
**Joint Discussion Paper Series in Economics**

**by the Universities of**

**Aachen · Gießen · Göttingen**
**Kassel · Marburg · Siegen**

ISSN 1867-3678

**No. 41-2011**

**Bernd Hayo and Florian Neumeier**

# Political Leaders' Socioeconomic Background and Fiscal Performance in Germany

**This paper can be downloaded from**
**http://www.uni-marburg.de/fb02/makro/forschung/magkspapers/index_html%28magks%29**

**Coordination: Bernd Hayo • Philipps-University Marburg**
**Faculty of Business Administration and Economics • Universitätsstraße 24, D-35032 Marburg**
**Tel: +49-6421-2823091, Fax: +49-6421-2823088, e-mail: hayo@wiwi.uni-marburg.de**

# Political Leaders' Socioeconomic Background and Fiscal Performance in Germany*

**Bernd Hayo and Florian Neumeier**

Philipps-University Marburg

This version: 4 September 2012

Corresponding author:

Bernd Hayo
Faculty of Business Administration and Economics
Philipps-University Marburg
D-35032 Marburg
Germany
Phone: +49–6421–2823091
Email: hayo@wiwi.uni-marburg.de

* Thanks to Edith Neuenkirch, Matthias Neuenkirch, Britta Niehof, Matthias Uhl, and participants of a research seminar at the Helmut-Schmidt University Hamburg and the annual Scottish Economic Society Conference in Perth for their helpful comments on earlier versions of the paper. The usual disclaimer applies.

# Political Leaders' Socioeconomic Background and Fiscal Performance in Germany

**Abstract**

This paper investigates whether the socioeconomic status of the head of government helps explain fiscal performance. Applying sociological research that attributes differences in people's ways of thinking and acting to their relative standing within society, we test whether the social status of German prime ministers can help explain differences in fiscal performance among the German Laender. Our empirical findings show that the tenures of prime ministers from a poorer socioeconomic background are associated with higher levels of public spending and debt financing. Social mobility has an asymmetric influence: social climbers adapt to their new class, whereas downwardly mobile prime ministers remain primarily influenced by their parent's upper-class status.

JEL: E61, E62, H11, H72

Keywords: Leadership, socioeconomic status, fiscal policy, public spending, public deficit.

## 1. Introduction

Explaining variations in government size and public debt accumulation is an important issue for political economists, and one in which the motives of relevant political actors are thought to play a decisive role. The literature typically assumes that political decision-making is driven by one of three motivations. First, politicians behave in a *purely opportunistic* manner. For instance, political budget cycle (PBC) theorists argue that public spending and debt financing are connected to the legislation cycle (e.g., Rogoff and Sibert, 1988; Alesina et al., 1992):[1] to enhance their re-election prospects, politicians are expected to raise the level of public expenditure and debt financing in election years, while fiscal consolidation is expected to occur in the aftermath of an election.[2]

A second branch of the literature views politicians as *purely benevolent*. Political actors design fiscal policy to optimise some sort of social welfare function. A well-known example is Barro's (1979) tax-smoothing hypothesis, in which it is assumed that governments choose tax rates with the aim of minimising the excess burden of taxation. As a consequence, the accumulation of public debt is expected to be linked to the business cycle, since governments are assumed to incur deficits during recessions and surpluses during booms (Alesina and Perotti, 1994).

Finally, there are political economists who link political performance to *partisan ideology* (see, e.g., Hibbs, 1977; Buchanan and Wagner, 1977). A common assumption in this body of literature is that the tenures of left-wing governments are associated with higher levels of public spending and debt financing than are the tenures of right-wing governments (e.g., Blais et al., 1993; Cusack, 1997).

However, empirical analyses cast serious doubt on all three approaches, since findings from different studies are often contradictory and the explanatory power of the employed covariates is low. In the case of PBC theory, for example, Shi and Svensson (2006) find robust evidence for PBCs in fiscal deficits for developing countries, but not for developed countries. Brender and Drazen (2005) provide similar results based on a differentiation between new and established democracies: PBCs are found in the former only.

Results from the two other strands are, at best, mixed, too. With respect to the partisan hypothesis, there is some evidence from OECD countries that tenures of left-wing

[1] Originally, the theory of political business cycles was formulated in a Phillips curve context. See Nordhaus (1975) and MacRae (1977).

[2] These implications depend on the assumption that voters are either myopic, i.e. they overestimate the benefit of current public spending and underestimate the costs of future taxes (Alesina and Perotti, 1994), or have imperfect information regarding the competence of the incumbent government and the costs of publicly provided goods (Rogoff and Sibert, 1988; Rogoff, 1990). See Alesina and Perotti (1994) and Eslava (2006) for a summary.

governments are indeed associated with a rise in public expenditures (e.g., de Haan and Sturm, 1994, 1997; Cusack, 1997), but the conclusion that leftist incumbents accumulate higher public debt is made less than solid by the experience of many Western European countries between 1960–1990.

Finally, the tax-smoothing approach is not in line with observations on the development of public budgets in many OECD countries during the 1970s and 1980s (Roubini and Sachs, 1989; Alesina and Perotti, 1994). In particular, the absence of fiscal adjustments in some OECD countries after the recession of 1973–1974 and differences in the accumulation of public debt in the following decades cannot be convincingly explained by a tax-smoothing motive.

So, what *is* driving the fiscal decisions of political actors? In this paper, we argue that a broader social science perspective may provide some important insights. Sociologists emphasise the strong connection between an individual's socioeconomic background—especially factors that determine an individual's relative position within a society, called *status*—and preferences, attitudes, and habits. There is a considerable amount of political economics literature suggesting that factors related to individuals' status—such as occupation, income, and education—help explain differences in policy preferences and decision behaviour, but typically these variables are employed in a more or less *ad hoc* fashion. To the best of our knowledge, there is no empirical work that links theoretical research on status to the fiscal behaviour of leaders. We fill this gap by investigating the impact that a political actor's family status has on his or her fiscal preferences. To this end, we utilise observations on the leaders, the *prime ministers* (Ministerpräsidenten), of the fiscally partially autonomous states making up the Federal Republic of Germany, the *Laender* (Bundesländer). We concentrate on the social status of the German Laenders' prime ministers and study its influence on the level of public expenditures as well as debt financing.

Choosing the German Laender as the object of analysis has two advantages: first, they are highly homogeneous regarding politics, culture, demography, and institutional as well as constitutional frameworks, which limits the number of control variables required and minimises potential biases due to endogeneity problems. Second, the Laender are constitutionally endowed with a high degree of fiscal authority regarding budgetary matters.

These advantages have made the German Laender a popular venue for research into the motivations of incumbent governments. However, neither the PBC theorem (Berger and Holler, 2007; Schneider, 2010), the tax-smoothing approach (Seitz, 2000), nor the partisan hypothesis (Seitz, 2000; Galli and Rossi, 2002; Jochimsen and Nuscheler, 2010; Schneider,

2010) are supported by empirical findings from this work. In contrast to these studies, we find robust empirical support for our social-science-based approach to explaining political decision making.

In the next section of this paper, we discuss related literature. In Section 3, we take a brief look at the German system of fiscal federalism and its political landscape. Then, in Section 4, we introduce the concept of status, provide empirical measures for it, and identify transmission channels that link a person's status to his or her preferences for public expenditure and debt financing. In Section 5, we motivate our empirical approach. Section 6 presents the results of our main analysis, in which we investigate the influence of German prime ministers' socioeconomic backgrounds on the fiscal performances of the German Laender. Section 7 concludes.

## 2. Related Literature

By focussing on how the head of government influences economic outcomes, this paper contributes to an expanding branch of the literature. Starting with the work of Jones and Olken (2005), researchers have become increasingly concerned with the question of whether political leaders exert an impact on economic performance. Jones and Olken (2005) provide evidence that leaders do influence the rate of economic growth in their country. They compare GDP growth rates before and after exogenous leader changes (i.e. leader transitions caused by natural death of the incumbent) and find significant differences. Brender and Drazen (2009) use the same approach to test whether political leaders affect the composition of government expenditures, finding significant effects in the long run. A major drawback of both studies is that they assume the relevant characteristics to be randomly distributed across political leaders and it is thus unclear in what specific characteristics leaders differ.

Other researchers attempt to overcome this shortcoming by focussing on the sociodemographics of leaders, e.g., age, tenure, education, and professional background, but with limited success.[3] For instance, Hayo and Voigt (2011) study determinants of constitutional change, particularly movements from the status quo toward more parliamentarism or presidentialism, in a large sample of countries. They find that these changes are influenced by specific characteristics of political leaders.

