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Abstract

This paper examines a framework in which politicians can decrease unemployment via active labor market policies (ALMP). We combine theoretical models on partisan and opportunistic cycles and assume that voters are ignorant of the necessary facts to make informed voting decisions. The model predicts that politicians have incentives for a strategic use of active labor market policies that leads to a political cycle in unemployment and budget deficit. We test the hypotheses predicted by the theoretical model using data from German states from 1985:1 to 2004:11. The results illustrate that opportunistic behavior of politicians can explain the development of ALMP approximated by job-creation schemes.

Keywords: active labor market policies, political cycles, labor market expenditures, opportunistic politicians, partisan politicians

JEL: P16, J08, H72, E62, H61

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1 Introduction and related literature

This paper introduces a theoretical model that combines aspects of political business cycle theory (PBC) and partisan cycle theory (PT) with the empirical findings that voters do not decide as rationally as often assumed in literature. In our model, politicians face a trade-off between the budget deficit and unemployment, whereas the latter can be fought via active labor market policies (ALMP). The model predicts that opportunistic and partisan motivation of incumbents can explain cycles in ALMP and governmental deficit. Furthermore, we provide empirical evidence from the former West German states during the period 1985:1 to 2004:11 and find that active labor market policies were indeed driven by electoral cycles.

Traditional PBC theory concentrates on politicians facing a short-run Phillips curve trade-off between unemployment and inflation. In such a political setting, as initially developed by Nordhaus (1975) and enhanced by Persson and Tabellini (1990), Rogoff (1990), or Shi and Svensson (2006), political business cycles occur due to incumbents fighting unemployment in election years via politically determined positive aggregate demand shocks in order to become re-elected.

Politicians may also have certain ideological beliefs which shape their policies, or they may follow party ideologies. Hibbs (1977) and Alesina (1987) argue that leftist parties attach more importance to unemployment than inflation, while rightwing parties do the exact opposite.

There have been some attempts to combine both bodies of literature, as politicians may plausibly be motivated by both opportunistic and partisan considerations. Frey and Schneider (1978a, 1978b) argue that an incumbent has strong incentives to take opinion polls into account: at times when he is popular, he may implement his favorite partisan politics, whereas he may focus on opportunistic behavior to increase his re-election chances once opinion polls turn sufficiently unfavorable for him. In a recent paper, Sieg (2006) combines rational partisan and opportunistic theory. His model predicts an opportunistic political business cycle with a signalling game in the run-up to an election and a partisan cycle that depends on the winners' partisan orientation.

During the last decades, literature has uniformly assumed voters to decide in a rational way. We argue that this is unrealistic: empirical evidence suggests that voters are often ignorant of the necessary facts to make informed voting decisions.[1] Downs (1957) introduced the theory of *rational ignorance* as an explanation for the fact that voters often do not know a great deal about relevant topics. When considering a large number of voters, the probability that a particular voter will be the swing-voter is nearly zero. Having the choice between different candidates, voters must be aware of their respective manifestos and many

[1] For example, half of Americans do not know that their state sends two senators to Washington, D.C. (Caplan 2007, p. 8). Another impressive example is the answer to the question: "What are the two largest areas of federal government spending?" in America. The most frequently mentioned answer was foreign aid - which is in fact one of the smallest budget components (Caplan 2007, p. 79).

other criteria such as credibility or institutional framework, in order to identify the monetary consequences of each candidate being elected. Information gathering is costly, as voters may need to watch the news, read newspapers, perhaps buy economics textbooks (to realize the trade-off between unemployment and budget deficit, for example) or consult with experts. It follows that their information costs almost certainly exceed their expected gain in utility from choosing the right candidate. Hence, voters do not have any incentives for information gathering in order to vote rationally in the traditional sense. In a similar vein, Caplan (2001, 2003, 2007) and Caplan and Cowen (2004) argue that voters may be biased in some way and propose to call the voters' actions *rational irrational* voting. Plausible reasons for assuming voters to be biased can be found in the Survey of Americans and Economists on the Economy (Washington Post et al., 1996), which clearly states that voters look at economic problems in a fundamentally different way than economists.

The paper is organized as follows: Section 2 establishes the theoretical model. First, we develop a simple framework for analyzing parties' optimization problem. Afterwards, we show that due to the different degrees of importance parties attach to unemployment and budget deficit, a cycle will occur. In section 3, empirical evidence from German states is provided. Section 4 concludes the analysis.

2 The Model

2.1 General setting

We assume an economy consisting of an incumbent i, an opponent o, and a fixed number of voters. The incumbent decides on the government's expenditures in every period t and elections take place in every second period. We assume that the governmental budget is balanced if no active labor market policy is implemented as we want to point out the importance of ALMP. This means that every Euro that is additionally spent for ALMP increases the budget deficit b_t ceteris paribus. Without any spending on active labor market policy, $b_t = 0$ holds.[2]

The economy's unemployment rate u_t in period t depends on the natural rate of unemployment u^n and the amount of active labor market policy expenditures. For analytical simplicity and theoretical clarity, we disregard all other determinants of unemployment, such as overall macroeconomic performance or structural reforms, in order to outline the effects of ALMP and can hence write the unemployment rate in period t as a function of u^n and b_t:

$$u_t = u^n - \beta \cdot b_t \tag{1}$$

with $\beta > 0$.[3] Intuitively, the government has the opportunity to decrease the unemployment rate in every period t via ALMP. The underlying mechanism is simple: the government

[2]Concerning the interpretation of the results that we are about to derive, one should interpret b_t as the share of budget deficit over GDP.

[3]For simplicity, we assume β to be exogenous in the sense that politicians are not able to optimize over

engages in job-creation schemes. On the one hand, the implementation of ALMP increases, ceteris paribus, the budget deficit as ALMP incurs costs and usually does not generate additional revenues.[4] On the other hand, unemployment falls, so that the government faces a clear trade-off between a small governmental deficit and low unemployment.[5]

An example of the empirical relevance of this mechanism is Germany, where local and federal governments as well as the Federal Employment Office (*Bundesagentur für Arbeit*) have the opportunity to introduce job-creation measures (*Arbeitsbeschaffungsmaßnahmen*), structural adjustment measures (*Strukturanpassungsmaßnahmen*), or vocational retraining. Those measures are obviously not free of charge: in Germany, for example, the average monthly cost of a job-creation measure was about 1511 Euro in 2003 (Caliendo and Steiner, 2005). Figure 1 shows that many OECD countries (particularly European ones) face ALMP expenditures close to one percent of GDP (OECD, 2007, p. 231), which represents a considerable fraction of freely disposable government expenditure.

Figure 1 about here

Official German unemployment statistics do not include people engaged in ALMP measures (Bundesagentur fuer Arbeit, 2004). Hence German politicians face exactly the same trade-off as stated in our model.

