And the Last Shall be First:
Federalism and Fiscal Outcomes in Germany

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Original Draft:
November 1998

This Draft:
October 2, 2001

This paper explores the political economy of fiscal policy in the German *Länder*, testing several theories from the cross-national literature on budget deficits along with some additional hypotheses relating to the incentives created by the German federal system. The results suggest that governments controlled by the left spend and borrow more in the long run than right-wing governments, though short-term partisan differences in fiscal management cannot be identified. Furthermore, incumbents spend and borrow more during election campaigns, and contrary to common wisdom, *Land* fiscal policy is decisively pro-cyclical. The most striking findings have to do with Germany's peculiar system of intergovernmental grants. Although transfers have a positive effect on fiscal balance in the short term, states increase expenditures and deficits in the long run as they grow more dependent on transfers. The results may have implications for other fiscal systems where lower-level governments have wide-ranging expenditure and borrowing autonomy but little authority to tax.

Draft prepared for presentation at Harvard University
October 10, 2001

The author wishes to thank Geoffrey Garrett, Jürgen von Hagen, Ronald Kneebone, Jorn Rattso, Helmut Seitz, and David Samuels for helpful comments on a previous draft.

I. Introduction

The growth of budget deficits and debt levels around the world has been the subject of numerous theoretical and empirical investigations over the last twenty years. While progress has been made in understanding the political, institutional, and economic underpinnings of budget deficits at the central government level, very little attention has been given to the rapid growth of deficits and debt at lower levels of government, even though subnational deficits have introduced serious problems in a growing number of OECD, developing, and transition countries around the world (Rodden, Eskeland, and Litvack 2001). In fact, by ignoring the effects of intergovernmental relations and subnational fiscal decisions, existing studies of macroeconomic management may miss an important source of cross-national variation; state and local deficits often spill over to the central level, especially when the central government must provide bailouts to profligate subnational entities.[1]

The comparative political economy of fiscal decision-making at subnational levels has been virgin territory until recently. Most of the existing empirical work has been done on the American states,[2] though the U.S. is not a good case from which to build a general theory of subnational fiscal behavior. In comparative perspective, the United States is an outlier in at least two important respects. First of all, the American states very rarely run budget deficits. The United States is the only major federation in the world in which the state/provincial sector was, on average, in surplus during the 1980s and 1990s. Germany is a much more typical case; the *Länder* (federal states) on average ran deficits amounting to 8 percent of revenue during this period. Second, the US states are relatively self-reliant when compared with subnational units in other federal countries, and while the vast majority of the grants received by the US states are earmarked for specific purposes, most other federations resemble Germany's more heavy reliance on revenue sharing and equalization transfers.[3]

Fortunately, scholars have recently made progress towards a more nuanced understanding of the varieties of fiscal and political federalism. For example, studies by Rattso (1999, 2000)

[1] The experiences of Argentina and Brazil in the late 1980s have been particularly dramatic examples (Dillenger and Webb, 2000). See also Fornasari, Webb, and Zou (1998) and Treisman (2001) showing that subnational deficits lead to deficits at the central level.

[2] Inman (1997), Bohn and Inman (1996), Poterba (1994, 1996), Alt and Lowry (1994), Alt, Lowry, and Ferree (1996), Alesina and Bayoumi (1996), Eichengreen and Bayoumi (1995), Gramlich (1991), Holtz-Eakin and Rosen (1993).

examine incentives and fiscal decision-making in Norway, where local governments preside over a large share of total public expenditures, but possess very limited taxing, borrowing, and expenditure autonomy—perhaps the opposite end of the spectrum from the United States. Most modern federations fall somewhere in the middle between the American and Norwegian extremes. In Germany, as well as Argentina, Australia, Brazil, India, Spain, Mexico, South Africa, and several other federations, provinces are responsible for important public functions and highly dependent on intergovernmental transfers, but unlike unitary systems like Norway, they face few centrally imposed limitations on expenditures and borrowing. Serious concerns have been raised about moral hazard and overspending among subnational governments in such systems.[4]

This paper seeks to contribute to this burgeoning comparative literature by using time series cross-section analysis of fiscal outcomes in the German *Länder* to examine hypotheses about the incentives created by fiscal and political institutions. Its primary objective is to examine the incentive effects of intergovernmental transfers in a system with extremely limited local tax authority but unlimited borrowing authority. The findings might have important implications for some of the other federations listed above. Previous empirical studies of fiscal outcomes in the *Länder* have relied on single-year snapshots (Wagschal 1996) or focused exclusively on partisanship and counter-cyclical stabilization (Seitz 2000).

Second, this paper tests a variety of more general theories about the economic and political sources of deficits that have heretofore been tested almost exclusively at the central government level (See, e.g. Franzese1996, Roubini and Sachs 1989a, 1989b; Alesina and Perotti 1995). The advantages of cross-province over cross-national analysis are substantial; the German *Länder* demonstrate useful variation over time and across units on several interesting variables, but many of the usual concerns about institutional and cultural comparability—not to mention data collection standards—are resolved by design.

Above all, this paper argues and demonstrates that transfer-dependence is an important factor shaping *Land*-level fiscal outcomes. In the short term, *Land*-level fiscal outcomes are extremely sensitive to fluctuations in intergovernmental transfers. In the long run, the perverse incentives created by the German equalization system lead to a strong relationship between

[3] The United States, Canada, and Switzerland are in a class by themselves among modern federations with respect to revenue autonomy (Rodden 2001).

transfer-dependence and deficits. Contrary to common wisdom, the *Länder* do not appear to conduct counter-cyclical fiscal policy; if anything, the evidence suggests pro-cyclicality. Partisan differences in short-term fiscal management cannot be identified, but in the long term, *Länder* controlled by the Social Democrats run larger deficits than those controlled by the Christian Democrats. Additionally, support is found for the hypothesis that incumbent politicians run larger deficits during election campaigns. Long-term deficits are also smallest in the largest states.

The second section introduces data on deficits and debt in the German *Länder*, and the third section provides a brief overview of the German federal system. The fourth section lays out several hypotheses that might explain cross-section and diachronic variation in deficits, explains how each may be relevant in the German subnational context, and explains the operationalization of each variable. Section five explains the empirical approach, section six provides results, and the final section concludes.

II. The Problem: Deficits in the German *Länder*

Although the German federal government is famous for its prudent post-war fiscal management, potentially serious problems at the *Land* level have been brewing for some time. Recently, in the wake of debt servicing crises, court cases, and bailouts of two troubles *Länder*, along with rapidly growing debt in Berlin and the new Eastern *Länder*, the perception of crisis is growing, and reform of the intergovernmental system is a hot topic among German politicians, policy analysis, and pundits.

Since the founding of the Bonn Republic, the *Länder* have taken on a sizable share of total borrowing. By the end of 1996, the federal government's debt reached 24 percent of GDP, while the *Länder* stood at 16 percent, with the local governments at around 6 percent. Table 1 presents average deficit/revenue ratios for each of the *Länder* from 1992 to 1995, along with debt per capita at the end of 1996.[5] It shows that budgets are essentially balanced and debt per capita

[4] Collections of qualitative case studies can be found in Rodden et al (2001) and von Hagen et al (2000). Quantitative studies include Jones et al (2000), Remmer and Wibbels (2000), and Bevilaqua (1999).

[5] Berlin is excluded from this and all following tables and charts because of its special status in the federation prior to unification, and the difficulty of aggregating data from East and West Berlin in the early 1990s.

is quite low in states like Bayern and Baden-Wuerttemberg, but they are three times as high in troubled states like Bremen and Saarland. Table 1 also shows that average deficit levels in the new *Länder* in their first years of existence have been between ten and thirty percent of revenue, and in only a few years their per capita debt levels have reached those of their western counterparts. These developments have been a cause of great concern in the German policy community (see, e.g. Sachverständigenrat 1997). The independent fiscal management of the *Länder* and the recent growth of subnational debt complicate macroeconomic management and may even cause Germany to run afoul of the Maastricht criteria that overall deficits and debts not exceed 3 and 60 percent (respectively) of GDP.

[TABLE 1 ABOUT HERE]

Because of data shortfalls and the challenges of directly comparing the "new" and "old" *Länder*, this paper does not directly address the unique challenges faced by the new *Länder*. Rather, it uses a rich time-series cross-sectional data set drawn from the old *Länder* in order to establish some basic facts about the determinates of deficits in a German-style system of federalism. The key dependent variable used in the empirical analysis that follows—*Land* real deficit per capita— is displayed in Figure 1.[6]

[FIGURE 1 ABOUT HERE]

Before attempting to explain the variation displayed in Figure 1, it is necessary to understand some basic facts about the German system of federalism.

III. A Primer on German Federalism

[6] Source: German Federal Statistics Office, the Statistical Office of Baden-Wuerttemberg, and author's calculations.

Administrative Federalism

It is not possible to provide a complete overview of the German federal system here, but the key characteristics of the system motivating this paper can be easily summarized.[7] First of all, the *Bund* (central government) and the *Länder* are extremely interdependent. The *Länder* are important veto players in the central government's policy-making process—their governments directly appoint the members of the *Bundesrat* (federal council), which must approve most federal legislation. Moreover, the central government relies on the *Land* administrations for the implementation of most of its policies—a model often referred to as "administrative federalism." The central government has very little bureaucratic capacity of its own, and much of the *Land*-level administrative apparatus is specialized to implement policies that are made at the central level. As a result, the *Länder* and *Gemeinden* (local governments) are responsible for a large share (around 63 percent in 1995) of total expenditures. Given this structural interdependence of *Bund*, *Länder*, and *Gemeinden*, it is very difficult for any government to achieve its goals without bargaining, cajoling, or cooperating with one or two additional levels.

Fiscal Federalism

Multilateral bargaining between the interdependent *Bund* and *Länder* is also the modus operandus in the collection and distribution of revenue. All of the most important taxes—the income tax, corporation tax, and VAT, which together account for over three quarters of total tax revenue—accrue to the federal and state governments jointly. Most decisions about the tax base and rates are made by the federal government (subject to the approval of the *Bundesrat*) and for the major taxes, collection is done by the revenue authorities of the *Länder,* which act as agents of the federation under uniform federal guidelines. The significance of taxes assigned *directly* to individual layers of government is low.

The vertical distribution of the shared taxes between *Bund* and *Länder* is very stable over time because the actual percentage shares are laid out in the Constitution and can only be changed by amendment. In order to ensure that the *Länder* receive sufficient funds to fulfill their federally-mandated responsibilities in the face of changing fiscal circumstances, the vertical

[7] For more detailed overviews, see Seitz (2000), Spahn and Foettinger (1997).

distribution of the VAT is frequently renegotiated between the *Bund* and the *Länder*. The resulting bargain must be approved by the *Länder* in the *Bundesrat*. The constitution mandates the maintenance of "equivalent living conditions" across the *Länder,* and to this end, the fiscal equalization system goes to great lengths to redistribute revenue from the wealthy to the poor *Länder*. First of all, the primary system of tax sharing distributes the proceeds of the major shared taxes to the states as follows: income tax revenue is apportioned to the states according to the derivation principle, corporate tax revenue is divided according to a formula based on plant location, and a portion of the VAT is distributed to the states on a per capita basis. Next, the secondary system of revenue equalization proceeds in three stages.