[3] Individual characteristics are also used as explanatory variables for committee decisions. For instance, focussing on members of monetary policy committees rather than heads of government, Göhlmann and Vaubel (2007) investigate the impact of education and occupation histories of 391 central bankers from 10 European countries on inflation outcomes.

Besley et al. (2009) identify leaders' educational attainment and experience as relevant to differences in GDP growth. More precisely, they find that the more educated the leader (differentiating between non-graduate education, graduate education, and college education) and the longer the stay in office, the higher the country's economic growth.

Dreher et al. (2009) focus on the effect of different *fields* of education and occupation on economic reforms, measured as changes in the Economic Freedom Index. They are primarily interested in the effect of leaders' economic and entrepreneurial backgrounds and expect that economists, as well as entrepreneurs, should be more likely to liberalise the economy. The authors account for different educational and occupational backgrounds by including dummy variables and find evidence that supports their hypothesis. However, among the occupation dummies, there are three additional effects (for scientists other than economists, military personnel, and life-long politicians) that have a positive sign, but the authors conduct no further tests to compare these groups. Moreover, Dreher et al.'s (2009) findings are not robust to varying specifications, especially to the inclusion of a lagged dependent variable and additional controls.

Mikosch (2009) employs the same dataset in an attempt to explain differences in public deficits. According to his results, tenures of former economists, white-collar workers, and blue-collar workers are associated with significantly higher deficits than tenures of leaders who have been politicians most of their working life. However, this finding is counterintuitive and actually contradicts the author's hypothesis that economists should reduce public debts.

A problem with these studies is that the theoretical link between, say, certain educational and occupational backgrounds and economic performance remains vague. The authors refer to some sort of socialisation or, rather, 'professional indoctrination', which economists in particular are presumed to experience. However, experimental studies show that the differences between economists and other people with respect to ways of thinking and acting can at least partially be ascribed to a selection effect (for a recent summary on experimental findings, see Goossens and Méon, 2010). Moreover, sociological research reveals that educational and occupational choices themselves depend on the social environment, in particular family status (e.g., Bourdieu, 1984). Hence, instead of focussing on specific fields of education and work, we look at leaders' family status, i.e. parental status and the status of positions prime ministers held before entering office. Our novel approach to the analysis of leaders' influence is motivated by manifold empirical findings linking individual status to motives and patterns of behaviour. Thus, our measures of status are those frequently employed in the social sciences. In our empirical analysis, we find strong evidence that a

prime minister's socioeconomic background matters in terms of the incumbent government's fiscal performance: the higher a prime minister's status, the lower the public expenditures and debt financing.

### 3. Fiscal Federalism and Political Landscape in Germany

The German federal system consists of three parliamentary governmental levels, each with its own fiscal competences and responsibilities as specified by the German Constitution, the Grundgesetz: federal level, state level, and local level.[4] At the state level, there were 11 Laender before German Unification in 1990; 16 afterward.[5] Three out of the 16 are so-called city-states (Berlin, Bremen, and Hamburg), which combine competences assigned to the state and the local level.

The competences assigned to the German Laender are extensive and mainly defined in Articles 71–74 of the Grundgesetz. As Schneider (2010) states, these policy areas are potentially attractive for political manipulation as they include—among others—social security, public safety, education, cultural affairs, administration, and health.

There are currently five major political parties in Germany: the conservative Christian Democratic Party (CDU) and its sister party the Christian Socialist Party (CSU), the Social Democratic Party (SPD), the Green Party (Bündnis 90/Die Grünen), the Liberal Democratic Party (FDP), and the Left-Wing Party (Die Linke).[6] Governments at the state level are led by either CDU/CSU or SPD. During the period we study, some of the states in our sample have one-party governments, others are governed by some form of coalition government (mainly made up of two parties), majority governments, or minority governments.

Since the political system of the German Laender is parliamentary, the question may arise as to whether German prime ministers even can exert an influence on fiscal policy. *De jure* they can, for at least two reasons. First, the prime minister appoints the cabinet ministers and therefore can to some extent ensure that the members of government back his or her preferred policy. Second, the prime minister has guideline competences (Richtlinienkompetenz), meaning that he or she has the authority to issue directives to the ministers.

---

[4] For a more detailed overview of the German fiscal federalism, see, e.g., Seitz (2000) and Jochimsen and Nuscheler (2010).

[5] The 11 Laender making up the former Federal Republic of Germany are Baden-Wuerttemberg, Bavaria, West Berlin, Bremen, Hamburg, Hesse, Lower Saxony, North Rhine Westphalia, Rhineland-Palatinate, Saarland, and Schleswig-Holstein. The additional five states are Brandenburg, Mecklenburg-Vorpomerania, Thuringia, Saxony, and Saxony-Anhalt. Before unification, Berlin was divided into West and East Berlin. They merged into the new state Berlin in 1990.

[6] The latter was founded in 2007 as a fusion of two parties: the Employment and Social Justice Party (WASG, founded in 2004) and the Party of Democratic Socialism (PDS, founded in 1989). Due to their substantive similarities, we do not differentiate between these three parties in our study.

Some hints of a *de facto* association between fiscal performance and prime minister transitions can be found in Figures A1 and A2 of the Appendix, which present movements in public spending and net public borrowing, respectively, within the Old German Laender between 1985–2009. To filter out symmetric business cycle effects, we calculated deviations from the contemporary means across the Laender. The marks along the single series indicate changes of prime minister. We observe a remarkable extent of cross-Laender variation with respect to fiscal performance. Moreover, leader transitions tend to be followed by changes in the (relative) level of public expenditures and debt financing. It is noteworthy that leader transitions do not necessarily coincide with changes in the governing party. In fact, only in 14 out of 38 cases did the incumbent prime minister have to leave office because he had not been re-elected. Hence, we need to carefully distinguish between leader and party effects.

## 4. The Status Concept, its Measurement, and Implications for Individual Behaviour

In this section, we clarify the concept of *status*, discuss its implications for motives and patterns of behaviour, and show how it can be measured. First, we provide a definition of status and discuss quantitative status indicators widely used in many areas of sociology. Second, we briefly describe how status influences individual modes of thinking and acting and present some empirical evidence linking attributes of status with economic behaviour and fiscal preferences.

### *4.1 Defining and Measuring Status*

Sociologists emphasise that social stratification is a central feature of modern societies, implying that societies must be viewed as hierarchical formations within which individuals and groups can be ranked according to certain principles. The term *status* refers to a person's rank within this hierarchy. People of equal rank constitute a *social class*. Ranking of people provides individuals with an incentive to meet the requirements of a specific social position.

> As a functioning mechanism a society must somehow distribute its members in social positions and induce them to perform the duties of these positions. It must thus concern itself with motivation at two different levels: to instill in the proper individuals the desire to fill certain positions, and, once in these positions, the desire to perform the duties attached to them. (Davis and Moore, 1945: 242)

Accordingly, an individual's status depends on the *functional importance* of the social position occupied. In modern societies, the position regarded as most relevant for an individual's status is occupation. Hence, in the following we concentrate our discussion on *occupational status*. Factors indicating the functional importance of a specific occupation–

and, thus, reflecting its status–are its endowment with certain resources and its association with valuable attributes (Bourdieu, 1986; Bourdieu and Wacquant, 1992; Ganzeboom et al., 1992).

Status as a theoretical concept is operationalised by two types of indicators: subjective and objective. Based on survey data, indicators relying on subjective measures usually evaluate the prestige connected with different occupations. A widely used index is the Standard International Occupational Prestige Scale (SIOPS) by Treiman (1977). Objective indicators focus on the level of income and education associated with a certain occupation. A frequently applied index is the International Socio-Economic Index of Occupational Status (ISEI) introduced by Ganzeboom et al. (1992). This index is constructed by combining information on the average level of education and average income in different occupations.

Table 1: ISEI and SIOPS Scores for Selected Occupations

| **Occupation** | **ISEI Score** | **SIOPS Score** |
|---|---|---|
| Architects and Engineers | | |
| Architects, town planners | 0.77 | 0.72 |
| Electronics engineers | 0.69 | 0.65 |
| Mechanical engineers | 0.68 | 0.66 |
| Jurists | | |
| Lawyers | 0.85 | 0.73 |
| Judges | 0.90 | 0.76 |
| Teachers | | |
| University and higher education teachers | 0.78 | 0.78 |
| Secondary education teachers | 0.71 | 0.60 |
| Bookkeepers, Cashiers, and Related Occupations | | |
| Bank teller | 0.47 | 0.48 |
| Bookkeeper | 0.56 | 0.49 |
| Cabinetmakers and Related Occupations | | |
| Cabinetmakers | 0.36 | 0.40 |
| Bricklayers, Carpenters, Other Construction Workers | | |
| Bricklayers | 0.32 | 0.34 |
| Carpenters | 0.31 | 0.37 |

Note: Original ISEI and SIOPS scores are divided by 100.