To decide whether to fully inform oneself about political and economic relationships or not, each voter compares his expected gain in utility from selecting the right candidate with the costs of gathering information. Whenever these costs outweigh the expected gain in utility, a voter does not engage in collecting information at all. Each voter's expected net gain in utility (NGU) from choosing the right candidate in an election involving two candidates can be stated as

$$\text{NGU} = \rho \cdot [\text{payoff}_{\text{right}} - \text{payoff}_{\text{wrong}}] - \text{information costs},$$

where payoff_{k} is the present value of the payoff resulting from candidate k's, k = right, wrong, future policies, e.g. tax reforms or similar things. ρ is the probability of each voter being the swing voter. One can easily see that the expected gain in utility from supporting the right candidate will be extremely low in an economy with a reasonable large number of voters,

β. In reality, one could interpret β as a policy variable in the sense of politicians' ability to create new and heterogenous ALMP measures at a lower price. This would mean an increase in β: The decrease in unemployment is higher for a given amount of b_t. An example of a politically induced increase in β could be the 1-Euro jobs in Germany, which allow politicians to decrease unemployment whilst paying a lower price, measured as the variation in budget deficit.

[4]Even if a job-creation measure generated additional revenues, these would certainly not exceed the expenditure required to create the measure. Hence, b_t increases.

[5]Note, however, that ALMP in period t does not influence the unemployment rate or the budget deficit in future periods. Hence, we assume that there are no positive effects on future regular employment due to ALMP. For example, empirical evidence for the ineffectiveness of ALMP is provided by Hagen and Steiner (2000) for Germany and by Lalive, van Ours and Zweimüller (2008) as well as Gerfin and Lechner (2002) for Switzerland.

even if both parties differ greatly in their fiscal consequences. Therefore, it is extremely unlikely that the net gain in utility is positive. Hence, rational voters have no incentive to inform themselves about political as well as economic relationships.[6]

Although voters have no incentives to actively look for information, we assume that they somehow become informed about the economic performance.[7] We choose the unemployment rate as a proxy for the economic performance as unemployment is a major concern in almost every industrialized country. In the overwhelming majority of pre-election surveys voters report unemployment as the greatest problem in their society.[8]

Furthermore, as recent research shows, the self-interested voter hypothesis fails in empirical tests.[9] Hence, our assumption of voters looking implicitly at a macro variable such as unemployment is similar to what is called sociotropic voting. In our model, voters are not concerned with the consequences for their own wallets, but actually vote for politicians who they suppose to be good for the country.

Formally, we assume the voting behavior of each voter to depend on the current unemployment rate u_t and a random variable μ_t that is distributed in the interval $[-z; +z]$ and $E(\mu) = 0$. μ_t can be interpreted as voters or informational bias (see Caplan and Cowen, 2004, for a discussion) as well as the expressive voting hypothesis established by Brennan and Lomasky (1993). Within the model, μ_t basically ensures that incumbents are not able to guarantee their re-election. We assume that voters are identical. Therefore, the probability of an incumbent of party i being re-elected can thus be written as

$$p = p(u_t(b_t), \mu_t). \tag{2}$$

We assume that p is distributed in the interval $(0, 1)$ with $\frac{\partial p}{\partial u_t} < 0$ (and hence $\frac{\partial p}{\partial b_t} > 0$), but that the incumbent is not able to set a sufficiently low unemployment rate to make his re-election a certain event.[10] The structure of the voting probability implicitly assumes that voters have a short memory. Case studies concerning very volatile popularity data for the leading politicians support this assumption (see, for example, Forschungsgruppe Wahlen, 2008). Note, however, that the voting probability can be written as in (2) because rational voters do not have an incentive to inform themselves about political and economic relationships or mechanisms. Although they are unaware of economic mechanisms and interrelations,

[6]For discussion on the topic see Downs (1957), Caplan (2001, 2003, 2007), as well as Jones and Dawson (2008).

[7]This is in line with e.g. Downs (1957). It would be inappropriate to assume that voters do not receive any information about the economic performance at all. Imagine voters watching TV or passing a newsstand in the street - they certainly get some kind of information about their country's economic performance despite not actively searching for information.

[8]According to infratest dimap (2005), 88 percent of the voters mentioned "unemployment" when asked what (in their opinion) the most important political problems were on the day of the German Bundestagswahl in 2005. Although multiple answers were possible, only 5 percent mentioned "public debt".

[9]See Caplan, 2002 for a discussion of this topic.

[10]Especially, he does not know μ_t when deciding on b_t.

they have some knowledge about macroeconomic performance, here measured by unemployment. Therefore, our analysis differs from other recent models on political or partisan cycles in assuming that voters do not actively search for information and may be biased in some way.

Politicians maximize their expected utility, which consists of two elements. On the one hand, an ideologically motivated outcome component including unemployment and budget deficits. On the other hand, an ego rent $r > 0$ is generated by holding office. This means that we combine two essential elements of political business cycle literature: as stated by Nordhaus (1975), Rogoff (1990), and Persson and Tabellini (1990), the political optimization problem has an opportunistic component insofar as politicians prefer to be in office rather than not. However, following Hibbs (1977) and Alesina (1987), politicians also face a trade-off between two bads.

In our model, elections take place in every second period. Therefore, the timing of the two period model is as follows: at the beginning of period t, the incumbent sets his favored unemployment rate using ALMP. Afterwards, voters decide who they want in office for the next two periods: either the incumbent i who is a member of the left (L) or the right (R) party, or the opponent who is a member of the other party. In $t+1$, the winner implements his favorite policy.

The expected utility of incumbent i can therefore be written as

$$\begin{aligned} E(V^i) = {} & \theta^i \cdot \left\{-\alpha^i (u_t^i)^2 - (b_t^i)^2\right\} + (1-\theta^i) r_t^i \\ & + p(u_t(b_t), \mu_t) \cdot \delta^i \cdot \left[\theta^i \cdot \left\{-\alpha^i (u_{t+1}^i)^2 - (b_{t+1}^i)^2\right\} + (1-\theta^i) r_{t+1}^i\right] \\ & + (1 - p(u_t(b_t), \mu_t)) \cdot \delta^i \cdot \left[\theta^i \left\{-\alpha^i (u_{t+1}^o)^2 - (b_{t+1}^o)^2\right\}\right], \end{aligned} \tag{3}$$

where δ^i denotes the discount rate which we assume to be the same for all candidates of party L, respectively R. r_t^i is the candidate's ego rent from holding office. u_{t+1}^o and b_{t+1}^o (u_{t+1}^i and b_{t+1}^i) denote the values of unemployment and the budget deficit in period $t+1$ that would result if the opponent (incumbent) won the election. Incumbent i's relative preference of u_t to b_t is measured by α^i. θ^i is an exogenous parameter that measures the importance of ideologic goals relative to the ego rent r_t^i.[11] Over time, however, θ^i may differ between different incumbents of the same party. The politicians' utility decreases with unemployment and the budget deficit at an increasing rate ($\frac{\partial^2 E(V^i)}{\partial u_t^2} < 0$ and $\frac{\partial^2 E(V^i)}{\partial b_t^2} < 0$). The latter implicates the existence of something such as an implicit intertemporal budget constraint.[12]

[11] One could also imagine θ^i to be endogenous, depending on election polls for example, which would be an application of the idea developed by Frey and Schneider (1978).

[12] This means that politicians are not only aware of the trade-off between unemployment and budget deficit, but also of the necessity of future budget balancing. We argue that if a restriction like the need of an intertemporal budget balance exists, huge amounts of budget surpluses in a certain period are as problematic as a deficit with respect to the target achievement. However, our results remain unchanged when the quadratic terms in (3) are substituted by linear terms.

