CONTINUING RESOLUTIONS: THE INFLUENCE OF TEMPORARY SPENDING RESTRICTIONS ON MONTHLY EXPENDITURE PATTERNS OF FEDERAL AGENCIES

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CONTINUING RESOLUTIONS: THE INFLUENCE OF TEMPORARY SPENDING RESTRICTIONS ON MONTHLY EXPENDITURE PATTERNS OF FEDERAL AGENCIES

DISSERTATION

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Graduate School at the University of Kentucky

By

Thomas Alexander Jacobs

Lexington, Kentucky

Director: Dr. Edward Jennings, Professor of Public Policy and Administration

Lexington, Kentucky

2014

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CONTINUING RESOLUTIONS: THE INFLUENCE OF TEMPORARY SPENDING RESTRICTIONS ON MONTHLY EXPENDITURE PATTERNS OF FEDERAL AGENCIES

The federal fiscal year runs from October 1 to September 30, and many federal agencies rely on annual appropriations to fund activities and programs. Nonetheless, the federal government often enters a new fiscal year without a fully approved budget, which actuates the requirement for a temporary means of funding government operations. Congress and the president provide provisional resources by way of continuing resolutions which enable the operation of government programs until regular appropriations are enacted. However, continuing resolutions are restrictive by design and may have unintended effects on government spending behavior beyond the timeframe to which the resolutions apply.

This study explores the relationship between the uncertainty generated by the implementation of continuing appropriations and the modification of expenditure behavior in federal agencies. After a summary of the federal budget process and a survey of the literature related to continuing resolutions, a model of agency spending is presented. The associated theory explores suppositions related to ex ante and ex post reactions of agency officials to: (1) a one-time occurrence of continuing resolutions, and (2) an environment of regularly occurring continuing resolutions. Afterward, event study methods are applied to a subset of federal monthly obligation data to reveal patterns of spending which are suggestive of: (1) a saving-dissaving approach to compensate for the restrictive nature of continuing resolutions, and (2) the presence of signaling mechanisms between higher echelons of the federal government and subordinate agencies. A second quantitative chapter builds on the idea that federal agencies engage in expense shifting in anticipation of the enactment of continuing resolutions. An agenda setting framework is used to demonstrate how agencies monitor particular sources of the federal budget process to gain insight to the likelihood of continuing appropriations being enacted. Findings show that decision-makers may be able to determine the relevancy of particular budgetary signals within the congressional budgetary scheme.
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July, 9, 2014
I dedicate this dissertation to my beautiful wife, Susan, and our three precious children, Gabriel, Bethany, and Matthew. Without your love, I never would have seen this little book report through to the end.
ACKNOWLEDGMENTS

This dissertation is the culmination of hard work and patience on many fronts and I would like to recognize the efforts of those who were most integral to the completion of the dissertation.

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Sir Author Conan Doyle once wrote, “Data! Data! Data! ... I can’t make bricks without clay.” So, to my “unnamed source” from the resource management ranks in the Department of the Army, and to Joseph Scanlon and John Simms at the National Archives and Records Administration: Thank you a thousand times over for the budget data.

To Rob and Laura Greer, and Pete and Allison Jones: Thank you for Friday night family dinners, lunch at Local Taco and Firehouse, summer softball, and, most
importantly, for your friendship. Without you, this program of study would have taken a much larger toll on my sanity.

To my parents, Tom and Cora: Thank you for inspiring me to find my boundaries and for giving me the tools necessary to push myself past those limits. To my brother, Chris: You have been my number one cheerleader and my partner in crime since I can remember. Thank you for never leaving my side.

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The federal fiscal year runs from October 1 to September 30, and many federal agencies rely on annual appropriations to fund activities and programs. Nonetheless, the federal government often enters a new fiscal year without a fully approved budget, which actuates the requirement for a temporary means of funding government operations. Congress and the president provide provisional resources by way of continuing appropriations which enable the operation of government programs until regular appropriations are enacted.

However, continuing resolutions, as these legislative stopgap measures are also known, are restrictive by design and may have unintended effects on government spending behavior beyond the timeframe to which the resolutions apply. Government agencies routinely formulate budgets and devise spending plans toward accomplishment of organizational missions under the assumption that full funding will be available at the outset of the coming fiscal year. Yet, these stopgap measures arise in the absence of an approved federal budget and are intended to suppress organizational spending until the budget impasse is resolved. Continuing resolutions place limits on operational activities and may result in interim levels of funding that tend to be lower than those for which the agency originally planned. As a result, continuing appropriations may disrupt obligation plans thereby causing organizations to adopt measures of execution that will increase the probability of achieving budgetary spending goals.
How then do continuing resolutions affect the spending patterns of federal agencies? Dating back more than a century, these stopgap measures have become a mainstay of the federal budget process and most academic work pertains to higher-level interactions. At the government-wide level, scholarly work is plentiful and tends to focus on continuing resolutions as: (1) a legislative instrument which may tip the scales between the legislature and the executive during budget negotiations, (2) an apple of discord between authorizers and appropriators, and (3) a reluctant and temporary solution to budgetary stalemate. At the agency level, empirical findings are the result of case studies but the majority of research is conducted by practitioners. Consequently, the bulk of the evidence at the agency level tends to be anecdotal because agencies do not specifically track the effects of spending restrictions.

At present, the field of federal budgeting is nearly devoid of theoretical frameworks and quantitative analyses regarding the effect of continuing resolutions on the expenditure behavior of federal agencies. Instead, academic budgeting literature is focused generally on budget preparation while budget execution, which is the stage at which spending takes place, is largely the domain of practitioners (McCaffery & Mutty, 1999). Indeed, budgeting remains a practice-oriented discipline (Bartle, 2001) and interactions between academics and practitioners, in the broader field of public administration, continue to dwindle due, in part, to barriers of mobility between the two sectors (Posner, 2009).
Fortunately, the presence of this void does not mean that budget execution has been overlooked by scholars. Academics in the field of management accounting have explored the financial management aspect of budgeting where cost controls, cash flow management, and capital expenditures take place (Balakrishnan & Sprinkle, 2002). With regard to the study at hand, a framework of unused capacity from the field of Activity-Based Costing and economic theories in budget maximization and budget uncertainty may provide points of debarkation for a theory of bureaucratic expenditure behavior.

Purpose of the dissertation

This research seeks to explore the relationship between the uncertainty generated by continuing resolutions and modifications in expenditure behavior of managers in federal agencies. In an attempt to foster a comprehensive understanding of continuing resolutions on several fronts, the research seeks to answer the following questions:

(1) What research has been conducted on continuing appropriations acts?

(2) With regard to the obligation of allocated funding, how might an agency of the federal government modify expenditure behavior while under the spending constraints of a continuing resolution?

(3) What factors might account for these modifications in organizational expenditure behavior as agency officials compensate for restrictions on federal spending?

(4) Which econometric methods might one use to reveal the expenditure behavior of agency officials under said spending constraints?
Summary of chapters

Chapter two provides an overview of the federal budget process and serves as a touchstone for terms and concepts used throughout the dissertation. This institutional chapter opens with a brief summary of the evolution of the federal budget process, and then guides the reader through the essential phases of budget formulation at the federal level. The purpose of this overview is to offer a general understanding of the federal budget process while preparing the reader for the examination of continuing resolutions that follows in subsequent chapters.

Chapter three surveys the existing research on continuing appropriations acts and segues to the theoretical exposition. The chapter opens with essential background information such as the constitutional and statutory basis for continuing resolutions, the types of stopgap measures, and the number of continuing resolutions employed over a period of three decades. The discussion moves-on to a summary of the literature as it relates to the institutions of the president and the Congress, while a synthesis of the research dedicated to the effects of continuing resolutions at the agency-specific level follows. The discussion then begins to dovetail with the theoretical material through the notion of re-categorizing the effects of continuing appropriations on agency-specific organizations and re-approaching the issue by way of a standardized accounting classification system. The final segment of the literature review considers the current state of the field.
Chapter four contains a framework of agency spending and suggested research hypotheses. The theoretical examination of how agency officials might budget organizational resources in the face of spending restrictions begins with the base assumptions under which the model will operate. The analysis proceeds with an arithmetic model of unrestricted agency spending across three fiscal years and then transitions to an environment of continuing resolutions. The three fiscal year setting provides a manner of exploring suppositions related to ex ante and ex post reactions of agency officials to: (1) a one-time occurrence of continuing resolutions, and (2) an environment of regularly occurring continuing resolutions. Afterward, relaxation of certain base assumptions enables a discussion of the limitations of the model in a line-item budget setting and under a multi-year lump-sum appropriation.

Chapter five explores the influence of continuing resolutions on federal spending patterns on a high frequency basis. Event study methods are applied to a subset of federal monthly obligation data to show how federal agency officials adjust organizational expenditure behavior to compensate for spending restrictions. Analysis finds that when stopgap measures are on the horizon for the upcoming fiscal year, agency personnel purchase additional contract services and supplies three months prior to the end of the terminating fiscal year. While spending restrictions are in effect, agencies do not deviate from normal monthly expenditure patterns. After restrictions are lifted, however, obligation rates dip below normal levels for a brief period of time. Taken together, these patterns of spending are suggestive of: (1) a saving-dissaving approach to compensate for the restrictive nature of continuing resolutions, and (2) the
presence of signaling mechanisms between higher echelons of the federal government and subordinate agencies. In addition, the findings raise concerns about expense shifting vis-à-vis federal appropriations law and the bona fide needs rule.

Chapter six builds on the idea that federal agencies engage in expense shifting in anticipation of the enactment of continuing resolutions. By examining budgetary signaling mechanisms between the president, Congress, and executive agencies, this chapter explores the concept of organizational learning as it relates to the federal bureaucracy. A theoretical framework of agenda setting is used to demonstrate how agencies monitor particular sources of the federal budget process to gain insight regarding the likelihood of continuing appropriations being enacted. Findings also show that decision-makers may be able to determine the relevance of particular budgetary signals within the congressional budgetary scheme.

Chapter seven, the final chapter in this dissertation, offers a discussion of the policy implications of these findings and presents future avenues of research.
Chapter Two
The Federal Budget Process

Evolution of the federal budget process

The federal budget process that existed prior to 1974 was not the same as the one by which Congress and the president abide currently. Early in the nation’s history, balanced budgets were the norm. Federal expenditures outpaced revenues during only one-third of the fiscal years between 1789 and 1916, mostly on account of wars. Because the Federal Government was small and its needs were modest, Congress was able to maintain the nation’s financial stability despite the lack of a comprehensive budgeting system to coordinate revenues and expenditures (Schick, 2007).

Over time, however, fragmented obligation authority in Congress, uncoordinated budgeting and spending by federal agencies, and the First World War (WWI) contributed to an environment of persistent peacetime deficits. By the latter part of the 19th century, some members of Congress had grown dissatisfied with the appropriations committees’ efforts to control government expenditures. For instance, many southern Representatives wanted to increase spending in their districts but were unable to do so because of the requirement of a formal authorization prior to appropriation of funding. Between 1877 and 1895, the House and the Senate stripped the appropriations committees of jurisdiction over a majority of the appropriations bills and referred the measures instead to the related legislative committees. Decentralization of responsibility for appropriations enabled legislators to circumvent fiscal controls
instituted by the committees on appropriations and made it possible for authorizers to
craft legislation that permitted certain entities to obligate funding ahead of
appropriations. At the same time, many federal agencies routinely bypassed
presidential review of spending requests by submitting directly to congressional
committees. While the Treasury Department compiled agency budget requests in an
annual *Book of Estimates*, there was no coordination among agencies to ensure that
spending efforts were in accord with national policies\(^1\). Circumstances such as these,
together with obligations incurred during WWI, caused federal spending to increase
from $726 million in 1914 to $19 billion in 1919 and public debt to grow from $1 billion
to $26 billion (109th Congress, 2005; 111th Congress, 2010; Lee, Johnson, & Joyce,
2008; Schick, 2007).

Two years later, Congress began to reshape budget procedures by establishing
an executive budget system. The Budget and Accounting Act of 1921 established the
statutory basis for a formal executive budget process by requiring the president to
submit to Congress annually a proposed budget for the Federal Government. The Act
created the Bureau of the Budget and the General Accounting Office (GAO). The former
was tasked with overseeing preparation of the federal budget and was reorganized as
the Office of Management and Budget (OMB) in 1970. The latter was instituted to assist
Congress as the principal auditing agency of the federal government and was renamed

\(^1\) The First Congress assigned the Secretary of the Treasury the responsibility of compiling and reporting
estimates of the public revenues and expenditures, but did not afford the Secretary the authority to
review expenditure estimates and to oversee use of appropriations (109th Congress, 2005).

While the 1921 Act instilled a sense of order to the executive facet of budget preparation, Congress still lacked a centralized mechanism for determining budgetary priorities and for coordinating congressional actions on the budget. Instead, congressional budget procedures were organized around the committee system. Once Congress received the president’s budget request, component parts were parceled out to and considered in isolation by specialist committees in each chamber. To wit, each committee attended to those matters within its jurisdiction: proposed appropriations were considered by the respective subcommittees of the appropriations committees; the relevant authorizing committee in each house examined proposed authorizations; and tax committees evaluated revenue proposals (Hartman, 1982; Hogan, 1985).

Thus, the congressional budget was a product of piecemeal decision making that facilitated backdoor spending and a growth in deficits. Because revenue, authorizing, and appropriations committees decided separately on matters within their defined areas of responsibility, substantive committees were able to create legislation that permitted agencies to incur obligations outside of the annual appropriations process. Hence, irrespective of appropriations committees’ efforts to control spending, certain agencies were authorized to borrow from the treasury and to enter into binding contracts that would legally commit the government to future outlays. When coupled with the advent and growth of entitlement programs, such as Social Security, Medicare,
and Medicaid, such fiscal practices resulted in unplanned growth in public expenditures and further increases in the federal deficit during the 1960s and 1970s (109th Congress, 2005; Hartman, 1982; Hogan, 1985; Lee, et al., 2008; Mikesell, 2007; Schick, 2007).

The perception that the congressional budget process was out of control and a presidential challenge to congressional power of the purse led Congress to legislate further budgetary reform. By the early 1970s, many Americans had come to regard the growth in federal spending and deficit as a congressional show of fiscal irresponsibility. At the same time, President Nixon, a fiscal conservative, was at odds with Congress over budget priorities and reductions in spending. The president attempted to control spending by vetoing appropriation bills and by seeking, unsuccessfully, the discretionary authority to impose a spending ceiling for fiscal year 1973. Nixon’s eventual employment of an impoundment strategy, in which he refused to spend appropriations, finally prompted Congress to draft the Congressional Budget and Impoundment Control Act of 1974 (Dumbrell, 1980; Hogan, 1985; Lee, et al., 2008; Schick, 2007).