Despite their differences, both indices provide a continuous measure of occupational status ranging from 0 to 100. However, in the subsequent analysis, we divide each index score by 100 to facilitate interpretation by avoiding very small coefficients. Both ISEI and SIOPS are

based on the International Standard Classification of Occupations (ISCO-68) of the International Labour Organization (ILO, 1969), which makes them directly comparable. Although these indices are constructed based on international data, they are included in prominent nationwide surveys, such as the German Socio-Economic Panel (SOEP) or the German General Social Survey (GGSS/ALLBUS), and appear to perform well in empirical applications to Germany (Büchner and Gerlitz, 2005). Table 1 illustrates ISEI and SIOPS scores for selected occupations.

Demonstrating the reliability of both indices in the case of the GGSS, Wolf (1995) reports a Pearson's correlation coefficient of 0.88. In the main part of our analysis, we rely on the ISEI, since its construction is more transparent than that of a subjective indicator, but we also employ the SIOPS in robustness tests.

*4.2 About Status, Habitus, and Individual Behaviour*

There is a close connection between a society's social structure and individual behaviour, as the personal status, i.e. membership in a certain social class, translates into specific dispositions, called *habitus*, which become manifest in particular patterns of appraisal and practice (e.g. Giddens, 1984; Bourdieu and Wacquant, 1992). These dispositions are believed to be a reflection of the socioeconomic conditions and the manifold forms of social deprivation respectively privileges people of a certain class typically face (Bourdieu, 1977). Any status-conscious society endows those striving for or holding social positions associated with a higher status with resources and attributes regarded as valuable by society—such as income, education, and prestige—and provides them with designated careers or trajectories, along which they gather similar experiences. It is this common, socially-defined fate met by members of the same social rank that contributes to the formation of a *class habitus*, i.e. a homogenous set of cognitive and action schemes shared by people of similar standing.[7]

Two phases in peoples' lives are considered as particularly important for the inclination toward a certain class habitus (Berger and Luckmann, 1966). During childhood, i.e. the phase of *primary socialisation*, adolescents are believed to internalise the dispositions characterising so-called *significant others*, such as parents or peers, who serve as role-models and affect the development of specific patterns of appraisal and practice (Mead, 1967). At this stage of life, *parental status* is decisive for the affiliation with a certain social class and the inclination of individuals to adopt a certain class habitus. After reaching adulthood, first experiences and

[7] Sociological research describes numerous examples of status-related behavioural patterns: the way people speak and dress, lifestyles, taste, consumption choices, leisure activities, political attitudes, and so on (see Bourdieu, 1984 and Elias, 1994).

personal fate make up the phase called *secondary socialisation*, which provides additional influences on a person's modes of thinking and acting. The *personal status* is of utmost importance during this period of life. Primary socialisation is regarded as 'the most important one for an individual', whereas 'the basic structure of all secondary socialization has to resemble that of primary socialization' (Berger and Luckmann, 1966: 131). This suggests that the parental status exerts an important influence throughout an individual's whole life.[8]

Our theoretical approach suggests that politicians' decisions will reflect, among other things, the status-specific habitus of the social environment in which they were socialised. Thus, in order to infer the fiscal stance of a prime minister from his or her status, we need to uncover how fiscal policies are evaluated by the social class in which he or she grew up. According to the literature, there should be status-related differences regarding (i) attitudes toward government size and welfare state as well as (ii) time preferences.

*i.* *Differing attitudes toward the welfare state:* Survey data indicate that individual support of a large government sector and a high degree of redistribution is negatively correlated not only with personal income and education (Corneo and Grüner, 2002; Alesina and La Ferrara, 2005), but also with family income during childhood and father's education (Alesina and Giuliano, 2009), supporting our conjecture about the importance of the parental background. One interpretation of this finding is that the perceived value of publicly provided services depends on status: since persons with low status are more vulnerable to undesirable life events, such as unemployment and financial distress (McLeod and Kessler, 1990), they experience the benefits of public services more intensely and are more likely to be benefitted by them. In contrast, people of higher social status rarely need to rely on the social safety net. This conclusion is supported by Breen (1997), who argues that the modern welfare state is one of the most important institutions in reducing the high degree of uncertainty faced particularly by persons of low status.

*ii.* *Differing time preferences:* Increasing government expenditures requires ways of financing. In Germany, only two possibilities exist: the government can either generate additional revenues or accumulate public debts. The choice between these two fiscal policy alternatives is likely affected by the time preferences of political decision makers: Huber and Runkel (2008) show that the more present-oriented or impatient a government is, the more public debts it accumulates. The degree of impatience is captured by means

[8] This point of view is quite different from the one employed by the few economic applications of the status concept. In those, only an individual's contemporary or future *personal* status is supposed to influence decision-making. Status is seen as steering individual behaviour because it is viewed as a substitute for pecuniary incentives, i.e. status concerns are represented directly in an individual's utility function. See Fershtman et al. (1996) for a summary.

of a hyperbolic discount function, which assumes that people are excessively concerned about their present needs (e.g., Laibson, 1997; Angeletos et al., 2001). There is evidence that the disposition to presence-orientation is affected by social class: Empirical studies conducted at the household level show that lower levels of education and income are associated with a higher propensity to consume (e.g., Carroll and Kimball, 1996; Börsch-Supan and Essig, 2005) and lower debt aversion (Livingstone and Lunt, 1992; Lea et al., 1993, 1995), indicating a greater than usual prevalence of myopic decision-making among individuals of low status.9 Becker and Mulligan (1997) provide an explanation for this relationship by modelling the determination of individuals' time preferences as endogenous. They show that both the level of education and the level of income enhance consumption patience by shifting people's attention away from their present situation to their future needs.[10]

Applying these arguments to the German Laender's prime ministers suggests that those with relatively lower status will be characterised by a greater emphasis on the uncertainty reducing aspects of government activity and the welfare state as well as a lesser degree of consumption patience. Based on this theoretical framework, we can derive a testable hypothesis: prime ministers characterised by high status bring about lower public expenditures and less reliance on debt financing.

## 5. Data and empirical approach

We employ unbalanced panel data from 1985−2009 for the West German non city-states and from 1992–2009 for the East German non city-states (data sources are described in the Appendix) and estimate the following model:[11]

[9] Further support for this conjecture is found in psychological and health studies showing that obesity, the use of tobacco and alcohol, drug addiction, etc.—which are commonly regarded as perfect examples of myopic decision-making—are much more prevalent among members of lower social classes. See Bradley and Corwyn (2002) for a review.

[10] In the case of education, they claim that 'schooling focuses students' attention on the future. Schooling can communicate images of the situations and difficulties of adult life, which are the future of childhood and adolescence. In addition, through repeated practice at problem solving, schooling helps children learn the art of scenario simulation. Thus educated people should be more productive at reducing the remoteness of future pleasures' (Becker and Mulligan, 1997: 735–736). With respect to income, they state that financial distress increases the desire for current income and, citing Irving Fisher, 'blinds a person to the needs of the future' (Becker and Mulligan, 1997: 732). Our argument suggests that the magnitude of the discount parameter, which is commonly employed as an indicator of the degree of impatience (e.g., Laibson, 1997), is positively related to status.

[11] The time constraints are due to a lack of publicly available data on public expenditures and some of the economic controls from before 1985 for West German Laender and before 1992 for East German Laender. The three city-states are excluded from our analysis because they combine competences of the state and the local level and are therefore not comparable to the non city-states.

$$(1)\ y_{i,t} = \alpha_i + \mu_t + \rho y_{i,t-1} + \beta' economic\ variables_{i,t} + \gamma' political\ variables_{i,t} + \delta' demographic\ variables + \varepsilon' leader\ variables_{i,t} + \zeta_{i,t}$$

We use two dependent variables to measure the fiscal policy stance of a prime minister: (i) public expenditures and (ii) net public borrowing, both in per cent of GDP. The *leader variables* contain characteristics describing the prime minister of state *i* at time *t*. $\alpha_i$ is a state-specific intercept that is assumed to be time invariant and $\mu_t$ a parameter that varies across time but not across states. We include the first lag of the dependent variable in our model to account for persistency and gradual budget adjustments. $\zeta_{it}$ is an error term.