In the first stage, up to 25 percent of the VAT is redistributed to the *Länder* with the lowest revenue after the primary tax sharing receipts are calculated. After this stage of redistribution, the financial endowment (*Finanzkraft*) of each state is calculated and compared with its financial needs (*Finanzbedarf*). Then at the second stage of equalization, revenue is redistributed from states whose endowments exceed their needs, to those for whom the opposite is true. The concept of "need" is based on the per capita tax income for the entire country. At this stage, the weaker (*Finanzschwach*) states reach 95 of their financial "needs."

In the third stage of the equalization system, the federal government steps in to lift the recipient states up to at least 99.5 percent of their "needs." It does this with supplementary grants. At this stage, the *Bund* also bestows additional supplementary grants on some states to compensate them for "special burdens." Special supplementary grants are also received by smaller *Länder* to compensate them for higher administrative costs, and recently, by some of the "old" (pre-unification) *Länder* to compensate them for the higher fiscal burden they must bear because of reunification. Massive supplementary transfers are also currently being made to the East German *Länder,* and to provide bail-outs to Bremen and Saarland because of their debt servicing obligations. After equalization and other transfers, the *Länder* with the lowest initial per capita fiscal capacity— Bremen, Saarland, and the eastern *Länder*—end up with the highest fiscal capacity per capita. Meanwhile, the *Länder* with the highest initial fiscal capacity—Hamburg, Hesse, and Baden-Württemberg— end up with the lowest capacity after transfers (Spahn and Föttinger, 1997).[8]

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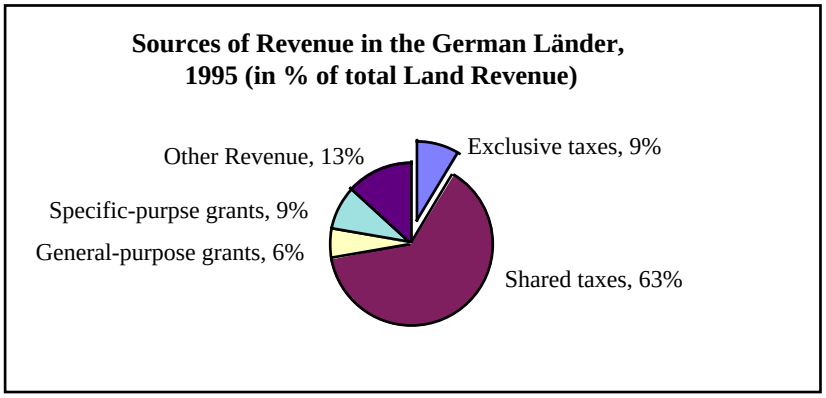
[8] This section describes the key features of the equalization system during the period under analysis, but in June of 2001, the federal government and *Länder* agreed to reforms that will be discussed in greater detail below.

Figure 2 summarizes the revenue sources of the *Länder*. Only nine percent of total revenue comes from taxes over which the *Länder* have exclusive jurisdiction (primarily business taxes), while 63 percent come from the various shared taxes. Fifteen percent of revenue comes from other intergovernmental transfers. These include the supplementary grants made at the final stage of the equalization process, along with transfers associated with joint federal-state infrastructure programs. The revenue from shared taxes is highly predictable and completely removed from the central government's discretion. In comparison, the grants are quite discretionary and can change substantially from year to year, often in ways that cannot be predicted by *Land* budget planners.

Figure 2:



Source: Spahn and Foettinger (1997).

Finally, the central government has no power to place numeric restrictions on the borrowing activities of the *Länder*. Nor must the borrowing decisions of the *Länder* be approved or reviewed by the *Bund*. Like the federal government, however, the *Länder* have their own constitutional and statutory provisions that restrict them from borrowing more than the outlays for investment purposes projected in the budget. These so-called golden rule provisions at the *Land* level, however, have a number of well-known loopholes. Above all, "investment purposes" is an extremely slippery concept, and it is not difficult to recast a variety of expenditures as investment outlays, and since 1969 the constitutions of the *Länder* have allowed them to break the "golden rule" in cases of "disturbances of general economic equilibrium." Moreover, Bremen and Saarland have chosen to simply ignore these constitutional provisions.

Because the *Länder* lack revenue autonomy, creditors clearly do not view them as fiscal "sovereigns." Despite widely divergent fiscal outcomes and debt servicing capacity, all of the *Länder* have similar triple-A credit ratings from major credit rating agencies, which are explicitly justified on the basis of the central government's fiscal health and the belief that its constitutional obligation to insure "equivalent living conditions" would prevent it from allowing any state to default (see Rodden 2001).

Political Federalism

Germany's intertwined form of federalism characterizes not only finance and administration, but politics as well. Since *Land* elections are also elections for the federal upper house, they have taken on the character of federal mid-term elections. They are fights on national issues between national parties (with the exception of the Bavarian CSU), and are often viewed as referenda on the popularity of the federal Chancellor and his government (Lohmann, Brady, and Rivers 1997). Thus the electoral fates of *Land*-level politicians are driven largely by the federation-wide value of their party labels. Many *Land*-level politicians have aspirations in national politics, and careers often move back and forth between levels. In fact, virtually every modern federal Chancellor has served as a *Land* Chancellor. Thus while politicians in the *Länder* certainly face incentives to fiercely protect the interests of their state, they may sometimes face incentives to be concerned with issues that transcend the interests of their constituents.

IV. Fiscal Management in an Intertwined Federation: Hypotheses

In short, the German *Länder* have some discretion over a wide range of expenditures, along with all budgetary and borrowing decisions, but have very little authority to raise revenue. As a result, creditors and perhaps even voters do not always see *Land* officials as sovereign over their own finances, but as pieces of a complex intertwined system. This may create a unique set of incentives for *Land* level fiscal decision-makers, some of which differ from commonly-held baseline assumptions about public finance, and some of which are undeniably perverse.

A. Equalization and Grants

The common resource allegory captures an overarching problem. The system described above might turn public resources into a common pool that *Land* officials systematically over-fish. First of all, since the individual *Länder* bear most of the costs of tax administration and only a small fraction of additional tax revenues accrue to them, they face weak incentives to strengthen audits and improve revenue collection (OECD 1998, Sachverständigenrat 1998, Von Hagen and Hepp 2000). Fiscal discipline presents a potentially more serious problem if voters and creditors believe that the central government or the other *Länder* are constitutionally obligated to bail them out in the event of a debt-servicing crisis. Bailout expectations have ultimately been confirmed. Beginning in 1987, Bremen and Saarland started to receive supplementary transfers explicitly aimed at coping with high public debt. The expectations were confirmed more explicitly in 1992 when the Constitutional Court handed down its decision stipulating that the *Bund* must make extra transfers to Bremen and Saarland amounting to around 30 billion DM over the period from 1994-2000 in order to reduce public debt without severe expenditure cuts (Seitz 1998). It now appears that the city-state of Berlin will soon request similar bailout transfers.

Given these incentives, one might expect that throughout the post-war period, all of the *Länder* will have persistently spent and borrowed beyond their means and avoided politically painful expenditure cuts during lengthy downturns in the expectation of eventual federal bailouts. However, this has clearly not been the case. Bailout expectations are more rational in some *Länder* than others. Bailout expectations do not stem from the first two stages of equalization between the *Länder*, but rather from the third stage at which the central government distributes supplementary transfers. These transfers are clearly discretionary, and represent a ready-made mechanism through which bailouts might be distributed. Bailout expectations are more rational in the states that receive the largest transfers. Creditors and voters are aware that local debt burdens cannot result in defaults, school closures, the firing of public employees and the like, and fiscal decision-makers can hope that growing debt burdens will be covered by more generous transfers in future years. For instance, when faced with a long-term decline in revenues that requires politically painful expenditure cuts, the temptation to avoid adjustment might be strong in the most transfer-dependent states. After all, these states are relatively poor and a relatively

large share of local expenditures are funded by non-residents. If local politicians choose to avoid or post-pone fiscal adjustment and maintain current expenditure levels by increasing borrowing, there are few reasons for local voters or creditors to punish them. They can claim with considerable credibility that their fiscal burdens are ultimately not their responsibility. At the other end of the spectrum, the states that pay into the equalization system and receive relatively few transfers cannot credibly make such claims when faced with similar downturns. If they overspend and run into debt servicing difficulties, there is no reason to believe that the federation will step in with extra support.

H1: In the long term, transfer-dependence is associated with larger deficits.

A similar hypothesis has been examined in a cross-national study by Rodden (2001) and studies of Argentina by Remmer and Wibbels (2000) and Jones et al (2000). It is related to the vast public economics literatures on "fiscal illusion" and the "flypaper effect." The basic supposition in these studies is that voters and policy-makers view grants and locally-raised revenues differently, and demand more of the former because they are perceived as "windfalls" funded by others. The "flypaper" literature shows that increases in transfers stimulate much more *spending* than would increases in local income.[9] H1 suggests that in the long term, increasing dependence on transfers will also stimulate *deficits* in Germany since they encourage the perception not only that current expenditures are funded directly by transfers from residents of other *Länder*, but also the perception that current deficits must ultimately be funded by future non-residents.

Note that short-term fluctuations in transfers might have a very different effect than long-term developments. A sustained, long-term increase in transfers might dilute incentives for fiscal discipline, while a single-year increase in transfers might, if anything, lead to a smaller deficit (or larger surplus), especially since transfers are more discretionary and difficult for budget forecasters to predict than other forms of revenue. Thus it is important to use an estimation technique that distinguishes between short-term and long-term changes.

[FIGURE 3 ABOUT HERE]

[9] For a review, see Hines and Thaler (1997).

Figure 3 illuminates trends and inter-state differences in real intergovernmental grants per capita.[10] It shows that transfers are relatively low and growth is minimal in the three wealthiest states—Bayern, Hessen, and Nordrhein-Westfallen— and demonstrates a gentle upward trend in the other states, with a more pronounced increase in Bremen and Saarland. Additionally, Figure 3 shows a general downturn associated with unification after 1991.

B. Jurisdiction Size

The intergovernmental common resource problem might also be shaped by the size and structure of jurisdictions. A well-known argument asserts that moral hazard is most severe among the largest jurisdictions, whose leaders know that they are "too big to fail" (Wildasin 1997). Such jurisdictions are large enough that their fiscal activities and credit reputations create sufficient externalities that the rest of the federation cannot allow them to default. Knowing this ex ante, these jurisdictions might strategically adopt loose fiscal policies. There are reasons to be suspicious of this logic in Germany. Above all, political parties create electoral externalities that force state-level leaders to be concerned with federation-wide collective goods. If the government of a large state like Nordrhein-Westfallen would trigger massive federal bailouts by strategically overspending, it would likely bring embarrassment on the party and undermine the career advancement of state-level politicians. If anything, the embarrassment associated with fiscal mismanagement might be lowest in the smallest states that produce the fewest externalities, and where bailouts would be relatively inexpensive. Additionally, small state might have more rational bailout expectations because their over-representation in the *Bundesrat* enhances their bargaining power (Seitz 1998).

H2: Average deficits are highest in the smallest states.