With enactment of the 1974 Act, Congress sought to regain control over the budget process. The legislation was designed to: (1) enable Congress to reassert its power in matters of the nation’s purse, (2) temper the growth of both federal spending and the federal deficit, (3) enable Congress to complete work on the annual budget by the beginning of the fiscal year, and (4) help Congress manage conflicts related to the federal budget (Ellwood, 1983; Hogan, 1985; Lee, et al., 2008). To accomplish those objectives, legislators: (a) revised the congressional budgetary timetable and established
key steps in the congressional budget process; (b) formed the House and Senate Budget Committees and the Congressional Budget Office (CBO); (c) required more budgetary information from the executive; and (d) strengthened both anti-impoundment laws and the role of the GAO. Thus, the 1974 Act established a more comprehensive and coordinated budget process and gave Congress the tools necessary to exert greater control over fiscal matters, while curtailing the president’s authority to withhold appropriations (Dumbrell, 1980; Finley, 1975; GAO, 2005a; Hogan, 1985; Lee, et al., 2008; Schick, 2007).

Currently, the federal budget process is a multi-layered cyclical fiscal system. The activities associated with any single fiscal year’s budget, from formulation to execution, will span multiple fiscal years. For this reason, the federal government is typically engaged with at least three fiscal years at any one point in time: (1) the current year, (2) the budget year, and (3) the first out-year. The current year is the 12-month fiscal period that began on October 1\textsuperscript{st}, is already under way, and will terminate on September 30\textsuperscript{th}. The budget year is the fiscal year that Congress is deliberating currently; it is the 12-month fiscal period that will begin this upcoming October 1\textsuperscript{st}. Finally, the first out-year is that 12-month fiscal period that follows the budget year (Mikesell, 2007; Schick, 2007).

Excluding the audit and evaluation of federal expenditures, the federal budget process for any one fiscal year can be broken down into three phases: (1) The executive budget formulation phase during which the executive branch prepares the President’s
Budget request; (2) The *congressional budget phase* that begins with the receipt of the President’s Budget and during which Congress formulates a budgetary framework of its own for taxing, spending, and borrowing; and (3) The *budget execution and control phase* that begins once OMB apportions to federal agencies those funds which Congress has appropriated and which the president has enacted into law (GAO, 2005a; Office of Management and Budget, 2013). Table 2.1 below provides a timetable for a typical fiscal budget cycle (Schick, 2007). Since the federal budget process is a cyclical and iterative exercise, a logical place to begin explaining budget operations might be with the formulation phase.

![This space was left blank intentionally.](image)

Table 2.1 follows on the next page.
Table 2.1: Timetable for a Typical Fiscal Budget Cycle

<table>
<thead>
<tr>
<th>Annual calendar</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X1</td>
<td></td>
</tr>
<tr>
<td>March – June</td>
<td>- Formulation period for budget guidelines and preliminary policies. Agency budget offices request budget estimates from operating units.</td>
</tr>
<tr>
<td>July – September</td>
<td>- Agencies formulate detailed requests and submit to OMB.</td>
</tr>
<tr>
<td>October – December</td>
<td>- OMB reviews agency requests. Agencies revise budget requests based on OMB feedback (this is known as “passback”). Agencies may appeal to OMB and/or the president for final disposition.</td>
</tr>
<tr>
<td>20X2</td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>- CBO releases ten-year Budget and Economic Outlook for fiscal years 20X3 – 20X3(+10).</td>
</tr>
<tr>
<td>January/February</td>
<td>- President submits FY 20X3 budget request to Congress between first Monday in January and First Monday in February.</td>
</tr>
<tr>
<td>March 15</td>
<td>- Congressional committees submit “views and estimates” on the budget to budget committees.</td>
</tr>
<tr>
<td>April 15</td>
<td>- Target adoption date for congressional budget resolution for FY 20X3 budget.</td>
</tr>
<tr>
<td>May 15</td>
<td>- If budget resolution has not yet been adopted, appropriations may be considered in the House.</td>
</tr>
<tr>
<td>June – August</td>
<td>- Full House and Senate act on regular appropriation bills for FY 20X3; OMB and CBO release new revenue and expenditure projections for FY 20X3.</td>
</tr>
<tr>
<td>September</td>
<td>- Conference reports and enactment of regular appropriations.</td>
</tr>
<tr>
<td>October 1</td>
<td>- FY 20X3 begins. Congress passes continuing resolution(s) if regular appropriations have not yet been enacted into law.</td>
</tr>
<tr>
<td>October 20X2 –</td>
<td>- Congress may enact supplemental appropriations for FY 20X3.</td>
</tr>
<tr>
<td>September 20X3</td>
<td></td>
</tr>
<tr>
<td>20X3</td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>- New revenue and expenditure projections for FY 20X3 are included in the FY 20X4 budget.</td>
</tr>
<tr>
<td>September 30</td>
<td>- FY 20X3 ends.</td>
</tr>
<tr>
<td>October - December</td>
<td>- Agencies, Treasury, and OMB close the books FY 20X3.</td>
</tr>
<tr>
<td>20X4</td>
<td></td>
</tr>
<tr>
<td>January – December and beyond</td>
<td>- Agencies prepare financial statements, and post-audits and evaluations are conducted.</td>
</tr>
<tr>
<td>February</td>
<td>- Actual revenue and expenditure data for FY 20X3 are included in the FY 20X5 budget.</td>
</tr>
</tbody>
</table>

Source: adapted from The Federal Budget Process: Politics, Policy, Process, Table 4-1, p. 54 (Schick, 2007)
Phase One: Executive Budget Formulation

The main participants in the executive budget formulation phase are: (1) federal agencies and individual organizational units, which review current operations and program objectives and request funding to discharge authorized programs and activities; (2) OMB, which supervises the consolidated budget submission by reviewing agency requests, compiling the budget for the president, monitoring congressional action, and providing oversight of agency implementation of the budget; and (3) the president, who establishes the revenue, expenditure, and borrowing policies set forth in the budget (Committee on the Budget: U.S. House of Representatives, 2013a, 2013b; GAO, 2005a; Office of Management and Budget, 2013; Schick, 2007).

By law, the president is required to submit to Congress a comprehensive budget for the federal government for the upcoming fiscal year. The window for submission of the budget opens on the first Monday in January and extends to the first Monday in February (Keith, 2008b). On occasion, the timing of the budget submission changes to accommodate circumstances such as the transition between administrations, but on balance, most administrations submit the budget to Congress on or before the statutory deadline (Center on Budget and Policy Priorities, 2011; Committee on the Budget: U.S. House of Representatives, 2013a; Keith, 2008b; Library of Congress. Congressional Research, McMurtry, & Saturno; Schick, 2007).

Because of the complexity of the process and the number of participants involved, preparation and review of the federal budget requires a significant amount of
lead time. Shortly after the February submission of the budget to Congress, the OMB Director begins the process anew by issuing an allowance letter to the head of each federal agency. This initial step in the process occurs approximately nine months prior to the president’s budget submission, or almost 18 months ahead of the fiscal year to which the budget pertains. Allowance letters contain budgetary policy and planning guidance regarding agency budget requests. Once agencies receive their respective allowance letters, they begin the work of formulating the budget that the president will submit to Congress (GAO, 2005a; Mikesell, 2007; Schick, 2007).

Over the course of the spring and summer, OMB works to establish policy for the upcoming budget request. To do so, OMB officials must confer with agency personnel to identify significant budgetary issues; to formulate options related to spending and program requests; and to plan for the analysis of issues that may require future decisions. The resulting policy, *OMB Circular No. A-11*, provides detailed guidance and instruction to executive departments regarding the preparation of the budget requests and submission of related data and materials. The Circular, which is currently almost 800-pages in length, is an expansive temporal document that provides guidance for the upcoming fiscal year as well as for the nine subsequent fiscal years (GAO, 2005a; Office of Management and Budget, 2012).

From September to October, all federal agencies submit initial budget requests to OMB. The president’s budget request includes agency information from all three branches of the federal government. Those agencies which are subject to executive
branch review, and the District of Columbia, must submit their budget requests to OMB by the first Monday after Labor Day. Agencies which are not subject to executive review, such as the Federal Reserve Board and the legislative and judicial branches, are required to submit preliminary budget requests to OMB by October (GAO, 2005a; Office of Management and Budget, 2013).

Between October and early January, OMB reviews the budget proposals and then informs agencies of preliminary budget decisions. After receipt of agency budget estimates, “fall review” takes place during which OMB examiners and agency representatives meet to consider the agency proposals in relation to presidential priorities, program performance, and budget constraints. Once the review has taken place and after the OMB Director has briefed the president on the budget proposals, the president makes broad policy decisions (GAO, 2005a; Office of Management and Budget, 2013). Agencies are notified of the president’s budget decisions in late November during “passback.” For federal agencies, the president’s broad budget policies manifest in the form of adjustments to their proposed budgets. OMB notifies the agencies of the president’s decisions and passes-back to agencies the responsibility for making changes to their respective budgets. Agency officials may appeal these decisions, but whatever the disposition, agencies have until early January to revise their budgets and to enter data into OMB’s budget database (GAO, 2005a; Office of Management and Budget, 2013).
In January, agencies prepare and OMB reviews congressional budget justification materials and this first phase culminates with the submission of the budget to Congress. Agencies spend the month of January assembling detailed budget justification materials to account for and to explain their requests for funding. The end product, the president’s budget, details the actual receipts and spending levels for the fiscal year just completed. In addition, estimated receipts and spending for the current fiscal year, for the upcoming fiscal year, and for the nine subsequent fiscal years are also included. In accordance with the Budget Enforcement Act of 1990, these budget justification books are transmitted to Congress “on or before the first Monday in January but not later than the first Monday in February of each year” and then distributed to the responsible congressional entities (GAO, 2005a; Keith, 2008b; Office of Management and Budget, 2013). Table 2.2 lists the major steps in the in the executive budget formulation phase.

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Table 2.2 follows on the next page.
<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring (Approximately 9 months prior to the submission of the president’s budget to Congress; circa March or April)</td>
<td>- OMB issues spring planning guidance to Executive Branch agencies for the upcoming budget. The OMB Director issues a letter to the head of each agency providing policy guidance for the agency’s budget request. Absent more specific guidance, outyear estimates included in the previous budget serve as the starting point for the next budget. This step marks the beginning of the process of formulating the budget the president will submit the following February.</td>
</tr>
</tbody>
</table>
| Spring and Summer       | - OMB and Executive Branch agencies discuss budget issues and options. OMB works with agencies to:  
(1) Identify major issues for the upcoming budget  
(2) Develop and analyze options for the upcoming fall review  
(3) Plan for analysis of issues that will require future decisions |
| September *             | - Executive Branch agencies, except those not subject to Executive Branch review, make budget submissions. |
| October 1               | - Fiscal year begins. The formulation cycle (i.e., the previous 9 months) focused on this emerging fiscal year. The upcoming 12 months (October 1 – September 30), which was the “budget year” now becomes the “current year.” |
| October – November      | - OMB conducts fall review. OMB staff analyzes agency budget proposals in light of presidential priorities, program performance, and budget constraints. The staff raises issues and presents options to OMB director and other OMB policy officials for their decisions. |
| Late November           | - OMB briefs the president and senior advisors on proposed budget policies. OMB Director recommends budget proposals to the president after OMB has reviewed agency requests and considered overall budget priorities. |
|                         | - [Budget] Passback. OMB informs simultaneously all Executive Branch agencies of decisions pertaining to respective budget requests. |
| Late November – early January * | - Immediately after passback, all agencies, to include Legislative and Judicial Branch agencies, enter data into the OMB budget database and submit print materials. This process continues until OMB locks agencies out of the budget database in order to meet the deadline associated with printing the budget. |
Table 2.2: Continued

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>December *</td>
<td>Executive Branch agencies may appeal to OMB and the president. Agency heads may ask OMB to reverse or modify certain budget decisions. In most cases, OMB and agency heads resolve such issues; if not, they work together to present them to the president for a decision.</td>
</tr>
<tr>
<td>January</td>
<td>Agencies prepare and OMB reviews congressional budget justification materials, which explain budget requests to the responsible congressional subcommittees.</td>
</tr>
<tr>
<td>First Monday in February</td>
<td>The president transmits the budget to the Congress.</td>
</tr>
</tbody>
</table>

* OMB provides specific deadlines for this activity

Source: Adapted from Office of Management and Budget, Circular No. A-11, section 10, p. 3-4.

Phase Two: The Congressional Budget Process

Participants

Even though the Budget and Accounting Act of 1921 mandates that presidents submit budget proposals to Congress, the constitutional power of the purse is entrusted solely to Congress. Therefore, the president’s submission is only a request and Congress may choose to adopt, modify, or ignore the president’s budget proposal when adopting a budget resolution, appropriations, and other laws (GAO, 2005a).

The congressional phase of the federal budget process begins once Congress receives the president’s budget request. Upon receipt, the president’s submission is parceled out to four sets of committees: (1) the Budget Committees, (2) the Appropriations Committees, (3) the Authorization Committees, and (4) the Revenue Committees. These committees are assisted by the CBO, the GAO, and the Congressional Research Service. Each of these entities coordinates with each other to
transition federal agencies from one fiscal year to the next via the formulation of the congressional budget resolution, consideration of surplus or debt, authorization of programs, drafting of revenue legislation, and the appropriation of funds (Hogan, 1985; Schick, 2007).

**Budget committees**

The principal duties of the House and Senate Budget Committees are to develop a congressional budget resolution, and to shepherd the resolution through their respective chambers by coordinating it among the various congressional components. The budget committees were established to: (1) exercise jurisdiction over the development of the budget resolution, and (2) ensure that legislation did not vary substantially from the resolution. Toward the first objective, the budget committees monitor budget development year-round and advise Congress on the budgetary effect of legislation. They also allocate new budget authority, outlays, and other aggregates to associated committees; in other words, the budget committees set budget targets which guide the efforts of other committees. With regard to the second objective, material variance between current laws and the policies set forth in the resolution will prompt the budget committees to draft reconciliation instructions directing attendant committees to adjust legislation. Afterward, the budget committees compile the reconciliation bill for consideration and approval of the full Congress (Lee, et al., 2008; Schick, 2007).
Revenue committees

As a complement to the actions of the budget committees, the revenue committees bear the responsibility of writing and modifying revenue legislation. If Congress needs to raise or lower tax rates, modify the distribution of the tax burden, adjust the statutory limit on the public debt, or if the president recommends changes in revenue policy, the members of the House Ways and Means Committee and the Senate Finance Committee are called upon to draft such legislation. These tax writing committees are also responsible for reporting legislation on entitlements and social insurance programs, such as Social Security and Medicare, and for submitting their views and estimates to the budget committees (Committee on Finance, 2013; Committee on Ways and Means, 2013; Mikesell, 2007; Schick, 2007).