As economic control variables, we consider the first lag of the debt-to-GDP ratio in order to capture the budgetary situation, the contemporary real GDP growth rate and the unemployment rate as business cycle indicators, and the share of net transfers received through the German fiscal equalisation system (Länderfinanzausgleich) to GDP.[12]

Our political control variables measure constraints on a prime minister's power, which could affect his or her impact on fiscal performance. We add a dummy variable indicating whether the government is led by the SPD or CDU in order to capture partisan ideology effects, dummies for coalition governments and minority governments to account for effects of political dispersion or conflicts of interest,[13] and a dummy for election years to control for political budget cycles. Further, we control for the share of votes the prime minister's party received in the last election. This variable indicates the strength of the incumbent governing party. Finally, we include a dummy that indicates whether the minister of finance is from the same party as the prime minister, since the finance minister has significant authority regarding preparation of the public budget. We expect that a finance minister from the same party is more likely to back the prime minister's political course (Jochimsen and Nuscheler, 2010).

Two variables control for the demographic situation of the German Laender, namely population size (in logarithmic terms) and the dependency ratio. Population size directly affects the size of grants German Laender receive from the federal government and it is found to influence government size on the national and subnational level in many empirical analyses.[14] The dependency ratio is the ratio of dependents–people younger than 25 or older than 65–to the population. It is included in our analysis as these groups typically benefit overproportionally from the provision of public goods.

[12] The German fiscal equalisation system (Länderfinanzausgleich) harmonises revenues across states, i.e. revenues are transferred from financially strong to weaker states. This may affect the incentives to run a sound fiscal policy in states that are net recipients. See Seitz (2000) for a detailed description.

[13] As Edin and Ohlsson (1991) and de Haan and Sturm (1994, 1997) state, the measurement of political dispersion by a single ordinal variable, as employed by Roubini and Sachs (1989), is not recommended, since this imposes a strong restriction on its effect.

[14] See Shelton (2007) for a brief overview.

Our main variables of interest among the leader characteristics are the socioeconomic status of prime ministers' parents and their personal status. Both are measured by means of the International Socio-Economic Index of Occupational Status (see Section 4.1). To examine the effect of social mobility, we interact parental and personal status and add this interaction term to our specifications. Following the literature, we include as further characteristics:

- A prime minister's age and number of years in office, thus capturing experience.
- A dummy for prime ministers who have been members in employees' associations, since membership may serve as an indicator of an individual's habitus, i.e. indicate that he or she is prone to implementing policies benefitting a certain group in society.
- A dummy for prime ministers of states in which they did not formerly reside. We believe this variable to be an indicator for how strongly a leader is attached to the state he or she governs.
- A dummy for years in which a new prime minister comes into power to capture transition effects.[15]

We estimate Equation (1) with a two-way fixed-effects model, allowing for the state- and time-specific effects to be correlated with the other covariates. A Hausman test reveals that the results of the fixed-effects approach differ significantly from those of a random-effects approach or a pooled model, supporting our empirical specification.

The lagged dependent variable correlates with the error term, which causes the least squares dummy variable (LSDV) estimator of the autoregressive coefficient ρ to be biased downward (Judson and Owen, 1997), while the bias in the coefficients of the exogenous regressors tends to be positive but much smaller (in absolute terms). Moreover, the bias becomes negligible for growing T. An alternative to LSDV estimation is a GMM approach, as suggested by Arellano and Bond (1991). However, GMM estimators suffer from poor finite sample properties for small N and tend to underestimate the coefficients of the exogenous regressors (Kiviet, 1995). Taking into consideration the advantages and disadvantages of both estimation techniques, we rely on the LSDV estimator in the main part of our analysis and apply GMM as part of our robustness tests.

## 6. Results

### *6.1 Main specifications*

Results of the regressions explaining public spending in the German Laender are presented in Table 2, those for net public borrowing in Table 3. In both specifications, we start by

[15] Transition years imply coding problems, since we can only take into account one prime minister each year. In these cases, we decided to include the prime minister who held the office for the larger part of the year.

estimating a general model containing all the theory-relevant covariates described in Subsection 5. Then, we eliminate insignificant regressors by applying a consistent general-to-specific approach (Hendry, 2000) so as to enhance estimation efficiency.

Table 2: Estimation Results for Public Expenditures over GDP (in %)

| Variables | General Model | | Reduced Model | |
|---|---|---|---|---|
| | Coefficient | Stand. error | Coefficient | Stand. error |
| Public expend./GDP (-1) | 0.595** | 0.093 | 0.608** | 0.080 |
| **Economic variables** | | | | |
| Debt-to-GDP-ratio (-1) | –0.060** | 0.019 | –0.054** | 0.016 |
| GDP growth | –0.082** | 0.031 | –0.096** | 0.025 |
| Unemployment rate | 0.046 | 0.030 | | |
| Transfers/GDP | 0.038 | 0.205 | | |
| **Political variables** | | | | |
| SPD-led government | –0.001 | 0.089 | | |
| Coalition | 0.075 | 0.113 | | |
| Minority government | 0.348 | 0.270 | 0.318 | 0.206 |
| Vote share gov. party | 0.027* | 0.012 | 0.020** | 0.008 |
| MoF from different party | 0.670** | 0.209 | 0.644** | 0.208 |
| Election year | –0.008 | 0.055 | | |
| **Demographic variables** | | | | |
| log(Population) | 10.375** | 2.782 | 10.870** | 2.766 |
| Dependence ratio | 0.362** | 0.096 | 0.358** | 0.087 |
| **Leader variables** | | | | |
| PM change | –0.052 | 0.077 | | |
| Outside PM | –0.061 | 0.175 | | |
| Union member | –0.290** | 0.111 | –0.305** | 0.101 |
| Age | –0.001 | 0.006 | | |
| Years in office | –0.002 | 0.010 | | |
| Parental status | –3.597** | 1.235 | –3.425** | 1.047 |
| Personal status | –3.766** | 0.873 | –3.645** | 0.758 |
| Parent. status*pers. status | 4.586** | 1.520 | 4.333** | 1.269 |
| $R^2$ (without state and time fixed effects) | 0.909 | | 0.908 | |
| Observations | 277 | | 277 | |
| Parameters | 57 | | 48 | |
| Testing-down restriction | | | $Chi^2$ (9) = 13.4 | |

Notes: Results are based on a least squares dummy variable (LSDV) estimation. The models include cross-section and time fixed effects. Panel-robust standard errors are reported. * and ** indicate significance at the 5% and 1% level, respectively.

Table 3: Estimation Results for Net Public Borrowing over GDP (in %)

| Variables | General Model | | Reduced Model | |
|---|---|---|---|---|
| | Coefficient | Stand. error | Coefficient | Stand. error |
| Net publ. borrow./GDP (-1) | 0.535** | 0.097 | 0.570** | 0.082 |
| **Economic variables** | | | | |
| Debt-to-GDP-ratio (-1) | –0.087** | 0.013 | –0.079** | 0.012 |
| GDP growth | 0.016 | 0.028 | | |
| Unemployment rate | 0.070** | 0.023 | 0.071** | 0.024 |
| Transfers/GDP | –0.272* | 0.108 | –0.374** | 0.100 |
| **Political variables** | | | | |
| SPD-led government | 0.019 | 0.095 | | |
| Coalition | –0.050 | 0.076 | –0.009 | 0.081 |
| Minority government | –0.067 | 0.183 | | |
| Vote share gov. party | –0.009 | 0.008 | –0.006 | 0.008 |
| MoF from different party | 0.339* | 0.137 | 0.367** | 0.138 |
| Election year | 0.076 | 0.047 | | |
| **Demographic variables** | | | | |
| log(Population) | 0.009 | 0.005 | | |
| Dependence ratio | –0.022 | 0.093 | | |
| **Leader variables** | | | | |
| PM change | –0.180 | 0.104 | | |
| Outside PM | 0.120 | 0.119 | 0.234** | 0.084 |
| Union member | 0.012 | 0.057 | | |
| Age | 0.007 | 0.006 | | |
| Years in office | –0.022** | 0.007 | –0.015** | 0.004 |
| Parental status | –1.959* | 0.874 | –2.009* | 0.801 |
| Personal status | –2.057** | 0.619 | –2.255** | 0.732 |
| Parent. status*pers. status | 2.475* | 1.118 | 2.554* | 1.045 |
| $R^2$ (without state and time fixed effects) | 0.767 | | 0.760 | |
| Observations | 277 | | 277 | |
| Parameters | 57 | | 48 | |
| Testing-down restriction | | | $Chi^2$ (9) = 10.1 | |

Notes: Results are based on a least squares dummy variable (LSDV) estimation. The models include cross-section and time fixed effects. Panel-robust standard errors are reported. * and ** indicate significance at the 5% and 1% level, respectively.