The two parties have preferences concerning the unemployment rate and the budget deficit. The borderline case $\alpha^L = \alpha^R$ could be interpreted as a purely opportunistic version of our model. We assume $\alpha^L > \alpha^R$ to hold.[13] For a given budget deficit, an incumbent of the leftist party dislikes unemployment more than a rightwing incumbent does. For simplicity and analytical convenience, we suppose $r_t^L = r_t^R = r_{t+1}^L = r_{t+1}^R = r$ to hold, which seems plausible as, for example, salary payments to the incumbent do not depend on the incumbent's partisan orientation.

2.2 Non-election periods

To solve the model, we first consider what happens in the non-election period $t+1$. As there are no elections, politicians can neglect their influence on p because there simply is none.

Therefore, the incumbent i will maximize his period $t+1$ utility, taking all future decisions as exogenously given and taking the trade-off between unemployment and budget deficit (1) into account.

We can rewrite the incumbent's maximization problem as

$$\underset{b_{t+1}}{max} \quad \theta^i \cdot \left\{-\alpha^i u_{t+1}^2 - (b_{t+1})^2\right\} + (1-\theta^i)r \qquad s.t. \quad u_{t+1} = u^n - \beta \cdot b_{t+1}.$$

Using the first order condition, the optimal budget deficit in the non-election period $t+1$ for incumbent i turns out to be

$$b_{t+1}^{i*} = \frac{\alpha^i \beta u^n}{1 + \alpha^i \beta^2}. \tag{4}$$

We can easily see that $\frac{\partial b_{t+1}^{i*}}{\partial u^n} > 0$ holds: the optimal budget deficit for an incumbent of type i increases with the natural rate of unemployment. Note that b_{t+1}^{i*} does not depend on θ^i because no elections take place and, therefore, there is no need to weigh the ideologic against the opportunistic goal.

The optimal budget deficit in $t+1$ varies positively with α^i:

$$\frac{\partial b_{t+1}^{i*}}{\partial \alpha^i} = \frac{\beta u^n}{(1 + \alpha^i \beta^2)^2} > 0$$

since we assumed $\beta > 0$. Hence, assuming $\alpha^r < \alpha^l$, we can conclude that the optimal budget deficit in a non-election period is higher if the leftist party is the incumbent.

Using (4), we can determine u_{t+1}^{i*}:

$$u_{t+1}^{i*} = u^n - \frac{\alpha^i \beta^2 u^n}{1 + \alpha^i \beta^2} \tag{5}$$

[13] It is common practice in PBC literature to assume the leftwing party to be more in favor of low unemployment than the rightwing one. For brief discussions, see Hibbs (1977) and Alesina et. al (1997).

where $\frac{\partial u_{t+1}^{i*}}{\partial \alpha^i} < 0$ holds, which means that the optimal period $t+1$ unemployment rate from the incumbent's point of view is lower for the leftwing party. However, u_{t+1}^{i*} also does not depend on θ^i.

The analysis above clearly shows that in our model there will be political determined differences in b and u in all periods without an election. Whenever a leftist politician is in power, unemployment will be lower at the expense of a higher budget deficit. Therefore, in non-election periods there will be fluctuations in ALMP and unemployment, depending on the incumbent's partisan orientation.

2.3 Election periods

Given the politicians' non election year strategies described in (4), we can calculate their policy choices in election periods using (3). Incumbent i's optimization problem is

$$\begin{aligned} \max_{b_t} \quad E(V^i) =& \theta^i \cdot \left\{-\alpha^i (u^n - \beta b_t)^2 - b_t^2\right\} + (1-\theta^i) r \\ &+ p(u_t(b_t), \mu_t) \cdot \delta \cdot \left[\theta^i \cdot \left\{-\alpha^i \cdot \left(u^n - \beta b_{t+1}^{i*}\right)^2 - \left(b_{t+1}^{i*}\right)^2\right\} + (1-\theta^i) r\right] \\ &+ (1 - p(u_t(b_t), \mu_t)) \cdot \delta \cdot \left[\theta^i \cdot \left\{-\alpha^i \cdot \left(u^n - \beta b_{t+1}^{o*}\right)^2 - \left(b_{t+1}^{o*}\right)^2\right\}\right], \end{aligned} \tag{6}$$

where o is the candidate of the other party.

Using the respective first order condition as well as (4), the incumbent i's optimal budget deficit in t amounts to

$$\begin{aligned} b_t^{i*} =& \frac{\alpha^i \beta u^n}{1 + \alpha^i \beta^2} \\ &+ \frac{\partial p}{\partial u_t} \frac{\partial u_t}{\partial b_t} \cdot \frac{\delta}{2(1+\alpha^i \beta^2)} \cdot \left[-\alpha^i \left(u^n - \frac{\alpha^i \beta^2 u^n}{1+\alpha^i \beta^2}\right)^2 - \left(\frac{\alpha^i \beta u^n}{1+\alpha^i \beta^2}\right)^2 + \frac{(1-\theta^i) r}{\theta^i}\right] \\ &- \frac{\partial p}{\partial u_t} \frac{\partial u_t}{\partial b_t} \cdot \frac{\delta}{2(1+\alpha^i \beta^2)} \cdot \left[-\alpha^i \left(u^n - \frac{\alpha^o \beta^2 u^n}{1+\alpha^o \beta^2}\right)^2 - \left(\frac{\alpha^o \beta u^n}{1+\alpha^o \beta^2}\right)^2\right]. \end{aligned} \tag{7}$$

In order to determine whether there will be an opportunistic cycle component, we compare b_t with b_{t+1}. As the first term of (7) equals incumbent i's optimal budget deficit in $t+1$, we have to take a look at the second and third term of (7). For completely identical politicians, which means $\alpha^R = \alpha^L$, we can clearly see that the budget deficit in an election period is higher than in a period without election. This is not altogether surprising as we assumed $r > 0$, which implies that every politician prefers staying in office, although the political outcome is the same for both types of incumbents.

Under more general conditions than in the last paragraph, $b_t > b_{t+1}$ holds whenever

$$\begin{aligned} &-\alpha^i \cdot \left(u^n - \frac{\alpha^i \beta^2 u^n}{1+\alpha^i \beta^2}\right)^2 - \left(\frac{\alpha^i \beta u^n}{1+\alpha^i \beta^2}\right)^2 + \frac{(1-\theta^i)r}{\theta^i} > \\ &-\alpha^i \cdot \left(u^n - \frac{\alpha^o \beta^2 u^n}{1+\alpha^o \beta}\right)^2 - \left(\frac{\alpha^o \beta u^n}{1+\alpha^o \beta^2}\right)^2 \end{aligned} \tag{8}$$

is fulfilled.

Proposition: $b_t^{i*} > b_{t+1}^{i*}$ holds for all $i = L, R$ as long as $r \geq 0$.

Proof: Using (8) and rearranging terms yields:

$$r > -\frac{\beta^2 (u^n)^2 (\alpha^i - \alpha^o)^2}{(1+\alpha^i \beta^2)(1+\alpha^o \beta^2)^2} \frac{\theta^i}{(1-\theta^i)} < 0. \tag{9}$$

Hence, we conclude that ALMP expenditures in election years exceed ALMP in non-election years even if we assumed that there was no ego rent from holding office because there is an ideological benefit from holding office.[14] For a positive r, b_t would even be higher, the higher r is. ■

As incumbents seek re-election, they always face an incentive to lower unemployment figures in election periods as long as $r \geq 0$, which leads to an increase of the budget deficit. There is only one imaginable situation where $b_t > b_{t+1}$ does not hold. This is the case for identical politicians ($\alpha^L = \alpha^R$) who do not benefit from being incumbent ($r = 0$), which does not seem to be realistic at all.