Table 2 presents average population data along with averages for other key variables. One need only eyeball Figure 1 and Table 2 to see that H2 has some merit, but there are a number

[10] This includes all transfers from the *Bund* to the *Länder*, including jointly financed programs through the so-called "joint tasks," and the supplementary transfers described above. Since the former are distributed according to population, cross-state differences in per capita grants are driven by the latter.

of alternative mechanisms that could relate size to fiscal management. Above all, small jurisdictions might be less economically diversified and hence more vulnerable to shocks (note the volatility for the small states in Figure 1), and they may not enjoy scale economies in the production of some public goods. An empirical study of 10 states is insufficient to distinguish between these possibilities, but in any case, it is important to include relative jurisdiction size (population as a share of total) in any model that allows variations across states to influence the error term.

[TABLE 2 ABOUT HERE]

C. The Business Cycle

Most empirical studies of government budgeting start with a benchmark assumption based on Barro (1979) and Lucas and Stokey (1983) that governments will attempt to smooth tax rates over time. However, this model is not useful among subnational governments that possess limited authority to tax. Studies of subnational governments have examined the expenditure side, finding evidence for inter-temporal smoothing of specific kinds of capital expenditures (Holtz-Eakin and Rosen 1993, Rattsø 1999, 2000), but evidence for non-durable, current or total expenditures is lacking (Holtz-Eakin, Rosen and Tilly 1994, Rattsø 2000). Bayoumi and Eichengreen (1994) examine the hypothesis that state and local governments in the United States and elsewhere conduct Keynsian counter-cyclical stabilization policies. Finally, Seitz (2000) presents a theoretical model of subnational fiscal decision-making that is tailored to the German *Länder*. While the tax-smoothing model takes government expenditures as exogenous and posits that a benevolent government smoothes tax rates over time in order to minimize the deadweight loss imposed on consumers by progressive tax rates, the Seitz model assumes that revenues are fixed and derives an optimal policy rule for expenditures. In this model, Keynsian fiscal stabilization is ruled out— expenditures and revenues are modestly pro-cyclical but budget deficits are counter-cyclical. H3 adopts the Seitz hypothesis:

H3: In the short term, deficits are counter-cyclical with respect to GDP and Unemployment

To control for H3, the model includes real *Land*-level GDP per capita and unemployment levels. The econometric models below cannot adequately ascertain whether state governments actually attempt to smooth expenditures over time—this would require an empirical strategy for distinguishing between expected fluctuations in income (revenue) and "shocks." However, it is

possible to examine whether deficits and expenditures move with or against the business cycle. H3 seems especially plausible with respect to unemployment rates, since increases are likely to place burdens on the social spending obligations of the *Länder*. Bayoumi and Eichengreen (1994) use aggregate data on the entire *Land* sector to conclude that the *Land* fiscal policy is in fact counter-cyclical. By using disaggregate GDP and unemployment data and a fully specified model it is possible to make a much firmer conclusion.

D. Electoral Budget Cycle

The literature on electoral cycles is too large to review here (See Alesina 1989, Alesina and Roubini 1992), but the basic propositions are well known. Starting with Nordhaus (1975) and Tufte (1978), political economists have suggested that opportunistic incumbent politicians have incentives to use the tools of fiscal and monetary policy to heat up the economy prior to elections, and several scholars have attempted to assemble empirical evidence of macroeconomic fluctuations prior to elections. Most recently, a second generation of political business cycle models argues that large macroeconomic fluctuations before elections are not sustainable, and instead seeks out evidence of electoral cycles on monetary and fiscal policy instruments (Cukierman and Meltzer 1986, Rogoff and Sibert 1988, Rogoff 1990).

This latter view of electoral cycles is most appropriate for fiscal policy at the *Land* level in Germany. *Land* governments certainly cannot manipulate macroeconomic conditions during the run-up to *Land* elections, nor do they control monetary policy instruments, but they do have control over spending and borrowing decisions and even though they do not set tax rates, they are responsible for collection. Incumbent *Land* governments may face incentives to increase spending on highly visible public goods or particularistic projects for important constituents or reduce their tax collection efforts during elections campaigns (Wagschal 1996).

H4: Deficits are higher in fiscal years that fall during a Land election campaign period.

The campaign period is defined as the six-month period preceding any *Land* election. If the election is held in July or later (the full six month campaign period falls in the same calendar year as the election), the *Land*-year is coded as 1 for the electoral budget cycle variable. If the election is held during the months of March through June, the year of the election receives a .5, along with the previous year. If the election is held during January or February, the deficit effect

would show up primarily in the previous year, so the election year receives a 0, while the previous year receives a 1.[11]

E. Partisan Budget Cycle

The literature on partisan economic cycles is also voluminous. Since Douglas Hibbs (1977), political economists have argued that parties of the left and right represent the interests of different constituencies and, when in office, promulgate policies that favor them. In particular, Hibbs assumes that left-wing parties are more concerned with the problem of unemployment and right-wing parties are more concerned with inflation. This implies that partisan differences should show up in systematic and permanent differences in the unemployment/inflation combination chosen by different political parties. The *Länder* certainly to not have the power to choose these combinations, but a more recent literature on fiscal policy may have direct application in the *Länder*. First of all, the fiscal management of left-wing governments might be marked by greater sensitivity to unemployment. Specifically, since the *Länder* have little autonomy to set tax rates but considerable borrowing and spending autonomy, left-wing governments with a commitment to combat unemployment may have no other options during downturns than to increase expenditures financed by borrowing. In other words, H3 above might be more pronounced in *Länder* controlled by the left.

H5: The short-term counter-cyclicality of deficits with respect to unemployment is strengthened by left partisanship.

Partisanship might affect not only short-term management of the business cycle, but also long-term expenditure and borrowing patterns. In a study of the U.S. states, Alt and Lowry (1994) argue that Democrats simply prefer higher expenditure levels than Republicans, and that states controlled by Democrats spend (and tax) more per capita than those controlled by Republicans. Survey data presented by Manfred Schmidt (1992: 58) shows that SPD supporters prefer higher expenditure levels than CDU supporters. Given the lack of revenue autonomy, the only way for left-wing governments in the *Länder* to live up to expectations is to rely on deficit spending (Wagschal 1996).

H6: Control by left-wing parties is associated with higher deficits

[11] Another strategy is to weight each year by the number of "election campaign months" that fall within it. This yields very similar results to those presented below.

There are several potential ways to measure partisanship. The simplest way to estimate separate effects of unemployment on deficits for left and right governments is to create a dummy variable that takes the value 1 for years in which the SPD governs alone or is the senior coalition partner, and the value 0 for years when the CDU or CSU governs alone or is the senior coalition partner. To examine H6, it is useful to create a continuous variable that takes into consideration the possibility that, for instance, demands for expenditures might be lower in an SPD/FDP coalition than when the SPD governs alone. Of course party ideology is difficult to scale, but a useful technique has been developed by Huber and Inglehart (1995), who use surveys of expert political scientists, political sociologists, and survey researchers who are asked to place parties on a 10 point scale from left to right. Huber and Inglehart report the following mean positions for German parties: Greens 2.91, SPD 3.83, FDP 5.64, CDU 6.42, and CSU 7.3.[12] For coalitions, I simply take averages of the scores for the coalition members. For election years, I use weighted averages of the scores of the pre- and post-election coalitions, weighted by the number of months in the tenure of each. Averages over the entire period are displayed in Table 2. The most left-leaning state is Bremen, with an average score of 3.86, while the most conservative state is Bayern.

Given the intertwined nature of German political federalism, it is useful to examine not only the partisanship of the *Land* governments, but that of the central government as well. One possibility, examined by Jones et al. in Argentina, is that federal-state co-partisanship allows for the internalization of externalities associated with state-level fiscal behavior. That is, strategic over-spending with bailout expectations is politically self-defeating when the state's leadership is the same partisan color as the federal government. It would damage the party's reputation and possibly the careers of state officials. On the other hand, members of the opposition party might be tempted to overspend or avoid adjustment and blame the resulting fiscal problems on the central government.

H7: Deficits are higher when the Land and Bund are controlled by different parties.

H7 could easily go in the opposite direction as well. It may also be plausible that the *Länder* controlled by the central government will expect favorable treatment in the distribution of supplementary grants in the present and future periods, thus providing incentives for lax fiscal behavior in the current period.

A dummy variable was constructed that takes on 1 for years in which senior coalition partners were the same at the federal and state level and 0 otherwise. Averages are displayed in

[12] Alter (2000) conducts several quality checks and reports that the survey respondents are very consistent with one another and their responses are very consistent with other studies.

Table 2, showing that Saarland's voters are remarkably adept at bucking national trends—only 10 percent of the time was the *Land* government controlled by the federal majority party. At the other end, the figure is around 60 percent for Baden-Wuerttemberg, Bayern, and Hessen. A more complex variable was also created as follows: When the federal and *Land* governments have no parties in common, the case receives 0 points. When the junior coalition partners are the same but the senior partners differ, the case receives 1 point.[13] When the senior coalition partners at both levels are the same, but each has a different junior coalition partner, the case receives 2 points. When either (a) the coalitions are identical or (b) the *Land* party governs alone while its federal counterpart is the senior coalition partner in Bonn, the case receives 3 points. Again, election years in which changes take place are weighted averages of the two scores.

F. Political Fragmentation

Several theories suggest that fragmented or polarized coalitions run larger deficits and accrue higher levels of public debt. Roubini and Sachs (1989a, 1989b), Alesina and Drazen (1991), and Drazen and Grilli (1993) argue that when persistent deficits become problematic, parties in government are likely to disagree about who should bear the costs of adjustment. In the case of unified, single-party government, it should be relatively easy to externalize these costs onto some group that is not part of the governing party's constituency. When two or more parties must agree, however, either because of coalition government, or because of divided government between branches, distributional conflicts over the costs of adjustment may prevent or delay the necessary adjustments to taxes or spending. Again, the empirical method used here does not differentiate between expected and unexpected shocks in order to explicitly examine adjustment, but the logic should lead to larger deficits in states with more veto players.

H8: More political fragmentation is associated with higher deficit levels.

Although the measurement of such a variable is rather complicated when comparing countries, it is relatively straightforward in the *Land* context. Following Tsebelis (1995), I assume that each coalition member is a potential veto player, so one point is assigned for each coalition member. A single-party government receives one point and a two-party coalition receives two points (there are no three party coalitions during this period). Again, when necessary, election years are coded by using weighted averages. Perhaps a better alternative measurement goes beyond the number of veto players and considers their ideological spread. A

[13] This was quite rare. The only scenario in which this is the case, in fact, is when the FDP is in coalition with the CDU at one level and the SPD at the other.

coalition with large ideological distance separating its members might find it harder to allocate costs of adjustment. This variable takes on the value zero for one-party governments, and the distance between the Huber-Inglehart scores for two-party coalitions. The largest ideological spread is, of course, a grand coalition of the CDU and SPD (2.59); the smallest is between the CDU and FDP (.78). Table 2 shows that the average ideological spread in Bayern and Schleswig-Holstein was zero. Bavaria has been controlled by the CSU alone during the entire period, and Schleswig-Holstein moved directly from the CDU alone to the SPD alone in 1988. Hessen has been the most fragmented state, with three different types of coalitions during the period under analysis.