As a procedural matter, all revenue measures originate in the House of Representatives as per constitutional decree. On occasion, however, the Senate circumvents this requirement by stripping a minor House bill of all but the enacting clause and then substituting Senate-drafted revenue provisions; such an instance occurred with the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA).

Authorization and appropriation committees

Congress establishes and funds federal entities using either authorizing legislation drafted by the authorizing committees or appropriations measures written by the appropriations committees. Authorizing legislation establishes the legal basis for federal agencies and programs, while appropriations legislation enables agencies to
incure obligations and expenditures (Schick, 2007). Before discussing the roles of the authorizing and appropriations committees, it is important to draw distinctions between the paired concepts of substantive legislation and authorization of appropriations, and between direct spending and discretionary authorizations.

First, the two basic components of an authorization act are: (1) the enabling or organic legislation that establishes a program or prescribes the terms and conditions under which an entity may operate; and (2) the appropriation legislation, which authorizes the making of appropriations for the agency or program. The first component, the organic legislation, is further comprised of language which (a) establishes the agency or program and (b) specifies the duties and functions of the entity. Elements (a) and (b) are known as *substantive provisions* or *substantive legislation*. Authorization acts also contain an *authorization of appropriations* section, enumerated as component (2) above, which sets forth the amounts available to the federal entity for expenditure (Mikesell, 2007; Schick, 2007).

Second, with respect to authorizing legislation, there are two types: (1) discretionary and (2) non-discretionary (also called *direct spending legislation*). While both types of legislation contain substantive provisions, the difference between the two lies in the appropriation-obligation sequence. Discretionary authorizations provide the authority for the House and Senate to appropriate funds for an agency, after which the agency must obligate funding in accordance with the related appropriations act. Accordingly, the appropriations committees control discretionary spending. Direct
spending legislation, on the other hand, provides the authority to obligate *ahead of* appropriations (i.e., before Congress makes appropriations)\(^2\). This distinction means that non-discretionary funds may be obligated in accordance with the authorizing legislation, thereby enabling authorizing committees, not appropriating committees, to control non-discretionary spending (Heniff, 2010; Schick, 2007). For Fiscal Year 2012, discretionary and direct spending comprised approximately 36 and 57 percent of federal expenditures, respectively (Congressional Budget Office, 2013b).

Thus, the authorizing and appropriations committees also complement the work of the budget committees, while serving different roles in the congressional budgeting process. In addition to establishing account structures, discretionary expenditure guidance, and reprogramming rules for federal agencies, appropriations committees report regular and supplemental appropriations bills, review proposed rescissions and deferrals, and subdivide budget authority and outlays among their respective subcommittees. Authorizing committees generate authorizing and direct spending legislation, and exercise oversight of executive agencies. Both committees submit views and estimates to the budget committees (Heniff, 2010; Schick, 2007).

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\(^2\) Lee and colleagues provide an illustrative example: With regard to mandatory spending programs, authorizations provide for direct spending. When major entitlement programs, such as Social Security, are authorized, appropriations are provided simultaneously. Thus, direct spending programs are established by an authorization and the authorization itself creates the obligation for the federal government to spend money that goes to program beneficiaries (Lee, et al., 2008). Congress must then appropriate funding to cover those obligations.
Formulating the congressional budget

Table 2.3 lists the major milestones of the congressional budget phase and the schedule of events generally assumes Congress will complete the budget and appropriations process before the start of the fiscal year (Mikesell, 2007; Office of Management and Budget, 2013). Be that as it may, the table is not all-inclusive and its brevity belies the level of complexity and the amount of coordination inherent in the congressional budget process.

Table 2.3: Major Steps in the Congressional Budget Phase

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Congressional Budget Office provides congressional budget committees a report of the budgetary and economic outlook</td>
</tr>
<tr>
<td>February</td>
<td>CBO re-estimates the President’s Budget using internal economic and technical assumptions</td>
</tr>
<tr>
<td>Within 6 weeks</td>
<td>Congressional committees convey preferences on budgetary matters pertaining to the programs and activities for which they are responsible via “views and estimates” reports to Budget Committees</td>
</tr>
<tr>
<td>of budget transmittal</td>
<td></td>
</tr>
<tr>
<td>April 15</td>
<td>Congress completes action on concurrent resolution on the budget</td>
</tr>
<tr>
<td>May 15</td>
<td>House may begin considering annual appropriations bills, even if action on budget resolution has not been completed</td>
</tr>
<tr>
<td>June 10</td>
<td>House Appropriations Committee reports last annual appropriations bill</td>
</tr>
<tr>
<td>June 15</td>
<td>House completes action on reconciliation bill (if reconciliation is required by budget resolution)</td>
</tr>
<tr>
<td>June 30</td>
<td>House completes action on annual appropriations bill</td>
</tr>
<tr>
<td>September 30</td>
<td>Congress completes action on appropriations bills for upcoming fiscal year or passes continuing resolutions to ensure sustained operation of the federal government.</td>
</tr>
</tbody>
</table>

Source: Adapted from Office of Management and Budget, Circular No. A-11, section 10, p. 4; and from Fiscal Administration: Analysis and Applications for the Public Sector, Table 3-4, p. 89 (Mikesell, 2007).

To prepare the congressional budget committees for receipt of the president’s budget request, the CBO assembles a comparison of baseline budgetary projections to
proposed policy changes. In late January, CBO prepares *The Budget and Economic Outlook*. This annual baseline report, which contains a ten-year projection of federal revenue and spending, is based on current economic forecasts and the assumption that existing laws and policies will remain unchanged. (Congressional Budget Office, 2013a; GAO, 2005a; Office of Management and Budget, 2013). The CBO then analyzes the president’s budgetary proposal and estimates the amounts by which proposed legislation would change revenue and spending projections. This process of comparison, known as *legislative scoring*, quantifies the budgetary effect of policy changes in terms of variance from the baseline (GAO, 2005a; Office of Management and Budget, 2013; Schick, 2007).

Incidentally, OMB also produces baseline budget estimates called *current services estimates* (GAO, 2005a; Schick, 2007). The OMB estimates, which accompany the president’s budget, cover a five-year timeframe and show the cost of continuing federal services at the current level of effort (GAO, 2005a; Schick, 2007; Wildavsky & Caiden, 2004). Both the CBO and OMB baseline estimates assume fixed current policies, and both sets of estimates include inflationary and workload adjustments (Schick, 2007).

Within six weeks of budget transmittal, each House and Senate committee with legislative jurisdiction over federal programs relays to the budget committees “views and estimates” on revenue and spending levels for corresponding programs and activities (GAO, 2005a; Office of Management and Budget, 2013; Schick, 2007). Section 301(c) of the Congressional Budget Act of 1974 includes provisions regarding the
submission of views and estimates, but the reports are not restricted to a standard practice or format; instead, they often take the form of a letter to the chair and ranking member of the budget committee. The main purpose of the reports is to focus on major legislation scheduled for reauthorization in the coming session and to offer discussions, preferences, and recommendations regarding presidential budget proposals (GAO, 2005a; Heniff & Murray, 2013; Schick, 2007).

In conjunction with the views and estimates, the Joint Economic Committee, which is responsible for reviewing economic conditions and for recommending improvements to economic policy, submits fiscal policy recommendations to the congressional budget committees. The budget committees use these reports to develop the revenue and spending estimates contained in the concurrent budget resolution (GAO, 2005a; Joint Economic Committee, 2013; Office of Management and Budget, 2013).

The Congressional Budget Resolution

The budget resolution is a concurrent resolution which may originate in either the House or the Senate. While it is considered a formal reply to the president’s budget request (Wildavsky & Caiden, 2004), the resolution does not have a statutory effect because it does not go before the president for signature or veto (Keith & Heniff, 2005; Schick, 2007). In accordance with the Congressional Budget Act of 1974, the temporal scope of the resolution must include at least five fiscal years, but the time horizon often
expands and contracts to accommodate the prevailing Democratic or Republican budgetary agenda (Schick, 2007).

Stated succinctly, the resolution is a comprehensive budget plan for Congress. As the steward of the nation’s purse, Congress must consider not only the amount of money the federal government spends each year, but also the amount of revenue collected and the amount of debt accumulated. The budget resolution serves as a framework which links revenues and expenditures, thereby enabling Congress to set revenue floors and spending ceilings, and to evaluate the efficacy of attendant revenue- and appropriations measures and debt policies (Center on Budget and Policy Priorities, 2011; Schick, 2007).

Accordingly, the resolution establishes appropriate levels for four main aggregate amounts: (1) totals of new budget authority and outlays, (2) total federal revenues, (3) the surplus/deficit in the budget, and (4) the public debt. These aggregated budget targets are known as 302(a) allocations after the section in the 1974 Congressional Budget Act that pertains to them. Spending capacity is then allocated among the 20 budget functions listed in Table 2.4 through a process known as 302(b) allocations. Consequently, these functional allocations must add-up to the budget aggregates and, ideally, subsequent revenues and expenditures will correspond to the levels specified in the resolution (GAO, 2005a; Heniff & Murray, 2013; Lee, et al., 2008; Mikesell, 2007; Schick, 2007).
Table 2.4: Functions in the Budget Resolution

<table>
<thead>
<tr>
<th>Code</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>050</td>
<td>National Defense</td>
</tr>
<tr>
<td>150</td>
<td>International Affairs</td>
</tr>
<tr>
<td>250</td>
<td>General Science, Space, and Technology</td>
</tr>
<tr>
<td>270</td>
<td>Energy</td>
</tr>
<tr>
<td>300</td>
<td>Natural Resources and Environment</td>
</tr>
<tr>
<td>350</td>
<td>Agriculture</td>
</tr>
<tr>
<td>370</td>
<td>Commerce and Housing Credit</td>
</tr>
<tr>
<td>400</td>
<td>Transportation</td>
</tr>
<tr>
<td>450</td>
<td>Community and Regional Development</td>
</tr>
<tr>
<td>500</td>
<td>Education, Training, Employment, and Social Services</td>
</tr>
<tr>
<td>550</td>
<td>Health</td>
</tr>
<tr>
<td>570</td>
<td>Medicare</td>
</tr>
<tr>
<td>600</td>
<td>Income Security</td>
</tr>
<tr>
<td>650</td>
<td>Social Security</td>
</tr>
<tr>
<td>700</td>
<td>Veterans’ Benefits and Services</td>
</tr>
<tr>
<td>750</td>
<td>Administration of Justice</td>
</tr>
<tr>
<td>800</td>
<td>General Government</td>
</tr>
<tr>
<td>900</td>
<td>Net Interest</td>
</tr>
<tr>
<td>920</td>
<td>Allowances</td>
</tr>
<tr>
<td>950</td>
<td>Undistributed Offsetting Receipts</td>
</tr>
</tbody>
</table>


Beginning in March, the budget committees hear testimony from agency officials regarding agency budget justifications. After hearings have concluded, committee chairs convene their respective committees to mark-up (i.e., debate, amend, and rewrite) the individual versions of the resolution. In crafting preliminary renderings of the resolution, the budget committees rely on the substance of the CBO reports; views and estimates from the Authorizing, Appropriations, and Revenue Committees; JEC recommendations; congressional hearings with agency officials; and informal communications with other members of Congress. Once the draft versions of the budget resolution are complete, each budget committee reports to its respective
chamber for the consideration of the full House and Senate, and for floor voting (GAO, 2005a; Office of Management and Budget, 2013; Schick, 2007).

As it was originally enacted, the Congressional Budget Act required the adoption of two budget resolutions each year, the first by May 15 and the second by September 15. The May 15 resolution was intended as an advisory measure that set target levels for budget authority, revenues, outlays, the corresponding fiscal year’s deficit or surplus, and the attendant public debt. The first resolution would then be revised before the start of the fiscal year to account for budget and economic changes, while the second measure served as the binding resolution. In 1985, Congress passed the Balanced Budget and Emergency Deficit Control Act and eliminated the requirement (effective in 1987) for a second budget resolution. Currently, April 15 is the date by which Congress is expected to pass a concurrent budget resolution (Heniff & Murray, 2013; Schick, 2007; Wildavsky & Caiden, 2004).

Since the inception of the congressional budget process in 1975, Congress has attempted to adopt at least one budget resolution for each corresponding fiscal year. More often than not, however, the resolution does not pass in a timely manner, and on six occasions to date, Congress did not complete action on an annual budget resolution: (1) in 1998 for Fiscal Year (FY) 1999; (2) in 2002 for FY2003; (3) in 2004 for FY2005; (4) in 2006 for FY2007; (5) in 2010 for FY2011; and (6) in 2011 for FY2012 (Heniff & Murray, 2013). Table 2.5 lists adoption dates for the budget resolution from 1976 to 2010.
When this failure of adoption occurs the federal budgetary gears do not grind to a halt. If the April 15 deadline passes without a resolution, Congress can still appropriate funding and federal agencies can still continue to operate (Schick, 2007). Budgetary operations are allowed to continue, in this case, because the budget resolution is a multi-year projection; therefore, if Congress fails to pass a concurrent resolution, the previous year’s resolution simply remains in effect (Center on Budget and Policy Priorities, 2011). What is more, if legislators do not need to bring existing revenue and direct spending laws into conformity with the budget resolution via a process known as reconciliation (discussed further below), there may be little urgency, in the short term, to adopt a concurrent budget resolution (Schick, 2007).

To address the issue of non-adoption in an ad hoc manner, Congress may rely on a deeming resolution. While the term deeming resolution does not have an official definition or any specific rule which governs its use, members of Congress use the legislation as an annual budget resolution to establish enforceable budget levels for a budget cycle. In addition to providing revised spending allocations to the appropriations committees, deeming resolutions may also adjust aggregate budget levels and spending allocations to other House and Senate committees (Lynch, 2010). Deeming resolutions will be discussed further in Chapter 6.
Table 2.5: Budget Resolution Adoption Dates, Fiscal Years 1976 – 2010

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Date adopted</th>
<th>Days after deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Target date: 15 May)</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>14 – May – 1975</td>
<td>0</td>
</tr>
<tr>
<td>1977</td>
<td>13 – May – 1976</td>
<td>0</td>
</tr>
<tr>
<td>1978</td>
<td>17 – May – 1977</td>
<td>2</td>
</tr>
<tr>
<td>1979</td>
<td>17 – May – 1978</td>
<td>2</td>
</tr>
<tr>
<td>1980</td>
<td>24 – May – 1979</td>
<td>9</td>
</tr>
<tr>
<td>1985</td>
<td>1 – Oct – 1984</td>
<td>139</td>
</tr>
<tr>
<td>1986</td>
<td>1 – Aug – 1985</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>(Target date: 15 April)</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>24 – Jun – 1987</td>
<td>70</td>
</tr>
<tr>
<td>1989</td>
<td>6 – Jun – 1988</td>
<td>52</td>
</tr>
<tr>
<td>1990</td>
<td>18 – May – 1989</td>
<td>33</td>
</tr>
<tr>
<td>1994</td>
<td>1 – Apr – 1993</td>
<td>0</td>
</tr>
<tr>
<td>1995</td>
<td>12 – May – 1994</td>
<td>27</td>
</tr>
<tr>
<td>1999</td>
<td>Not adopted</td>
<td>-</td>
</tr>
<tr>
<td>2000</td>
<td>15 – Apr – 1999</td>
<td>0</td>
</tr>
<tr>
<td>2001</td>
<td>13 – Apr – 2000</td>
<td>0</td>
</tr>
<tr>
<td>2002</td>
<td>10 – May – 2001</td>
<td>25</td>
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<tr>
<td>2003</td>
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<td>2006</td>
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<tr>
<td>2007</td>
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</tr>
<tr>
<td>2008</td>
<td>17 – May – 2007</td>
<td>32</td>
</tr>
<tr>
<td>2009</td>
<td>5 – Jun – 2008</td>
<td>51</td>
</tr>
<tr>
<td>2010</td>
<td>29 – Apr – 2009</td>
<td>14</td>
</tr>
</tbody>
</table>

Source: Congressional Research Service, Congressional Budget Resolutions: Historical Information, CRS Report RL30297, Table 12, p. 28-29.

