View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by Research Papers in Economics

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Fiscal Institutions and Fiscal Performance

Volume Author/Editor: James M. Poterba and , editors

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-67623-4

Volume URL: http://www.nber.org/books/pote99-1

Publication Date: January 1999

Chapter Title: Introduction to "Fiscal Institutions and Fiscal Performance"

Chapter Author: James M. Poterba, JÃ¼rgen von Hagen

Chapter URL: http://www.nber.org/chapters/c8020

Chapter pages in book: (p. 1 - 12)

Introduction

James M. Poterba and Jürgen von Hagen

The rise and persistence of sustained budget deficits in many developed and developing nations during the last three decades is a subject of great concern and interest to both policymakers and researchers. The persistence of these deficits makes them incompatible with optimal fiscal strategies such as tax smoothing, and the observation that deficits rose simultaneously in many nations defies explanations focusing on particular economic developments in individual countries. Recent attempts to explain why governments run large and persistent deficits have, therefore, focused on political and institutional factors and their effect on fiscal outcomes. Turning to such factors, and by implication to differences in national political and institutional developments, may also be a promising avenue to explain why fiscal policies in countries exposed to similar economic shocks performed in remarkably different ways during the 1970s and 1980s. While precise evaluation of the economic effects of budget deficits is a difficult exercise, leading figures in many nations have called for deficit reduction, and there have been numerous policy debates concerning the design of fiscal institutions that will restrict budget deficits and limit the growth of national debt. Several nations—New Zealand, Denmark, Sweden, and Ireland, to name just a few—adopted institutional changes in the 1980s and 1990s hoping that this would enable them to achieve greater fiscal discipline.

The Maastricht Treaty's provisions for European Monetary Union (EMU) have also drawn increased attention to the relationship between fiscal rules and

James M. Poterba is the Mitsui Professor of Economics at the Massachusetts Institute of Technology and director of the Public Economics Research Program at the National Bureau of Economic Research. Jürgen von Hagen is professor of economics at the University of Bonn, a director of the Zentrum für Europäische Integrationsforschung (Center for European Integration Studies) of the University of Bonn, and a fellow of the Centre for Economic Policy Research, London.

The authors are grateful to the National Bureau of Economic Research, the University of Bonn's Zentrum für Europäische Integrationsforschung, and the National Science Foundation (Poterba) for research support.

fiscal policy outcomes. To avoid situations in which deficit spending by a member nation could necessitate a "bailout" by the European Central Bank, the treaty requires that EMU member nations avoid "excessive deficits," that is, deficits exceeding 3 percent of GDP. The Stability and Growth Pact signed in Amsterdam in June 1997 strengthened the Maastricht Treaty's original provision by adding a quasi-automatic review process and financial fines imposed on countries having excessive deficits. How such antideficit provisions will affect the fiscal performance of the EMU member countries, however, remains an open question. While it is easy to write such rules into a treaty, it is much more difficult to enforce them and to evaluate their net effect on fiscal policy. Member nations might respond, as the designers of the rules intended, by carefully avoiding large deficits and by reacting promptly to negative fiscal shocks by raising revenues and reducing outlays. But member nations might also respond by shifting expenditures to off-budget accounts or engaging in other types of "creative accounting" that would enable them to comply with the letter, but not the spirit, of the antideficit provisions.

The effect of budget institutions, including such deficit rules, on fiscal policy outcomes has been an active subject of theoretical and empirical research in the last decade. There is now a substantial literature that attempts to model the interaction between fiscal rules and fiscal outcomes, and that provides empirical evidence on the importance of these links. Stimulated in part by political processes such as European monetary unification and calls for a balanced-budget amendment in the United States, researchers have studied cross-country differences in fiscal institutions, the rare episodes of budgetary reform in individual nations, and the budgeting and financing rules of the U.S. states. These studies are designed to obtain new insight on the relationship between fiscal rules and fiscal policy outcomes. Research in this area involves a constant interplay between political-economic modeling, case study and institutional analysis, and statistical investigation.