G. Electoral Competitiveness

Alesina and Tabellini (1990) and Persson and Tabellini (2000) explore the possibility that debt is used strategically by politicians who expect to lose elections and seek to tie the hands of their successors by forcing them to take on debt payments that crowd out other forms of expenditure. This leads to the hypothesis that deficits are larger in extremely competitive political systems where incumbents frequently have low reelection expectations. Noting that very little empirical support has been found for this hypothesis, Alt Lassen and Skilling (2000) propose a slightly different model that produces the opposite prediction. Their model suggests that in a highly competitive political system in which incumbency is shared evenly between competing parties, incumbent party *a* is concerned that if it loses power to party *b*, rather than simply being saddled with unwanted debt, *b* will be able to impose some of the costs of adjustment onto the constituents of *a*. Thus high probability of losing office gives incumbents incentives to seek compromise and avoid unnecessary deficits, while incumbents who do not fear removal from office will feel free to raise debt because they expect to maintain control over the allocation of the adjustment burden.[14]

H9: Lower levels of political competition are associated with larger deficits.

I use an index of political competition used by Alt, Lassen, and Skilling, calculated as 1 minus a Herfindahl "political concentration index": $1-\Sigma \alpha_i^2$ where α_i is the proportion of time in office (as senior coalition partner) for party *i*, and $\Sigma \alpha_i^2 = 1$. The competition index moves from 0 to 1 as competition increases. Table 2 shows that when a state has been completely dominated by one party (e.g. Bayern), the index is zero. The most competitive state is Schleswig-Holstein at

[14] Their model also includes an additional fiscal discipline mechanism associated with electoral competition. Party *b* will be able to open the books and reveal any inefficient behavior undertaken by *a*.

.43 (.5 would indicate incumbency shared evenly between the CDU and the SPD). This index is useful for cross-sectional analysis, but it does not vary over time. For time-series cross-section analysis, it is difficult to come up with a proxy of "incumbent's perceived reelection probability." The most reasonable proxy is the incumbent senior coalition partner's vote share in the most recent election.

V. Empirical Approach

The data set consists of observations for each of the "old" German *Länder* for each year between 1974 and 1995.[15] A very short time series and vastly different budgeting circumstances mitigate against including the new *Länder*. Likewise, the special status of Berlin both before and after unification requires that it be excluded. Additionally, the years 1994 and 1995 are dropped for Bremen and Saarland because massive bailouts received in those years caused grants to balloon, and budgets were 'artificially' balanced by federal intervention. In addition to the *Land* averages presented in Table 2, Table 3 presents descriptive statistics.

[TABLE 3 ABOUT HERE]

Several potential econometric strategies present themselves. Hypotheses related exclusively to fiscal adjustment are best tested by examining expenditure responses to expected and unexpected changes in income or revenue. However, the focus of this paper is on determinates of deficits, and the goal is to provide the most complete specification possible. Some of the hypotheses presented above are primarily about cross-*Land* differences, while others require analysis of changes over time within *Länder* —some short-term and some long-term. Consider the role of partisanship. H5 requires time-series cross-section analysis of short-term changes in unemployment, estimating separate effects for left- and right-controlled governments. Such a model should focus on changes and include fixed *Land* effects. However, H6 (the independent effect of ideology on deficits) cannot very well be tested with a first differenced model including fixed effects because the partisan compositions of the *Länder* are very stable

[15] Data on government composition, election timing, and vote shares were taken from the American Institute for Contemporary German Studies (http://www.jhu.edu/~aicgsdoc/wahlen). Fiscal, unemployment, and population data were downloaded from the *Statistisches Bundesamt* (http://www.statistik-bund.de). GDP data were kindly provided by the statistical office of Baden-Wuerttemberg. These data were also used to calculate *Land*-level deflators used to adjust all fiscal data for inflation.

over time. Moreover, the argument behind H1 (transfer dependence) requires a model that differentiates between short-term and long-term effects.

To address these concerns, the empirical analysis proceeds in three stages. The first and most reliable group of time-series cross-section models uses the error correction set-up to differentiate between short- and long-term effects of key variables. These models focus on changes and include *Land* dummies to remove cross-section effects. Next, in order to allow for some cross-sectional effects, a model is estimated using levels and dropping the fixed effects. Finally, in spite of the low degrees of freedom (only 10 *Länder*), it is instructive to estimate a simple between-effects model on cross-section averages to illuminate the effects of persistent cross-state differences.

Given that the data set includes 10 cross-section units and 21 years and includes lags and fixed effects, one must be concerned about obtaining biased estimates with any estimation technique. Monte Carlo analysis by Judson and Owen (1999) suggests that the 1-stage GMM estimator slightly out-performs the LSDV estimator for such a data set. Thus the results below are estimated using the GMM estimator derived by Arellano and Bond (1991), but in fact very similar results can be obtained with OLS or LSDV using panel-corrected standard errors. The Arellano-Bond technique relies on the use of first-differences and instrumental variable estimation, where the instruments are the lagged explanatory variables (in differences) and the dependent variable in level lagged twice.[16] As recommended by Arellano and Bond, (1991) one-step robust results are presented and used for inference on coefficients. The error correction version of the model looks like this:

$$\Delta\, Surplus\,(t) = \beta_0 + \beta_1 Surplus\,(t\text{-}1) + \beta_2 \Delta Surplus\,(t\text{-}1) + \beta_3 \Delta Grants\,(t) + \beta_4 Grants\,(t\text{-}1) + \beta_5 \Delta GDP\,(t) + \beta_6 GDP\,(t\text{-}1) + \beta_7 \Delta Unemployment \times Right(t) + \beta_8 \Delta Unemployment \times Left(t) + \beta_9 Unemployment \times Right(t\text{-}1) + \beta_{10} Unemployment \times Left(t\text{-}1) + \beta_{11} Ideology(t) + \beta_{12} Election\ \mathrm{Year}(t) + \beta_{13} Partisan\ Similarity(t) + \beta_{14} Fragmentation(t) + \beta_{15} Most\ Recent\ Vote\ Share(t) + Land\ and\ Year\ Dummies + \varepsilon$$

The dependent variable is the change in real surplus per capita.[17] The lagged change and lagged level of the dependent variable are included. The use of both levels and changes on the economic variables allows for a straightforward interpretation of their effects. The coefficient on

[16] This approach was first suggested by Anderson and Hsiao (1981) and developed further by Arellano and Bond (1991). For an overview, see Baltagi (1995), chapter 8.
[17] Surpluses are positive numbers and deficits are negative.

the lagged level of real grants per capita measures the long-term or permanent effect on the surplus (H1), while the coefficient for the first difference measures short-term or transitory effects. Similarly, the coefficients for the lagged levels of GDP and unemployment estimate the long-term effects of economic change, while the coefficient for the change variable allows one to examine short-term responses to the business cycle (H2). In accordance with H5, separate unemployment effects are estimated for left- and right-run governments. The election year dummy is included (H4), along with the continuous ideology variable (H6), the vertical partisan similarity dummy (H7), the continuous political fragmentation variable (H8), and the vote share of the senior coalition member in the most recent election (H9). The model also includes a full set of *Land* dummies, and in order to control for the impact of events like the oil crisis in the early 1970s and unification in the early 90s, a full set of year dummies is included as well.

[TABLE 4 ABOUT HERE]

The results of this model are presented in Table 4. In addition to the surplus model, Table 4 also reports the results of identical models that use real expenditures per capita and real revenues per capita as dependent variables. For some of the hypotheses, it is helpful to examine whether variables that effect fiscal balance are working through the expenditure side or the revenue side or both. Each of these models performs well. For each model, a Wald test of the null that all of the coefficients except the constant are zero is soundly rejected, and an Arellano-Bond test finds no evidence of first- or second- order auto-correlation in the differenced residuals. The results presented in Table 4 should be quite trustworthy. Similar results have been obtained using other estimation techniques, and experiments with dropping states reveal that the results are not driven by outliers (e.g. Bremen or Saarland).

[TABLE 5 ABOUT HERE]

The results presented in Table 5 must be approached with more caution, but they provide valuable information. These models use the OLS estimator (with panel-corrected standard errors and a lagged dependent variable) using *levels* at year *t* and dropping the *Land* dummies in order to allow cross-state variation to affect the results. This allows for a better examination of factors

like ideology that change little over time within states, but the results are more sensitive to the inclusion and exclusion of cases, and it is difficult to distinguish between short- and long-term relationships. Since H1 only deals with the long-term effects of grants, these models use a 5-year moving average rather than yearly levels of the grant variable.

[TABLE 6 ABOUT HERE]

Finally, Table 6 presents the results of the most blunt models—OLS regressions on cross-section averages. All of the variables are the same except the political competition index, which replaces the vote share of the governing party as the indicator of electoral competitiveness. Of course one should not expect significant results when 8 variables are included and n=10, but several variables do approach statistical significance in the full model. Table 6 presents the results of models that drop the one variable (political fragmentation) that does not come close to significance in the full model. The models explain over 99 percent of the cross-state variation in surplus, revenue, and expenditure, and several coefficients attain significance at the 5 percent level.

VI. Results

A. Equalization and Grants

The results presented in Tables 4 through 6 tell an interesting story about intergovernmental grants in Germany. First of all, short-term increases in grants have a large positive effect on fiscal balance (the first column in Table 4). Not surprisingly, other things equal, increases in grants have large positive effects on revenues (the third column), but it is quite interesting that they have no discernable effect on expenditures in the short term (the second column). This may suggest that *Land* decision-makers are attempting to smooth out short-term fluctuations in grants.

However, upon examination of the coefficients for lagged grant levels, there appears to be strong support for H1. Controlling for developments in GDP and unemployment, a long-term increase of 100 DM per capita in intergovernmental grants is associated with a decrease of 13 DM per capita in fiscal balance. The revenue and expenditure equations show that an increase of

100 DM in grants is associated with only 30 DM in increased total revenue, but an increase of 86 DM in expenditures. Thus there appears to be a long-term flypaper effect—increases in grants stimulate increased expenditures and larger deficits.[18] Note that these results are not affected by cross-state differences, but rather exclusively by developments within states over time. In Table 5, which does allow for cross-sectional variation, the coefficient for the moving average of real grants per capita is even larger and significant at the five percent level, and again, the coefficient in the expenditure equation is over twice as large as that in the revenue equation. Finally, Table 6 and the scatter-plot presented in Figure 4 tell a similar story—other things equal, more transfer-dependent *Länder* run larger deficits.

[FIGURE 4 ABOUT HERE]

One might suspect that grant levels should be treated as endogenous. First of all, it seems plausible that if grants are used as a kind of gap-filling, a deficit in year *t* might "cause" higher grants in year *t+1*. However, Granger causality tests (not reported) showed that no matter what lag structure is used, there is no evidence that deficits "cause" grants. Furthermore, one might suspect that a two-equation system would be preferable if increasing grants are in fact driven by changes in unemployment, GDP, or partisan composition. However, these variables perform surprisingly poorly in regressions on grants per capita.