Regarding the economic variables, we find a significantly negative impact of the lagged debt-to-GDP ratio on both the level of public spending and debt financing. Hence, Laender with a poor budgetary situation reduce their expenditures and deficits, suggesting that the political process does react to the debt situation in a state, but not strongly. In the short run, a 1 percentage point (pp) increase in the previous period's debt-to-GDP ratio reduces government expenditures in relation to GDP by 0.05 pp; the current deficit is reduced by 0.08 pp. The

long-run multiplier is 0.14 in case of public spending and 0.18 in case of net borrowing, which is still quite modest.

We observe a counter-cyclical movement of public expenditures and net borrowing. But whereas public spending responds to real GDP growth, net borrowing reacts to the unemployment rate. Given the short-term nature of stabilisation, the observed effects are small: a 1 pp reduction in GDP growth triggers an adjustment of 0.1 pp in the expenditure-to-GDP ratio; the long-run effect is about 0.25. After a 1 pp increase in the unemployment rate, the deficit-to-GDP ratio increases by only 0.07 pp in the short run and by about 0.17 pp in the long run.

Moreover, we find a significantly negative effect of received transfers on net borrowings. A 1 pp increase in net transfers lowers the deficit-to-GDP ratio by 0.37 pp and the long-run multiplier is 0.87. Thus, horizontal transfers seem to have a disciplinary effect on the budget balances of recipients.

Among the political covariates, several variables survive the model reductions. The dummy for ministers of finance who are not from the same party as the prime minister has the expected positive sign in both specifications, meaning that the greater the dispersion of power within a government, the higher the level of public spending and deficit financing. The impact is substantial—a finance minister from a different party causes an increase in the expenditure-to-GDP ratio of over 0.64 pp in the short run; in the long run, this effect grows to over 1.6 pp. The effect on the deficit-to-GDP ratio is somewhat smaller: 0.37 pp in the short run and 0.85 in the long run. The vote share of the prime minister's party also reveals a significant positive impact on expenditures, but the economic effect is almost negligible.[16]

With respect to demographic variables, we find that a larger population size is associated with a higher public expenditure quota. The effect is notable: A population growth of 1% leads to an increase in public expenditures by almost 11 pp in the short term. The long-run multiplier is about 27 pp. Arguably, this finding is due to a peculiarity of the German federal system. The Laender receive grants from the federal government according to their population size. Thus, increases in the population size translate into higher federal grants, which allows raising public spending when keeping the deficit constant.[17] The dependence ratio reveals the expected positive sign. A 1 pp increase in the share of the population under the age of 25 and

[16] The dummies for minority governments and coalition governments are individually insignificant. Note, however, that this is due to collinearity. They are jointly significant and we cannot exclude them without violating the testing-down restriction.

[17] An alternative interpretation is offered by Shelton (2007). He finds a positive relationship between population size and the level of public spending on regional and local government levels based on a panel of 100 countries covering the period 1970-2000. He argues that larger populations exhibit a greater heterogeneity in preferences which in turn leads to a fostering of fiscal decentralisation.

over the age of 65 causes the expenditure quota to increase by 0.36 pp in the short run and 0.9 pp in the long run, respectively. Demographic factors do not appear to affect the deficit-to-GDP ratio.

Regarding leader characteristics, we find that both parental status and personal status remain in the reduced models. They show the expected negative signs and are significant at the 5% and 1% level, respectively. Hence, the prevalent socioeconomic conditions prime ministers are exposed to during the two phases of socialisation help explain the German Laender's fiscal performance. However, since the interaction term between parental and personal status is of notable size and significant in both specifications, the individual effects are of limited interpretative value. The negative signs of the individual effects on the one hand and the positive sign of the interaction term on the other hand indicate that an increase in parental status dampens the impact of a change in personal status and vice versa. This suggests that social mobility plays an important role in determining German prime ministers' fiscal stances.

To gain further insights into the relationship between parental status and personal status and to facilitate the interpretation of the coefficients, we consider four types of prime ministers who differ only with respect to their socioeconomic backgrounds: an upper-class prime minister, i.e. one of high parental and personal status (type *high*); a lower-class prime minister, i.e. one of low parental and personal status (type *low*); an upwardly mobile prime minister, i.e. one of low parental status, but high personal status (type *up*); and an downwardly mobile prime minister, i.e. a one of high parental status, but low personal status (type *down*). Note that types *high* and *low* are socially-immobile, whereas types *up* and *down* are socially-mobile. We consider a status score of 0.8 as high and a status score of 0.3 as low. These values are close to the upper and lower bounds of our sample range and roughly correspond to the average status scores for academic professions on the one hand and tradesmen on the other. We then calculate the expected expenditure-to-GDP and deficit-to-GDP ratio, respectively, for each single prime minister type, take pairwise differences and test whether these are significantly different from zero.

Results are presented in Table 4. In line with our conjecture, we find that tenures of lower-class prime ministers are associated with a significantly higher expenditure-to-GDP and deficit-to-GDP ratio than tenures of their upper-class counterparts. These differences appear to be substantial: lower-class prime ministers spend on average 1.2 pp more in the short run and 2.9 pp more in the long run than those with an academic background. More than half of this difference in public spending appears to be deficit-financed. In the short term, net borrowings are 0.7 pp higher during tenures of lower-class prime ministers. In the long term,

this effect adds up to 1.7 pp. Thus, we find strong and theory-consistent evidence that prime ministers are prone to the class-specific habitus characterising their socialising environment.

Table 4: Comparing Different Types of Prime Ministers—Upper vs. Lower Class

| | **Public expenditures** | | | | **Net public borrowing** | | | |
|---|---|---|---|---|---|---|---|---|
| Type j | High | Low | Up | Down | High | Low | Up | Down |
| Type i | | | | | | | | |
| High | — | –1.15** | 0.02 | –0.09 | — | –0.73** | 0.02 | –0.11 |
| Low | | — | 1.17** | 1.06** | | — | 0.74** | 0.62* |
| Up | | | — | –0.11 | | | — | –0.12 |
| Down | | | | — | | | | — |

Notes: Results are based on the reduced models. The different types of prime ministers are defined as follows: *High*: prime minister has a high parental and personal status (ISEI score 0.8); *Low*: prime minister has a low parental and personal status (ISEI score 0.3); *Up*: prime minister has a low parental status (ISEI score 0.3), but high personal status (ISEI score 0.8); *Down*: prime minister has a high parental status (ISEI score 0.8), but low personal status (ISEI score 0.3). Figures are derived as follows: first, the expected amount of public spending/net borrowing is calculated for each prime minister type, holding other factors fixed. Second, the difference between a type i prime minister (row name) and a type j prime minister (column name) is computed. * and ** indicate that the difference is significantly different from zero at the 5% and 1% level, respectively.

Table 4 also shows that the direction of social mobility matters for explaining the Laender's fiscal performance. We find that upwardly mobile prime ministers spend significantly less and incur fewer debts than lower-class ones, whereas no significant difference is observed between downwardly mobile and upper-class prime ministers. This suggests that parental background only matters in the case of a social decline.[18] In other words, social climbers adapt to the habitus of their new class, whereas downwardly mobile prime ministers remain primarily influenced by their parent-induced upper-class habitus.

Several other leader characteristics appear to be significant as well. Tenures of prime ministers who are members in employees' associations are associated with a lower expenditure-to-GDP ratio. The short-run effect is about –0.3 pp, the long-run effect –0.78 pp. This result could be due to the fact that nowadays trade unions primarily represent socially-ambitious and well-trained employees with secure jobs. Tenures of prime ministers of states in which they did not formerly reside (dummy *Outside PM*) are connected with a rise in net borrowing. Arguably, prime ministers who come from outside the state they govern do not feel that closely connected to it and, thus, have fewer incentives to conduct sustainable fiscal policy and are more prone to myopic decision-making. The deficit-to-GDP ratio is about 0.23

[18] A word of caution is in order here: There is no actual case of a prime minister in our sample who is characterised by a social decline from the upper to the lower class. Thus, this conclusion refers to an out-of-sample case.

pp higher in the case of an outside prime minister, with a long-run multiplier of 0.54. We also find that the longer a prime minister stays in office, the smaller is net borrowing over GDP. We interpret this result as reflecting increasing competence during incumbency: the more experienced a prime minister, the easier it is for him or her to keep the budget in balance. In addition, staying in office for a long time may deepen attachment to the governed state. The effect is fairly modest, though. Staying in office for a second term lowers the deficit-to-GDP ratio by 0.02 pp.

