cycles in local fiscal spending occur in the two months before and after elections. However, the magnitude of the cycle becomes smaller over time; an additional election in a region reduces the magnitude of the cycles by over 30 % and the cycle disappears for most (but not all) fiscal instruments after two rounds of elections.

Barberia and Avelino (2011) examine the effect of elections on fiscal policy in a sample of Latin American democracies. Their results suggest that political budget cycles exist in these countries. They also examine whether the election effect is different during democratic transition periods. The results are sensitive to the definition of democratic transitions. If the definition of Brender and Drazen (2005) is used, i.e., the first four elections after the start of democracy, the results are in line with those reported in that article. However, when democratic transitions are defined in line with Huntington (1991), the interaction term of elections and transition is not significant. Under this alternative definition, the beginning of democratic transition is defined as the year of the inauguration of the first democratic regime following a period of authoritarian rule, while it ends after the second consecutive democratic turnover in which in which the political party controlling the presidency is replaced.

Block et al. (2003) focus on so-called founding elections in sub-Saharan African countries between 1980 and 1995, defined as the first competitive election in which the position of the head of government was openly contested. They argue that such elections present the greatest incentives and the fewest constraints for election-based manipulation of fiscal policy. Based on 65 presidential elections, the authors find a significant PBC effect but the hypothesis that founding elections have an additional effect on current public operating expenditures is not validated.

flood damage. Strömberg (2004) models the incentives of the media to deliver news to different groups in society.



At the same time, several recent papers find evidence for political budget cycles in established democracies (e.g., Mink and De Haan 2006; Tujula and Wolswijk 2007). Likewise, Alt and Lassen (2006a) report that, conditioning on the degree of fiscal policy transparency (see below), political budget cycles are present in a sample of 19 advanced OECD economies, which all are established democracies. They conclude that "electoral cycles in fiscal policy are not a phenomenon confined to or driven by weaker and newer democracies" (Alt and Lassen 2006a, p. 530). Also Streb et al. (2009) report that election cycles are not confined to new democracies, although the PBC effect is stronger is stronger in new than in old democracies.

Klomp and de Haan (2013a) test whether there is a systematic difference between new and established democracies by dividing their sample into young democracies and old democracies. They consider countries that have been democratic more than 20 consecutive years since 1945 as old democracies. Their results suggest that in both samples the short-run election effect is significantly positive, but the effect is significantly larger in young democracies. Furthermore, they find a significant long-run election effect in young democracies.

Some authors suggest that it is not the length of time a country has been a democracy, but the level of democracy that matters for the existence of a political budget cycle. Notably in countries where democracy is relatively weak, political budget cycles are more likely to be observed (Gonzales 2002).

When Brender and Drazen (2005) split their sample into countries with high and low levels of democracy, they find evidence for political budget cycles in the latter set of countries (i.e., countries where the POLITY index of democracy is between 0 and 9), whereas the election dummy is insignificant in countries with a POLITY index of 10. However, they argue that this effect is due to the new democracies, as the political budget cycle indicator is significant regardless of their level of democracy while in established democracies there is no political budget cycle regardless of their level of democracy.

#### 2.4 Constitutional rules

The constitutional rules in place, notably whether voting for the legislature takes place according to proportional or majoritarian rules and whether a country has a parliamentary or presidential system of government, may affect the occurrence of political budget cycles. Persson and Tabellini (2003) derive the result that under proportional elections politicians seek support from larger groups within the electorate by funding broad spending programs, such as welfare programs. On the other hand, under majoritarian elections politicians have strong incentives to target policies toward particular constituencies. Likewise, the difference between parliamentary and presidential systems may play a role. Presidential systems are characterized by separate and direct elections for the executive and legislative branches. In parliamentary systems, the executive branch is constituted indirectly by the legislature. In the latter systems bargaining between different legislative coalitions is disciplined by the threat of a government crisis. As such a crisis would result in the loss of valuable agendasetting powers for the government coalition, party discipline and stable legislative coalitions are promoted. As a result, parliamentary governments spend more overall, favor large broadbased programs (at the expense of targeted programs) and engage in more wasteful spending than presidential regimes. In presidential systems the executive cannot be brought down by the legislature, but is directly accountable to the voters. Thus, legislators have weaker incentives to band together and to vote along party or coalition lines. Moreover, agenda-setting power is generally more dispersed among different committees and other checks and balances between the executive and legislature are in place, such as the assignment of proposal



and veto rights for several players (see below). So in a presidential regime, the chief executive is better able to target narrow constituencies, especially if the benefiting groups are well organized.