Hence, using (7) and (1), we can conclude that $u_t^{i*} < u_{t+1}^{i*}$ holds for $i = L, R$ as the election period budget deficit exceeds the budget deficit in a non-election period for both types of parties.

Finally, we can determine the effect of a change in θ^i on b_t^{i*} and u_t^{i*}. Differentiation of (7) with respect to θ^i obtains

$$\frac{\partial b_t^{i*}}{\partial \theta^{i*}} = -\frac{\partial p}{\partial u_t} \frac{\partial u_t}{\partial b_t} \frac{\delta r}{1+\alpha^i \beta^2} \left[\frac{1-\theta^i}{2{\theta^i}^2} + \frac{1}{2\theta^i}\right] < 0.$$

If the relative importance the incumbent i attaches to his partisan goals increases, the budget deficit in t decreases because the re-election goal loses importance. Therefore, $\frac{\partial u_t^{i*}}{\partial \theta^{i*}} > 0$ holds.

Hence, in our model a political business cycle occurs due to systematic deviations in active labor market policies which depend on the incumbent's partisan orientation and on the timing of the election. A crucial assumption is the voters' behavior. For them, it is fully rational not to gather any information about political and economic backgrounds and interrelations. However, they do receive some information about the macroeconomic performance. If voters were rational in the traditional sense, politicians would not necessarily

[14] Note that (9) reveals that even for a negative r (e.g. being interpreted as a burden of responsibility), $b_t^{i*} > b_{t+1}^{i*}$ may hold whenever politicians differ in their ideological beliefs.

be able to gain from expanding the public deficit in election periods as the fully informed voters would be aware of the underlying trade-off between unemployment and public debt. Yet empirical evidence suggests that people are not fully rational, and therefore our portrait seems to be appropriate.

3 Empirical analysis

3.1 Institutional background

3.1.1 Active labor market policies in Germany

The so-called active labor market policy is concerned with reintegration of unemployed persons into the labor market by, for example, subsidising wages or by means of job creation schemes.[15] These ALMP programs, in Germany supervised by the Federal Employment Agency (Bundesagentur für Arbeit, FEA) are intended to help overcome the unemployment problem. Historically, the ALMP programs were one of the most important innovations of the Job Promotion Act (AFG, Arbeitsfoerderungsgesetz), which formed the legal basis for labor market policies in Germany in the period 1969 to 1997. In 1998, the Social Code (Sozialgesetzbuch, SGB) III was adopted and it was intended that ALMP should become further intensified.

ALMP does not only play a role at the federal level, however.[16] In practice, it is not only the FEA that implements ALMP, but above all, the Laender Employment Agencies (Landesanstalten, LEA) as Germany is a federal state (for further details on labor market policies in Germany and the institutional set-up of job creation schemes see e.g. Thomsen, 2007, p. 16).

In fact, the states' governments can implement their preferred labor market policies not only by subsidizing particular ALMPs with money from their own budgets, but also by setting administrative guidelines within the LEAs. There is an intense interaction, or even sleaze between the political decision makers and leading civil servants in the LEAs.[17] Besides the programmes initiated by the LEAs and the local agencies, each state government can

[15]There are several ALMP instruments which broadly remained the same but were extended over time. Thomsen (2007) refers to the SGB III as a legal basis and distinguishes between "Measures to Enhance and Adjust the Qualification of the Individuals", "Counselling and Assistance for Regional and Vocational Mobility" and "Subsidised Employment". The latter category consists of wage subsidies and two groups of employment programs, namely job creation schemes and structural adjustment schemes. They both establish the so-called second labor market.

[16]Some anecdotic evidence concerning the relevance of job-creation schemes in the run-up to an election can be found in the elections for the Bundestag in 1994 and 1998. The then-chancellor Helmut Kohl used ALMP measures to fight unemployment to a notable extent.

[17]Note that local authorities also play an important role in ALMP because they arrange new jobs, find positions for unemployed persons and locally negotiate with the so called "Traeger", but they are not responsible for the budget decisions.

implement additional ALMP measures. Therefore, the trade-off between unemployment and budget deficit applied in our theoretical model directly appears in reality: for any given level of local or LEA activity, a States' government can implement additional ALMP measures.

At the beginning of the 1980s, some German states first introduced their own programs on employment promotion[18], such as a special program of the senate in Hamburg in October 1982.[19] Throughout the period of the European structural fund of 1988, ALMP programs and activities of the German states generally increased. However, activities and intensity varied between the states. For example, the Saarland heavily relied on ALMP programs in their labor market policies. Even today, the state's government explicitly highlights its activities with respect to ALMP.

Another example for the role of government in ALMP measures is the state North Rhine-Westphalia. After the Rhine flood at the beginning of 1995, unemployed persons were assigned to job-creation schemes to assist in the flood plain and thus no longer appeared in official unemployment statistics. Thus after the flood, unemployment had also declined, just in time for the 1995 election of the state parliament. Another recent example is Hesse in 2008. As a precondition to joining a coalition with Social Democrats and Greens, the socialist party "Die Linke" demanded job-creation schemes for 25.000 people.[20]

However, ALMP programs already started in the beginning of the 1980s in the former western states, so our analysis will focus on this group of 10 states. In particular, we will examine job-creation schemes until 2004.[21] On the one hand, this is due to the fact that job-creation schemes were an prominent policy instrument and they became less important since the end of 2004. On the other hand, job-creation schemes are the ALMP measure with the best and most comparable data supply in Germany.

3.1.2 Parties, government coalitions, legislative periods and elections

There are two large parties in Germany, the leftist Social Democratic Party (SPD) and the conservative Christian Democratic Union (CDU). In Bavaria, Germany's federal state with the largest area, the conservatives are not represented by the CDU but by their sister party, the Christian Social Party (CSU). However, there is no party competition between them and they form a single faction in the federal parliament (Bundestag). That is why we label both CDU in the following empirical analysis. All federal chancellors and state prime ministers were members of one of these two big blocks, SPD and CDU. Therefore, one can test for partisan effects simply on this left-right dimension.

Nevertheless, the much smaller Free Democratic Party (FDP) and Green party (GR) have played an important role as coalition partners in the former Western states. While the

[18]For a brief overview, see Kohler (2004: p. 50).

[19]The program first amounted to 51 million Euro and was later enhanced, see Hombach (1984, p.190).

[20]http://www.spiegel.de/politik/deutschland/0,1518,574355,00.html.

[21]We do not include later years due to structural reforms of the German labor market by the so-called Hartz-laws, which were introduced in 2005 and would lead to some data specification problems within the empirical analysis.

SPD has formed coalitions with all the other three parties, the CDU never formed a coalition with the Greens on the federal or state level during the period analyzed in this paper. We will also consider the impacts of the different coalition types, because it is possible that the simple leftwing-rightwing dimension may neglect ideological differences between government parties within a "camp" (e.g. for the Left between SPD/FDP and SPD/GR coalitions). As minority governments and other government formations have played a negligible role, they will be subsumed under the coalition types mentioned above. There are no fixed election dates across the German states and the legislative periods last between four and five years. However, early elections may be called independently. So far, less than ten percent of the elections in the German states were early elections.