In the inaugural research meeting of the University of Bonn's Zentrum für Europäische Integrationsforschung (ZEI), a group of researchers met in June 1997 at a conference cosponsored by ZEI and the National Bureau of Economic Research (NBER) to present their latest work on budget rules and fiscal policy. The program included thirteen papers addressing a range of questions relating to the economic effects of fiscal institutions. The papers presented covered three distinct areas of research: new theoretical models of what explains the rise and persistence of budget deficits; new empirical evidence on the relationship between fiscal rules and fiscal policy outcomes, such as deficits and the response of fiscal policy to aggregate economic shocks; and case studies of the effects of budget rules on the behavior of policymakers and other actors involved in the fiscal policy process.

This volume presents the research findings that were reported at the conference. The remainder of this introduction distills several broad lessons that

emerged from the presentations and discussion at the conference, and then presents a brief summary of each of the research papers that follow below.

Common Themes

The research in this volume suggests several important conclusions about fiscal institutions and fiscal policy. First, there is an emerging consensus that persistent budget deficits can be modeled as the result of a rational choice by self-interested political actors. Deficits arise because the government's general tax fund is a "common property resource" from which projects of public policy are being financed, much like the aggregate stock of a resource in resource economics. This induces a "common-pool problem" in which competing political groups vie for government expenditures that are financed using broad-based tax instruments. As in models of geographically concentrated pork barrel spending, the costs of higher deficits are broadly dispersed, while the benefits of higher deficits, primarily higher spending on particular projects, transfer programs, or lower tax rates on particular types of income, are concentrated. This results in higher deficits than political actors who internalized the costs of spending and deficits would choose. This last aspect means that budgeting decisions under an unmitigated common-pool problem are inefficient in the sense that all actors involved would choose lower levels of spending and deficits if they took the full costs into account.

One critical implication of common-pool models is that fiscal rules that lead participants in the budgeting process to internalize the costs of budget deficits will lead to smaller budget deficits. The more fragmented the budget process is, that is, the less individual actors take into account the externality created by the general tax fund, the larger is the bias toward higher spending and larger deficits. *Fragmentation* can arise when there are many actors involved in the budget process, and when the decision-making processes in which these decision makers interact diffuses power. *Centralization* of the budget process involves institutional provisions conducive to internalizing the externality. This can be achieved by limiting the number of actors in the budget-making process, by centralizing budgeting authority in the hands of a fiscal entrepreneur, or by implementing decision-making rules, such as cooperative bargaining processes, among the relevant actors. The prediction that centralization leads to smaller deficits is one of those considered in several empirical papers in this volume.

Transparency is a key dimension of *centralization,* and one along which budget systems vary. It appears to be correlated with budget outcomes. A transparent budget process is one that provides clear information on all aspects of government fiscal policy. Budgets that include numerous special accounts and that fail to consolidate all fiscal activity into a single "bottom line" measure are not transparent. Budgets that are easily available to the public and to parti-

cipants in the policymaking process, and that do present consolidated information, are transparent. Higher levels of transparency are associated with lower budget deficits.

A second common theme that emerges from the empirical work is broad agreement that fiscal institutions have important effects on fiscal policy outcomes. The empirical evidence supporting this proposition arises from empirical studies of OECD nations, states within the United States, provinces in Argentina, cantons in Switzerland, and cross-national evidence for Latin America. The empirical evidence suggesting that institutions matter is stronger than the evidence on the mechanisms by which these institutions matter.

Third, institutional environments of national fiscal policy are complex and, therefore, difficult to model and to characterize empirically. Empirical researchers have developed a number of different ways of characterizing budget rules, political institutions, and other factors that may affect fiscal policy. One branch of the recent research develops numerical indexes summarizing key aspects of the relevant institutions. Such indexes can be used in regression analysis, but hardly do full justice to the complex reality of budgets. Furthermore, they involve questionable assumptions of substitutability between individual institutional rules. Case studies, in contrast, make room for more detailed description, but defy statistical analysis. An important insight from the conference is, therefore, that different methodological approaches lead to similar conclusions regarding the role of fiscal institutions. In the end, different methodologies should, therefore, be regarded as complements rather than substitutes.