Persson and Tabellini (2002, 2003) find differences in political budget cycles across countries with different electoral rules and forms of government. Persson and Tabellini (2003, p. 208) summarize their findings as follows: "governments in all countries appear to cut taxes in the election year. But only presidential regimes postpone unpopular fiscalpolicy adjustments until after the elections. Only governments in majoritarian countries cut spending during election years. And only proportional democracies raise welfare spending around the time of the election, with further commitments for the post-election year." Likewise, the results of Klomp and de Haan (2013a) suggest that in presidential and proportional political systems the short-run PBC effect is significantly larger than in other political systems. However, the results of Streb et al. (2009) point in the opposite direction (see below).

Brender and Drazen (2005) find a significant deficit cycle in both presidential and parliamentary systems. However, when they separate new from old democracies, the deficit cycle exists only in new democracies. They also compare the effect of proportional versus majoritarian voting rules on the political budget cycle. In the sample of all democracies, the deficit cycle is significant only in countries that use proportional voting rules. As before, when they separate the sample into new and old democracies, these authors find a strong and significant cycle in new democracies with proportional systems only. They conclude that "we find that the electoral rule matters, consistent with Persson and Tabellini's arguments, but only in the group of countries where the fiscal cycle exists to begin with, namely, the new democracies" (Brender and Drazen 2005, p. 1287).

# 2.5 Transparency

Transparency in fiscal policymaking may affect voters' knowledge and thereby the likelihood that election-induced fiscal policies occur. Information about economic policy is costly and because of the free-rider problem individual voters have very little incentive to acquire it. As a result, voters may not be able to monitor government performance effectively (Besley 2006). Apart from the electorate's incentives to gather information, the availability of information may play a role. Alt and Lassen (2006a, 2006b) argue that the magnitude of a PBC is conditional on fiscal transparency. Broadly defined, transparency is the overall degree to which citizens, the media, and financial markets can observe the government's fiscal strategies, its actions, and the resulting policy outcomes (Alt and Lassen 2006a). It depends on four pillars: (1) openness and ease of access and monitoring; (2) commitment to nonarbitrary language; (3) independent verification and (4) the provision of justification. In addition, Alt and Lassen (2006a, 2006b) argue that it becomes more desirable for a political party to stay in office in case of sharp political polarization. The farther away the opponent's platform, the greater is the utility loss from losing office and the more the incumbent is willing to risk in order to be reelected. The results of Alt and Lassen (2006a, 2006b) suggest that fiscal transparency is associated with a markedly dampened political budget cycle in debt issue. Alt and Lassen (2006a) include an interaction term in their main econometric specification between a transparency index and an election dummy. This index of fiscal transparency for 19 OECD countries during the 1990s is based on survey responses from those countries' budget directors. They also add an interaction between their proxy for political polarization and the election indicator. The polarization measure comes from a survey of country experts. Specialists were asked to assign scores on a 20-point scale representing the political parties' priorities between raising taxes to increase public services and reducing



public services to cut taxes. The results suggest that electoral cycles are significantly larger in low transparency countries and that such cycles are economically significant. At the same time, the authors find substantive evidence of electoral cycles being induced by political polarization, a finding that in some cases reveals itself only after controlling for the level of transparency, but that turns out to reinforce the effect of poor transparency. The results also show that state-controlled media reinforce the effect of low transparency. Likewise, Alt and Lassen (2006b) replicate the Persson and Tabellini (2003) regression that includes dummy variables for the pre-election and post-election years and confirm the earlier conclusion of a statistically significant political cycle in governments' fiscal balances in OECD countries. However, based on a sample split this effect is confined only to those countries with poor budget process transparency.

The results of Klomp and de Haan (2013a) support the view of Alt and Lassen (2006a, 2006b). They construct a proxy for transparency using the first principal component of several International Country Risk Guide indicators. When they split their sample into low transparency and high transparency countries, their results indicate that the short-run impact of an election on fiscal policy is significantly stronger in low-transparency countries than in high-transparency countries. Likewise, when they split their sample into countries with less political polarization and countries with more political polarization (defined as the maximum difference between the ideological position of the government and the largest opposition party), their results indicate that the election effect is significantly stronger in countries with high polarization.