3.2 Data and empirical strategy

3.2.1 Data and variables

The data set contains monthly data for the number of job-creation schemes in the period 1985:1 to 2004:11 (levels) for the ten former West German states. These data are provided by Germany's Federal Employment Office. We do not include the former East German states and also do not consider Berlin because it was divided before the German unification and therefore the data contain structural breaks.

Figures 2 and 3 illustrate the change in the number of job-creation schemes and the number of unemployed persons. The development of the job-creation schemes and unemployment are subject to a seasonal pattern. Unemployment is higher in winter than in summer, whereas the cyclical pattern of the job-creation schemes is time-delayed. Furthermore, there are differences in time and between the single states. For example, unemployment as well as the number of job-creation schemes decreased at the end of the 1980s and reached their minima after the German unification in 1990. Subsequently, both increased steadily in almost every German state. Overall, we control for these effects using fixed year, monthly and state dummies in the econometric model.

Figures 2 and 3 about here

Moreover, there are no further structural economic variables available on a monthly basis, so that an exact scaling of the job-creation schemes and unemployment is not possible. However, referring to annual population data in the states, the ratio of unemployed persons to total population was, on average, about 4.1 percent, with a minimum of 1.5 and a maximum of 8.8 percent. Regarding the relationship between the number of job-creation schemes and the number of unemployed persons, there was, on average, approximately one job creation scheme per 30 unemployed persons, with a minimum of one job-creation scheme per 400 and a maximum of one per seven unemployed persons.

3.2.2 The empirical model

The basic econometric panel data model has the following appearance:

$$\begin{aligned}\Delta ln \text{ job-creation schemes}_{iym} = &\sum_j \alpha_j \text{ Political variable}_{ijym} \\ &+ \lambda_m + \gamma_y + \eta_i + u_{iym}\end{aligned} \tag{10}$$

with $i = 1, ..., 10; j = 1, ..., 6; m = 1, ..., 12; y = 1985, ..., 2004$.

The dependent variable Δln *job-creation schemes*$_{iym}$ denotes the growth rate in the number of job-creation schemes in every single state.[22] Panel unit root tests show that this variable is stationary. The appendix provides comments on the chosen test procedures. Moreover, λ_m describes fixed monthly, γ_y fixed year[23], and η_i fixed state effects.[24]

$\sum_j \alpha_j$ *Political variable*$_{ijym}$ describes the political variables on which this study focuses. First, the variable *Election*(12) takes the timing of the elections into account. It takes on the value of one in the twelve months before an election. In all other months, its values are set at zero. Therefore, we directly control for fluctuations and the fact that there are no fixed election dates in Germany. We will use this electoral variable as a benchmark. For robustness checks, we also apply different codings such as ten, eight, six, and four months before the elections.

We test the differences between leftist and rightwing governments predicted by our model on the simple leftwing-rightwing scale using the variable "Left" and different coalition type dummies, separately. The dummy "Left" takes on the value of one in periods when an SPD Prime Minister was in office (excluding grand coalitions) and zero otherwise. In the alternative specification, the coalition type dummies take on the value of one when the considered coalition type was in power and zero otherwise. We distinguish between six different coalition types that governed in the former Western German states: CDU, CDU/FDP, CDU/SPD, SPD/FDP, SPD/GR, and SPD. With respect to the grand coalitions, we do not distinguish which of the two parties appointed the Prime Minister. To avoid multicollinearity between these dummies, one of them must function as the reference category (here SPD). The estimated effects of the other dummies must then be interpreted as deviations from this reference category. Descriptive statistics are provided in Table 1.

Table 1 about here

The basic model is estimated by feasible generalized least squares in a common fixed effects framework initially. In addition, we apply heteroskedastic and autocorrelation consistent (HAC) Newey-West type (Newey and West, 1987) standard errors and variance-covariance estimates, because the Wooldridge test (Wooldridge, 2002, p. 176-177) for serial

[22] We use the number of job-creation schemes instead of the inflows into job-creation schemes as the measures vary in duration.

[23] Note that this also fixes specific historical events like the German unification.

[24] Moreover, we exclude one of the fixed effect variables, respectively, in order to avoid multicollinearity problems.

correlation in the idiosyncratic errors of a linear panel-data model implies the existence of strong arbitrary serial correlation. Moreover, the number of job creation schemes is directly related to the number of unemployed persons. Therefore, we include the lagged number of unemployed persons in a further step as job-creation schemes are used in reaction to high unemployment. We address the persistency and remaining seasonality of the dependent variable and the time-delayed interaction of unemployed persons and job-creation schemes by including a battery of lagged dependent variables and lags of the unemployed persons variable.

3.3 Estimation results

Table 2 shows the regression results of the initial fixed (columns 1 and 2) and random effects (columns 3 and 4) regressions with heteroskedastic and autocorrelation consistent (HAC) Newey-West type standard errors. We cannot reject the Hausman-Test in favor of the random effects model. However, the regression results of the fixed and random effects differ only slightly. Table 2 provides the coefficients and t-ratios (absolute values) for every single equation.

Table 2 about here

In accordance with our theoretical model, politicians increased the number of job-creation schemes in election years. The coefficient tells us that before elections in the German states, the growth rate of the job-creation schemes increased by about 0.4 percent per month. Thus, politicians behaved opportunistically to become re-elected. Moreover, the results do not support the hypothesis that leftist governments implemented more active labor market policies than rightwing governments. The coefficients do have the expected signs but are statistically insignificant. On the one hand, this result could be interpreted as being due to small ideological differences between the parties. Within our model, one might argue that there was only a small difference between α^L and α^R, if there was one at all. On the other hand, one might argue that politicians did not care much about political outcomes and concentrated on staying in office. This could be seen as a reference to a small θ^L and θ^R within our model.

Table 3 about here

Table 3 provides the regression results when a battery of lags of the dependent variable and the number of unemployed persons is included. Columns (1) and (2) refer to regressions in which 24 additional variables are included (lag 1-12 of the dependent variable and the number of unemployed persons respectively). Note, that the Nickell-bias is $1/T$ and, thus, it is ignorable in our case with T bigger than 200 and that the GMM-estimators are biased for small N, so that we do not apply them in the current framework with N=10. Columns (3) and (4) refer to regressions in which we have excluded the statistically insignificant lags. The lagged dependent variable is statistically highly significant and the coefficient reveals

an elasticity of about 0.4. The impact of the four months lagged number of unemployment persons is statistically significant on a 10 percent level and the coefficient reveals that when the lagged number of unemployed persons increased by one percent, the number of job-creation schemes increased by approximately 0.04 percent. In any case, the inclusion of the lagged dependent variables and the lagged number of unemployed persons does not affect our inferences regarding the political variables at all. Again, the estimation results provide evidence for an electoral cycle. The point estimate of the Election(12) only slightly decreases and thus implies that before elections in the German states, the growth rate of the job-creation schemes increased by about 0.3 percent.