*6.2 Checks for Robustness*

To check the robustness of our results and glean further insight, we conduct several experiments. First, we test whether our results are affected by the estimation method. We re-estimate Equation (1) using a GMM approach to account for the fact that the lagged dependent variable is correlated with the error term. We apply one-step GMM estimation and use up to five valid lags of the dependent variable as instruments.[19] The results for public spending and debt financing are presented in the Appendix, Table A3. In line with findings from simulation studies, most coefficients and standard errors decrease in the GMM approach, but in our case the differences are typically rather small. The influence of prime minister's socioeconomic background—parental status, personal status, and the interaction term—is basically the same across both specifications. The conclusions regarding the comparison between different types of prime ministers remain unaffected, too.[20]

Second, we examine the effect of including additional control variables. Here, we are primarily concerned about the potential problem of spurious causation due to omitted variables. It could be argued that our findings regarding the impact of a prime minister's socioeconomic background are driven by the socioeconomic conditions of the electorate. We investigate this possibility by including real disposable income per head in our regressions. We also control for several other factors, i.e. population growth, population density, as well as the political orientation of the federal government. However, since none of these factors reveals a significant impact on the endogenous variables or changes our results, we do not report these estimates (they are available on request).

[19] The number of lags is restricted for two reasons. First, standard econometric software is not able to invert the matrix of instruments when using all valid lags to define moment conditions (as suggested by Arellano and Bond, 1991), as the computational requirements increase substantially. Second, simulation studies show that there is a tradeoff when increasing the number of lags: together with efficiency, the finite sample bias of the GMM estimates also increases (Judson and Owen, 1997). With respect to our variables of main interest, we find no significant changes when varying the number of lags used as instruments, employing from 1 up to 10 lags.

[20] Results available on request.

Finally, we check whether choosing a different status index affects our findings. As mentioned in Section 4, there are two ways of measuring an individual's status: either by objective indicators (e.g. ISEI) or by subjective indicators (e.g. SIOPS). However, replacing the ISEI scores by the SIOPS scores and re-estimating Equation (1) leaves our core results unchanged.[21]

## 7. Conclusion

'Classical' theories in political economy that view politicians' motives as decisive in fiscal performance often reveal little explanatory power in empirical research. Neither opportunism, nor benevolence, nor partisan ideology satisfactorily explain politicians' decision-making. In light of this, some economics researchers have begun focussing on politicians' backgrounds instead, taking into account age, experience, or certain educational and occupational characteristics. However, yet again the results are ambiguous and not particularly robust.

In contrast, an important strand in sociological research argues that the way people think and act is steered by a set of socially constituted schemes that depend on an individual's status—i.e. his or her relative standing within society. Evidence from household and survey data indicates that individual status or factors related to it (such as educational attainment and income) might help explain differences in how leaders conduct fiscal policy.

In our novel empirical analysis, we test whether a head of government's parental status and personal status have an impact on the incumbent government's fiscal performance. We focus on the German Laender, as they are characterised by a high degree of political and institutional homogeneity and their prime ministers' are empowered with extensive fiscal competences.

Our extremely robust findings reveal that a prime minister's socioeconomic background influences fiscal performance in a statistically significant and economically relevant way. The higher a prime minister's status, the lower are the incumbent government's public spending and debt financing in relation to GDP. For example, tenures of upper-class prime ministers are associated with a public expenditure quota that is on average more than 1 percentage points less than that of tenures of prime ministers who come from the lower class. In the long run, the effects even add up to almost 3 percentage points. In the case of net public borrowing over GDP, upper-class prime ministers have a 0.7 percentage points lower deficit in the short run and a 1.7 percentage points lower deficit in the long run.

[21] Results available on request.

More generally, our results suggest that economics as a field may not only benefit from psychology, as shown by the recent surge in experimental and behavioural economics, but also from sociology. The upshot of our and other analyses is that by deviating from *homo economics*, economists can increase the explanatory power of their models. Moreover, by including psychological or sociological (and potentially other social science) approaches into empirical economic models, we allow for a direct competition between different theories. As is well-known in econometric methodology, testing against concrete alternative theoretical hypotheses is a much more powerful method of research than just testing against the data (see e.g. Hendry 2000). Thus, in the best case, we would see a convergence of social science research beyond traditional lines of demarcation towards a more serious interdisciplinary analysis.

**Appendix:**

**Data Sources**

Economic and Demographic Controls

Data on public expenditures, real GDP growth, unemployment rate, per-capita income, and the demography of population for each German state are from the Federal Statistical Office (Statistisches Bundesamt). Data on public debts, net public borrowing, and transfers between the Laender within the fiscal equalisation system are from the Federal Ministry of Finance.

Political Controls

Data on election dates and vote shares are taken from the homepages of the German Laender and the State Returning Officers (Landeswahlleiter), as is historical information on the party affiliation of the ministers of finance.

Leader Characteristics

Years in which a new prime minister took office are identified using the homepages of the German Laender and the State Returning Officers.

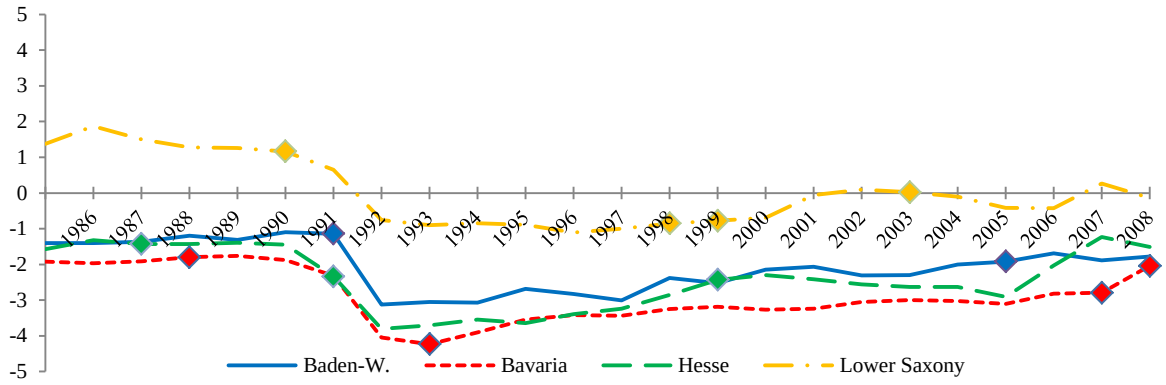
Information on prime ministers' dates of birth, places of residence, occupational histories, and whether they have been union members is from the Munzinger Online biography and the public record offices of the German Laender. Both provide brief biographies of public figures, especially politicians. In a few cases we also rely on information provided on personal homepages of (former) prime ministers. The variable *age* refers to a prime minister's age at the end of the year.

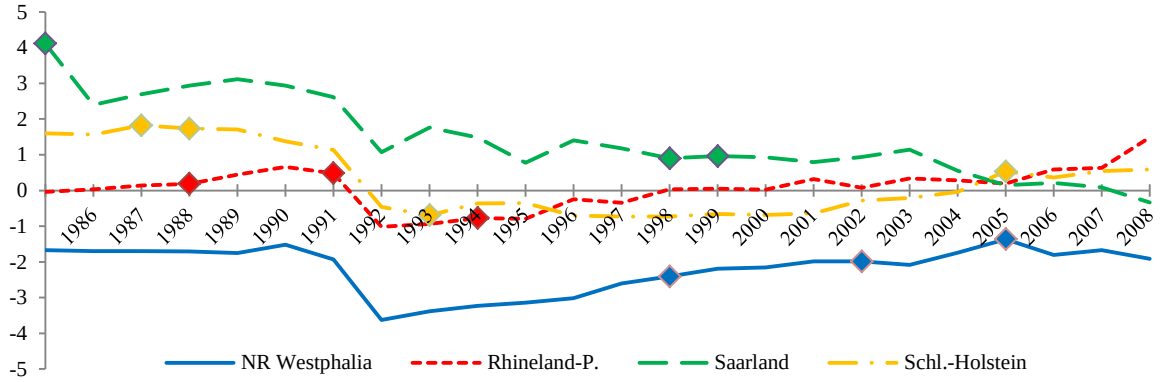
The variable *parental status* measures the occupational status score of prime ministers' parents. To construct this variable, we coded the occupations of prime ministers' parents according to the ISCO-68 and then applied the ISEI and SIOPS scores. When both parents were working or when a parent held more than one occupation during his or her career, we decided to employ the highest ISEI and SIOPS score. In cases where a prime minister was entirely raised by one parent only (due to divorce or death of the other parent), we decided to take only the status score of that parent into account. Further, we do not differentiate between biological and stepparents.