#### 2.6 Checks and balances

The more checks and balances existing in the political system, the more difficult it arguably will be for the incumbent to use fiscal policy for reelection purposes. However, in most theoretical PBC models, fiscal policy is considered from the point of view of a single policymaker, thereby neglecting checks and balances, notably the role of the legislature in the budget process. Streb and Torrens (2012) model the role of legislative veto players. Since the legislature must typically authorize new debt, divided government can make fiscal rules limiting public debt credible. Their model implies that the absence of checks and balances or imperfect compliance with the budget law may undermine commitment to this rule. Streb et al. (2009) study these implications empirically using a panel of 67 democracies over the 1960–2001 period. To capture legislative checks and balances in countries with strong budget law compliance, they construct a variable by multiplying an indicator of the presence of a legislative veto player and a dummy measuring the degree of compliance with the law. Their evidence suggests that this variable has a moderating effect on political budget cycles. Streb et al. (2009) also present results for several subgroups of countries, depending on their level of development, constitutional rules, and age of democracy. They find that the budget surplus falls by 0.4 % of GDP in election years in non-OECD countries, while the effect in OECD countries is less than half of that. In contrast to Persson and Tabellini (2003), they find stronger PBCs in parliamentary than in presidential countries, but this is consistent with the view that in presidential countries there are more effective checks and balances than in parliamentary countries (Streb and Torrens 2012). Likewise, new democracies exhibit fewer effective checks and balances than established democracies. Consistent with this, Streb et al. (2009) report that PBCs are stronger in new democracies, even though they also occur in established democracies.



#### 2.7 Fiscal rules

Governments may face fiscal rules, such as the Stability and Growth Pact in Europe or balanced budget requirements in US states, which restrain their incentives to engage in election-motivated expansionary fiscal policies. Rose (2006) uses data for US states over the 1974–1999 period and finds that PBCs are almost absent in states with prohibitions on deficit carry-overs in combination with borrowing restrictions. Similar results are reported by Alt and Rose (2009). Using data on local elections in Italy, Cioffi et al. (2012) find that budget rules designed to induce mayors to behave in a fiscally responsible way significantly reduce the size of the political budget cycle. In contrast, Mink and De Haan (2006) conclude that the Stability and Growth Pact (SGP) did not prevent euro-area policymakers from pursuing expansionary fiscal policies before elections. This arguably reflects the weakness of these rules in place (de Haan et al. 2004). <sup>13</sup>

One should note that the effectiveness of fiscal rules depends on fiscal transparency. Transparency affects the probability that budgetary tricks are exposed. For instance, Milesi-Ferretti (2004) considers the effect of transparency on government debt and deficits in a regime characterized by fiscal rules that allow creative accounting practices like those arising in connection with the Maastricht Treaty. Milesi-Ferretti argues that transparency affects the probability that such practices are revealed, resulting in a penalty for not meeting the formal requirement. Thus, transparency determines the scope for creative accounting versus 'true' fiscal adjustment.

# 3 Heterogeneity: spending categories

# 3.1 Level of development

Several studies have examined the impact of elections on the composition of government spending in developing countries. As pointed out in the previous section, theory has generated conflicting predictions. According to Rogoff's (1990) model, 'visibility' of expenditures is associated with current rather than capital expenditures so that policy manipulations around elections times lead to larger current expenditures and smaller capital expenditures. In contrast, the public expenditures targeting model yields the prediction that as capital expenditures are easy to tailor to specific constituencies and locations, they will be used for electoral purposes. Also particular subsidies could be targeted to specific producer groups (Vergne 2009).

Using data on 42 developing countries from 1975 to 2001, Vergne (2009) finds that election-year public spending shifts towards more visible current expenditures, in particular wages and subsidies, and away from capital expenditures. Also Block's (2002) findings are consistent with Rogoff's (1990) equilibrium budget cycle model. Using data for a sample of 69 developing countries, his results suggest that government spending shifts towards more visible, current expenditures and away from public investment. In contrast, Schuknecht (2000) concludes that capital expenditures, expressed as a share of GDP, were used to influence election outcomes in a group of 24 developing countries for the 1973–1992 period. <sup>14</sup>

<sup>&</sup>lt;sup>14</sup>Some country-specific studies also reach this conclusion. Khemani (2004) examines state legislative assembly elections in 14 major states of India, and reports that election years have a large positive impact on



<sup>&</sup>lt;sup>13</sup>Von Hagen and Wolff (2006) find that the SGP has generated incentives for creative accounting in order to comply with the requirement of keeping deficits under the 3 % limit.