Table 4 and 5 about here

We tested further specifications including the different election-year variables and codings described above and results did not change. Table 4 reports the regression results when a post-election(12) variable is included. This variable takes on the value of one in the twelve months after an election and is zero otherwise. In line with our theoretical predictions, the post-election variable is statistically insignificant across the specifications while the election(12) variable remains statistically significant and the numerical impact does not change. Table 5 shows the regression results when the election variable takes on the value one in the ten, eight, six or four months before the election (and zero otherwise). The results suggest that incumbents did not increase job-creation schemes directly before elections as the election(6) and election(4) variable turn to be statistically insignificant. This finding is also in line with theoretical and intuitive predictions of political opportunism because it simply takes some time to implement these job-creation schemes and opportunistic politicians would not implement these measures if they could not get re-elected due to their activities.

Moreover, we checked for the sensitivity of the results to individual states. To rule out this possibility, we performed the regressions again, excluding one state at a time. Overall, the inferences are robust in that they are not subject to the inclusion of particular countries. However, the impact of the election variables declines when Schleswig-Holstein and the Saarland are excluded, yet remains significant on the 5 percent level.

In addition, we aggregated our monthly to yearly data and run the regressions with annual data. These regression results perfectly correspond with our inferences using monthly data: We find evidence for electoral cycles, whereas the partisan variables have the expected signs but remain statistically insignificant.

4 Conclusion

We develop a model in which politicians are motivated both by partisan and opportunistic goals. Following the recent literature on voting behavior, we assume that voters do not have incentives for actively gathering information as they realize their low probability of being decisive within the voting process. Electoral outcome is a random variable which depends on two components. First, it depends on the current unemployment rate, as the respective

literature claims voters to be sociotropic. As opinion polls reveal that unemployment is the most - or at least one of the most - important political topics in nearly all industrialized countries, we use unemployment as the sociotropic factor in our model. Second, electoral outcome depends on a factor which can be interpreted as a voter bias, according to Caplan and Cowen (2004) as well as the expressive voting hypothesis established by Brennan and Lomasky (1993).

We find that politically motivated cycles, with respect to budget deficits and unemployment, do occur. Before an election takes place, politicians have the incentive to lower the unemployment rates by using active labor market policy measures. After the election, the (new) incumbent enforces the kind of ALMP that maximizes his utility. Post election cycles in both variables occur due to partisan differences between politicians.

Our model is tested empirically using data from 1985:1 to 2004:11 for the ten former West German states. The results show that there is, on the one hand, a pre-election effect meaning that the number of job-creation schemes increases in election years. On the other hand, we find no support for the hypothesis that leftist governments expand job-creation measures in comparison to rightwing ones.

5 Appendix

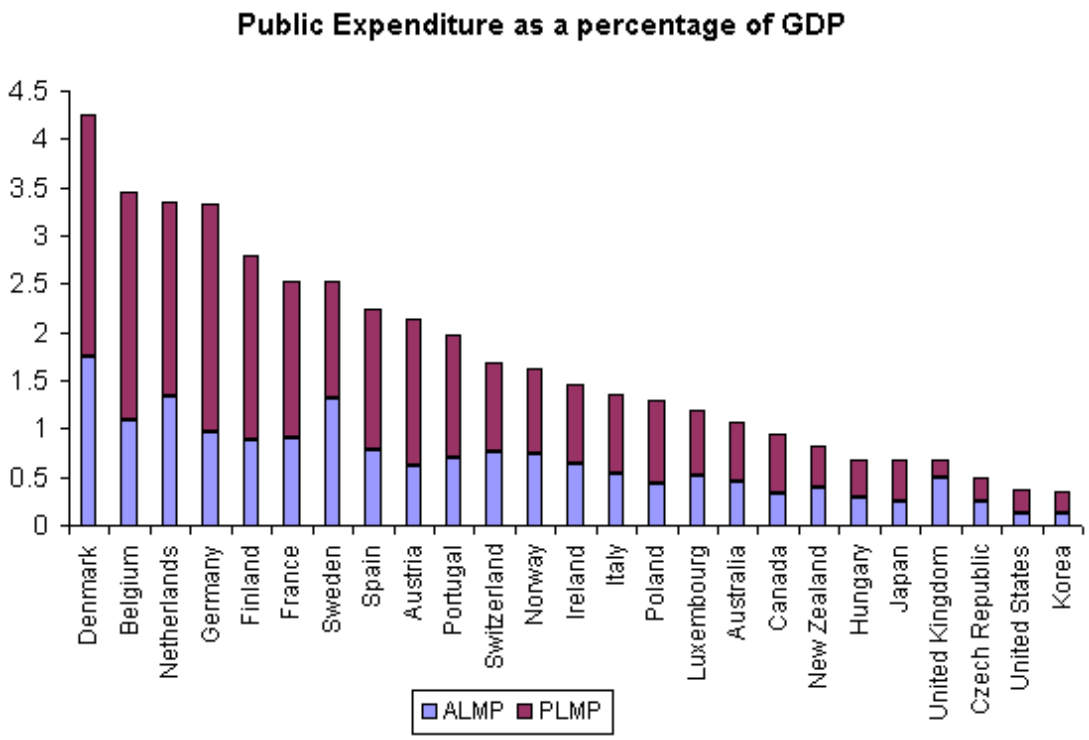

Figure 1: Public expenditure for Active and Passive Labor Market Policies as a percentage of GDP (2005). Source: OECD Employment Outlook 2007