Fourth, while the evidence from both approaches strongly suggests that fiscal institutions are important determinants of fiscal outcomes, a recurrent theme of the discussion is that the institutions must themselves be regarded as endogenous. The questions when, and why, governments adopt institutional reforms remain important challenges for future research in the political economy of fiscal policy.

In the next section, we summarize the papers presented at the conference in three broad groups, corresponding to their different methods of inquiry.

The Relevance of Fiscal Institutions: Overview and Theory

The first chapter in the volume is a broad survey of theoretical as well as empirical work on budget policy. Alberto Alesina and Roberto Perotti's chapter, "Budget Deficits and Budget Institutions," presents a valuable overview on the existing state of research on the determinants of fiscal policy. The chapter outlines the existing theoretical models of budget determination, which draw on game theory, formal political science, macroeconomics, and public finance to develop an understanding of the factors that might affect budget outcomes. The authors emphasize models in which deficits arise because some of the actors in the fiscal policy process do not bear the full costs of raising revenue,

even though they can receive the full benefits of additional expenditures. The chapter also surveys existing empirical work and thereby provides a motivation for the various data analyses presented in the second part of this volume. The authors argue that the available literature suggests that budget procedures and budget institutions, both procedural rules and balanced-budget laws, influence budget outcomes. The chapter concludes with a discussion of several unresolved issues, including the trade-offs between fiscal restraint and other factors that may be associated with tight budget rules, and the potential endogeneity of fiscal institutions.

The second chapter is Andrés Velasco's study, "A Model of Endogenous Fiscal Deficits and Delayed Fiscal Reforms." Velasco develops a dynamic, political-economic model of fiscal policy in which government resources are a "common property" out of which interest groups can finance expenditures on their preferred items. This setup has striking macroeconomic implications. First, fiscal deficits and debt accumulation occur even when there are no reasons for intertemporal smoothing of tax and expenditure burdens. This finding stands in contrast to much of the positive theory of intertemporal fiscal policy, which holds that governments run deficits when their current expenditure needs are high relative to their long-run needs, or their current tax capacity is low relative to long-run capacity. Second, the chapter shows that deficits resulting from this "common pool" problem can be eliminated through a fiscal reform, but such a reform may only take place after a delay during which government debt is built up.

The last chapter in this section, by Adriana Arreaza, Bent Sørensen, and Oved Yosha, considers the degree to which governments use fiscal policy to smooth private-sector consumption in the face of macroeconomic shocks. This chapter is directly relevant to debates about monetary union, because one of the important issues any time nations or states cede some authority to a centralized governing body is the degree to which this body will be able to carry out redistribution across member states. The chapter, "Consumption Smoothing through Fiscal Policy in OECD and EU Countries," compares the current consumption-smoothing patterns in the OECD and in the European Union (EU). The results suggest that EU countries rely more strongly than other OECD countries on government transfers, rather than government consumption, to smooth cyclical shocks. Furthermore, the evidence suggests that governments with persistently high deficits are less able to smooth consumption than governments with low average deficits. Finally, the authors show that countries with relatively strong elements of centralization in their budget processes achieve a higher degree of consumption smoothing through fiscal policy than countries with relatively fragmented budget processes. The implication is that fiscal institutions that reduce the government's deficit bias also strengthen its ability to run large deficits in responding to adverse economic shocks. This finding implies that the nature of budget rules can have an important impact on the government's power to carry out efficient fiscal stabilization.