As originally enacted, the Congressional Budget Act of 1974 required that Congress adopt two budget resolutions each year: (1) an advisory resolution by May 15 and (2) a binding resolution by September 15. The Balanced Budget and Emergency Deficit Control Act of 1985 eliminated the requirement for a second resolution and set April 15 as the target adoption date (Heniff & Murray, 2008).
The appropriations process

Ideally, Congress will complete action on the budget resolution by April 15 and consideration of appropriations can begin in earnest. Still, even if Congress does not pass a budget resolution by mid-April, the House may begin consideration of annual appropriations on May 15 with a target date of June 30 for completion of all annual appropriation bills. Between February and April, the House appropriations subcommittees will hold appropriations hearings. From May to July, subcommittees receive 302(b) allocations from the appropriations committees, the subcommittees mark-up their respective appropriations bills, and then pass the measures on to the full appropriations committee. After the full committee incorporates its changes, each bill is considered individually by the full House (GAO, 2005a; Mikesell, 2007; Schick, 2007).

The Senate follows a similar appropriations schedule, but by virtue of a precedent set by the First Congress, appropriations bills must always originate in the House (Schick, 2007). During the July/August timeframe, the Senate will amend the House-passed appropriations by inserting changes made in the upper chamber. If the Senate does initiate an appropriations bill, the Senate-numbered bill will be incorporated into the House bill upon final passage. During the month of September, conference committees work to resolve differences in the measures passed by the House and Senate. After Congress passes an appropriations bill, the bill is passed-on to the president for enactment. For those bills that are not signed into law by first day of the fiscal year, Congress will pass a continuing appropriations act (Lee, et al., 2008; Mikesell, 2007; Schick, 2007), which will allow federal agencies to continue operating
until regular appropriations are enacted. Continuing resolutions are addressed in depth in the next chapter.

**Budget reconciliation**

The discussion in the previous section was based largely on the assumption that members of Congress are able to pass appropriations in a timely manner, which, as the reader will see in subsequent chapters, is a very optimistic supposition. Likewise, the discussion on the congressional budget resolution assumes that prevailing revenue and spending laws and debt-limit levels are in accord with the policies set forth in the budget resolution. This is also a rather sanguine assumption as Congress has needed to change current laws to fit the parameters of the budget resolution 21 times over the past 37 years (Heniff & Murray, 2013; Keith & Heniff, 2005).

When revenue and direct spending laws are not in-line with the parameters of the budget resolution, the budget committees will include directives instructing revenue and authorization committees to modify existing laws. The majority of tax revenue collected and the non-discretionary spending that takes place each year are the result of permanent laws previously enacted; therefore, a predetermined level of taxing and spending will occur annually without correction from legislators. To ensure a sufficient level of revenue generation, an adequate level of spending, and a manageable level of debt, legislators may have to adjust existing taxing and spending laws from time to time. While the budget resolution is the means by which Congress enforces its budget, the budget committees are not permitted to change laws. For this reason, Congress uses a
process known as reconciliation to harmonize revenue and spending laws with
budgetary plans (Keith & Heniff, 2005; Lee, et al., 2008; Mikesell, 2007; Schick, 2007).

In essence, reconciliation is a legislative effort designed to foster the
implementation of budget resolution policies. It is an optional two-step procedure first
used in 1980 via the Omnibus Resolution Reconciliation Act, which required committees
to change legislation to meet spending reductions or tax increases called for in the
budget resolution. The practice is used most often when there are major changes to
budget policy and the procedure requires: (1) the issuance of reconciliation directives to
designated committees instructing them to change existing laws that govern revenue
generation, non-discretionary spending, and debt-limit levels, and (2) the enactment of
a reconciliation bill(s) incorporating those legislative changes (Heniff & Murray, 2013;
Keith & Heniff, 2005; Schick, 2007).

Procedurally, the promulgation of reconciliation directives by House and Senate
budget committees to their respective finance and authorization committees is done in
such a way as to maintain the legislative division of labor. The changes stipulated in the
reconciliation instructions are based on the amounts by which taxing, spending, and
authorizing legislation are to be adjusted from the CBO baseline levels stated in the
Budget and Economic Outlook. Since budget committees do not have legislative
jurisdiction, however, reconciliation directives specify neither how the changes are to be
made nor which programs are to be affected. Such details are left to the discretion of
the committees identified by name in the reconciliation directives, thereby ensuring
that budget committees cannot control both money and programs. Finally, not all committees take part in reconciliation while others seem to have a fixed presence. The revenue committees’ jurisdiction over taxes and entitlements means that finance committees will almost always be among those designated to take part in reconciliation. On the other hand, appropriation committees and authorizing committees whose jurisdiction is limited to discretionary programs are not issued reconciliation instructions (GAO, 2005a; Lee, et al., 2008; Schick, 2007).

After receiving the legislative recommendations of the instructed committees, the budget committees package the recommended legislation into an omnibus measure and report the legislation to the full House and Senate without making any substantive revisions\(^4,5\). Consideration of reconciliation bills in the House takes place under a special rule that indicates which amendments can be considered. The Senate considers reconciliation bills under sections of the Congressional Budget Act that restrict both the amount of debate that can take place and the types of amendments that may be considered\(^6\). Incidentally, both chambers require revenue neutrality in reconciliation amendments, which is to say that changes which reduce revenue or increase spending must also be accompanied by offsets. Once differences in the House and Senate versions of the legislation have been resolved in conference, the bill is submitted to the

\(^4\) An omnibus measure is one that contains several bills (Streeter, 2008a).
\(^5\) The Congressional Budget Act prohibits the budget committees from making substantive revisions to the legislation that the committees of jurisdiction report, even when the proposed legislation does not abide by the dollar targets stipulated in the reconciliation instructions. However, budget committees may make technical corrections at the request of the instructed committees and they may offer amendments to the legislation during floor consideration (Schick, 2007).
\(^6\) The Senate allows only 20 hours of debate on the reconciliation bill (Schick, 2007).

Phase Three: Budget Execution and Control

The federal fiscal cycle begins anew on the first of October each year. On October 1, approximately 18 months after the OMB Director transmits allowance letters to agency heads, the federal fiscal year begins. The term budget execution and control refers both to the period during which budget authority made available by appropriations remains available for obligation, and to the applicable fiscal statutes and administrative controls that govern agency spending. Throughout this new fiscal year, the body of enacted laws that provides appropriations will function as the overarching financial plan for the federal government, while the Antideficiency Act (ADA) serves as the mechanism which enforces the spirit of the applicable appropriations.

Table 2.6 lists the major steps in the budget execution and control phase. OMB apportions appropriations among federal agencies, which then sub-divide the funding among organizational sub-units for measured obligation throughout the fiscal year. In the course of spending appropriations, agencies must abide by the precepts of the Antideficiency Act, administrative controls, and obligation rules, each of which is discussed in more detail below.
Table 2.6: Major Steps in the Budget Execution and Control Phase

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1</td>
<td>Federal fiscal year begins</td>
</tr>
<tr>
<td>September 10 (or within 30 days after approval of a spending bill)</td>
<td>OMB apportions funds made available in the annual appropriations process. Agencies submit apportionment requests to OMB for each budget account by August 21 or within 10 calendar days after the approval of the appropriation, whichever is later. OMB approves or modifies the apportionment specifying the amount of funds agencies may use by time period, program, project, or activity.</td>
</tr>
<tr>
<td>Throughout the fiscal year</td>
<td>Agencies incur obligations and make outlays to carry out the funded programs, projects, and activities. Agencies record obligations and outlays pursuant to administrative control of funds procedures, report to Treasury, and prepare financial statements.</td>
</tr>
<tr>
<td>September 30</td>
<td>Federal fiscal year ends</td>
</tr>
</tbody>
</table>

Source: Adapted from Office of Management and Budget, Circular No. A-11, section 10, p. 4.

The Antideficiency Act

The primary fiscal statute for the federal government is the Antideficiency Act, which Hopkins and Nutt (1978) refer to as “the cornerstone of Congressional efforts to bind the Executive branch of government to the limits on expenditure of appropriated funds.” The statute evolved over time to prevent expenditures in excess of amounts appropriated and to preclude “coercive deficiencies (L. Fisher, 1975).” The latter term refers to the shrewd practice of continuing to incur obligations after exhausting an entire appropriation during the opening months the fiscal year, and then pressing members of Congress for additional funds to survive the remainder of the year (GAO, 2004e). The Act is currently the only fiscal statute that includes both civil and criminal penalties for violation (GAO, 2004e)7.

7 A violation of the ADA occurs upon: (1) overobligation or overexpenditure of an appropriation or fund account; (2) entering into a contract or making an obligation in advance of an appropriation, unless specifically authorized by law; (3) acceptance of voluntary services, unless authorized by law; and (4)
The Antideficiency Act is a funds control and financial management statute that achieves control by way of apportionment, allotment, and allocation of appropriations (GAO, 2005a). The Act mandates that the executive branch apportion appropriations in such a manner that funds lasts for the full period for which they were intended by Congress ("Protecting the Fisc: Executive Impoundment and Congressional Power," 1973). Accordingly, OMB apportions amounts to executive branch agencies, which subdivide the apportionments among organizational subunits. Those subunits then obligate funding within the parameters of the Act. From a managerial standpoint, the Antideficiency Act requires agency heads to prescribe a series of administrative controls which provide for the effective obligation of appropriations (GAO, 2004e, 2005a; Schick, 2007).

**Apportionment**

After appropriations are enacted into law, OMB must apportion the appropriations to executive agencies before execution of funding can begin. The GAO (2005a) defines apportionments, in part, as the action by which the OMB distributes amounts available for obligation. This process marks the last point at which OMB can formally control agency spending, and the intention behind apportionment is (1) to prevent obligation practices that would require the enactment of deficiency or overobligation or overexpenditure of (a) an apportionment or reapportionment or (b) amounts permitted by the administrative control of funds regulations (GAO, 2005a).
supplemental appropriations\(^8\) and (2) to achieve the most effective and economic use of funds (GAO, 2004e, 2005a; Lee, et al., 2008; Schick, 2007).

Procedurally, agencies submit apportionment requests to OMB for each budget account by August 21 or within 10 calendar days after approval of the appropriation, whichever occurs later. In turn, OMB exercises the discretion to apportion appropriations by specific time periods (usually fiscal quarters), activities, projects, objects, or by any combination thereof. From there, apportionments can be further subdivided by an agency into allotments, sub-allotments, and allocations (GAO, 2005a; Lee, et al., 2008; Mikesell, 2007; Office of Management and Budget, 2013; Schick, 2007).

**Allotment**

After agencies receive apportionments from OMB, program managers are notified, by way of allotments, of the actual resources available for the fiscal year. Allotments are distributions of budget authority among organizational subunits, such as bureaus, divisions, and field offices, and they are a manifestation of the agency’s system of administrative control of funds whose purpose is to prevent obligations and expenditures from exceeding apportionments. An agency head or an authorized designee distributes allotments, on a monthly or quarterly basis, pursuant to procedures mandated in OMB Circular No. A-11. Using the allotments, program managers execute funding according to spending plans formulated during the executive budget

\(^8\) Supplemental appropriations are funds appropriated in addition to those already enacted in an annual appropriation act. Such appropriations provide additional budget authority in cases of urgent need. By comparison, a deficiency appropriation is made to pay obligations for which sufficient funds are not available and they often result from violation of the ADA. Incidentally, Congress has stopped passing separate deficiency appropriations and the term has fallen into disuse (GAO, 2005a).
formulation phase. Examples of such spending include the hiring of personnel; the purchase of contract services, supplies, and equipment; and the fulfillment of official agency travel (GAO, 2005a; Lee, et al., 2008; Schick, 2007).

Obligations

Once funds are allotted, managers may begin executing the funds or making obligations on the government’s behalf. Obligations are an agency’s binding commitment to another party, or a legal liability of the U.S. government with regard to goods or services to be provided, or amounts to be paid. Funding may be obligated only during the period for which the appropriation is available; beyond that period, funds lapse and the authority to obligate expires. Funds must be used to meet a public need and expenditures must be related to the purpose for which appropriations were made. Agencies incur obligations upon placing an order, signing a contract, purchasing a service, or engaging in any activity which requires the government to make payments to the public or from one government account to another. These payments may be made immediately or at some point in the future (GAO, 2004e, 2005a; Schick, 2007).

Successful obligation requires a style of financial management that some may interpret as wasteful, but is actually the result of cautious behavior. For appropriated monies, the managerial objective is to obligate 100 percent of allotted funding by the end of the fiscal year. Prima facie, spending all of the agency’s money may seem simple enough. However, agencies that overobligate (i.e., exceed appropriation, apportionment, or allotment) risk violating the Antideficiency Act, while those that
underobligate risk future budget cuts by appropriators or senior officials who may view the agency as being awash in funding. To guard against overexpenditure, program managers often set aside funding for unforeseen events. As the fiscal year winds down, managers spend-down these contingency funds to ensure full execution. This practice results in a spike in expenditure rates which many see as profligate government spending; in actuality, it is often the result of prudent management of limited financial resources (Schick, 2007).

The idea of putting aside funding for contingencies is not a practice that is exclusive to the arena of federal budgeting; in fact, that sort of convention is more generally known as organizational or budgetary slack. Budgetary slack is the residual between “the total resources available to a firm and the total necessary to maintain the organization coalition (Cyert & March, 1963),” or the excess of the amount budgeted over that which is necessary (Merchant, 1985). While budgetary slack is often referred to in a pejorative light (Merchant, 1985), it behooves rational economic individuals to create slack (Lowe & Shaw, 1968), and its true value depends on the manner by which it is utilized. In essence, organizational slack offers alternative funding methods that may not otherwise be available or sanctioned because of scarcity of resources (Onsi, 1973).