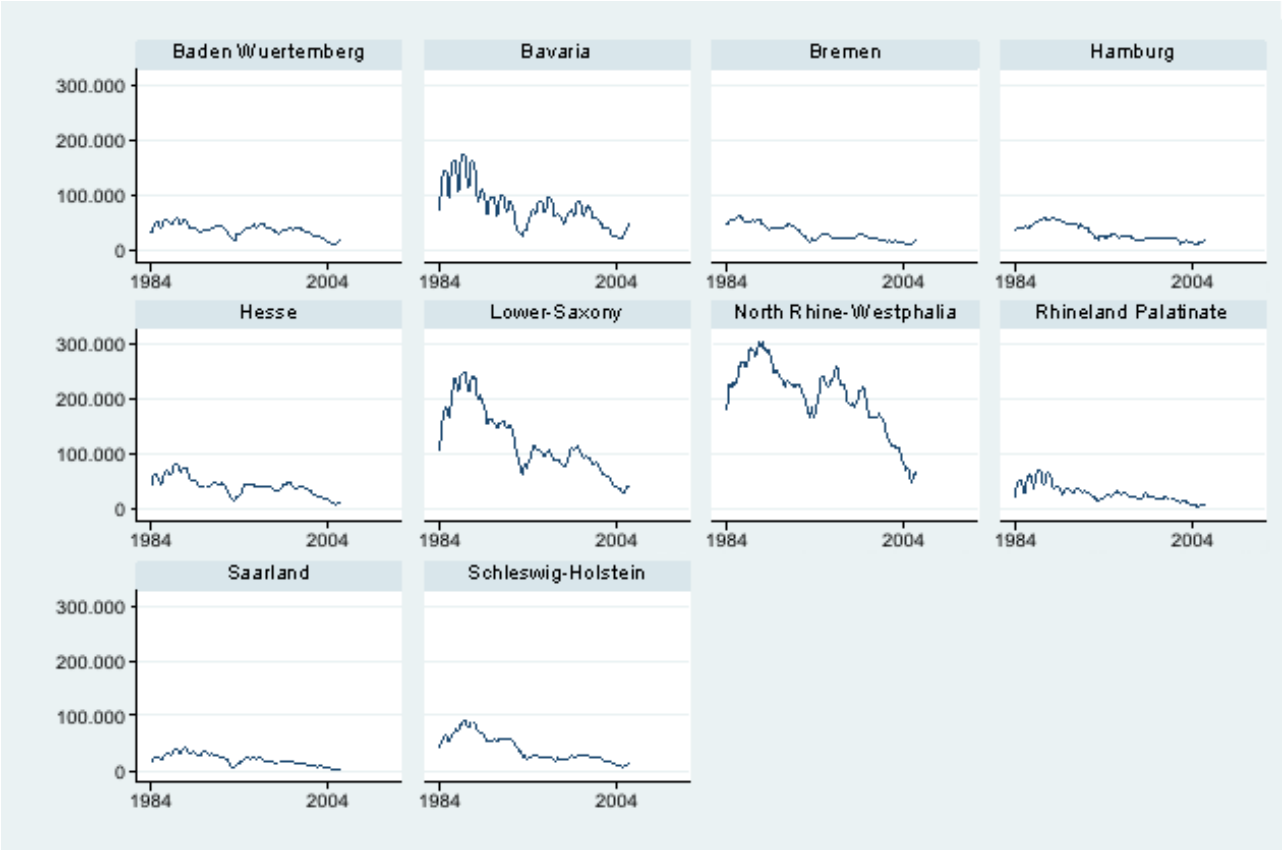

Figure 2: Number of Job-Creation Schemes in the West German States in the Period from 1984:12 to 2004:11. Source: German Federal Employment Office

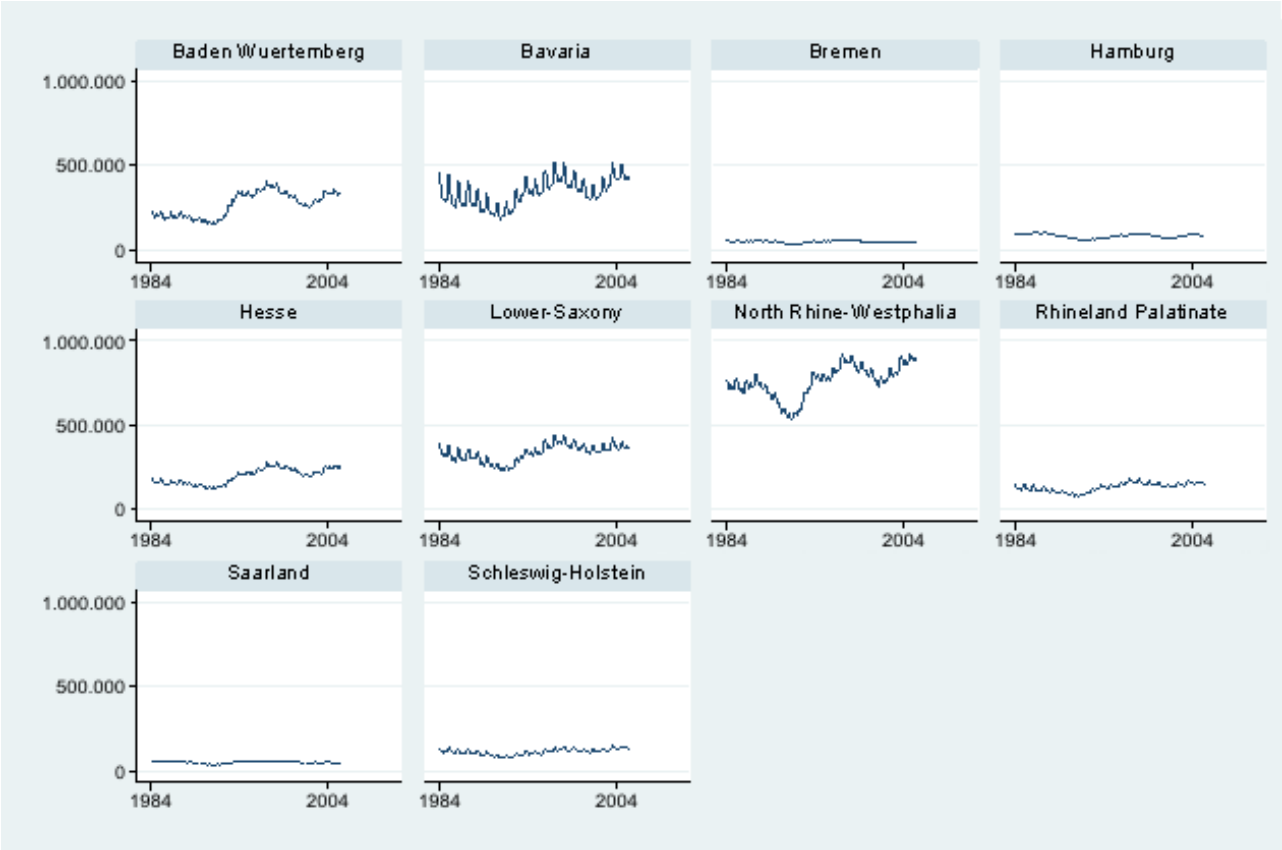

Figure 3: Number of Unemployed Persons in the West German States in the Period from 1984:12 to 2004:11. Source: German Federal Employment Office

Variable	Obs.	Mean	Std. Dev.	Min	Max	Source
Job Creation Schemes	2390	6326.23	6440.11	172	30711	Federal Employment Agency
Unemployed Persons	2390	231364.50	211696.90	33679	921330	Federal Employment Agency
Election (12)	2390	0.24	0.43	0	1	Potrafke (2006)
Left	2231	0.62	0.49	0	1	Potrafke (2006)
SPD	2390	0.34	0.47	0	1	Potrafke (2006)
SPD/FDP	2390	0.11	0.31	0	1	Potrafke (2006)
SPD/GR	2390	0.13	0.34	0	1	Potrafke (2006)
CDU/SPD	2390	0.07	0.25	0	1	Potrafke (2006)
CDU/FDP	2390	0.15	0.36	0	1	Potrafke (2006)
CDU	2390	0.20	0.40	0	1	Potrafke (2006)

Notes: Absolute value of t-statistics in brackets, * significant at 10%, ** significant at 5%, *** significant at 1%

Table 1: Descriptive Statistics.

	(1) **FGLS**	(2) **FGLS**	(3) **FGLS**	(4) **FGLS**
Election (12)	0.0040***	0.0041***	0.0040***	0.0040***
	(2.89)	(3.04)	(2.92)	(3.06)
Left	0.0012		$3x10^{-5}$	
	(0.62)		(0.03)	
SPD/FDP		0.0008		0.0008
		(0.27)		(0.40)
SPD/Grüne		0.0030		0.0023
		(1.63)		(1.40)
CDU/SPD		0.0042		0.0033
		(1.43)		(1.40)
CDU/FDP		$4x10^{-5}$		-0.0001
		(0.02)		(0.07)
CDU		0.0001		0.0010
		(0.03)		(0.63)
Constant	-0.0062	-0.0052	-0.0057	-0.0055
	(1.59)	(1.38)	(1.52)	(1.55)
Fixed Country Effects	Yes	Yes	No	No
Fixed Year Effects	Yes	Yes	Yes	Yes
Fixed Monthly Effects (Seasonality)	Yes	Yes	Yes	Yes
Observations	2221	2380	2221	2380
Number of N	10	10	10	10
R-Squared (overall)	0.22	0.20	0.22	0.20

Notes: Absolute value of t-statistics in brackets
* significant at 10%, ** significant at 5%, *** significant at 1%

Table 2: Regression Results.Dependent Variable: Growth rate of the number of job-creation schemes *(Arbeitsbeschaffungsmaßnahmen)*, 1985:1-2004:11. Heteroskedastic and autocorrelation consistent (HAC) Newey-West type standard errors.