For the variable *personal status* we focus on the positions prime ministers held before their political career, which we defined as first membership in a party executive committee or ministry. In cases where prime ministers engaged in more than one occupation during their career, we chose the occupation with the highest ISEI and SIOPS score.

**Additional Figures and Checks for Robustness**

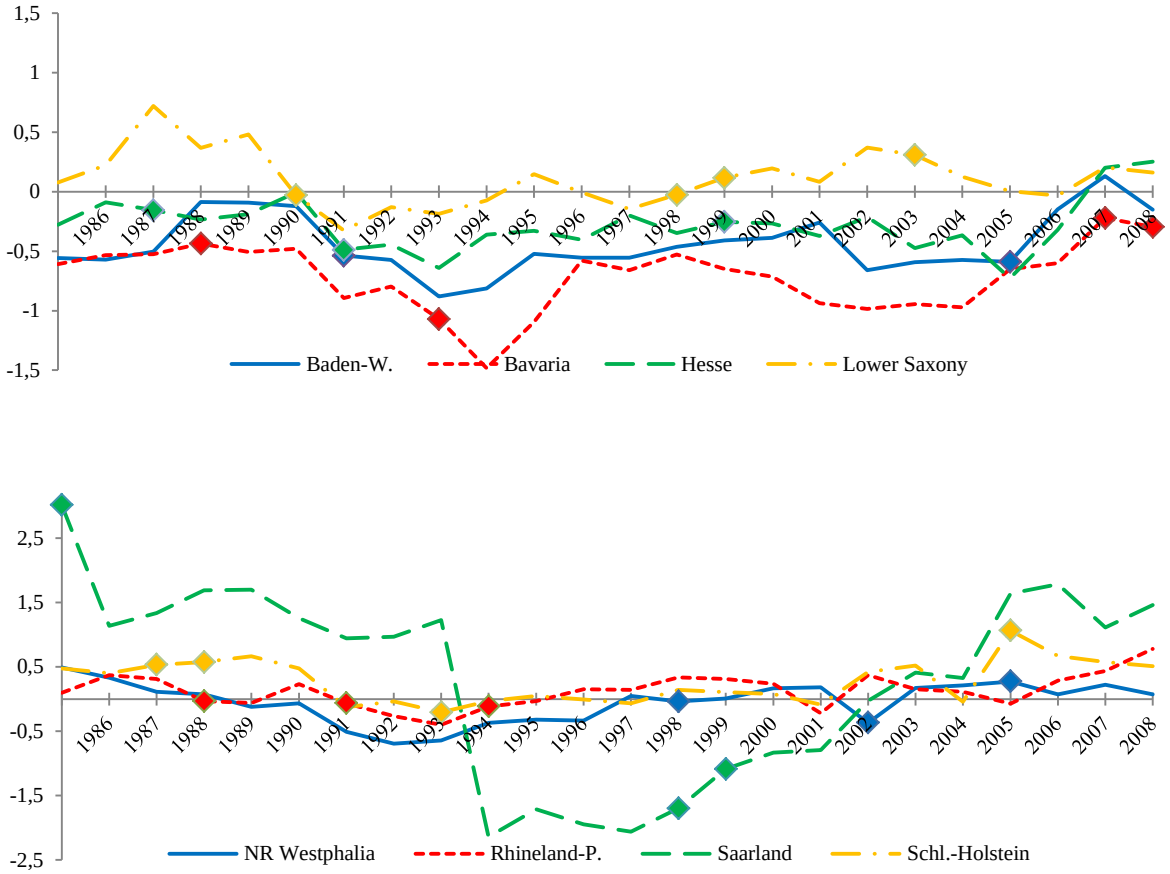
Figures A1a and A1b: Public Expenditures over GDP in the West German Laender (in %)




Notes: Public expenditures over GDP are calculated as deviations from the contemporary cross-sectional mean. Marks along the series indicate prime minister transitions.

Figures A2a and A2b: Net Public Borrowing over GDP in the West German Laender (in %)







Notes: Net public borrowings over GDP are calculated as deviations from the contemporary cross-sectional mean. Marks along the series indicate prime minister transitions.

Table A3: GMM Estimation for Public Expenditures and Net Borrowing over GDP (in %)

| Variables | Public expenditures/GDP | | Net public borrowing/GDP | |
|---|---|---|---|---|
| | Coefficient | Stand. error | Coefficient | Stand. error |
| Y (-1) | 0.566** | 0.155 | 0.564** | 0.113 |
| **Economic variables** | | | | |
| Debt-to-GDP-ratio (-1) | –0.063** | 0.023 | –0.080** | 0.012 |
| GDP growth | –0.075* | 0.036 | 0.013 | 0.030 |
| Unemployment rate | 0.054 | 0.036 | 0.069** | 0.025 |
| Transfers/GDP | 0.019 | 0.193 | –0.282** | 0.107 |
| **Political variables** | | | | |
| SPD-led government | 0.008 | 0.090 | 0.020 | 0.083 |
| Coalition | 0.068 | 0.114 | –0.068 | 0.076 |
| Minority government | 0.359 | 0.265 | –0.138 | 0.158 |
| Vote share gov. party | 0.027* | 0.012 | –0.010 | 0.008 |
| MoF from different party | 0.723** | 0.200 | 0.322* | 0.141 |
| Election year | –0.005 | 0.055 | 0.072 | 0.049 |
| **Demographic variables** | | | | |
| log(Population) | 11.214** | 3.364 | 2.235 | 2.160 |
| Dependence ratio | 0.392** | 0.122 | –0.009 | 0.096 |
| **Leader variables** | | | | |
| PM change | –0.061 | 0.082 | –0.159 | 0.098 |
| Outside PM | –0.051 | 0.185 | 0.107 | 0.121 |
| Union member | –0.313** | 0.118 | –0.008 | 0.065 |
| Age | –0.001 | 0.006 | 0.008 | 0.005 |
| Years in office | –0.002 | 0.010 | –0.023** | 0.006 |
| Parental status | –4.029** | 1.430 | –1.877* | 0.815 |
| Personal status | –4.128** | 1.046 | –2.062** | 0.606 |
| Parent. status*pers. status | 5.154** | 1.799 | 2.400* | 1.056 |
| $R^2$ (without state and time fixed effects) | 0.909 | | 0.767 | |
| Observations | 277 | | 277 | |
| Parameters | 57 | | 57 | |
| Sargan test | $Chi^2$ (104) = 86.8 | | $Chi^2$ (119) = 105.5 | |

Notes: For GMM estimation, lags 2–6 of the dependent variable are used as instruments. Both models include cross-section and time fixed effects. Panel-robust standard errors are reported. * and ** indicate significance at the 5% and 1% level, respectively.

**References**


Alesina, A., Cohen, G. D., and Roubini, N. (1992), Macroeconomic policy and elections in OECD democracies, *Economics and Politics* 4, 1–30.

Alesina, A. and Giuliano, P. (2009), Preferences for redistribution, *IZA Discussion Paper* 4056.

Alesina, A. and La Ferrara, E. (2005), Preferences for redistribution in the land of opportunities, *Journal of Public Economics* 89, 897–931.

Alesina, A. and Perotti, R. (1994), The political economy of budget deficits, *NBER Working Paper* 4637.

Angeletos, G.-M., Laibson, D., Repetto, A., Tobacman, J., and Weinberg, S. (2001), The hyperbolic consumption model: Calibration, simulation, and empirical evaluation, *Journal of Economic Perspectives* 15, 47–68.

Arellano, M. and Bond, S. (1991), Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations, *Review of Economic Studies* 58, 277–297.

Barro, R. (1979), On the determination of public debt, *Journal of Political Economy* 87, 940–971.

Becker, G. S. and Mulligan, C. B. (1997), The endogenous determination of time preference, *Quarterly Journal of Economics* 112, 729–758.

Berger, P. L. and Luckmann, T. (1966), *The social construction of reality: A treatise in the sociology of knowledge*, New York: Anchor Books.

Berger, H. and Holler, A. (2007), What determines fiscal policy? Evidence from German states, *CESifo Working Paper* 2062.

Besley, T., Montalvo, J. G., and Reynal-Querol, M. (2009), Do educated leaders matter? Working paper downloaded from: http://www.econ.upf.edu/~reynal/delm_December_3.pdf.