Empirical Evidence on the Effects and the Choice of Fiscal Institutions

The results surveyed and presented in the first three chapters provide an important warrant for empirical analysis of the factors that determine budget outcomes. The majority of chapters in this volume present new empirical evidence, based on statistical analysis of cross-sectional or panel data, on the effect of budget rules or political variables on fiscal policy outcomes. Each of these chapters suggests that there is an important correlation between a set of budget rules or procedures and fiscal outcomes at the national or subnational level. Several of these studies develop new databases on fiscal institutions and fiscal policy outcomes in particular regions or nations. Taken together these studies represent substantial evidence supporting the importance of fiscal rules in determining tax and expenditure levels.

The first chapter in this spirit is by Yianos Kontopoulos and Roberto Perotti; it is titled "Government Fragmentation and Fiscal Policy Outcomes: Evidence from OECD Countries." This chapter explores the effects of political factors, procedural factors (such as the budget process), and ideology in shaping the fiscal outcomes for OECD countries throughout the 1960–95 period. The chapter begins with a theoretical model of how fragmentation affects the budget process. The empirical analysis suggests that fragmentation, particularly when measured by the number of participants in the deliberations that ultimately determine the budget, has an important effect on fiscal policy outcomes. It also indicates that ideology, as measured by the position of the ruling party on a liberal/conservative spectrum, is a substantively important determinant of fiscal policy.

Ernesto Stein, Ernesto Talvi, and Alejandro Grisanti also find support for the role of fiscal institutions in their chapter, "Institutional Arrangements and Fiscal Performance: The Latin American Experience." This chapter explores the links between electoral systems, budget institutions, and fiscal performance in Latin America. It considers four measures of fiscal performance: the level of government expenditures, the size of the deficit, the size of the public debt, and the response of fiscal policy to business cycle fluctuations. It finds evidence that electoral systems characterized by a high degree of proportionality (i.e., proportional representation) tend to have larger governments, larger deficits, and a more procyclical response to the business cycle, unless they are constrained by institutional rules producing greater centralization of the budget process. It also finds that more transparent and centralized budgetary procedures lead to lower deficits and debt. Furthermore, strengthening budget procedures for the central government can weaken the effect of proportional representation on fiscal policy outcomes.

The next chapter presents further analysis of fiscal institutions and fiscal policies in Latin America. Mark P. Jones, Pablo Sanguinetti, and Mariano Tommasi, in "Politics, Institutions, and Public-Sector Spending in the Argentine

Provinces," exploit the substantial cross-sectional variation in the fiscal rules within Argentina to develop and test models of political-economic interactions. They study the behavior of provincial public finances since Argentina's return to democracy in 1983. Their empirical model is based on the "common pool" theory of deficit determination, and the empirical results suggest that the tax-sharing mechanism, *coparticipacion fiscal,* by which the national government devolves taxes to the provinces, is an important determinant of provincial fiscal behavior. Budget procedures and other institutions are also crucial for fiscal performance. Party affiliation of the provincial governors in relation to most of the national executive is a key factor in ameliorating or exacerbating the incentive for provinces to "free ride" on the common pool. The latter finding is particularly intriguing, since it suggests that political factors may interact with fiscal rules in determining policy outcomes.

The next two studies also exploit variation in fiscal rules at the subnational level to provide evidence on the economic consequences of different rules. Lars P. Feld and Gebhard Kirchgässner, in their chapter "Public Debt and Budgetary Procedures: Top Down or Bottom Up? Some Evidence from Swiss Municipalities," study the effects of referendum approval of budget deficits. Referendum approval is a form of direct democracy: it essentially subjects the level of deficit spending or government borrowing to a popular vote. Their study analyzes a cross section of the 131 largest Swiss municipalities and develops a new database on fiscal institutions and fiscal outcomes in these municipalities. The data suggest that there is a great deal of heterogeneity in the budgeting rules used in different municipalities, so the Swiss experience provides a valuable setting in which to test alternative models of fiscal policy choice. The authors explore the link between institutional structure and fiscal outcomes and find that municipalities with direct-democracy provisions for the approval of new debt issues exhibit lower levels of debt per capita than those municipalities without such provisions.