	(1) **FGLS**	(2) **FGLS**	(3) **FGLS**	(4) **FGLS**
Election (12)	0.0035***	0.0036***	0.0025***	0.0026***
	(2.89)	(3.13)	(2.03)	(2.13)
Left	0.0020		0.0014	
	(1.17)		(0.82)	
SPD/FDP		0.0011		0.0004
		(0.43)		(0.14)
SPD/Grüne		0.0022		0.0016
		(1.26)		(0.91)
CDU/SPD		0.0028		0.0021
		(1.04)		(0.78)
CDU/FDP		-0.0010		-0.0006
		(0.54)		(0.31)
CDU		-0.0010		-0.0009
		(0.37)		(0.36)
Lags Dependent Variable	Lag 1.-12.	Lag 1.-12.		
Lags Unemployed Persons	Lag 1.-12.	Lag 1.-12.		
Lagged Dependent Variable			0.3949***	0.3968***
			(9.92)	(9.82)
Δ ln Unemployed Persons $(t-4)$			0.0430*	0.0426*
			(1.84)	(1.80)
Constant	-0.0435**	-0.0476**	-0.0084***	-0.0077**
	(2.15)	(2.39)	(2.68)	(2.35)
Fixed Country Effects	Yes	Yes	Yes	Yes
Fixed Year Effects	Yes	Yes	Yes	Yes
Fixed Monthly Effects (Seasonality)	Yes	Yes	Yes	Yes
Observations	2120	2279	2200	2359
Number of N	10	10	10	10
R-Squared (overall)	0.40	0.38	0.34	0.33

Notes: Absolute value of t-statistics in brackets
* significant at 10%, ** significant at 5%, *** significant at 1%

Table 3: Regression Results. Dependent Variable: Growth rate of the number of job-creation schemes *(Arbeitsbeschaffungsmaßnahmen)*, 1985:1-2004:11. Heteroskedastic and autocorrelation consistent (HAC) Newey-West type standard errors. Lags included.

	(1) **FGLS**	(2) **FGLS**	(3) **FGLS**	(4) **FGLS**
Election (12)	0.0045***	0.0043***	0.0029**	0.0027**
	(3.07)	(3.02)	(2.20)	(2.14)
Post-Election (12)	0.0016	0.0007	0.0011	0.0005
	(1.27)	(0.54)	(0.96)	(0.43)
Left	0.0013		0.0015	
	(0.68)		(0.87)	
SPD/FDP		0.0008		0.0004
		(0.26)		(0.13)
SPD/Grüne		0.0030		0.0016
		(1.63)		(0.92)
CDU/SPD		0.0041		0.0020
		(1.40)		(0.75)
CDU/FDP		$3x10^{-5}$		-0.0006
		(0.01)		(0.34)
CDU		0.0001		-0.0009
		(0.02)		(0.37)
Lagged Dependent Variable			0.3944***	0.3967***
			(9.91)	(9.81)
Δ ln Unemployed Persons $(t-4)$			0.0434*	0.0428*
			(1.85)	(1.80)
Constant	-0.0065*	-0.0053	-0.0087***	-0.0078**
	(1.67)	(1.40)	(2.76)	(2.35)
Fixed Country Effects	Yes	Yes	Yes	Yes
Fixed Year Effects	Yes	Yes	Yes	Yes
Fixed Monthly Effects (Seasonality)	Yes	Yes	Yes	Yes
Observations	2221	2380	2200	2359
Number of N	10	10	10	10
R-Squared (overall)	0.22	0.20	0.34	0.33

Notes: Absolute value of t-statistics in brackets
* significant at 10%, ** significant at 5%, *** significant at 1%

Table 4: Regression Results. Robustness Check with Post-Election (12). Dependent Variable: Growth rate of the number of job-creation schemes *(Arbeitsbeschaffungsmaßnahmen)*, 1985:1-2004:11. Heteroskedastic and autocorrelation consistent (HAC) Newey-West type standard errors.

	(1) **FGLS**	(2) **FGLS**	(3) **FGLS**	(4) **FGLS**	(5) **FGLS**
Election (12)	0.0025**				
	(2.03)				
Election (10)		0.0027**			
		(2.29)			
Election (8)			0.0027**		
			(2.18)		
Election (6)				0.0020	
				(1.41)	
Election (4)					0.0023
					(1.62)
Left	0.0014	0.0014	0.0014	0.0013	0.0013
	(0.82)	(0.81)	(0.80)	(0.79)	(0.79)
Lagged Dependent Variable	0.3949***	0.3951***	0.3952***	0.3960***	0.3962***
	(9.92)	(9.87)	(9.87)	(9.88)	(9.90)
Δ ln Unemployed Persons (t-4)	0.0430*	0.0429*	0.0428*	0.0429*	0.0430*
	(1.84)	(1.85)	(1.84)	(1.85)	(1.85)
Constant	-0.0084***	-0.0083***	-0.0082***	-0.0082***	-0.0082***
	(2.68)	(2.68)	(2.63)	(2.63)	(2.63)
Fixed Country Effects	Yes	Yes	Yes	Yes	Yes
Fixed Year Effects	Yes	Yes	Yes	Yes	Yes
Fixed Monthly Effects (Seasonality)	Yes	Yes	Yes	Yes	Yes
Observations	2200	2200	2200	2200	2200
Number of N	10	10	10	10	10
R-Squared (overall)	0.34	0.34	0.34	0.34	0.34

Notes: Absolute value of t-statistics in brackets. * significant at 10%, ** significant at 5%, *** significant at 1%

Table 5: Regression Results. Different Codings of the Election Variable. Dependent Variable: Growth rate of the number of job-creation schemes *(Arbeitsbeschaffungsmaßnahmen)*, 1985:1-2004:11. Heteroskedastic and autocorrelation consistent (HAC) Newey-West type standard errors.

5.1 Panel unit root tests

In order to test the stationarity of the time series, we applied the following panel unit root tests by: Levin, Lin and Chu (2002); Im, Pesaran and Shin (2003) and the Fisher tests with reference to Maddala and Wu (1999) and Choi (2001). Breitung and Pesaran (2008) provide a detailed description of the recent panel unit root tests. The results were obtained using Eviews 6.0. In comparison to STATA 9.1, Eviews 6.0 allows the application of the respective tests on unbalanced panels, it considers an automatic lag length selection through the use of Information Criteria and also contains the Breitung (2000) test. Regarding the first three tests, maximum lag lengths are automatically selected based on the Schwarz Information Criterion. The remaining two tests use the Bartlett kernel for the Newey-West bandwidth selection. The probabilities for the Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

The test results indicate that the growth rates of the job-creation schemes and the number of unemployed persons are stationary.

Test statistics available upon request.

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