The propensity for creating budgetary slack is greater in certain financial or accounting systems, and the practice is made possible through imperfections in the organizational process of resource allocation (Onsi, 1973). In systems where there is an emphasis on achieving budgetary targets; a centralized, top-down, “authoritarian (Onsi, 1973)” perspective on budget implementation; or an intermittent requirement for
strategic recourse to avoid shortfalls and overruns, managers will feel compelled to generate organizational slack (Merchant, 1985; Onsi, 1973). Since slack becomes practically undetectable at aggregate levels, departmental heads often rely on division controllers/comptrollers to institute budgetary slack by way of errors in estimation or changes in levels of efficiency (Lal, Dunk, & Smith, 1996; Merchant, 1985; Onsi, 1973).

While budgetary slack is not a formal part of the federal budget process, it is an intrinsic exercise of the resource management profession. Organizational slack in the form of contingency funding is addressed here because it is an integral part of the analysis in chapters four and five.

*Deferrals and rescissions*

A discussion of the execution and control of the federal budget would not be complete without acknowledgement of the topic of impoundment. The GAO (2005a) defines impoundment as any action or inaction by an officer of the federal government which prevents the obligation or expenditure of budget authority. More simply stated, impoundments are a refusal to spend all or part of the funds appropriated by Congress (Schick, 2007; Wildavsky & Caiden, 2004). By virtue of its domain over the nation’s purse, appropriations are a signal of congressional intent and refusal to obligate appropriations is a violation of that intent (Schick, 2007).

Beginning with Thomas Jefferson, most presidents have made use of impoundment, but on the heels of President Nixon’s controversial application of the authority, Congress passed the Impoundment Control Act of 1974 (Hogan, 1985; Lee, et
The Act categorizes impoundment into: (1) deferrals, which postpone the obligation of budget authority, and (2) rescissions, which cancel budget authority previously enacted by Congress (GAO, 2005a).

Budget authority cannot be deferred for policy reasons; instead, it may only be deferred for reasons permitted by the Antideficiency Act: (1) to provide for contingencies, (2) to achieve savings in governmental operations, or (3) as provided by law. Agencies may propose deferrals but the president must transmit a special message to Congress detailing (a) the amount to be deferred, (b) the program and account affected, and (c) the length of time the funds are to be deferred. Deferrals become effective unless either the House or Senate disapproves them; however, once the deferral is disapproved the associated budget authority must be made available for obligation immediately. In addition, deferrals cannot extend beyond the end of the fiscal year to which the budget authority pertains, and agencies must release all other deferred budget authority with sufficient time remaining in the fiscal year to allow for prudent obligation (GAO, 2005a; Lee, et al., 2008; Schick, 2007).

By comparison, rescissions may be proposed for policy reasons, and the 1974 Act includes provisions for the president to request a rescission of budget authority. If the president deems all or part of any budget authority unnecessary for realization of program objectives, the president may propose rescission by way of a special message that details: (a) the amount to be rescinded, (b) the reasons for rescission, (c) the

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9 The Impoundment Control Act was enacted in the same measure as the Congressional Budget Act, and together they are known as the Congressional Budget and Impoundment Control Act of 1974 (Schick, 2007)
accounts and programs affected, and (d) the estimated budgetary and program impacts. After receipt of the special message, Congress has no less than 45 days of continuous session to consider the rescission proposal. That is to say rescissions do not take effect unless approved by Congress. If both chambers have not completed action on the rescission bill within the 45 day timeframe, any funds withheld must be released for obligation. What is more, Congress may also initiate rescissions for reasons such as program terminations, excessive unobligated balances, and a change of priorities (GAO, 2005a; Lee, et al., 2008; Schick, 2007)\textsuperscript{10}.

**In summary**

Over time, the federal budget process in the United States has evolved from a committee-centric arrangement suited to meet the modest needs of a small government into a highly-coordinated and comprehensive fiscal system capable of supporting what is currently the largest economy in the world. In the existing process, the federal government spends nine months building a budget from the bottom up using top-down guidance, and another nine months adjudicating the efficacy of that budget. If everything goes according to script, it will take approximately 18 months to plan for 12 months of spending. To the casual observer the federal budget process may seem terribly inefficient. However, considering the amount of communication, feedback, coordination, adjustment, and protocol required to ensure that the

\textsuperscript{10} The GAO draws a distinction between rescissions and reallocated budget authority. When making appropriations, if Congress “rescinds” funds from one account and immediately “appropriates” an identical amount to a different account, the GAO considers the transaction as reallocated budget authority and not a formal rescission (GAO, 2009c)
government’s fiscal house remains in order and that all participants are equally
dissatisfied, it is a marvel that budgets are passed at all.

The purpose of this chapter is to provide a very brief overview of the federal
budget process to prepare the reader for the upcoming examination of continuing
resolutions. In truth, the process is far more intricate and involved than what has been
portrayed in the preceding pages. The acquisitive reader seeking a more detailed
account of federal budgeting may benefit from reading The Federal Budget: Politics,
Policy, and Process by Allen Schick; Fiscal Administration: Analysis and Applications in
the Public Sector by John Mikesell; and Public Budgeting Systems by Lee and colleagues,
as these works provide analysis and different perspectives of the same phenomenon.

From here, the discussion will turn to the subject of stopgap measures that are
employed in light of budgetary discord and the absence of annual appropriations. While
mentioned only tangentially in this chapter, continuing resolutions are the main focus of
this study. The next chapter offers background information on continuing
appropriations acts, a summary of the literature as it relates the institutions of the
president and Congress, and a synthesis of the research regarding the effects of
spending restrictions on agency-level spending. Likewise, the analyses in chapters four,
five, and six also pertain to continuing resolutions, so it is hoped that chapter two will
function as a touchstone for terms and concepts referred to throughout this evaluation.

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Chapter Three  
Continuing Resolutions: A Review of the Literature

Introduction

As mentioned previously, the Federal government’s fiscal year begins on October 1. To ensure continuity of operations for federal agencies from one year to the next, appropriations acts must be enacted by the first day of the fiscal year. Congress provides funding by way of annual appropriations acts which enable agencies to obligate and expend money from the U.S. Treasury\textsuperscript{11}. Agency officials then spend their respective allotments and allocations over the course of the fiscal year, in accordance with budgetary execution plans, to ensure that all appropriations are fully spent by September 30, the final day of the fiscal year. The execution process begins anew with the advent of the next fiscal year.

To complicate matters, the federal government often enters a new fiscal year without a fully approved budget, which means the government may operate in a constrained and uncertain environment. If Congress and the president do not enact appropriations by the first day of the fiscal year, a funding gap ensues and the government must shutdown. To prevent a cessation of operations, Congress will, most often, provide temporary funding by way of \textit{continuing appropriations acts}, which are also known as \textit{continuing resolutions} or \textit{continuing appropriations}. These measures are

\textsuperscript{11} Congress funds federal agencies by way of several regular appropriations acts which can vary in number from year to year. From fiscal years 1968 – 2005, the number of regular appropriations acts remained steady at 13. The number reduced to 11 during the 109th Congress, and increased to 12 during the 110th Congress (Pulmonte, 2011; Streeter, 2008b).
the legislative mechanism that enables the operation of government programs until Congress and the president agree on regular appropriations.

However, the restrictive nature of continuing resolutions may have unintended effects (Hartman, 1982) on government spending beyond the timeframe to which the resolutions apply. Government agencies routinely formulate budgets and devise spending plans toward accomplishment of organizational missions under the assumption that full funding will be available at the outset of the coming fiscal year. Continuing resolutions place limits on operational activities and may result in interim levels of funding that tend to be lower than those for which the agency originally planned. As a result, continuing resolutions may disrupt obligation plans thereby causing organizations to adopt measures of execution that will increase the probability of achieving budgetary spending goals.

What, then, is the effect of continuing resolutions on the spending patterns of federal agencies? Dating back more than a century, these stopgap measures have become a mainstay of the federal budget process, yet quantitative analyses of effects are hard to come by. At the government-wide level, scholarly work tends to focus on continuing resolutions (1) as a legislative instrument which may tip the scales between the legislature and the executive during budget negotiations, (2) as an apple of discord between authorizers and appropriators, and (3) as a reluctant and temporary solution to budgetary stalemate. At the agency-level, both scholars and practitioners generate empirical findings by way of case studies; however, the majority of research is
conducted by practitioners and tends to be anecdotal because agencies do not specifically track the effects of spending restrictions.

As it stands, the field of federal budgeting is, by and large, devoid of studies that isolate and quantify the effects of continuing resolutions on agency spending patterns. This dynamic is partly due to a practitioner-heavy attribute, but also because other disciplines have shown more interest in the aspect of budget execution. Bartle (2001) submits that budgeting research is largely practice-oriented, while McCaffery and Mutty (1999) add that academic budgeting literature is focused on budget preparation, while budget execution, the stage at which spending takes place, is customarily the domain of practitioners. That does not mean, however, that budget execution has gone unnoticed by scholars. In the context of this study, academics in the field of management accounting are concerned with the financial management aspect of budgeting where cost control, cash flow management, and capital expenditures take place (Balakrishnan & Sprinkle, 2002), and Cooper and Kaplan (1992) offers an Activity-Based Costing framework of unused capacity that may be applicable to the discussion.

The objectives of this chapter are, first, to provide the reader with a brief history of continuing resolutions and to offer a basic understanding of the purpose, the type, and the frequency of usage of these appropriations. The second objective is to show that the attendant literature can be thought of in two dimensions: (1) a government-wide perspective which addresses the effects of continuing resolutions on the Congress and the president, and (2) an agency-specific viewpoint which concerns the bearing of continuing appropriations on agency spending behavior. The final objective is to show
that the agency-specific literature can be rearranged and regarded in such a way as to reveal patterns of spending which lend themselves to quantitative analysis.

Before continuing further, it is important to note that this chapter will not include a discussion of legislative anomalies. As part of a recent study of continuing resolutions, the Government Accountability Office (GAO) compiled a list of standard provisions associated with such resolutions (see Appendix A). Legislative anomalies can be thought of as exceptions to the resolution rules. The president and congress may include these extraordinary legislative measures to accommodate exceptional circumstances or to avoid major problems which would arise with a uniform approach to funding. Anomalies are quite rare and most agencies operate under the standard provisions of continuing resolutions (Brass, 2010; GAO, 2009b; Pulmonte, 2011).

The discussion of federal budgeting, in general, and of continuing appropriations, in specific, continues in the next section with essential background information such as the constitutional and statutory basis for continuing resolutions, the types of stopgap measures, and the frequency of usage. The third segment of the chapter summarizes the literature as it relates to the institutions of the president and the Congress, and section four synthesizes the writings dedicated to the effects of continuing resolutions at the agency-level. The fifth section explores the notion of re-categorizing the effects of continuing appropriations on agency-level organizations and re-approaching the issue by way of a standardized accounting classification system. The final part of the chapter concludes with a brief discussion regarding the state of the field and a suggestion of
how empirical research might proceed in an area of study ripe for quantitative applications.

**The essentials of continuing resolutions**

Article 1, Section 9, Clause 7 of the U.S. Constitution requires the enactment of appropriations before money can be drawn from the U.S. Treasury. In addition, the Antideficiency Act, under threat of criminal sanctions, fines, or removal from office, forbids obligations in excess of appropriations and largely prohibits agencies from operating in the absence of funding; only those activities involving the safety of human life or the protection of property are exempt from the ADA provision (Brass, 2010; GAO, 2004e; Pulmonte, 2011; Streeter, 2008b).

One outcome of these statutory provisions is the possibility of government shutdown. If Congress does not approve funding by the first day of the fiscal year, a funding gap will ensue and agencies must begin an orderly shutdown of operations (Pulmonte, 2011; Streeter, 2008b). Alternatively known as a “lapse in appropriations” or “appropriations hiatus,” a funding gap occurs: (1) when regular appropriations have not been agreed upon by the start of the fiscal year and the president has not signed a continuing resolution into law (Pulmonte, 2011); (2) when a regular appropriation is exhausted before the end of the fiscal year (GAO, 2004e); or (3) when one continuing resolution expires and another is not enacted (Brass, 2010). In other words, a funding gap refers to any period of time during the fiscal year which is not covered by an appropriation. Incidentally, instances in which a continuing resolution is enacted
day after the preceding short-term resolution expires are not considered to be funding gaps (Keith, 2008a; Tollestrup, 2011). Prior to the government shutdown of Fiscal Year 2014 (October 1 to October 16, 2013), no funding gaps had occurred since 1996 (Brass, 2010; Pulmonte, 2011; Streeter, 2008b).

To avoid funding gaps, Congress and the president employ continuing resolutions, which are the legislative mechanism that enables government programs to operate in the absence of regular appropriations. More formally known as continuing appropriations acts, continuing resolutions are referred to as such because they are enacted in the form of joint resolutions between the House and Senate (Pulmonte, 2011; Schick, 2007; Streeter, 2008b). The resolutions allow the government to continue operating on a temporary basis until Congress and the president (or the chambers within Congress) reach an agreement on regular appropriations (Brass, 2010; Pulmonte, 2011; Tollestrup, 2011).

Continuing resolutions have been in use since 1876 when Congress appropriated ten days of funding for select government accounts (Devins, 1988; Pulmonte, 2011; Streeter, 2008b). With regard to modern times, Congress has passed at least one such resolution each year since 1952, and from 1961 to 1980, only 15 percent of annual appropriations were enacted on time. (Brass, 2010; Devins, 1988; GAO, 2009b; Pulmonte, 2011; Streeter, 2008b; Tollestrup, 2011; Joe White, 1988). From 1952 to 2010, Congress and the president enacted all regular appropriations acts in a timely fashion on only four occasions: fiscal years 1977, 1989, 1995, and 1997. During fiscal year 1977, however, a handful of appropriations were dropped from the regular
appropriations act and Congress enacted two continuing resolutions to fund the unauthorized programs. Between fiscal years 1998 and 2010, Congress enacted 79 continuing resolutions which averaged 18 days in duration and ranged in length from 21 to 365 days. During that period of time, agencies, on balance, spent the first four months of the fiscal year under the restrictions of a continuing appropriation (Tollestrup, 2011).