B. Jurisdiction Size

Since the models in Table 4 control for fixed effects, the size variable is only included in the models in Table 5 and 6. Table 5 suggests that smaller states run larger deficits, though the coefficient is only significant at the ten percent level. The coefficient in the between-group effects model presented in Table 6 does not quite obtain significance, but does so in a variety of pared-down specifications. The relationship is demonstrated in Figure 5. However, it is not possible to draw any conclusions about causality—explanations based on scale economies, volatility, and moral hazard are all plausible.

[18] A concern with this model is that grants may be a mere reflection of fluctuations in unemployment and GDP if they are redistributive by design. However, unemployment and GDP per capita perform rather poorly in regressions

[FIGURE 5 ABOUT HERE]

C. Business Cycle

It is possible to reject rather firmly the notion that the *Länder* conduct counter-cyclical fiscal policy. In fact, the evidence suggests procylicality. The "GDP change" line in Table 4 shows that revenues and expenditures move with the business cycle—revenues more so than expenditures—but fluctuations in GDP have no discernable effect on deficits.[19] The coefficients for revenue and expenditures are virtually identical to those in a recent study by Seitz (2000) that uses a different estimation technique.[20] The "change in unemployment" coefficients (broken down into separate coefficients for CDU-led and SPD-led governments) are positive for the surplus, again indicating pro-cyclicality. As unemployment rates go up, the equalization system does apparently respond with extra revenue (the coefficients in the right hand column are positive and significant), but expenditures go down and the surplus actually goes up. Together with Seitz (2000), these results confirm that there is nothing like Keynsian counter-cyclical fiscal management going on in the German federal system.

D. Electoral Budget Cycle

The analysis finds strong support for the electoral budget cycle hypothesis. Table 4 suggests that state governments spend an extra 46 DM per capita during election years, and the deficit expands by 57 DM per capita. The revenue result is quite interesting as well. Even though the states have very limited authority over tax rates, their discretion in collection appears to allow them to reduce revenue collection by around 21 DM per capita during election years. Note that the specifications in Table 4 include dummies for each year, which tends to suppress the significance of the election year dummy. When the year dummies are excluded, the election year

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on grants per capita (not reported). The correlation between grants and GDP is .11, and between grants and unemployment is .5.

[19] The coefficients for lagged GDP demonstrate that in the long run as states get wealthier, they spend and borrow more.

[20] The only difference is that Seitz finds evidence in favor of modestly counter-cyclical deficits.

dummy is significant at the one percent level in each model, and the coefficients are substantially higher.

E. Partisan Budget Cycle

In both the short- and the long-term, Table 4 suggests that CDU-led and SPD-led *Länder* have very similar responses to changes in unemployment—the positive (pro-cyclical) coefficients are virtually identical. Separate effects for GDP on fiscal outcomes in left- and right-run *Länder* (not reported) also did not yield significant differences between the two types of government. These findings are quite similar to those reported in Seitz (2000). Thus considerable doubt is cast upon H5, and the ideology variable (H6), though positive as predicted, is not statistically significant. However, given the stability of partisan composition in most of the *Länder,*[21] it is necessary to introduce cross-section variation to test H6. Table 5 demonstrates that more conservative *Länder* spend less and run smaller deficits. Table 6 and Figure 6 show that the relationship is indeed driven by persistent cross-*Land* variation.

[FIGURE 6 ABOUT HERE]

Turning to H7, no support is found for the proposition that federal-state co-partisanship affects fiscal outcomes in the fixed-effects models. In the model without fixed effects, the coefficient is the opposite of that predicted by H7. That is, expenditures were higher and deficits larger in states controlled by the party in power in Bonn. It should be noted, however, that this finding is quite vulnerable to alternative specifications, and when the alternative three-point variable is used, the coefficient is not statistically significant. It also does not achieve significance in the simple cross-section model.

F. Political Fragmentation

No support is found for the common wisdom that political fragmentation leads to budget deficits (H8). In fact, in the model with fixed effects, the coefficient is positive and significant, suggesting that greater ideological spread between coalition members is associated with *smaller* deficits. Again, though, the significance of this coefficient is sensitive to the estimation

technique employed and the variables included, and the result should be approached with caution.

G. Political Competition

The vote share of the senior coalition partner in the most recent election—an (admittedly imperfect) proxy for reelection expectations—does not perform well in time-series cross-section models, but the political competition index does achieve significance at the ten percent level in the cross-section model. However, Figure 7 casts some doubt on the relationship. On the left hand side, a number of states have been dominated by the SPD or CDU/CSU (the index =0), with widely varying fiscal outcomes ranging from Bayern's balanced budgets to Bremen's massive deficits, though it is also true that none of the states with high levels of political competition run large deficits.

All in all, it is difficult to make firm assessments of H8 and H9. They both might capture different aspects of the competitiveness of *Land*-level politics. The fragmentation index assesses whether the governing party (CDU or SPD) must share power and with whom, while the competition index measures the long-term alteration in governing parties. Although the results are rather weak, if anything they suggest that dominant single-party governments—with the exception of CDU/CSU-dominated Baden-Wuerttemberg and Bavaria—are likely to run larger deficits. This finding is consistent with results from a study of the Argentine states (Remmer and Wibbels 2000).

VII. Implications and Conclusions

With their similar institutions and cultures, the German *Länder* present an excellent opportunity to test a variety of general theories about politics and fiscal management that have previously been examined only with cross-country data. Perhaps more importantly, this paper also examines some propositions that are unique to subnational units that have expenditure and borrowing authority but little autonomy on the revenue side—the basic situation of most state and local governments around the world. Table 7 provides an overview of the findings.

[21] In the Western *Länder* the best predictor of partisanship is still the Catholic-Protestant divide.

[TABLE 7 ABOUT HERE]

As in cross-national studies, the *Länder* appear to spend and borrow more during election years. Although no support is found for partisan differences in the management of the business cycle, left-wing governments do spend more and run larger deficits than right-wing governments in the long term. The paper also suggests a weak yet potentially intriguing relationship between political competition, partisan fragmentation, and deficits that deserves further analysis.

Both the revenues received by the *Länder* and their expenditures are clearly pro-cyclical. Since they have little authority on the revenue side, and in fact many of their expenditures involve long-term contracts and the administration of federal policy, they apparently do not have much room to respond to shocks in unemployment and growth with countercyclical expenditures. Thus the lack of partisan differences in short-term fiscal management should not be surprising. More broadly, since most subnational governments around the world face constraints that are more similar to the German *Länder* than those of the U.S. states, these findings cast doubt on the U.S.-based proposition of Bayoumi and Eichengreen (1994) that subnational governments around the world conduct significant counter-cyclical stabilization policy. The likelihood that subnational government expenditures will be pro-cyclical should be an extremely important consideration in the literature on the design of decentralized expenditure programs, especially in Latin America and other developing countries.

The most striking findings presented in this paper have to do with the incentives created by the German system of intergovernmental transfers. The equalization system provides limited insurance against revenue shocks—it does not allow state revenues to fall far below the national average. In doing so, it actually provides that the "last" in terms of fiscal capacity per capita are actually "first" after equalization. But it does not provide insurance to compensate for income or unemployment shocks (Von Hagen and Hepp 2000), and by no means does it ensure the *Länder* that expenditures can maintain a constant growth trajectory. In other words, *Länder* are not relieved of the obligation to undertake politically painful expenditure adjustments. However, a constantly increasing flow of discretionary supplementary grants could easily create this impression. This paper has argued that these grants—coupled with the constitutional obligation to maintain equivalent living conditions—provide politicians with rational beliefs that current deficits can be shifted onto residents of other jurisdictions in the future through increased

transfers. Even if unsure whether these bailouts will be provided and precisely what form they will take, politicians in the most transfer-dependent states have few reasons to fear the wrath of voters and creditors if their debt servicing burden increases.

The findings in this paper are quite consistent with this argument. In the long run within and across states, increasing dependence on grants is associated with higher spending and larger deficits. Since the models control for a wide range of other plausible explanations for fiscal outcomes including state-level income and unemployment, it is reasonable to assume that these coefficients reflect the independent effect of transfers on fiscal behavior. Future studies might examine H1 more carefully by examining expenditure responses to expected fluctuations and "shocks" in revenues and income to see if there are differences in fiscal management between the "paying" and "receiving" *Länder* in the equalization process. In particular, H1 suggests that the "receiving" *Länder* are less responsive to negative shocks.

By no means does this paper suggest that the more transfer-dependent states are engaged in a self-conscious and conspicuous strategy of running unsustainable deficits and demanding bailouts. Prior to recent court decisions, no one knew how the federal government and courts would deal with bailout requests; Bremen and Saarland were charting new territory. Now that the precedent has been set, it does appear that any future bailouts will be associated with considerable loss of discretion over expenditures and as a result, political embarrassment. In the wake of high profile bailouts, states are not necessarily inclined to "play the Bremen strategy." If anything, they might have increased their fear of losing control over expenditures.[22] Only time will tell if the strings attached to recent bailouts imply that a new game is now being played. Thus it is not correct to conclude that the "receiving" *Länder*—these are now predominantly the new eastern *Länder*—can be expected to throw fiscal caution to the wind in the future. Though it is alarming to note that Berlin seems to be going the way of Berlin and Saarland, refusing to take efforts to reduce its staggering debt burden while intimating that the ultimate resolution will require federal intervention.

The gap between the transfer-paying and transfer-receiving *Länder* has grown into an important political division as wealthy states like Baden-Württemberg and Bavaria have become increasingly vocal in demanding reforms to the equalization system. In June of 2001, the *Bund* and *Länder* agreed to a new equalization law, to take effect in 2005. The basic structure of the

[22] Thanks to Helmut Seitz for pointing this out.

old three-stage system remains unchanged, but the wealthy states agreed to the new system because it allows them to keep a larger share of the taxes they collect.[23] But the agreement will not reduce the receipts of the relatively poor *Länder*. This apparent "win-win" scenario was possible because the central government agreed to make up the difference by committing billions of additional DM to the system. In other words, the central government will be replacing some of the horizontal redistribution between the *Länder* with direct, vertical redistribution from the *Bund* to the *Länder*, and transfer-dependence among the poorest *Länder* will only grow. Though many details of the new system remain unresolved—including the possibility of new nation-wide debt restrictions imposed on the *Länder*—this does not bode well for fiscal performance among the recipient states if current trends continue.

[23] There will be a ceiling on the amount that a *Land* must contribute to equalization—no more than 72.5 percent of the amount of its tax income that is above the national average. *Länder* will also be able to keep 12.5 percent of the amount of any yearly increase in tax receipts that surpasses the national average increase.

References

Alesina, Alberto. 1989. "The End of Large Public Debts," in Giavazzi and Spaventa, eds., *High Public Debt: THe Italian Experience*, Cambridge: Cambridge University Press.

Alesina, Alberto and Tamim Bayoumi. 1996. "The Costs and Bendefits of Fiscal Rules: Evidence from U.S. States," Cambridge, MA: NBER Working Paper no. 6914.

Alesina, Alberto and R. Perotti, "The Political Economy of Budget Deficits," Cambridge, MA: NBER Working Paper no. 4637.

Alesina, Alberto and Noriel Roubini. 1992. "Positive and Normative Theories of Public Debt and Inflation in Historical Perspective," *European Economic Review*, 36:2, 337-44

Alesina, Alrberto and Guido Tabellini. 1990. "A Positive Theory of Budget Deficits and Government Debt," *Review of Economic Studies* 57, 403-14.