The studies discussed in the previous paragraph include developing countries only, assuming that a test of electoral effects on the composition of government spending "is particularly relevant in the context of developing countries. Weak institutional structures or corruption in these countries allow for greater political discretion over policy instruments" (Vergne 2009, p. 64). Klomp and de Haan (2013b) include both industrial and developing countries in their model of electoral support for the agricultural sector. They argue that the nature of the support for that sector is very different in developing and industrial countries and that this has important implications. If agricultural policy mainly takes the form of local public goods or represents specific forms of redistribution, then more support is expected in presidential and majoritarian systems than in parliamentary and proportional systems. However, if agricultural policy mainly takes the form of a national public good or represents a broad form of redistribution, more support is expected in parliamentary and proportional systems than in presidential and majoritarian regimes (Olper et al. 2010). In industrial countries the agricultural sector is small, representing a classic example of a special interest group. In contrast, in developing countries, where the share of people living in rural areas is often above 50 %, the agricultural sector arguably represents the broad interests of the population. Klomp and de Haan (2013b) report evidence that the conditioning effect of electoral rules and the form of government in place on election-induced support for agriculture is indeed different across developing and industrial countries (see below).

## 3.2 Institutional quality and media access

As pointed out in the previous section, the share of informed voters may affect the occurrence of political budget cycles (Shi and Svensson 2006). Vergne (2009) tests this hypothesis. To proxy for the share of informed voters, Vergne combines data on access to media (radios per capita) with information on whether a country has a free media according to Freedom House. Consistent with Shi and Svensson's (2006) view, she finds that a larger share of informed voters leads to smaller political cycles.

#### 3.3 Age and level of democracy

To what extent does the electorate learn, thereby making election-induced fiscal policy more unlikely? In other words, does the occurrence of election-induced cycles in particular spending categories depend on definitions of a new democracy? Veiga and Pinho (2007) evaluate this issue using the allocation of intergovernmental grants in Portugal, examining whether the impact of elections changed as democracy matured over time after it was re-established in 1974. The authors use a dataset covering all mainland municipalities from 1979 to 2002. They find that central government grants to local governments increase during election years. Using Brender and Drazen's (2005) three alternative definitions for new democracy (i.e., the period comprising the first four competitive elections, the first ten years, and the first 15 years after becoming democratic) the authors find that opportunistic effects in

<sup>&</sup>lt;sup>15</sup>Sakurai and Menezes-Filho (2011) present evidence of electoral cycles in Brazilian municipalities for the period after the country's return to democracy. Their results point to a decrease in the fiscal surplus in election years, which occurs because current local expenditures rise and local tax revenues decline. The authors do not examine whether this election effect becomes weaker over time.



investment spending, particularly on the construction of roads, to the detriment of current expenditures. Using data on Colombian municipalities, Eslava (2005) also reports pre-electoral shifts of resources from current spending towards infrastructure-related projects.

grants were much smaller in the early years of democracy than afterwards. This result is in contrast to the hypothesis of Brender and Drazen (2005).<sup>16</sup>

In her study of election effects on the composition of government spending in developing countries, Vergne (2009) also examines the view of Brender and Drazen (2005). Her results suggest that founding competitive elections exhibit large public expenditure distortions. In transition elections, incumbent politicians have more discretion in manipulating pre-electoral economic policies, and have an incentive to deter the entry of future challengers (Block et al. 2003). However, the electoral impact on the allocation of public spending does not disappear after the transition to democracy.

Klomp and de Haan (2013b) also test for the learning effect suggested by Brender and Drazen (2005) in their study of support for the agricultural sector by dividing the sample into younger democracies and older democracies. They consider countries that have been democratic more than 20 consecutive years since 1945 as old democracies. Their results suggest that in both samples the election effect is significantly positive, but the effect is significantly larger in young democracies. These findings are only partly in line with the results of Brender and Drazen (2005), who found no significant PBC effect in mature democracies.

Gonzales (2002) tests whether a country's time-varying degree of democracy affects the way in which economic policy is chosen as elections approach. Using data for Mexico between 1957 and 1997, she finds evidence supporting government's strong systematic use of public spending on infrastructure and current transfers as a means of winning votes. Most importantly, her results suggest that the election cycle was more evident during Mexico's most democratic episodes.

#### 3.4 Constitutional rules

Chang (2008) combines differences in electoral systems as suggested by Persson and Tabellini (2003) with Tsebelis' (2002) work on veto players. He hypothesizes that the type of PBC will be conditioned by the electoral system: the PBC will take the form of more district-specific spending under majoritarian systems and more social welfare spending under proportional systems. He also hypothesizes that the amplitudes of electoral budgetary cycles are of smaller magnitude with multiple veto players, where he defines veto players as "individuals or collective actors whose agreement is necessary for a change from the status quo. Specifically, partisan veto players are the political parties in the ruling coalition, while institutional veto players are the political organs whose formal veto powers are legally specified by the constitution" (Chang 2008, p. 1089). Using government spending data for 21 OECD countries from 1973 to 2000, Chang shows that incumbents focus their election-motivated spending on social welfare programs under proportional representation systems while in single-member district systems they turn to localized pork-barrel spending. He also finds that the election-year effect on budgetary spending decreases as the number of veto players increases. The latter finding is consistent with the view of Streb and Torrens (2012).