Even though continuing appropriations are used frequently, the resolutions are not always applied in a blanket fashion. Some agencies are fortunate enough to receive regular appropriations by the start of the fiscal year, while others must wait until the budget impasse is resolved. Table 3.1 lists the number of appropriations acts approved by October 1 for fiscal years 1977-2010 along with the number of continuing resolutions enacted in each of those years (Pulmonte, 2011; Streeter, 2008b). A 2009 GAO study of the effect of continuing appropriations on federal agency operations finds no discernible pattern associated with the duration of resolutions enacted between fiscal years 1999-2009. However, Figure 3.1 shows that, over that same period of time, military- and security-type appropriations enjoyed shorter durations of restriction while appropriations related to Commerce, Justice, Labor, and Health and Human Services endured longer periods of austerity (GAO, 2009b; Pulmonte, 2011).
Table 3.1: Regular Appropriations Bills Enacted by the Start of the Fiscal Year and Continuing Resolutions, Fiscal Years 1977-2010

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Appropriations acts approved by October 1</th>
<th>Number of continuing resolutions enacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>1978</td>
<td>9</td>
<td>3</td>
</tr>
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<td>1979</td>
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<td>3</td>
<td>2</td>
</tr>
<tr>
<td>2010</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Concerning the timeline for adoption of continuing appropriations acts, it seems that Congress tends to wait until the close of the fiscal year before finalizing such actions. Using the Government Printing Office’s Federal Digital System, queries for the initial continuing appropriations associated with fiscal years 2000-2012 showed that Congress and the president most often adopted continuing resolutions into public law on the final day of the fiscal year (see Table 3.2). On three occasions, fiscal years 2001, 2002, and 2008, the acts were passed into law one to two days early. For Fiscal Year 2010, the resolution was adopted into public law on the first day of the associated fiscal year, October 1, 2009.
### Table 3.2: Continuing Resolutions, Date of Adoption by Congress

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Public Law</th>
<th>Date Adopted by Congress</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>106-62</td>
<td>September 30, 1999</td>
</tr>
<tr>
<td>2001</td>
<td>106-275</td>
<td>September 29, 2000</td>
</tr>
<tr>
<td>2002</td>
<td>107-44</td>
<td>September 28, 2001</td>
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<td>2003</td>
<td>107-229</td>
<td>September 30, 2002</td>
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<td>2005</td>
<td>108-309</td>
<td>September 30, 2004</td>
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<td>2006</td>
<td>109-77</td>
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<td>2008</td>
<td>110-92</td>
<td>September 29, 2007</td>
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<tr>
<td>2009</td>
<td>110-329</td>
<td>September 30, 2008</td>
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<tr>
<td>2010</td>
<td>111-68</td>
<td>October 1, 2009</td>
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<tr>
<td>2011</td>
<td>111-242</td>
<td>September 30, 2010</td>
</tr>
<tr>
<td>2012</td>
<td>112-33</td>
<td>September 30, 2011</td>
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There are two types of continuing resolutions: interim and full-year. Brief in both duration and word-length, the most frequently applied of the two methods are *interim continuing resolutions*. Also called traditional (Schick, 2007), partial-year (Tollestrup, 2011), or short-term continuing resolutions (Brass, 2010), these temporary measures may be enacted for a few short days or they may span several months. Usually only a few pages long (Schick, 2007), interim resolutions are valid until a specific date, which is stated on the initial resolution, or until the enactment of the regular appropriations act, whichever comes first. Most often, when a series of interim continuing resolutions are employed in a single fiscal year, subsequent resolutions will simply overwrite the expiration date of the preceding resolution (GAO, 2009b; Pulmonte, 2011; Streeter, 2008b; Tollestrup, 2011).

While regular appropriations acts can be very explicit in funding verbiage, interim continuing resolutions often provide for an attenuated level of operations by
way of various spending rates. For example, Congress may restrict agencies to levels of execution commensurate with the previous fiscal year by mandating a pace of spending not to exceed the “current rate (Hartman, 1982; I. Rubin, 2007; Streeter, 2008a; Wildavsky & Caiden, 2004),” effectively providing for no increase in funding over the prior fiscal year. By allowing only for an inflationary adjustment or an increase in the number of beneficiaries, legislators may also seek to govern spending at a rate that maintains existing program levels detailed in statute. Lawmakers may also resort to versions of what Kiewiet and McCubbins (1988) refer to as the “Fenno Rule” after James Fenno’s (1966) explanation of the general provisions of continuing resolutions.

According to the Fenno Rule, when an agency is subject to a continuing resolution, that agency’s spending authority is restricted to the minimum of the House version of an appropriations bill, the Senate version of the same appropriations bill, or the previous fiscal year’s regular appropriations act (Fenno, 1966; GAO, 2009b; Hartman, 1982; McCaffery & Mutty, 1999; Pulmonte, 2011; I. Rubin, 2007; Streeter, 2008b; Tollestrup, 2011).

In contrast to the brevity of partial-year measures, full-year continuing resolutions contain more text and are intended to sustain agency operations thru fiscal year-end. Full-year resolutions generally enable agency operations by: (1) referencing the full text of the related regular appropriations act; (2) cross-referencing language from the latest stage of congressional action, such as the conference agreement; (3) mandating spending rates; or (4) some combination of the previous three methods (Pulmonte, 2011; Streeter, 2008b). Because full-year measures often include the full
text of regular appropriations, they tend to be several hundred pages in length (Schick, 2007). In essence, full-year continuing resolutions provide funding in place of regular appropriations and they expire at the end of the fiscal year (Pulmonte, 2011; Schick, 2007; Streeter, 2008b). Thus, full-year resolutions differ from regular appropriations only to the extent that the amount of funding provided may differ from what would have been included in the regular measures.

It is also not unheard of for an agency to begin the fiscal year under a series of interim measures only to have a full-year continuing resolution adopted in the event of extended budget negotiations, as most recently happened in fiscal years 2007 and 2011 ("DoD & Full-Year Continuing Appropriations Act, 2011," 2011; GAO, 2009b). When this happens, Congress seems to be cognizant of the need to declare the implementation of full-year spending restrictions in a timely manner. With regard to Fiscal Year 2007, three interim continuing resolutions were signed into law before a full-year resolution was finally implemented on February 15, 2007 thereby providing for operations through the end of the fiscal year (Pulmonte, 2011; "Revised Continuing Appropriations Resolution, 2007," 2007). For Fiscal Year 2011, full-year continuing appropriations were implemented on April 15, 2011 (112th Congress, 2011). Hence, in the same manner that Congress requires agencies to allow sufficient time in the fiscal year for prudent obligation of funding in the case of disapproved deferrals, Congress will grant agencies ample time to adjust to new funding paradigms brought about by full-year resolutions.

Schick (2007) draws a temporal distinction between interim- and full-year appropriations by alluding to the former as “traditional” continuing resolutions and the
latter as “contemporary” continuing resolutions. As Schick points out, traditional measures have been in use for decades and follow the interim procedures detailed above. Contemporary continuing resolutions, on the other hand, are a combination of a full-year continuing appropriations act and an omnibus appropriations act to the extent that a full-year continuing resolution may serve as a legislative vehicle for several appropriations.

A brief discussion of omnibus appropriations acts may be helpful here. Congress usually evaluates and approves regular appropriation bills separately. On several occasions, usually during the conference stage, legislators have combined two or more bills into one measure called an omnibus appropriations measure. The packaging of regular appropriations bills facilitates legislative bargaining by enabling lawmakers to negotiate trade-offs among several bills. This process is an efficient means of resolving budgetary differences. Incidentally, there is not a consensus definition of an omnibus appropriations measure. In fact, the term minibus appropriations measure identifies a measure containing a “few” regular appropriations bills; whereas, an omnibus appropriations measure contains “several” regular appropriations bills (Streeter, 2008a).

To recap, continuing appropriations acts become necessary when conflict over the federal budget cannot be resolved by the start of the fiscal year. On most occasions, interim or traditional continuing resolutions afford agencies the means to continue operations while Congress and the president negotiate budgetary differences. If those differences cannot be reconciled, Congress may exercise the option of passing a full-year continuing appropriations act to carry affected agencies through the remainder of
the fiscal year. Another approach, and one that has been used regularly since 1997, involves packaging multiple uncompleted appropriations into an omnibus measure at the conference stage in an attempt to expedite the completion of the appropriations process by the start of the fiscal year (Pulmonte, 2011). Doing so paves the way for lawmakers to: (1) engage in legislative logrolling; (2) avoid floor consideration of certain controversial floor amendments to regular appropriations bills; (3) reduce the number of votes required to pass the measure; and (4) reduce the number of opportunities for presidential veto (Aksoy, 2012; Pulmonte, 2011).

Effects of continuing resolutions on the Congress and the President

As just mentioned, continuing resolutions have the intended effect of preventing a government shutdown while allowing Congress and the president time to resolve budgetary differences. Yet, the extension of time is not without cost. This section discusses the intense dislike among legislators for the passage of spending measures which have not been previously authorized, and the exclusionary tactics associated with continuing resolutions that seem to violate the norms of democratic processes. Notwithstanding budgetary discord, continuing appropriations keep the federal government running and the suboptimal budget environment provides motivation for political reconciliation.

Congress’s constitutional prerogative to withhold funding was intended to safeguard against executive overreach. In order to control federal spending and debt levels after the First World War and to impose structure on the federal budget process,
Congress passed the Budget and Accounting Act of 1921, thereby giving the president the instruments necessary to exercise fiscal restraint over the executive branch. In so doing, Congress attempted to assume the role of principal and to place the president on an agency footing by requiring the executive to submit an annual consolidated budget for the federal government (Schick, 1980, 1990, 1994, 2007; Shuman, 1992).

In the early part of the twentieth century, however, Congress delegated many of its monetary authorities to other agencies and spending eventually began to outpace revenues. In 1913, legislators transferred the power to coin and to regulate money to the Federal Reserve System. The authority to pay debt and to borrow money went to the Treasury Department in 1917. Presidents Roosevelt, Truman, Eisenhower, Kennedy, and Johnson routinely used the budget to promote spending initiatives and to increase social programs. During the Vietnam era, government spending increased, large deficits accrued, and entitlement programs expanded. The erosion of public confidence in Congress’s ability to manage the nation’s finances and President Nixon’s impoundment strategy ultimately prompted Congress to reassert its pecuniary authority. The Congressional Budget and Impoundment Control Act of 1974 formally established a congressional budgetary apparatus and gave Congress the tools and expertise necessary to co-manage the nation’s purse and to engage adequately the president on spending matters (Dumbrell, 1980; Hartman, 1982; Hogan, 1985; Schick, 1990, 2007; Shuman, 1992).

Given a level budgetary playing field between Congress and the president, continuing resolutions not only allow Congress to assume a more aggressive posture
opposite the president on budgetary matters, but also imply greater accountability for
the budget overall. In their examination of the extent to which the presidential veto
influences congressional decisions on appropriations, Kiewiet and McCubbins (1988)
frame continuing resolutions as a best alternative to a negotiated agreement (R. Fisher
& Ury, 2011). The authors explain that under the Fenno Rule continuing resolutions
become a de facto reversionary expenditure, a fallback position of sorts, comprised of a
zero expenditure level or the previous year’s expenditure level. This arrangement is
designed to guard individual members of Congress and the president against committee
threats to shut down the government in the event of budgetary impasse.

Be that as it may, the idea that an agenda setter can present voters with a “take
it or leave it” choice has direct relevance to a discussion of budgetary negotiations
between Congress and the president. Consider the notion that a monopolistic agenda
setter may be a bureau that formulates a budget estimate for the coming fiscal year and
which has a preference for the largest feasible expenditure. Apropos of the Fenno Rule,
fected voters to the budget are left with a binary choice between the proposed
budget and a reversionary expenditure. By Romer and Rosenthal’s estimates, the
presence of a reversionary expenditure strongly affects the allocation of budgetary
resources and is, therefore, integral to the outcome of the expenditure election (Romer
& Rosenthal, 1978). In the context of continuing resolutions, Congress, because of its
power over the purse, assumes the role of monopolistic agenda setter, while the
president assents to the role of affected voter (Kiewiet & McCubbins, 1988).
Indeed, Wildavsky (2004) holds that continuing resolutions effectively “vitiate the veto power” while Kiewiet and McCubbins (1988) submit further that veto power only imparts the president the ability to reject spending levels, not to extract more appropriations than Congress prefers. Schick (2007) adds that presidents must sign or veto the entire bill and this all-or-nothing aspect is most evident under divided government when Congress may load appropriations bills with provisions that run counter to the president’s policies.

Presidents also seem to be at a particular disadvantage when bills are presented in omnibus fashion and displeasure over a few provisions does not merit a veto of the entire bill, or after the start of the fiscal year when failure to sign would result in a shutdown of government. Yet, some presidents have used veto power effectively. With public opinion on his side, President Clinton’s strategic use of veto power often compelled Congress to revise bills to gain executive support. As another example, President George H.W. Bush was able to leverage the support of members of his own party in Congress to gain 30 consecutive victories in veto override votes (Schick, 2007).

The combination of these institutional arrangements gives Congress the latitude to assume a more aggressive stance with the president in terms of budget offers (Kiewiet & McCubbins, 1988), while also implying that Congress, as an outcome of the 1974 Budget Act, has primary responsibility for the budget (Devins, 1988).

Within Congress, however, continuing resolutions breed feelings of contempt between authorizers and appropriators because the measures tend to serve as an expeditious means of passing unauthorized appropriations. For annual appropriations,
the authorization-appropriations process happens in sequence. Recall from chapter two that authorization acts establish, continue, or modify agencies or programs. Legislative committees, such as the House Committees on Agriculture and Homeland Security or the Senate Committees on Armed Services and the Judiciary, have jurisdiction over authorization measures and are responsible for crafting substantive legislation and for the authorization of appropriations. After authorization has been established, appropriation acts provide funding or budget authority for the authorized entities. The House and Senate Committees on Appropriations, which are not legislative committees and therefore do not have jurisdiction to establish, continue, or modify existing law, write the appropriations measures that provide budget authority for entities that have been previously authorized (Streeter, 2008a).

Unauthorized appropriations are budget authority contained in an appropriations bill for entities whose authorization has not been enacted, has expired, or exceeds the authorized ceiling. House Rules XXI, Clause 2, House Rules XXII, Clause 5, and Senate Rule XVI prohibit legislative provisions and unauthorized appropriations in general appropriations bills (Devins, 1988; House of Representatives Committee on Rules, 2013a, 2013b; Schick, 1980, 2007; Streeter, 2008a, 2008b).

However, continuing resolutions are not deemed general appropriations; therefore, they are not subject to the House and Senate restrictions mentioned above and members often fill the resolutions with unfinished business without drawing a point
of order\textsuperscript{12} (Kiewiet & McCubbins, 1988; Myers, Rumburg, & Johnson, 1989; Schick, 2007). That is to say, members cannot formally object to or question unauthorized appropriations written into continuing appropriations because it is not against the rules to include such provisions in continuing resolutions. Unauthorized appropriations, if enacted, have the force of law and are available for obligation or expenditure (Streeter, 2008a). For this reason, authorizing committee members have long bristled at the notion that appropriators can circumvent the will of committee or subcommittee chairmen who opposed consideration of a bill (Joe White, 1988). As an example, Schick (1980) cites Representative Walter Flowers’ immense and colorfully worded dissatisfaction with the encroachment of the budget and appropriations processes on authorization committee territory, and Senator Walter Magnuson, Chair of the Senate Appropriations Committee in 1979, was quoted as saying, “When you cannot get anything through a legislative committee, you tack it on an appropriations bill (Devins, 1988).”