Alt, James and Robert Lowry. 1994. "Divided Government, Fiscal Institutions, and Budget Deficits: Evidence from the States," *Americal Political Science Review* 88:4 (December), 811-828.

Alt, James, David Dreyer Lassen and David Skilling. 2001. "Fiscal Transparency and Fiscal Policy Outcomes in OECD Countries." Paper presented at the 2001 Annual Meeting of the Midwest Political Science Association, Chicago, IL.

Alter, Alison. 2000. "Minimizing the Risks of Delegation: Multiple Referral in the German Budesrat," paper presented at the 2000 Annual Meeting of the American Political Science Association.

Anderson, T.W. and Cheng Hsaio. 1981. "Estimation of Dynamic Models with Error Components." *Journal of the American Statistical Association* 76 (2): 598-606.

Arellano,Manuel and Stephen Bond. 1991. "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations," *Review of Economic Studies* 58, p. 277-97.

Baltagi, Badi. 1995. *Economic Analysis of Panel Data*. West Sussex, England: Wiley.

Barro, Robert. 1979. "On the Determination of Public Debt," *Journal of Political Economy* 87, 940-7.

Bayoumi, Tamim and Barry Eichengreen. 1994. "Restraining Yourself: Fiscal Rules and Stabilization," Centre for Economic Policy Research, Discussion Paper No. 1029.

Bevilaqua, Afonso. 1999. "State Government Bailouts in Brazil," unpublished paper, Inter-American Development Bank, Washington, D.C.

Bohn, Henning and Robert Inman. 1996. "Balanced Budget Rules and Public Deficits: Evidence from the U.S. States," *Carnegie-Rochester Conference Series on Public Policy* 45: 13-76.

Cukierman, A. and A. Meltzer. 1989. "A Political Theory of Government Debt and Deficits in a Neo-Ricardian Framework," American Economic Review 79, 713-33.

Deutsche Bundesbank. 1997. "Die Entwicklung der Staatsverschuldung seit der deutschen Vereinigung," *Monthly Report*, No. 3 (March). Frankfurt: Deutsche Bundesbank.

Dillinger, William and Steven Webb. 1999. "Fiscal Management in Federal Democracies: Argentina and Brazil." Policy Research Working Paper Number 2121. Washington, D.C: World Bank.

Drazen, A. and V. Grilli. 1993. "The Benefit of Crises for Economic Reform," *American Economic Review* 83:2, 588-608.

Eichengreen, Barry and Jürgen von Hagen. 1996. "Fiscal Restrictions and Monetary Union: Rationales, Repercussions, Reforms." *Empirica* 23: 3-23.

Fornasari, Francesca, Steve Webb, and Heng-Fu Zou. 1998. "Decentralized Spending and Central Government Deficits: International Evidence." Washington, D.C.: World Bank.

Franzese, Robert. 1996. "The Political Economy of Public Debt: An Empirical Examination of the OECD Post-War Experience," paper presented at the annual meeting of the Midwest Political Science Association, April 9, 1996.

Gramlich, Edward. 1991. "The 1991 State and Local Fiscal Crisis," *Brookings Papers on Economic Activity* 2: 1991.

Hibbs, Douglas. 1977. "Political Parties and Macroeconomic Policy," *American Political Science Review* 71, 1467-87.

Holtz-Eakin, Douglas and Harvey Rosen. 1993. "Municipal Construction Spending: An Empirical Examiniation," *Economics and Politics* 5, 1: p. 61-84.

Holtz-Eakin, Douglas, Harvey Rosen and Schuyler Tilly. 1994. "Intertemporal Analysis of State and Local Government Spending: Theory and Tests," *Journal of Urban Economics* 35, p. 159-174.

Huber, John and Ronald Inglehart. 1995. "Expert Interpretations of Party Space and Party Locations in 42 Societies." *Party Politics* 1, 1: 73-111.

Inman, Robert. 1997. *Do Balanced Budget Rules Work? U.S. Experience and Possible Lessons for the EMU,* NBER Reprint No. 2173.

Jones, Mark, Pablo Sanguinetti and Mariano Tommasi. 2000. Politics, Institutions, and Fiscal Performance in a Federal System: An Analysis of the Argentine Provinces. *Journal of Development Economics* 61, 2: 305-33.

Judson, Ruth and Ann Owen. 1999. "Estimating dynamic panel data models: a guide for macroeconomists." *Economic Letters* 65, 9-15.

Lohmann, Susanne, David Brady and Douglas Rivers. 1997. "Party Identification, Retrospective Voting, and Moderating Elections in a Federal System: West Germany, 1961-1989," *Comparative Political Studies* 30:4 (August), 420-449.

Lowry, Robert, James Alt and Karen Ferree. 1998. "Fiscal Policy Outcomes and Electoral Accountability in American States," *American Political Science Review* 92, 4: 759-74.

Lucas, R. and N. Stokey. 1983. "Optimal Fiscal and Monetary Policy in an Economy without Capital," *Journal of Monetary Economics* 12:1, 55-94.

McKinnon, Ronald. 1997. "Monetary Regimes, Government Borrowing Constraints, and Market-Preserving Federalism: Implications for EMU," in Thomas Courchene, ed., *The Nation State in a Global/Information Era: Policy Challenges*. Kingston, Ont: John Deutsch Institute.

Nordhaus, William. 1975. "The Political Business Cycle," *Review of Economic Studies* 42, 169-90.

Persson, Torsten and Guido Tabellini. 2000. *Political Economics: Explaining Economic Policy*. Cambridge, MA: MIT Press.

Poterba, James. 1994. "State Responses to Fiscal Crises: "Natural Experiments" for Studying the Effects of Budgetary Institutions," *Journal of Political Economy*.

_____. 1996. "State Responses to Fiscal Crises: The Effects of Budgetary Institutions and Politics," *Journal of Political Economy* 102:4, 799-821.

Rattsø, Jørn. 1999. "Aggregate Local Public Sector Investment and Shocks: Norway 1946-1999." *Applied Economics* 31, p. 577-584.

_____. 2000. "Fiscal Adjustment with Vertical Fiscal Imbalance: Empirical Evaluation of Administrative Fiscal Federalism in Norway," unpublished paper, Norwegian University of Science and Technology, Trondheim, Norway.

Remmer, Karen and Erik Wibbels. 2000. "The Subnational Politics of Economic Adjustment: Provincial Politics and Fiscal Performance in Argentina." *Comparative Political Studies* 33, 4: 419-451.

Renzsch, Wolfgang. 1991. *Finanzverfassung und Finanzausgleich*. Bonn: Dietz.

Rodden, Jonathan. 2001. "The Dilemma of Fiscal Federalism: Grants and Fiscal Performance around the World." Typescript, MIT.

_____. 2001. "Soft Budget Constraints and German Federalism." In Rodden, Jonathan, Gunnar Eskeland and Jennie Litvack, eds. 2001. *Decentralization and the Challenge of Hard Budget Constraints*. Forthcoming, Cambridge: MIT Press.

Rodden, Jonathan, Gunnar Eskeland and Jennie Litvack, eds. 2001. *Decentralization and the Challenge of Hard Budget Constraints*. Forthcoming, Cambridge: MIT Press.

Rogoff, Kenneth. 1990. "Equilibrium Political Budget Cycles," *American Economic Review* 80:1, 21-36.

Rogoff, Kenneth and Anne Sibert. 1988. "Equilibrium Political Business Cycles," *Review of Economic Studies* 55, 1-16.

Roubini, Noriel and Jeffrey Sachs. 1989a. "Political and Economic Determinants of Budget Deficits in the Industrial Democracies," *European Economic Review* 33:2, 903-33.

_____. 1989b. "Government Spending and Budget Deficits in the Industrialized Countries," *Economic Policy* 8, 99-132.

Sachverst←ndigenrat. 1997. *Wachstum, Beschäftigung, Währungsunion- Orientierung für die Zukunft: Jahresgutachten 1997/1998*. Stuttgart: Metzler-Poeschel.

Scharpf, Fritz. 1994. *Optionen des Föderalismus in Deutschland und Europa*. Frankfurt: Campus Verlag.

Scharpf, Fritz, Bernd Reissert and Fritz Schnabel . 1976. *Politikverflechtung: Theorie und Empirie des kooperativen Föderalismus in der Bundesrepublik*. Kronberg: Scriptor.

Schmidt, Manfred. 1992. *Regieren in der Bundesrepublik Deutschland*. Opladen: Leske und Budrich.

Seitz, Helmut. 1998. "Subnational Government Bailouts in Germany," unpublished paper, Center for European Integration Studies, Bonn.

_____. 2000. "Fiscal Policy, Deficits and Politics of Subnational Governments: the Case of the German Laender," *Public Choice* 102: 183-218.

Spahn, Paul Bernd and Wolfgang Föttinger. 1997. "Germany," in Teresa Ter-Minassian, ed., *Fiscal Federalism in Theroy and Practice*. Washington, D.C.: International Monetary Fund.

Tanzi, Vito. 1995. "Fiscal Federalism and Decentraliztaion: A Review of Some Efficiency and Macroeconomic Aspects," in *World Bank Annual Conference on Development Economics*. Washington, D.C.: World Bank.

Triesman, Daniel. 2000. "Decentralization and Inflation: Commitment, Collective Action, or Continuity?" *American Political Science Review* 94: 837-858.

Tsebelis, George. 1995. "Decision-Making in Political Systems: Veto Players in Presidentialism, Parliamentarism, Multicameralism and Multipartism," *British Journal of Political Science* 25:3, 289-326.

Tufte, Edward. 1978. *Political Control of the Economy*. Princeton: Princeton University Press.

Von Hagen, Jürgen and Barry Eichengreen. 1996. "Federalism, Fiscal Restraints, and European Monetary Union," *American Economic Review* 86:2, May.

Von Hagen, Jürgen, Massimo Bordignon, Matz Dahlberg, Bhahan Grewal, Per Petterson and Helmut Seitz. 2000. "Subnational Government Bailouts in OECD Countries: Four Case Studies." *Inter-American Development Bank Working Paper* R-399.

Von Hagen, Jürgen and Ralf Hepp. 2000. "Regional Risksharing and Redistribution in the German Federation." Unpublished working paper, Center for European Integration Research, Bonn.

Wagschal, Uwe. 1996. "Der Einfluss von Parteien und Wahlen auf die Staatsverschuldung," *Schweizerische Zeitschrift für Politische Wissenschaft* 2:4 (winter).

Winer, Stanley. 1983. "Some Evidence on the Effect of the Separation of Spending and Taxing Decisions," *Journal of Political Economy* 91:1.

Wildasin, David. 1997. "Externalities and Bailouts: Hard and Soft Budget Constraints in Intergovernmental Fiscal Relations." Typescript. Vanderbilt University.