Similarly, in their study of support for the agricultural sector Klomp and de Haan (2013b) find that in industrial countries the election effect is stronger under majority than under proportional electoral systems. In contrast, in developing countries the election effect is stronger

<sup>&</sup>lt;sup>16</sup>The authors justify their finding that opportunistic effects were smaller in the early years of democracy than afterwards by the fact that the political environment was more unstable immediately after the 1974 Revolution. In the early years of democracy, the uncertainty about the ability to complete a four-year term made it difficult for the incumbent party to plan and implement electoral policies. In the later years of the sample, strong single-party governments managed to stay in office for their full terms.



Table 1 Conditional effect of elections on support for the agricultural sector

	Gross subsidy equivalent	Public agricultural spending
	(1)	(2)
Industrialized countries		
Election cycle	5.084	2.332
	[2.44]**	[2.35]**
Proportional $\times$ Election	-0.266	-0.220
	[-1.94]*	[-1.85]*
Election cycle	5.225	2.167
	[2.51]**	[2.39]**
Parliamentary × Election	-0.411	-0.334
	[-1.10]	[-1.03]
Developing and emerging market	et countries	
Election cycle	6.044	3.075
	[2.98]**	[2.94]**
Proportional × Election	1.607	0.819
	[2.57]**	[2.98]**
Election cycle	6.012	3.327
	[3.20]**	[3.02]**
Parliamentary × Election	0.913	0.787
	[1.97]**	[1.98]**

The table shows the conditional impact of different dimensions of the political system (parliamentary versus presidential; majoritarian versus proportional) on the election cycle in support for the agricultural sector. The results suggest that in industrial countries with majoritarian systems the election effect is stronger than in countries with proportional systems. Furthermore, the results indicate that election cycles are stronger under a parliamentary system in developing countries. Reproduced with permission from the American Journal of Agricultural Economics

Source: Klomp and de Haan (2013b)

under proportional electoral systems. Table 1 summarizes the main results of Klomp and de Haan (2013b). The authors use two measures of agricultural sector support, namely the gross subsidy equivalent (as a percentage of agricultural income) and government spending on agriculture (as a percentage of GDP). The authors' interpretation of their findings is that a majoritarian system gives the incumbent in industrial countries a strong incentive to target transfers to particular interest groups, such as agricultural producers. In contrast, in developing countries agricultural policy is arguably more of a public good because a larger share of the population depends on agriculture.

#### 4 Discussion, conclusions and suggestions for future research

Before zooming in on the conclusions that we draw from our survey, we would like to echo a worry put forward by Munck and Verkuilen (2002, pp. 5–6)—which applies not only to research discussed in this paper—namely that "quantitative researchers have paid sparse attention to the quality of the data ... that they analyze .... To a large extent, problems of causal inference have overshadowed the equally important problems of conceptualization



Table 2	Summary	of	main	results
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Conditioning variable	Support based on aggregate data	Support based on disaggregated data (particular spending categories)
Level of development <sup>a</sup>	Brender and Drazen (2005), Shi and Svensson (2006), Streb et al. (2009), Klomp and de Haan (2013a)	Klomp and de Haan (2013b)
Institutional quality and informed voters	Shi and Svensson (2006), Alt and Rose (2009)	Vergne (2009)
Age of democracy	Brender and Drazen (2005, 2007, 2008), Akhmedov and Zhuravskaya (2004), Barberia and Avelino (2011), Klomp and de Haan (2013a)	Vergne (2009), Klomp and de Haan (2013b)
Level of democracy		Gonzales (2002)
Constitutional rules	Persson and Tabellini (2003), Brender and Drazen (2005)	Chang (2008), Klomp and de Haan (2013b)
Transparency	Alt and Lassen (2006a, 2006b), Klomp and de Haan (2013a)	
Checks and balances	Streb et al. (2009)	Chang (2008)
Fiscal rules	Rose (2006), Alt and Rose (2009), Cioffi et al. (2012)	

<sup>&</sup>lt;sup>a</sup>Studies referring to developing countries only are not included here

and measurement". With some exceptions, most studies discussed in this review do not extensively discuss how theoretical concepts can properly be operationalized and whether this can be done with a single indicator variable. For instance, most scholars seem to agree that democracy is a multifaceted concept, but most studies reviewed herein use only one measure of democracy. If authors employ more than one indicator, they generally do not examine whether the indicators used really capture the latent construct that they are supposed to represent. Furthermore, most indicators of political institutions contain measurement errors. In other words, there is an errors-in-variables problem, which may lead to biased estimation results.