Thus, the use of continuing resolutions seems to undermine the notion of a deliberative and democratic legislative process. While this “must pass” legislation (Brass, 2010; Devins, 1988) keeps the government running in the face of a government shutdown, the respite comes at the expense of the close examination and careful prioritization of spending proposals (I. Rubin, 2007). Internal rules preclude the debate and amendment of the resolutions, and lawmakers-at-large are denied access to the final bill (Devins, 1988). In the context of a separation of powers system, the act of

\textsuperscript{12} A point of order is a query, raised during a formal debate or meeting, as to whether parliamentary procedures are being followed.
passing continuing resolutions comes across as a centralized process in which a few powerful legislators and their aides make secretive decisions for everyone else (Devins, 1988; Joe White, 1988).

While some may view the use of continuing resolutions as “a bankruptcy of the budget system (Schick, 1980),” others see the measures as a lone conduit supplying money to the government in times of budget impasse (Joe White, 1988). As Irene Rubin (1999) notes, “conflict is endemic to budgeting” and according to Schick (2007) the intense and sustained conflict over budget policy generates dysfunction within the regular appropriations process. Conflict drives the negotiating parties from the bargaining table, while continuing resolutions are the suboptimal arrangement which provides incentive for the participants to seek accord (Brass, 2010; Pulmonte, 2011). On balance, continuing resolutions seem to be the legislative adaptation to the demands which the process of budgeting levels upon a representative democracy (Joe White, 1988).

**Effects of continuing resolutions on agency-level spending**

Associated research at the agency level tends to take the form of case study analysis, due in part to the difficulty of obtaining agency-level budget data (as the reader will see in chapter five). What is more, because the field of budgeting is practitioner-oriented (Posner, 2009), the preponderance of research at the agency level is mostly anecdotal in nature.
Scholarly efforts are apt to find that continuing appropriations create an environment of uncertainty for program managers. Hartman (1982) submits that operating under a continuing resolution is an unacceptable manner by which to conduct the public’s business. Interim funding approaches tend to generate uncertainty regarding the availability of funding, and the lack of surety exacerbates managerial inefficiency (Hartman, 1982; McCaffery & Mutty, 1999). Managers are apt to become overly cautious about committing funds and awarding contracts, and agency spending takes on unconventional patterns (Hartman, 1982). Rubin (2007) submits that predictability suffers when agency managers lack certainty about budget levels from one timeframe to the next. Kiewiet and McCubbins (1988) counter that, in the context of the Fenno Rule, continuing resolutions might actually offer a measure of predictability in so far as the budgetary outcome is predetermined if regular appropriations fail to pass.

In a corresponding manner, practitioners find a similar relationship between the implementation of continuing resolutions and the manifestation of uncertainty. At the behest of then Senator George Voinovich, the Government Accountability Office (GAO) attempted to investigate the effect of continuing resolutions on the operations of federal agencies. Auditors analyzed the provisions of continuing resolutions from 1999-2009, and conducted a series of case studies of six federal agencies from three cabinet-level departments.13

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13 The six agencies included in the GAO case study were: (1) Administration for Children and Families and (2) Food and Drug Administration, which fall under the Department of Health and Human Services; (3) Veterans Health Administration and (4) Veterans Benefit Administration under the Department of
The findings of the GAO study coincide with Hartman’s (1982) and Rubin’s (2007) empirical results. While continuing resolutions enabled agencies to operate until the enactment of regular appropriations, the limitations engendered uncertainty about the timing and the levels of funding to come. Specifically, the restrictions tended to increase administrative burdens; delay the hiring of personnel; compress application time for grants; and impede the award or renewal of contracts. In addition, resolutions contributed to distortions in year-end spending for those agencies operating under restrictions for prolonged periods (GAO, 2009b).

Still, GAO auditors were unable to isolate the effects because none of the agencies under study made a concerted effort to monitor and record the affected resources (GAO, 2009b). The Congressional Research Service submits further that, aside from anecdotal accounts, the flexible nature of continuing resolutions, in conjunction with the disparate composition of agencies and programs, increases the difficulty of formulating general notions of the effects of such constraints on federal spending (Brass, 2010; Pulmonte, 2011). Along those lines, White (1988) supposes that continuing resolutions exhibit only marginal effects on spending, while the absence of budget and allocation data render Balakrishnan, Soderstrom, and West (2007) unable to rule-out continuing resolutions as an explanation for expense shifting among U.S. Army hospitals.

Veterans Affairs; and under the Department of Justice, (5) Bureau of Prisons and (6) Federal Bureau of Investigation (Pulmonte, 2011).
A path forward

A recurring theme from the discussion above is managerial uncertainty with regard to the availability of future short-term funding, and one method of mitigating such uncertainty is to establish contingency funds. Uncertainty over future income motivated Leland (1968) to model the precautionary demand for saving. Zimmerman (1976) extended Leland’s research by analyzing the effects of budget uncertainty on the allocation decisions of nonprofit managers and found that budget and/or expenditure uncertainty will compel managers to establish contingency funds. Awareness that allotted funding must last for the entire fiscal year will compel managers of federal organizations to pursue the prudent financial management strategy of holding a portion of funding in abeyance for unanticipated needs (McCaffery & Mutty, 1999; Schick, 2007). A portion of that contingency funding is often put aside, or “saved,” in the form of durable inventory which is reduced in the early stages of the next fiscal year, while unencumbered funding is spent on other factor inputs (Zimmerman, 1976). Balakrishnan, Soderstrom, and West (2007) confirm similar saving-dissaving behavior at U.S. Army Hospitals as administrators stockpiled pharmaceuticals and supplies at fiscal year-end and then consumed the stockpile as uncertainty abated in the succeeding fiscal year.

Agency officials and resource managers spend funding on goods and services toward the accomplishment of organizational missions; thus, holding funds in abeyance amounts to unused capacity. While the academic study of budgeting has been concerned largely with budget preparation (McCaffery & Mutty, 1999), the study of
excess capacity in the context of budget execution resides primarily in managerial accounting literature.

Ng and Lee (1999) explores the use of idle capacity as a strategic resource which helps service firms to reduce costs, enhance service quality, and increase customer loyalty. Balakrishnan and Sprinkle (2002) develop a framework which integrates profit variation analysis and capacity costing to help managers identify the cost of unused capacity. They report that the overproduction of inventory in absorption costing systems facilitates the transfer of capacity costs across periods which, in turn, affects reported income. Balanchandran, Li, and Radhakrishnan (2007) also develop a framework for reporting unused capacity costs. The authors write that firms build-in excess capacity to plan for future growth of the organization as well as to accommodate uncertainty caused by fluctuating demand and variance in internal processing times. The framework disaggregates unused capacity from production costs and categorizes the capacity into five distinct categories.

Cooper and Kaplan (1992) offers a simplified framework of unused capacity that is most applicable to the discussion at hand. From an Activity Based Costing perspective, the insight that measurement of unused capacity links the cost of resources used to the cost of resources available leads the authors to develop the following framework:

\[ \text{Activity Available} = \text{Activity Utilized} + \text{Unused Capacity} \]
Modifying Cooper and Kaplan’s formula toward the spending concerns of federal agencies yields the following equation:

\[ \text{Funding Allotment} = \text{Expenditures} + \text{Contingency Fund} \]

In this setup, the annual or quarterly funding allotment provides the parameters for available activities, expenditures signifies the utilization of activity, and contingency fund connotes unused capacity.

In the same way that variations in Activity Utilized affect Unused Capacity, changes in agency expenditure patterns should influence an agency’s contingency fund. By examining how resource managers adjust obligation patterns to accommodate the implementation of spending restrictions, one may also gain insight to how agencies employ unused capacity. An appreciation of both should foster an understanding of the effects of continuing appropriations acts on agency spending behavior.

What is needed, then, is a standardized method of studying the expenditures of disparate federal agencies. The Office of Management and Budget (OMB) tracks federal government obligations by object class (Office of Management and Budget, 2012). Since all federal agencies must record expenditures using the same accounting nomenclature, examining the results of other GAO performance audits through the lens of OMB classifications may provide a method toward isolating and quantifying the effects of continuing resolutions. In other words, examining how agencies spend appropriations may provide insight to how organizations adjust operations to accommodate for spending restrictions associated with continuing resolutions.
OMB relies on four classification systems to track and analyze federal spending. The character classification or character class is used to aggregate and analyze budget authority, outlays, and offsetting receipts devoted to investment and non-investment activities. Investments include those expenditures which yield future benefits such as the construction, purchase, or rehabilitation of physical assets; the emption of research and development; or the attainment of education and training. Non-investment activities include certain grants to state and local governments or those outlays which are not otherwise classified as investments. Functional class also captures budget authority, outlays, and offsetting receipts, and is a field of input to OMB’s Budget Data System which is used to collect and process information for the preparation of the budget. Functional classifications are designed to inform OMB and the Congressional Budget Office of the major purpose served by a given expenditure such as national defense, health, or agriculture. The program activity classification captures direct and reimbursable obligations incurred for specific activities or projects, such as The American Competitiveness Initiative or the Cooperative Extensions System, listed in the program and financing schedules of the president’s budget. (GAO, 2005a; Office of Management and Budget, 2012). While these three methods of classification help to categorize federal spending, they do not provide a level of granularity sufficient to analyze unused capacity.

Object class, on the other hand, also captures obligations but is a method of classification that provides very detailed information about agency expenditures. Federal agencies use object classes not only during budget preparation, but also as the
primary means of recording agency obligations. In addition, object classifications inform
the reader of the type of goods, services, or items purchased, such as supplies, rent, or
equipment (see Appendix B for a list of object classes). What is more, public law 31
U.S.C 1104(b) mandates the presentation of expenditures by object class in the
president’s budget submission ("Budget and Appropriations Authority of the President," 2007; GAO, 2005a).

Re-categorizing by object class, a previous sampling of GAO findings and
associated agency remarks related to continuing resolutions reveals that the effects of
spending constraints may tend to manifest most often in contractual services, personnel
sample of GAO performance audits which made mention of the effects of continuing
resolutions on agency operations. Brass evaluated and divided remarks made by agency
officials about the effects of continuing resolutions into two categories: (1) effects
attributed to the funding levels of continuing resolutions, and (2) effects attributed to
funding uncertainty generated by continuing resolutions. Unfortunately, categorizing
the effects in such a non-standardized manner may introduce a degree of ambiguity to
the taxonomy. For example, in one instance agency officials working at the Department
of Health and Human Services (HHS) delayed a national training seminar because they
were uncertain whether funding levels would be adequate when it came time to travel

14 The four major categories of object class are personnel compensation and benefits; contractual services
and supplies; acquisition of assets; and grants and fixed charges (refer to Appendix B for a table of
subcategories).
to the seminar (GAO, 2004c). Comments such as these could be classified in either or both of Brass’ categories.

A less ambiguous method of classification would be to organize the effects of the spending restrictions by object class. Using object classification to categorize the remarks of agency officials from the HHS example above enables one to assign the effects of spending restrictions to discrete categories of expenditure. To illustrate, cancellation or rescheduling of travel arrangements would manifest in object class 21: \textit{Travel and transportation of persons}, while obligations related to the amendment or cancellation of reservations for a training venue might manifest in object class 25.2: \textit{Other services from non-federal sources}. Assigning the remarks of agency officials to a discrete category of effect diminishes the levels of subjectivity in the classification process and may enable one to formulate suppositions regarding how agencies respond to spending constraints.

Considering the GAO audits by way of this re-categorization, shows that, with regard to contractual services and supplies, continuing resolutions contributed to delays in contract deliverables (GAO, 2003b) and the award of contracts (GAO, 2009a); deferment of re-engineering/transformation of business operations (GAO, 2003a, 2003d); postponement of employee training (GAO, 2004c, 2007a); and the under-execution of agency funds (GAO, 1999, 2004a).

In personnel compensation and benefits accounts, continuing resolutions made it difficult to keep pace with attrition and retirement rates (GAO, 2007a, 2007b) and impeded the hiring process by way of moratoriums on hiring (GAO, 2003e, 2006).
Agencies also experienced delays in the transfer of funds intended for hiring (GAO, 2004b) or simply did not have time to bring the requisite number of personnel on-board after receiving regular appropriations late in the fiscal year (GAO, 2003c, 2004f).

With regard to acquisition of assets accounts, continuing resolutions delayed military construction efforts associated with Base Realignment and Closure (GAO, 2007c), prompted the internal reprogramming of agency funds to help cover expenses (GAO, 1998) and suspended the issuance of mortgage guarantees (GAO, 2005b, 2005c).

Referring to Appendix B, one will readily see that each one of the remarks above falls into a discrete category of object class. Obligations related to the hiring, furlough, and retirement of personnel, travel arrangements, the purchase of supplies and equipment, and the letting of contracts are all captured on a monthly basis by the budgeting and resource management offices in federal agencies.

A temporal analysis of agency obligations, by object class, might then reveal patterns in agency spending that tend to coincide with the instances of continuing resolutions. With regard to unused capacity, the purchase of supplies and materials is captured under object class 26. If agency officials do engage in the transfer of costs across periods, such conventions of saving-dissaving should be evident through time-series analysis of the supplies and materials object class. Assuming, then, that resource managers do accumulate and transfer unused capacity in the form of stockpiled inventory, incorporating the instances of continuing resolutions into the quantitative analysis should reveal variations in the agency’s unused capacity. In this fashion, not
only is quantitative investigation of the effects of continuing resolutions on federal spending possible, but also it would further the study of budget execution.

Discussion

Continuing resolutions are usually mentioned in the context of congressional budgetary procedures (Hartman, 1982) or as part of the appropriations process (Fenno, 1966; Heniff, 2010; McCaffery & Mutty, 1999; Myers, et al., 1989; Schick, 1995, 2000, 2007). Occasionally, the focus turns to the influence of stopgap measures on managerial decision-making (GAO, 2009b; I. Rubin, 2007). Much of the discussion revolves around a historical recounting of budgetary events (Schick, 1980) with the most critical work following closely on the heels of high-profile episodes such as President Reagan’s January 1988 State of the Union Address (Devins, 1988; Joe White, 1988) or the 1996 shutdown of the federal government (Streeter, 1996).