The final chapter on subnational fiscal policy, by James M. Poterba and Kim Rueben, is entitled "State Fiscal Institutions and the U.S. Municipal Bond Market." The fiscal policy experiences of the U.S. states, which are autonomous but are linked through participation in a currency union (the United States), may provide useful lessons on the potential effects of European monetary union. This chapter presents new evidence on the effect of state fiscal institutions, particularly balanced-budget rules and restrictions on state debt issuance, on the yields on state general obligation bonds. The authors find that states with tighter antideficit rules, and states with more restrictive provisions on the authority of state governments to issue debt, face lower borrowing costs. The interest rate differential between a state with a very strict antideficit constitution, and one with a lax constitution, is between 10 and 15 basis points. States with binding revenue limitation measures tend to face higher borrowing rates by approximately the same amount. These results provide evidence that

bond market participants consider fiscal institutions in assessing the risk characteristics of tax-exempt bonds, and further support the view that fiscal institutions have real effects on fiscal outcomes.

The last chapter in this section focuses on the experience of countries in the OECD or the European Union. Mark Hallerberg and Jürgen von Hagen explore the interplay between electoral systems, proportional representation versus plurality, and institutional arrangements to achieve a higher degree of centralization of the budget process. Their paper, "Electoral Institutions, Cabinet Negotiations, and Budget Deficits in the European Union," argues that electoral systems restrict the type of budgetary institutions at the government's disposal. In states with plurality systems, where one-party governments are the norm, centralization can be achieved effectively by delegating strong agenda-setting powers to the finance minister, who thus becomes the fiscal entrepreneur. The authors also show that in states with systems of proportional representation and where multiparty coalitions are the common form of government, the proper institutional solution to the "common pool" problem is a commitment to fiscal targets negotiated among the coalition partners. These institutional choices are determined by the different enforcement mechanisms implied by single and multiparty governments.

The empirical section of this chapter shows that, among the EU states, electoral systems help predict the choice of institution to achieve greater fiscal discipline. The implication is that one should not expect fiscal targets such as those imposed by the Maastricht Treaty to promote fiscal consolidation in states where single-party governments are the rule. The chapter also shows that the two mechanisms, delegation of decision-making powers to a strong finance minister and commitment to fiscal targets, contributed to reducing deficits in the EU states during the period 1980–94.

Case Studies of Budgetary Institutions

Analyzing data on the correlation between budget rules and budget outcomes, as the foregoing chapters do, provides a valuable source of evidence on the determinants of fiscal policy, but it may neglect important institutional features of the budget process. The last four chapters in the volume consider the evolution and effects of budget rules in one nation, or a small set of nations. While these chapters present quantitative evidence on budgeting procedures, they can also be viewed as case studies of particular budgeting rules.

The first is J. Edgardo Campos and Sanjay Pradhan's report, "Budgetary Institutions and the Levels of Expenditure Outcomes in Australia and New Zealand." This chapter extends previous research suggesting that key budgetary institutions are important in controlling aggregate spending. It looks beyond the issue of fiscal discipline and argues that aggregate fiscal discipline is necessarily linked to the issues of allocative and technical efficiency. Hence, in identifying the impact of budgetary institutions, the paper suggests taking a

broader and more systemic perspective. Based on the reform experiences of New Zealand and Australia, it argues that these linkages embody transactions costs that could lead one country to adopt one set of institutions, and another a different (though overlapping) set. Specifically, it shows that New Zealand sought to control aggregate spending by focusing on improving technical efficiency, while Australia sought to do so by introducing mechanisms to facilitate strategic prioritization and to enhance allocative efficiency. These are aspects of the micro budget process that have important effects on the aggregate level of spending.