With this important caveat in mind, based on our review of the literature we draw the following conclusions. First, there is substantial evidence that election-induced fiscal policy is not confined to developing countries. At the same time, several studies conclude that political budget cycles are more likely to occur in developing countries than in industrial countries, while the strength of this distortion of fiscal policy is also stronger in developing countries than in industrial countries (see Table 2).

Second, there is some evidence that the extent to which voters are informed because they have access to a free media conditions the size of the PBC: if more voters are better informed, there are fewer election-induced fiscal manipulations. However, existing studies do not control for the extent to which televisions or computers are widespread, while arguably in most countries these media are more important than radios or newspapers when it comes to information provision. This is an illustration of the general point made above, i.e., how to properly operationalize theoretical concepts. That the extent to which voters are informed matters for the occurrence and strength of PBCs is in line with the model of Shi and Svensson (2006). In this model, the extent to which politicians can extract rents from being in



Table 3	Correlation	of some	conditioning	variables
Table 5	Correlation	or some	Conditioning	variables

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Level of income	(1)	1.00							
Institutional quality	(2)	0.77	1.00						
Democratic years	(3)	0.74	0.71	1.00					
Level of democracy	(4)	0.43	0.59	0.65	1.00				
Media access	(5)	0.52	0.51	0.74	0.79	1.00			
Presidential	(6)	0.51	0.52	0.49	0.37	0.27	1.00		
Proportional	(7)	0.13	0.12	0.21	0.39	0.31	0.00	1.00	
Checks and balances	(8)	0.62	0.58	0.56	0.41	0.42	0.52	0.05	1.00

power is predicted to affect the likelihood that fiscal policy will be used for electoral purposes. Shi and Svensson (2006) and Vergne (2009) offer support for this hypothesis, but it may be questioned whether the variables used to proxy rent seeking opportunities (i.e., corruption according to Transparency International and ICRG institutional quality indicators) adequately capture this concept. Furthermore, the correlation between institutional quality and media access on the one hand and the democracy indicators used in other studies is quite high (see Table 3).

Third, in view of the many papers that report evidence in support of political budget cycles in established democracies, we conclude that such cycles are not confined to young democracies, in contrast to the claim of Brender and Drazen (2005, 2008). Still, substantial evidence also exists that the strength of the cycle depends on a country's experience with democracy: in younger democracies the political budget cycle is more likely to occur and is more likely to be stronger than in more mature democracies (see Table 2). However, what is less clear is what mechanism is responsible for this finding. Brender and Drazen (2005) refer to the electorate's experience with elections and, similar to Shi and Svensson (2006), to the role of the media in providing reliable information. These mechanisms are related but are not the same. Another issue is that studies focusing on the age of democracy use different concepts in their empirical models. Brender and Drazen (2005) focus on the first four elections after transitions towards democracy. The results of Barberia and Avelino (2011) suggest that theoretically more refined measures to capture democratic transition yield different results. Finally, it is important to disentangle the effect of the level of democracy and the age of democracy. As Table 3 shows, both concepts are related, but they capture different aspects of the democratic experience. To further illustrate this, Table 6 in the Appendix 2 reports the Polity IV score in 2004 for the countries included in Table 3, as well as the number of years of democracy between 1945 and 2004. Although many countries that have been democracies for a long time have scores of 10, several countries that have become democracies more recently also receive that score. Likewise, some countries that have been democratic for a long time have scores below 10. The results of Brender and Drazen (2005) suggest that the age of democracy dominates the level of democracy, but more research is needed before more definite conclusions can be drawn.

Fourth, constitutional rules seem to condition electoral fiscal cycles, but there is conflicting evidence as to whether election cycles in fiscal policy are more or less prevalent in parliamentary than in presidential systems. It is likewise not clear whether this conditioning affect of constitutional rules holds true in mature democracies in view of the evidence of Brender and Drazen (2005). Although the results of Chang (2008) and Klomp and de Haan (2013b) suggest that government policies in industrial countries during election times differ



across countries with different electoral systems and forms of government, further research is needed on this issue.

Fifth, more budgetary transparency seems to reduce the occurrence and strength of PBCs in OECD countries, but further work is needed on developing countries.<sup>17</sup> The work of Alt and Lassen (2006a, 2006b) is confined to OECD countries and the index of transparency used by Klomp and de Haan (2013a) does not take the transparency of the budgetary process into account.

Sixth, there is evidence that checks and balances also condition PBCs. However, it is not fully clear how this is related to the conditioning impact of constitutional rules.