Table 1: Deficits and Debt in the German Länder

	Surplus/Revenue (1992-1995 Ave.)	Debt/Capita (as of 31 Dec. 1996)
"Old" Länder		
Baden Wuerttemberg	-0.04	6539
Bayern	-0.01	4857
Bremen*	-0.14	24545
Hamburg	-0.12	16387
Hessen	-0.07	9347
Niedersachsen	-0.12	9974
Nordrhein-Westfallen	-0.06	10183
Rheinland Pfalz	-0.07	
Saarland*	-0.17	15448
Schleswig-Holstein	-0.10	11395
New" Länder		
Brandenburg	-0.27	9995
Mecklenburg-Vorpommern	-0.17	7912
Sachsen	-0.12	6149
Sachsen-Anhalt	-0.21	9641
Thueringen	-0.18	9078

Sources: Federal Statistics Office, Sachverständigenrat (1997), and author's calculations.
* Bremen and Saarland averages exclude 1994 and 1995, when balanced budgets resulted from federal bailouts.

Figure 1: Real Surplus per Capita by Land, 1974-1995

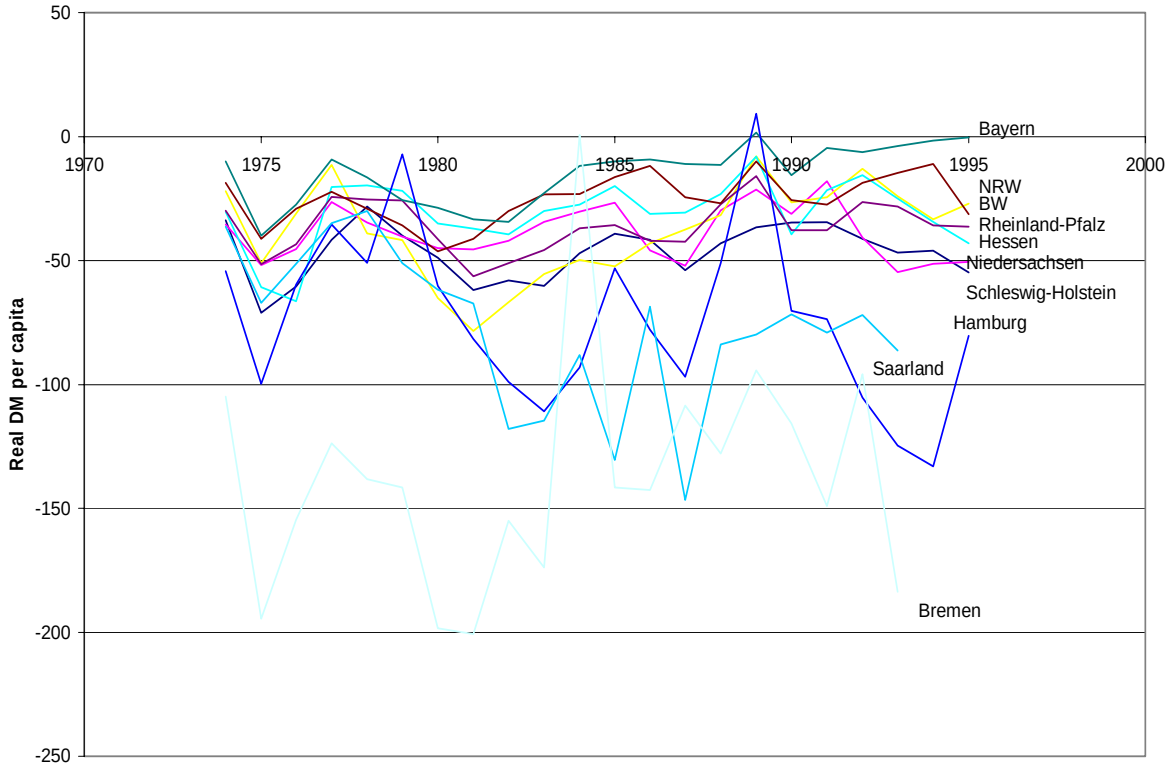

Figure 3: Real Grants per Capita by Land, 1974-1995

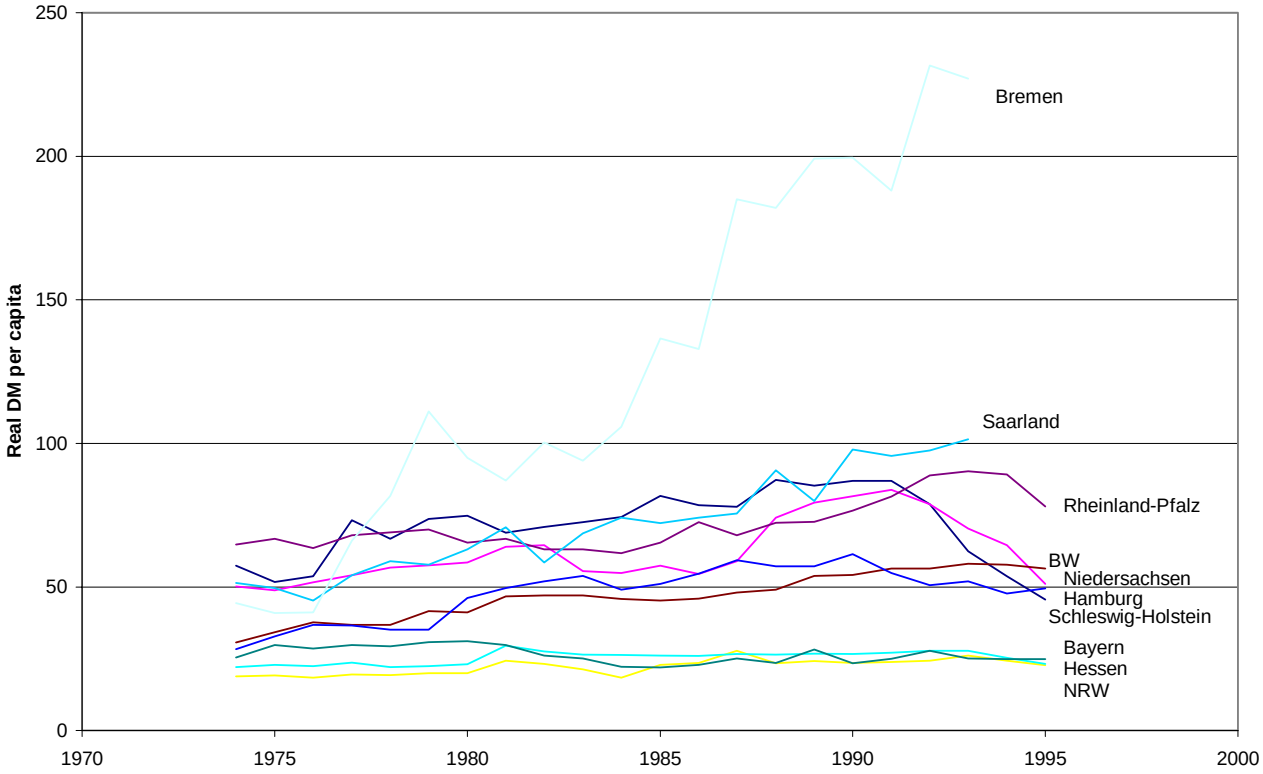

Table 2: Key Variables, 1974-1995 Averages

	Real Surplus Per Capita	Real Grants Per Capita	Population (millions)	Share of Total Pop.	Real GDP Per Capita	Unemploy-ment Rate	Ideology	Partisan Similarity	Pol. Fragment-ation	Index of Political Competition
Baden Wuerttemberg	-254.1	467	9.50	0.157	37198.7	4.377273	6.20397	0.590909	0.4320591	0
Bayern	-150.9	264.1	11.16	0.184	34814.6	5.672727	7.3	0.590909	0	0
Bremen	-1372	1274.8	0.69	0.011	44091.4	10.115	3.86375	0.45	0.203625	0
Hamburg	-731.7	477.8	1.65	0.027	59697.7	8.104546	4.097673	0.409091	0.7124818	0
Hessen	-309.5	253.7	5.66	0.094	39065	5.6	4.301009	0.590909	1.079664	0.2975207
Niedersachsen	-387.9	623.3	7.33	0.121	29453.2	8.490909	5.533736	0.318182	0.4764182	0.3966942
Nordrhein-Westfallen	-378.8	222.3	17.14	0.283	33856.5	8.081819	4.028436	0.409091	0.5281909	0
Rheinland Pfalz	-362.4	717.4	3.71	0.061	30192.6	6.35	5.945246	0.363636	0.5228409	0.2975207
Saarland	-769.6	719.1	1.07	0.018	29749.2	9.38	5.09519	0.1	0.889615	0
Schleswig-Holstein	-465.5	710.6	2.62	0.043	29890.2	7.736364	5.527627	0.181818	0	0.4338843

Table 3: Descriptive Statistics

	Mean	S.D.	Min	Max
Real Surplus per Capita	-0.00051	0.000401	-0.00201	9.28E-05
Real Expenditure per Capita	0.00537	0.002221	0.003281	0.01155
Real Revenue per Capita	0.004862	0.001973	0.002917	0.010314
Real Grants per Capita	0.000565	0.00036	0.000184	0.002315
Real GDP per Capita	0.036799	0.010033	0.023372	0.068139
Unemployment Rate	7.347222	3.176248	1.4	15.6
Election Year	0.266204	0.391439	0	1
Ideology	5.202816	1.312896	3.37	7.3
SPD Control Dummy	0.486111	0.500968	0	1
Vertical Partisan Similarity (0-3)	1.25	1.444315	0	3
Vertical Partisan Similarity (Dummy)	0.402778	0.491596	0	1
Veto Players (Ideo. Spread)	0.483339	0.74045	0	2.59
Vote Share of Govt. Party	0.492416	0.048484	0.387888	0.620783
Partisan Control Index	0.191116	0.199146	0	0.495868
Population Share	0.101659	0.083286	0.010747	0.287122

Table 4: Determinates of Land-Level Fiscal Outcomes (Dynamic Panel Data Analysis)

Dependent Variable:	Δ Real Surplus per Capita	Δ Real Expenditure per Capita	Δ Real Revenue per Capita
Dependent Variable$_{t-1}$	-0.534 ***	-0.566 ***	-0.251 **
	(0.078)	(0.123)	(0.104)
Δ Dependent Variable$_{t-1}$	-0.169 ***	-0.094	0.094
	(0.042)	(0.108)	(0.171)
Δ Grants	0.721 ***	0.024	0.645 ***
	(0.116)	(0.071)	(0.152)
Grants$_{t-1}$	-0.138 ***	0.858 ***	0.307 **
	(0.040)	(0.166)	(0.145)
Δ GDP	0.011	0.047 ***	0.093 ***
	(0.015)	(0.018)	(0.017)
GDP$_{t-1}$	-0.026 **	0.036 **	-0.0002
	(0.012)	(0.015)	(0.004)
Δ Unemployment, Right Govt.	61.5 **	-47.17	67.31 **
	(28.7)	(40.6)	(26.3)
Δ Unemployment, Left Govt.	54.7	-34.38	57.82 ***
	(35.3)	(45.6)	(22.2)
Unemployment$_{t-1}$, Right Govt.	2.9	2.47	9.9
	(14.6)	(11.6)	(6.9)
Unemployment$_{t-1}$, Left Govt.	8.5	7.12	13.14 *
	(14.1)	(10.7)	(7.1)
Ideology	28.6	9.76	5.54
	(25.0)	(16.5)	(13.7)
Election Year	-57.1 **	45.72 *	-21.18 *
	(27.0)	(27.9)	(13.3)
Vertical Partisan Similarity	-47.9	33.97	-10.42
	(36.9)	(37.3)	(12.5)
Political Fragmentation	25.3 ***	-25.88	-4.27
	(9.1)	(22.8)	(10.4)
Govt. Party Vote Share	-307.2	-559.14 *	-589.55 *
	(347.4)	(290.9)	(313.8)
Constant	0.0007	0.003 ***	0.002 ***
	(0.001)	(0.001)	(0.001)
Number of Observations	196	196	196
Number of States	10	10	10
Wald chi^2	467.92	977	1811