Blais, A., Blake, D., and Dion, S. (1993), Do parties make a difference? Parties and the size of government in liberal democracies, *American Journal of Political Science* 37, 40–62.

Börsch-Supan, A. H. and Essig, L. (2005), Household saving in Germany: Results of the first SAVE study, in: D. A. Wise (ed.), *Analyses in the economics of aging*, Chicago: University of Chicago Press.

Bourdieu, P. (1977), *Outline of a theory of practice*, Cambridge: Cambridge University Press.

Bourdieu, P. (1984), *Distinction: A social critique of the judgement of taste*, Cambridge: Harvard University Press.

Bourdieu, P. (1986), The forms of capital, in: N. W. Biggart (ed.), *Readings in economic sociology*, Oxford: Blackwell Publishers Ltd.

Bourdieu, P. and Wacquant, L. J. D. (1992), *An invitation to reflexive sociology*, Chicago: University of Chicago Press.

Bradley, R. H. and Corwyn, R. F. (2002), Socioeconomic status and child development, *Annual Review of Psychology* 53, 371–399.

Breen, R. (1997), Risk, recommodification and stratification, *Sociology* 31, 473–489.

Brender, A., and Drazen, A. (2005), Political budget cycles in new versus established democracies. *Journal of Monetary Economics* 52, 1271–1295.

Brender, A. and Drazen, A. (2009), Do leaders affect government spending priorities? *NBER Working Paper* 15368.

Buchanan, J. and Wagner, R. (1977), *Democracy in deficit*, New York: Academic Press.

Büchner, C. and Gerlitz, J.-Y. (2005), Influences on socio-economic status in Germany: Reproduction of social structure or modes of individual acting? *SOEP Working Paper*, Berlin: DIW.

Carroll, C. D. and Kimball, M. S. (1996), On the concavity of the consumption function, *Econometrica* 64, 981–992.

Corneo, G. and Grüner, H. P. (2002), Individual preferences for political redistribution, *Journal of Public Economics* 83, 83–107.

Crossley, N. (2001), The phenomenological habitus and its construction, *Theory and Society* 30, 81–120.

Cusack, T. (1997), Partisan politics and public finance: Changes in public spending in the industrialized democracies 1955–1989, *Public Choice* 91, 375–395.

Davis, K. and Moore, W. E. (1945), Some principles of stratification, *American Sociological Review* 10, 242–249.

De Haan, J. and Sturm, J.-E. (1994), Political and institutional determinants of fiscal policy in the European Community, *Public Choice* 80, 157–172.

De Haan, J. and Sturm, J.-E. (1997), Political and economic determinants of OECD budget deficits and government expenditure: A reinvestigation, *European Journal of Political Economy* 13, 739–750.

Dreher, A., Lamla, M. J., Lein, S. M., and Somogyi, F. (2009), The impact of political leaders' profession and education on reforms, *Journal of Comparative Economics* 37, 169–193.

Edin, P. and Ohlsson, H. (1991), Political determinants of budget deficits: Coalition effects versus minority effects, *European Economic Review* 35, 1597–1603.

Elias, N. (1994), *The civilizing process: The history of manners and state formation and civilization*, Oxford: Blackwell.

Elias, N. and Scotson, J. L. (1965), *The established and the outsiders. A sociological enquiry into community problems*, London: Frank Cass & Co.

Eslava, M. (2006), The political economy of fiscal policy: Survey, *Inter-American Development Bank Working Paper* 583.

Fershtman, C., Murphy, K. M., and Weiss, Y. (1996), Social status, education, and growth, *Journal of Political Economy* 104, 108–132.

Galli, E. and Rossi, S. (2002), Political budget cycles: The case of the Western German Länder, *Public Choice* 110, 283–303.

Ganzeboom, H. B. G., De Graaf, P. M., and Treiman, D. J. (1992), A standard international socio-economic index of occupational status, *Social Science Research* 21, 1–56.

Giddens, A. (1984), *The constitution of society: Outline of the theory of structuration*, Cambridge: Polity Press.

Göhlmann, S. and Vaubel, R. (2007), The educational and professional background of central bankers and its effect on inflation: An empirical analysis, *European Economic Review* 51, 925–941.

Goossens, A. and Méon, P. G. (2010), 'This is an economist's argument!' The impact of studying economics, and other disciplines, on the belief that voluntary transactions make everyone better off, paper presented at the Silvaplana Workshop in Political Economy in Pontresina.

Hayo, B. and Voigt, S. (2011), Endogenous constitutions: Politics and politicians matter, economic outcomes don't, *Journal of Economic Behavior and Organization*, forthcoming.

Hendry, D. F. (2000), *Econometrics: Alchemy or science? Essays in econometric methodology*, New Edition, Oxford: Oxford University Press.

Hibbs, D. A. (1977), Political parties and macroeconomic policy, *American Political Science Review* 23, 1467–1488.

Huber, B. and Runkel, M. (2008), Hyperbolic discounting, public debt and balanced budget rules, *Scottish Journal of Political Economy* 55, 543–560.

ILO (1969), *International standard classification of occupations*, Geneva: International Labour Organization.

Jochimsen, B. and Nuscheler, R. (2010), The political economy of the German Länder deficits: Weak governments meet strong finance ministers, *Applied Economics*, forthcoming.

Jones, B. F. and Olken, B. A. (2005), Do leaders matter? National leadership and growth since World War II, *Quarterly Journal of Economics* 120, 835–864.

Judson, R. A. and Owen, A. L. (1997), Estimating dynamic panel data models: A practical guide for macroeconomists, *Finance and Economics Discussion Series*, Washington: Federal Reserve Board.

Kiviet, J. F. (1995), On bias, inconsistency, and efficiency of various estimators in dynamic panel data models, *Journal of Econometrics* 68, 53–78.

Laibson, D. (1997), Golden eggs and hyperbolic discounting, *Quarterly Journal of Economics* 112, 443–477.

Lea, S. E. G., Webley, P., and Levine, R. M. (1993), The economic psychology of consumer debt, *Journal of Economic Psychology* 14, 85–119.

Lea, S. E. G., Webley, P., and Walker, C. M. (1995), Psychological factors in consumer debt: Money management, economic socialization, and credit use, *Journal of Economic Psychology* 16, 681–701.

Livingstone, S. M. and Lunt, P. K. (1992), Predicting personal debt and debt repayment: Psychological, social and economic determinants, *Journal of Economic Psychology* 13, 111–134.

MacRae, C. D. (1977), A political model of the business cycle, *Journal of Political Economy* 85, 239–263.

McLeod, J. D. and Kessler, R. C. (1990), Socioeconomic status differences in vulnerability to undesirable life events, *Journal of Health and Social Behavior* 31, 162–172.

Mead, G. H. (1967), *Mind, Self and Society*, Chicago: University of Chicago Press.

Mikosch, H. F. (2009), Individuals vs. institutions. The impact of political leaders' education and profession on public deficits, ETH Zurich, *mimeo*.

Nordhaus, W. D. (1975), The political business cycle, *Review of Economic Studies* 42, 169–190.

Pickel, A. (2005), The habitus process. A biopsychological conception, *Journal for the Theory of Social Behaviour* 35, 437–461.

Rogoff, K. (1990), Equilibrium political budget cycles, *American Economic Review* 80, 21–36.

Rogoff, K. and Sibert, A. (1988), Elections and macroeconomic policy cycles, *Review of Economic Studies* 55, 1–16.

Roubini, N. and Sachs, J. (1989), Political and economic determinants of budget deficits in the industrial democracies, *European Economic Review* 33, 903–938.

Schneider, C. J. (2010), Fighting with one hand tied behind the back: Political budget cycles in the West German states, *Public Choice* 142, 125–150.

Seitz, H. (2000), Fiscal policy, deficits, and politics of subnational government. The case of the German Länder. *Public Choice* 102, 183–218.

Shelton, C. A. (2007), The size and composition of government expenditure, *Journal of Public Economics* 91, 2230–2260.

Shi, M. and Svensson, J. (2006), Political business cycles: Do they differ across countries and why? *Journal of Public Economics* 90, 1367–1389.

Treiman, D. J. (1977), *Occupational prestige in comparative perspective*, New York: Academic Press.

White, H. (1980), A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity, *Econometrica* 48, 817–838.

Wolf, C. (1995), Sozio-ökonomischer Status und berufliches Prestige: Ein kleines Kompendium sozialwissenschaftlicher Skalen auf Basis der beruflichen Stellung und Tätigkeit, *ZUMA-Nachrichten* 37, 102–136.