Seventh, fiscal rules may reduce the electoral distortion of fiscal policy, but more research is needed on what type of fiscal rules. As transparency of the budgetary process affects the probability that budgetary tricks are exposed, it may enhance the effectiveness of fiscal rules.

Already, we have outlined several potentially useful avenues for future research. In our view, the most important challenge is to try to identify whether some of the conditioning variables as identified in the literature dominate others. For instance, if budgetary transparency and voters' access to independent media are adequately controlled for, does the age of democracy still play a role in explaining cross-country differences in the magnitude of election-motivated manipulations of fiscal policies? This will not be an easy task in view of the high correlation between several conditioning variables (see Table 3).

Finally, an issue that has received limited attention is what happens with fiscal policy after the elections. Persson and Tabellini (2003, p. 198) stated that: "Little is known about the systematic pattern of fiscal policy after elections, as existing research on post-election cycles has almost exclusively focused on "partisan" (i.e., left or right) cycles." This conclusion still seems to be correct as most studies surveyed in this paper focus on pre-election effects in fiscal policy.

Once the literature surveyed in this paper has developed further, a meta regression analysis can be carried out. Currently, there are not sufficient studies to do that.

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<sup>&</sup>lt;sup>17</sup>See Dabla-Norris et al. (2010) for some recent work on budgetary processes in a sample of low-income countries.



ppendix 1

 Table 4
 Studies on conditionality discussed in this review

Study	Sample	Heterogeneity caused by	Proxied by	Conclusions
Gonzales (2002)	Mexico, 1957–1999 (quarterly data)	Level of democracy	Polity and Freedom House indicators	Election effect in infrastructural spending and transfers that gets stronger under higher level of democracy.
Block et al. (2003)	44 sub-Saharan African countries, 1980–1999	Founding elections	First election under democratic rule	Election effect in government consumption (1.5 percentage point higher in election years) but founding elections do not have stronger impact
Persson and Tabellini (2003)	60 countries; 1960–1998	Constitutional rules leading to different election systems (proportional vs. majoritarian) and forms of government (parliamentary vs. presidential)	Interaction term between electoral rule and form of government dummies and an election year dummy	The election cycle is significantly affected by the various constitutional rules
Akhmedov and Zhuravskaya (2004)	Russia, 1996-2003	Education; Urbanization; democracy; Transparency; Media freedom; Spending categories	Using magnitude of election cycle as dependent variable	Magnitude of the cycle decreases with democracy, government transparency, media freedom, voter awareness
Brender and Drazen (2005)	68 countries; 1960–2001	Lack of experience with electoral politics or lack of information to evaluate fiscal manipulation	Sample split into new vs. established democracies. A dummy for the first 4 elections after a country has become democratic.	PBC effect in total sample is caused by (the first elections in) new democracies; no PBC effect in established democracies (i.e. countries which were democracy during the entire sample)



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Study	Sample	Heterogeneity caused by	Proxied by	Conclusions
Shi and Svensson (2006)	85 countries; 1975–95	Private benefits of politicians for being in power and failure of voters to distinguish politicians' competence from electoral manipulation	Corruption, ICRG institutional quality index, and access to free media (radios per capita multiplied by freedom of broadcasting)	PBC effect is large in developing countries and small or non-existing in industrial countries. Institutional indicators can explain large part of these differences
Alt and Lassen (2006a, 2006b)	19 OECD countries, 1989–1998	Transparency in fiscal policy making and political polarization	Transparency index (details in: Alt and Lassen 2006b) and measure of party polarization	Conditioning for transparency PBCs exist (in low-transparency countries PBCs occur); PBCs are larger in more polarized countries
Rose (2006)	43 US states, 1974-1999	Fiscal rules	Dummy for no-carry-over rule; dummies for strict rule (restrictions on borrowing as well)	PBC effect (in spending and deficit) is strongest in states with no rules or weak no-carry-over rule
Brender and Drazen (2007)	68 countries; 1960–2001	Lack of experience with electoral politics or lack of information to evaluate fiscal manipulation	Sample split into new vs. established democracies.	PBC effect in total sample is caused by the elections in new democracies
Chang (2008)	21 OECD countries, 1973–2000	Differences in electoral systems and veto player structure	Dummies for majoritarian systems and single veto player systems	In proportional system election effect shows up in social welfare spending and under majoritarian system in localized pork-barrel spending
Alt and Rose (2009)	45 US states, 1974–1999	Gubernatorial approval, gubernatorial term limits, divided partisan government, fiscal transparency, media, and fiscal rules	Dummies for these six contextual features	Moderate gubernatorial job approval, is associated with larger pre-election surges in spending. Low newspaper circulation is associated with substantially larger budget cycles. States that restrict politicians' ability to issue debt to cover spending shortfalls do not exhibit political budget cycles