Robust standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
Surplus, Grants and GDP are in real per capita terms.
Coefficients for Year and Land dummies not reported
Estimation: GMM, one stage

Table 5: Determinates of Land-Level Fiscal Outcomes (Levels, no Land Fixed Effects)

Dependent Variable:	Real Surplus per Capita	Real Expenditure per Capita	Real Revenue per Capita
Lagged Dependent Variable	0.429 ***	0.846 ***	0.928 ***
	(0.118)	(0.053)	(0.039)
Grants (Moving Average)	-0.254 **	0.468 ***	0.205 **
	(0.127)	(0.166)	(0.098)
GDP	-0.003	0.028 ***	0.014 **
	(0.002)	(0.010)	(0.007)
Unemployment	-27.2 ***	27.96 **	11.71
	(10.1)	(13.0)	(7.9)
Election Year	-75.7 *	45.92	-26.79
	(45.7)	(42.9)	(30.1)
Ideology	69.6 ***	-33.18 *	-2.7
	(20.5)	(19.3)	(13.6)
Vertical Partisan Similarity	-126.5 ***	107.2 ***	35.37
	(43.0)	(37.7)	(32.5)
Political Fragmentation	36.8	-22.56	-23.47
	(28.2)	(25.2)	(18.1)
Govt. Party Vote Share	-705.0	667.59	-58.68
	(491.7)	(535.9)	(347.0)
Population Share	528.1 *	-311.24	-42.23
	(289.2)	(261.6)	(150.1)
Constant	-0.0001	-0.0005 *	-0.0003
	(0.0002)	(0.0003)	(0.0002)
Observations	206	206	206
Number of States	10	10	10
R Square	0.77	0.99	0.99

Panel-corrected standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
Note: Surplus, Grants and GDP are in real per capita terms.
Coefficients for year dummies not reported
Estimation: OLS (PCSE)

Table 6: Determinates of Average Land Fiscal Outcomes (Cross-Section Averages)

Dependent Variable:	Ave. Real Surplus per Capita	Ave. Real Expenditure per Capita	Ave. Real Revenue per Capita
Grants	-0.515 **	3.009 ***	2.494 ***
	(0.130)	(0.245)	(0.213)
GDP	0.000	0.208 ***	0.208 ***
	(0.004)	(0.008)	(0.007)
Unemployment	-73.04 *	288.67 **	215.63 **
	(26.47)	(49.9)	(43.2)
Ideology	80.04 *	139.41	219.45 **
	(26.67)	(50.3)	(43.5)
Vertical Partisan Similarity	-412.55	62.05	-350.51
	(254.8)	(480.0)	(415.8)
Political Competition Index	493.76 *	-8.41	485.35
	(134.5)	(253.4)	(219.5)
Population Share	978.56	886.82	1865.37
	(494.2)	(930.9)	(806.3)
Constant	-0.0001	-0.007 ***	-0.007 ***
	(0.0004)	(0.001)	(0.001)
Number of States	10	10	10
R Square	0.99	0.99	0.99

Standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Note: Surplus, Grants and GDP are in real per capita terms.

Estimation: OLS (between effects)

Figure 4: Grants and Fiscal Balance (1974-1995 Average)

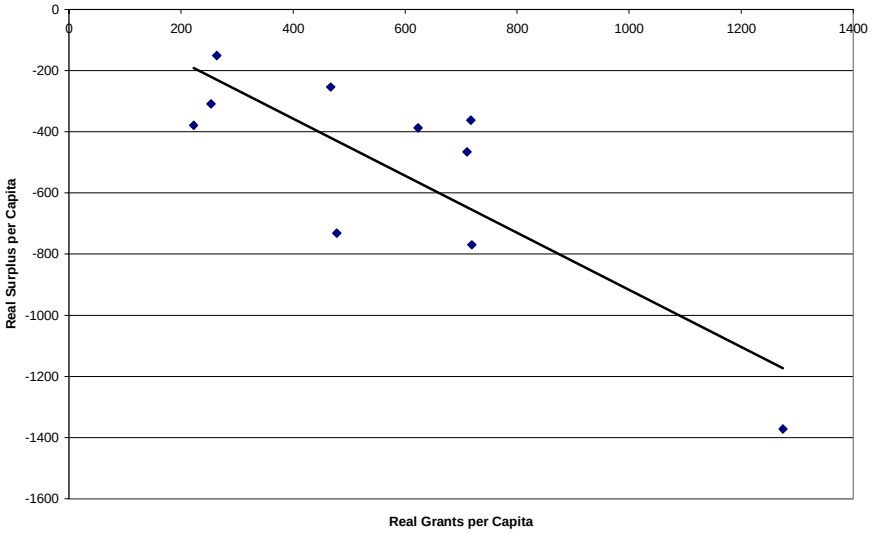

Figure 5: Size and Fiscal Balance

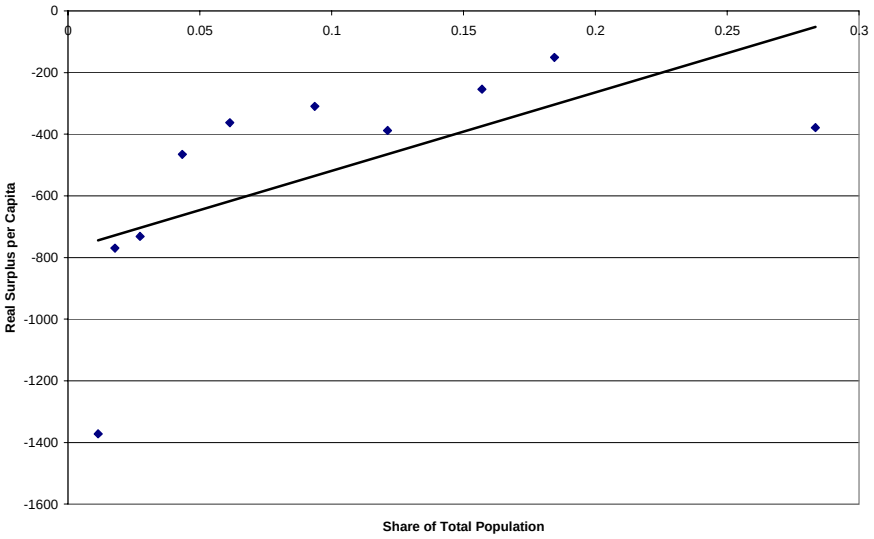

Figure 6: Ideology and Fiscal Balance

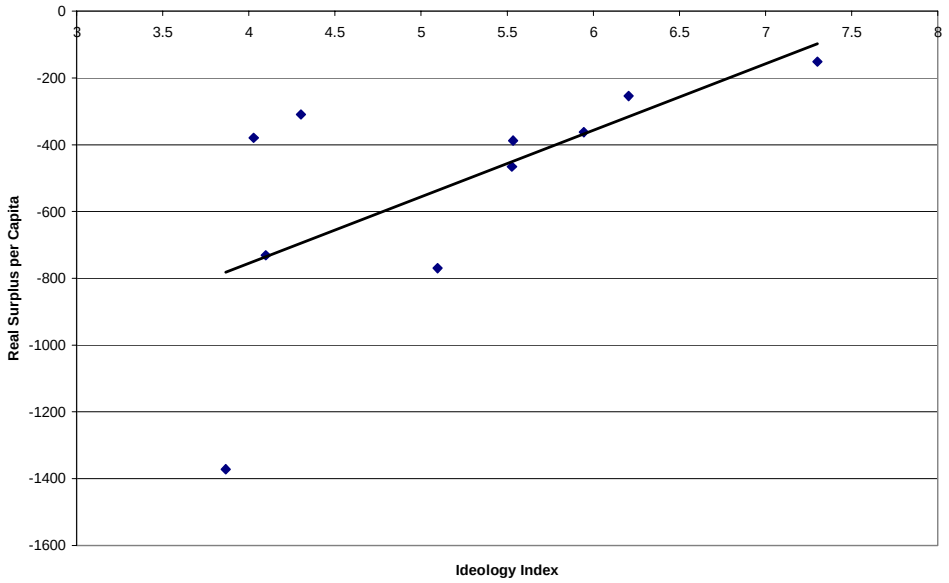

Figure 7: Political Competition and Fiscal Balance

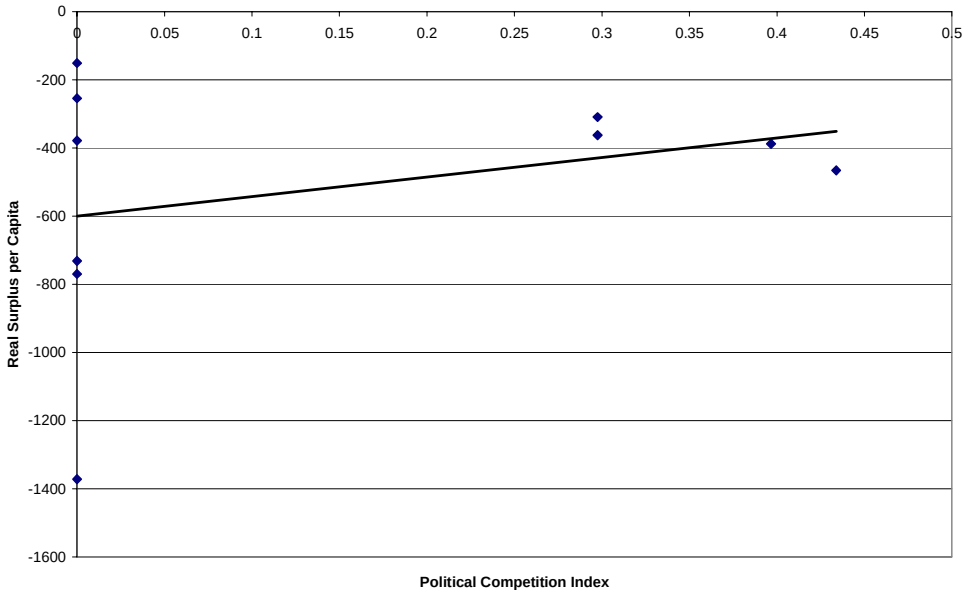

Table 7: Overview of Results

		Over Time Within Länder	Across Länder
H1	Grants	Support	Support
H2	Jurisdiction Size	na	Support
H3	Business Cycle	Opposite	na
H4	Election Cycle	Support	na
H5	Partisan Business Cycle	No Support	na
H6	Long-term Partisanship	na	Support
H7	Vertical Partisan Similarity	No Support	Opposite (Weak)
H8	Political Fragmentation	Opposite (Weak)	No Support
H9	Political Competition	No Support	No Support