The second chapter, by Jakob de Haan, Wim Moessen, and Bjørn Volkerink, examines changes in the budget process in a small set of nations in the European Union. The chapter, "Budgetary Procedures—Aspects and Changes: New Evidence for Some European Countries," combines cross-sectional statistical analysis of a large data set on fiscal rules and fiscal policy, with a more specialized investigation of budgeting in several nations. This chapter addresses two problems that arise in the empirical literature on the link between procedures that lead to the formulation, approval, and implementation of the budget, and fiscal policy outcomes. First, budget institutions have many dimensions, and it is not clear which budget procedures have the greatest effect on policy outcomes. The chapter considers this issue using data from nations in the European Union. The results suggest that the position of the finance minister in the budget process and the presence or absence of binding constraints appear most important in determining the level of budget deficits. This supports the findings in earlier papers of the importance of centralization in budget procedures.

The second part of the chapter considers the evolution of budget rules in several nations that have adopted some procedural changes during the last fifteen years. In one case, Sweden, changes in the budgetary process were precipitated by an acute financial crisis. In several other nations that exhibit reported changes in the budget process during the last decade, it is more difficult to identify the motivation for reform, or to evaluate its impact on fiscal policy.

The third chapter in this section is Thomas J. Courchene's study, "Subnational Budgetary and Stabilization Policies in Canada and Australia." It focuses on the relationship between institutional structures and subnational fiscal and budgetary processes in two nations that were part of the British Empire, but which evolved quite different budget rules. The chapter explains the institutional arrangements that have led the Australian government to be more centralized and egalitarian than its Canadian counterpart and that have made the Canadian provinces more fiscally autonomous than the Australian states. One episode that receives particular attention is the expansion of borrowing by the Canadian province of Ontario in the late 1980s, and the effect of this borrowing on the aggregate government sector in Canada.

Courchene's analysis also focuses on the implications of government structure for the magnitude and structure of intergovernmental grants, for the degree

of subnational fiscal stabilization policy, for subnational borrowing autonomy, and for the extent of economic and budgetary coordination between the national and subnational governments. It also considers the recent shift toward "hard budget constraints" in the Canadian provinces and presents some evidence, along the lines of Poterba and Rueben's evidence for the United States, suggesting that the credit ratings of Australian states and Canadian provinces is affected by their fiscal position.

The final chapter, by Maurice Wright, focuses on budgeting outcomes in Japan. In "Coping with Fiscal Stress: Illusion and Reality in Central Government Budgeting in Japan, 1975–1997," Wright describes how the Japanese government has coped with conditions of almost continuous fiscal stress, including budget deficits, accumulated debt, and increasing costs of debt servicing, during the last two and one-half decades. He concludes that policy choices were largely unsuccessful in achieving their stated fiscal objectives, which were to substantially reduce government deficits. An illusion of discipline and control was created through manipulation of the budgetary system and the exploitation of the rules of the game on the part of budget makers. In reality, the central government was either unable or unwilling to control the growth of government spending over this period. Wright's analysis is a cautionary note to those who suppose that merely enacting a deficit reduction target will lead to deficit reduction.

The Main Lessons

The research findings summarized in this volume represent an important addition to our knowledge of how fiscal policy is affected by budgeting institutions. A first, important insight is that the common-pool approach to the analysis of public spending and deficits is promising and powerful in explaining the emergence of large and persistent deficits. As the common-pool approach focuses on a problem of coordination failure among the decision makers involved in public budgeting, the implication is that large deficits may be avoided by strategic design of the budget process, that is, by institutions that distribute authority and facilitate agreement on the efficient outcome. Procedural design thus emerges as an important alternative to rules restricting the outcome of the budget process, such as balanced-budget laws.

Second, effective institutional design of the budget process to reduce the spending and deficit bias of governments promotes a comprehensive view of the costs and benefits of public policies. If *centralization* of the budget process relies on delegating power to an individual decision maker, the key is that this individual be driven less by particularistic spending interests than the spending ministers. If centralization relies on common agreements on fiscal targets, the key is that these targets be agreed upon early in the budget process, that the agreement is negotiated by all parties involved, and that the agreement is backed up by strong enough punishments for violation to make it binding

throughout the budget process. Effective institutional design also includes elements assuring the enforcement of efficient agreements, such as limits on parliamentary amendments and a strong monitoring position of the treasury in budget implementation to prevent policymakers from reneging on the initial agreement.