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Study	Sample	Heterogeneity caused by	Proxied by	Conclusions
Streb et al. (2009)	67 countries, 1960–2001	Checks and balances	Combination of legislative veto player and ICRG law and order index	PBCs occur conditional on checks and balances
Barberia and Avelino (2011)	18 Latin-American countries, 1973–2008	Proxies for recent democratization	First 4 elections after democratization and dummy for democratic transition	PBC effect is significant. Stronger effect for first 4 elections, but not for other definition of democratic transition
Cioffi et al. (2012)	About 7.500 Italian municipalities	Fiscal rules	Sample split; interaction terms	Budget rules reduce the size of the PBC
Klomp and de Haan (2012)	65 democracies, 1975–2005	Country specific election effect	Random coefficient model	In most countries fiscal policy is hardly used for election purposes
Klomp and de Haan (2013a)	65 democracies, 1975–2005	No particular theory but econometric tests for heterogeneity	Effect of PBC variable is allowed to vary across countries	Countries with a significant political budget cycle are very diverse. Some of them are developing countries, while others are OECD countries. They include 'young' democracies but also 'old' democracies
Klomp and de Haan (2013b)	70 democracies 1975–2005	Different nature of support to agricultural sector in developing and industrial countries and constitutional rules; age of democracy.	Using sample splits (industrial and developing countries) and interaction effects	In industrial countries the election effect is strongest under majoritarian electoral systems. In developing countries the election effect is strongest under proportional electoral systems



# Appendix 2

Table 5 Sources and description of data used

Variable	Description	Source
Level of income	Real GDP per capita in constant US dollars of 2000	World Bank (2011)
Institutional quality	The average score of the International Country Risk Guide on the 5 different dimensions: rule of law, corruption in government, quality of the bureaucracy, risk of expropriation of private investment, and risk of repudiation of contracts	ICRG (2005)
Level of democracy	Polity IV score running from $+10$ (democracy) to $-10$ (autocracy)	Jaggers et al. (2006)
Democratic years	The number of democratic years since 1945	Own calculation
Media access	Multiplication between radios per capita (reported by the World Bank) with a dummy indicating freedom of broadcasting (Freedom House)	Own calculation
Presidential	Dummy variable that is one if the election is in a presidential system	Update of Beck et al. (2001)
Proportional	Dummy variable that is one if the election is in a proportional electoral system	Update of Beck et al. (2001)
Checks and balances	Political constraints index	Henisz (2012)

 Table 6
 Countries included in the correlation matrix

Country	Polity IV (2004)	# of democratic years
•	(1)	(2)
Argentina	8	25
Australia	10	60
Austria	10	59
Bangladesh	6	16
Belgium	10	60
Bolivia	8	23
Botswana	8	39
Brazil	8	24
Bulgaria	9	15
Canada	10	60
Chile	9	25
Colombia	7	48
Costa Rica	10	60
Croatia	8	5
Czech Republic	10	41
Denmark	10	60
Ecuador	6	26
El Salvador	7	21



Table 6 (Continued)

Country	Polity IV (2004) (1)	# of democratic years (2)
Finland	10	60
France	9	48
Gambia, The	-5	29
Germany	10	30
Ghana	8	6
Greece	10	34
Guatemala	8	9
Guyana	6	13
Honduras	7	19
Hungary	10	15
India	9	55
Indonesia	8	6
Ireland	10	60
Israel	10	57
Italy	10	58
Jamaica	9	46
Japan	10	53
Kenya	8	3
Korea, Dem. Rep.	8	18
Latvia	8	14
Lithuania	10	14
Madagascar	7	13
Malawi	6	8
Malaysia	3	12
Mali	7	13
Mexico	8	8
Namibia	6	15
Netherlands	10	60
New Zealand	10	60
Nicaragua	8	15
Niger	6	5
Norway	10	60
Panama	9	16
Paraguay	8	13
Peru	9	16
Philippines	8	18
Poland	10	14
Portugal	10	29
Romania	9	9



Table 6 (Continued)

Country	Polity IV (2004) (1)	# of democratic years (2)
Senegal	8	5
Slovak Republic	9	12
Slovenia	10	14
South Africa	9	13
Spain	10	27
Sweden	10	60
Switzerland	10	60
Thailand	9	13
Trinidad and Tobago	10	43
Turkey	7	48
Ukraine	6	13
United Kingdom	10	60
United States	10	60
Uruguay	10	39
Venezuela, RB	6	47
Zambia	5	5

Column (1) shows the Polity IV score in 2004, while column (2) reports the number of democratic years since 1945

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