The empirical work in several chapters emphasizes the richness of budget institutions by developing comprehensive characterizations of the entire budget process rather than by focusing on the existence or absence of individual rules. The implication is that reform of the budget process must consider the interaction of all stages of the process.

Third, the empirical work presented in this volume shows that fiscal institutions matter not only for the average deficit, but also for other aspects of fiscal performance. These include the government's capacity for consumption smoothing, its ability to conduct macroeconomic stabilization policies, its inclination to engage in political business cycles, and the cost of public debt. An important finding is that *centralization* of the budget process does not worsen the performance of budgetary policies in these other regards.

Finally, the work presented in this volume suggests an intimate connection between the design of the budget process and other dimensions of a country's constitution such as the position of the executive relative to the legislature, the strength of elements of direct democracy, and the type of electoral law. Budgetary institutions that work in one constitutional context may fail to work in others, because they do not provide the proper incentives and constraints to promote and enforce agreement on efficient levels of spending and deficits. The implication is that reform of the budget process cannot rely on a "one model fits all" approach but must consider a country's broader constitutional framework and tradition.

Future Directions

The presentations and discussion at the ZEI-NBER meeting raise a number of unresolved issues that stand as challenges for future research. The single most important issue for further work concerns the endogeneity of budget rules, and the factors that lead policymakers to reform budget processes. Virtually all of the empirical papers in this volume acknowledge the potential econometric problems that are posed by the fact that budget rules are not randomly assigned to nations or subnational jurisdictions, but rather are the product of deliberate choice by voters or their elected representatives. This makes it difficult to evaluate observed correlations between budget rules and budget outcomes: perhaps the observed relationships are simply due to a correlation between a third factor, voter preferences, and the these observed manifestations of voter preferences. Further work is clearly needed to explain where budget rules come from, and what factors lead to changes in these rules over time. Several papers argue that there are costs to changing budget rules, but there

has been little analysis to date of what these costs are, and what makes some political actors willing to bear them, while others are not.

A second issue that bears further investigation is the interaction between political factors and budgeting institutions in determining fiscal outcomes. As noted above, some of the empirical papers in this volume and in other papers suggest that the effectiveness of budget institutions in reducing the deficit bias depends on the general political setting of the country considered. Providing further evidence on this issue will require careful empirical work, because budget rules and political variables are often highly correlated.

Finally, the research in this volume underscores the need for further theoretical and empirical research that sheds light on the *description* of budget institutions. Many of the empirical studies in this volume and the broader literature use indicator variables, "dummy variables," for the presence or absence of particular attributes of the budget process in particular nations or states. Others rely on indexes of budget stringency that are created by adding together sets of indicator variables, or by coding various aspects of budget policy on arbitrary scales. Such additive indexes assume a strong form of substitution between different components of the budget process, and there is little evidence to support the assumptions underlying such aggregation.

Existing empirical work clearly suggests that various aspects of budget institutions matter, but the next generation of research should attempt to fine-tune these findings with a more detailed investigation of budget rules. Moving ahead in this research program will require both theoretical development, to suggest the key features of the budget process that warrant measurement, and new efforts to codify and measure budget institutions. The proposition that budget rules are simply a veil, which a median voter or set of political actors can pierce in setting fiscal policy, is not credible in light of the evidence developed here and elsewhere. But the precise mechanism through which budget processes affect fiscal outcomes remains to be documented, modeled, and tested.

All of the methodologies featured in this book—theoretical model-building, empirical analysis, and case study research—can contribute to our further understanding of the economic effects of fiscal policy institutions. The fiscal pressures associated with the aging populations in many developed nations are likely to draw more, not less, attention to the factors that determine budget outcomes, and to make this a very promising area for research in the years and decades to come.