Absent from the field of budget research are quantitative analyses of the effects of continuing appropriations on the spending behavior, the hiring practices, the letting of contracts, and the general day-to-day operations of federal agencies. Given the discussion above, one might conclude that the amorphous nature of continuing resolutions and the differences among federal agencies preclude quantitative empirical study. However, the writings of scholars and the testimony of agency officials would suggest otherwise. No matter how one might view stopgap measures, all assessments seem to reach the common conclusion that continuing resolutions generate budget uncertainty. Moreover, despite a variety of organizational missions, all agencies
encounter similar difficulties when it comes to the implementation of spending restrictions and all federal agencies classify expenditures in a standardized fashion. Thus, this chapter demonstrates that by reorganizing existing case study literature and peering through the lens of a standardized accounting classification system, one may gain insight as to where the effects of uncertainty engendered by continuing resolutions tend to manifest in federal spending patterns. Such an approach not only facilitates quantitative research, but also links an output of the legislative branch to a related outcome in the executive branch.

A manner by which to analyze the effects of stopgap measures on agency spending behavior might include event study methodologies. Broadly, event studies explore whether a particular event influences some outcome (Wooldridge, 2009). In researching market anticipation of common stock splits, Fama, Fisher, Jensen, and Roll (1969) is widely viewed as a landmark study (Corrado, 2011) if not the seminal work on event study methodologies (J. J. Binder, 1998; Sandler & Sandler, 2012). Since the work of Fama and colleagues, the techniques have been applied successfully across several fields. From a federal policy perspective, Denison (2000) investigates the 1994 Orange County, California bankruptcy that ultimately resulted from an increase in the discount rate charged by the Federal Reserve Bank. Rose (1985) investigates the effects of motor carrier deregulation by the Interstate Commerce Commission on the stock prices of publicly traded trucking companies. Hoynes and Schanzenbach (2012) estimates the effects of the Food Stamp Program (FSP) on work incentives to reveal an absence of trends in outcome variables prior to introduction of the FSP and sharp changes in labor

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supply after food stamps are introduced. Another event study related to the introduction of the FSP finds benefits of increased birth weight and improvements in neonatal mortality (Almond, Hoynes, & Schanzenbach, 2010), while Hoynes, Page, and Stevens (2011) discovers similar increases in birth weight with the implementation of the Supplemental Nutrition Program for Women, Infants, and Children (WIC).

In the context of federal spending, event study methods should enable one to explore whether the implementation of continuing appropriations influences expenditure outcomes. In other words, since continuing resolutions have a common implementation date (i.e., the first day of the fiscal year or thereabouts), one may be able to explore the likelihood that the federal resource management community, in anticipation of continuing resolutions, engages in expense shifting by stockpiling supplies at the end of the fiscal year or through early renewal of annual contracts. Such is the focus of chapter five. Before embarking upon quantitative analysis, though, the next chapter seeks to address questions pertaining to the modification of agency expenditure behavior when subject to the constraints of a continuing resolution.
Chapter Four
Continuing Resolutions and Lump-Sum Appropriations: An Arithmetic Notion of How Federal Agency Officials Might React to Interim Spending Restrictions

Introduction

While continuing appropriations have been in use since the late 1800s, very little has been published in the way of theoretical frameworks regarding the effect of these measures on the expenditure behavior of agency officials. Therefore, the material in this chapter reflects an attempt to address the manner by which bureaucratic agencies rely on contingency funds to mitigate the uncertainty that accompanies the implementation of continuing resolutions.

The purpose of this chapter is to construct a theory regarding the modification of expenditure behavior of agency officials who are confronted with a continuing appropriations act. Program managers in the federal resource management community often operate in an uncertain budgetary environment which requires the employment of contingency budgeting. The analysis that follows theorizes that resource managers attempt to mitigate the uncertainty associated with continuing resolutions by using contingency funds to stockpile additional stores of inventories and contract services. Those additional stores are carried across fiscal year boundaries and subsequently used to afford the agency spending latitude while under the constraints of continuing appropriations.
The efforts below are an attempt to combine and build upon the works of Leland, Zimmerman, and Cooper and Kaplan by way of a theoretical model of ex ante and ex post reactions of federal agency officials to interim continuing resolutions in the context of single-year lump-sum appropriations. The next section of the chapter summarizes the literature which is most relevant to the theory, and the third section presents the foundational assumptions upon which the theory is based. The fourth section models agency spending in absence of continuing resolutions, while the fifth section introduces continuing resolutions and analyzes the modification of expenditure behavior. The discussion section relaxes base assumptions one and two, and explores the limitations of the model in a line-item budget setting and under a multi-year lump sum appropriation. The final section concludes.

**Precautionary demand for saving and its link to contingency funding**

Hayne Leland (1968) pioneered the precautionary demand for saving; that is, the extra saving that occurs as a result of uncertainty in future income. Using a two-period model of consumption, Leland showed that risk aversion alone is an insufficient condition to guarantee a level of saving above that which already occurs for the consumer who prefers to avoid simple risk. To guarantee an increase in the consumer’s saving rate, uncertainty of second period income is the necessary element in the two-period model. By Leland’s account, a positive third derivative of the consumer’s strictly increasing and strictly concave utility function reflects a positive precautionary demand for saving.
Jerold Zimmerman (1976) applied Leland’s theory to the resource allocation decisions of a nonprofit organization in a fixed-budget setting. Zimmerman’s work pertains to those bureaucratic organizations which: (1) are subject to a strict fiscal year budget constraint, and (2) impose loss functions to budget deficits and surpluses. Budget uncertainty and/or expenditure uncertainty impels risk-averse managers to defer expenditures to later periods in the fiscal year, thereby disrupting the prearranged sequencing of expenditures. This type of postponement is commonly referred to as contingency budgeting and takes the following form:

$$\frac{\partial C_t^*(\varphi_t)}{\partial \sigma^2(B|\varphi_t)} < 0$$

(1)

Where, $C_t^*$ signifies planned expenditures in period $t$; $\varphi_t$ is the current information set regarding the budget; $\tilde{B}$ is a random variable which represents the fiscal budget; and $\sigma^2(B|\varphi_t)$ indicates the conditional variance of the budget given the current information set (Zimmerman, 1976).

Equation (1) exhibits decreasing utility of planned expenditures associated with increases in conditional variance of the budget. In other words, as uncertainty increases, risk-averse bureau managers will cut back on expenditures to save money for unforeseen circumstances. Zimmerman further stipulates that a portion of the deferred expenditures are used at year-end to purchase durable inventories, which are then stored and subsequently consumed during the first month of the next fiscal year. Those funds in the new fiscal year, which become unencumbered as a result of the dissaving associated with the stores of durable inventories, are then applied to other factor inputs.

Recall that Schick (2007) dispels the notion that contingency budgeting is akin to wasteful government spending, referring to the practice, instead, as prudent financial management of limited resources. Indeed, the establishment of contingency funds may be in the best interest of rational economic actors (Lowe & Shaw, 1968) because these reserves can have a stabilizing influence for the organization during downward trends (Cyert & March, 1963). As such, contingency funding may be effectively set aside by understating revenues and overstating costs in the planning process (Douglas & Benson, 2000); changing levels of efficiency or building slack into standards (Onsi, 1973); or through the establishment of withhold accounts that are visible to the division comptroller yet indiscernible at aggregate levels of the budget (Merchant, 1985; Resource Management Officer Interview, 2014).

Because the monies that are set aside for unforeseen events will still be used at some point in the associated fiscal year to accomplish organizational goals and objectives, contingency funding may be understood also as idle capacity. As mentioned in the previous chapter, Cooper and Kaplan’s (1992) activity-based costing framework of unused capacity portrays an additive relationship between utilized activity and unused capacity which has implications for the overall activities of the organization:

\[
\text{Activity Available} = \text{Activity Utilized} + \text{Unused Capacity.} \tag{2a}
\]
Equation (2a) can easily be modified to suit the needs of federal agencies

\[ \text{Funding Allotment} = \text{Expenditures} + \text{Contingency Fund}. \]  

(2b)

The discussion that follows will examine how bureaucratic resource managers adjust agency expenditures to mitigate the additional uncertainty that accompanies the implementation of continuing appropriations acts.

Base assumptions of the model

The theoretical construct rests on three overarching assumptions which govern spending behavior of agency officials in federal organizations. The three following assumptions are related to the fiscal operating capacity of the organization, the limited timeframe for budgetary execution to which the organization is confined, and the punitive element associated with a violation of budgetary constraints.

First, assume the organization in question is a federal agency at the cabinet-level or below which, in aggregate, receives funding in the form of \textit{lump-sum appropriations} from Congress. To be clear, a lump-sum appropriation is a sum of money intended to cover a number of specific programs, projects, or items (GAO, 2004e). Further, the agency has no means of revenue generation; instead, the agency ultimately receives funding by way of a series of apportionments and/or allotments distributed to the agency in equal amounts over the course of the fiscal year.
Assume also that the organization is unable to carryover unused funding into the next fiscal year. Because of this single-year limitation on funding, unobligated resources will be an impetus for budgetary reductions in subsequent fiscal years. Recall that annual appropriations lapse on the final day of the fiscal year so an organization must spend one hundred percent of allocated funding by year-end close-out (Schick, 2007; Zimmerman, 1976). Unused funding, then, is perceived as a surplus resource which will revert back to the United States Treasury. Accordingly, the funding agency to which the organization is subordinate may reduce organizational funding in subsequent fiscal years by the amount of the surplus (Wildavsky & Caiden, 2004; Zimmerman, 1976).

Base assumptions one and two, together, narrow the field of funding possibilities to those lump-sum amounts that are appropriated by Congress and are intended to fund day-to-day activities over the course of a single fiscal year.15

Finally, assume that the organization is strictly prohibited from exceeding obligation limits by way of statutory provisions and institutional mechanisms. In addition to the statutory prohibitions of the Antideficiency Act, other mechanisms, such as congressional retribution through budgetary reduction or line-item restriction (GAO, 2004e; Schick, 2007), negative personnel evaluations (Balakrishnan, et al., 2007), the threat of audit of budgetary procedures, and the loss of public confidence (Zimmerman, 1976).

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15 “Salaries and Expenses,” “Operating Expenses,” or “Operation and Maintenance” appropriations are examples of lump-sum appropriations which are valid for a single fiscal year only and are intended for day-to-day operations. Further, the Governmental Accountability Office defines a lump-sum appropriation as “one that is made to cover a number of specific programs, projects, or items (GAO, 2004e)” The discussion section provides additional information on both lump-sum and line-item appropriations.
1976) provide strong incentives for managers to adhere to budgetary constraints even though it may not be economically optimal to do so. To gauge the applicability of the model, base assumptions one and two will be relaxed in a subsequent section, but because base assumption three is a legal constraint it will not be relaxed.

With these foundational assumptions in mind, the following theoretical discussion addresses the spending behavior of federal agency officials under two different budgetary scenarios. Scenario one illustrates how an organization might operate over the course of three consecutive fiscal years in a relatively unrestricted, yet uncertain operating environment. With that simplified budgetary backdrop in mind, scenario two introduces the implementation of an interim continuing appropriations act at the outset of the second fiscal year. This approach enables a formulation of suppositions regarding ex ante and ex post reactions of agency officials to: (1) a one-time occurrence of continuing resolutions, and (2) an environment of regularly occurring interim continuing resolutions.

**Scenario one: federal spending in absence of continuing resolutions**

*Year one: lump-sum budget without spending restrictions*

Assume that on the first day of the first fiscal year, FY, agency officials have full knowledge of the organization's total annual budget, $B_T$. $B_T$ can be thought of in terms of the final disposition of the organization's budget where subscript $T$ signifies the total number of time periods into which the fiscal year is divided. While the fiscal year may
be divided into quarters, $T$ is equal to 12 here to indicate the number of months in a given fiscal year and to facilitate exposition. The notion that an organization might be fully informed of its total annual budget at the outset of the fiscal year refers to the signing into law of annual appropriations for $FY_j$ prior to the start of the fiscal year, say during the fourth quarter of $FY_{j-1}$.

The organization receives a share of annual appropriations in the form of monthly allotments from a headquarters-type agency. Recall also that OMB apports appropriations to federal agencies by periods within the fiscal year to prevent premature exhaustion of resources (GAO, 2004e; Schick, 2007). Apportionments are then subdivided by a headquarters-type entity and distributed to subordinate organizations by way of a stream of budgetary allotments, $A_t$, where subscript $t$ refers to an incremental timeframe. Allotments in aggregate equal the total organizational budget such that

$$A_t = \frac{B_T}{T} \tag{3a}$$

Alternatively,

$$\sum_{t=1}^{12} A_t = B_T \tag{3b}$$

The organization then uses $A_t$ to purchase a vector of routine services, $S$, which enable the day-to-day operation of organizational activities. These services may include expenses such as wages and benefits for personnel, official travel, minor transportation of goods (i.e., bills of lading), and payment of utilities. Once purchased, utilization of
these services cannot be carried forward into subsequent periods and it is assumed that the organization fully consumes $S$ during the month in which the services are purchased.

The agency also uses $A_t$ for the regular purchase of a broad vector of tangible goods, $G$, such as general office supplies, cleaning and toilet materials, copier paper, medical supplies (for hospital-type organizations, of course), motor oil and petroleum products (for organizations with motor pools), and incidental equipment purchases. Once purchased, these assets can be utilized over the course of multiple periods. For the purpose of the discussion in scenario one, however, assume that $G$ is sufficiently depleted each period to the extent that the organization must restock $G$ at the end of period $t$.

In addition, the organization sets aside a portion of $A_t$ for contingencies, $C$. Assume that the contingency fund is figured as a fixed nominal percentage of $A_t$, and is used to mitigate small emergencies and unforeseen events. Following Leland (1968) and Zimmerman (1976), contingency funds constitute a cautionary demand for saving on behalf of the agency director or budget official. Recall also that unused contingency funds may accumulate, over the course of the fiscal year, in non-interest bearing accounts which are internal to the agency’s accounting scheme. During the final period of the fiscal year, unspent contingency balances are fully drawn-down through the purchase of additional $S$ in the form of monetary bonuses and incentive/performance

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16 To clarify, the term tangible goods is used in this context to describe a set of assets, such as those listed above, which an agency might purchase for use within, say, one or two calendar years. These tangible goods stand in contrast to conventional durable goods, such as construction equipment, which an agency might purchase with procurement funding. Incidentally, Congress segregates procurement funding and salaries & expenses funding into separate appropriations (DFAS, 2012).
awards to employees or additional business travel, and/or via the purchase of additional
G in the form of year-end expenditures on equipment such as additional desktop
computers, or minor upgrades and repairs to the organization’s working environment\textsuperscript{17}.

Accordingly, utilization of the agency’s monthly budget allotment can be thought
of in the fashion of a budget constraint similar to equation (4).

\[ A_t = S_t + G_t + C_t \]  \hspace{1cm} (4)

Rearranging terms in (4) so that expenditures, \( S \) and \( G \), are on the right-hand
side of the equation, as presented in (5a) and (5b), not only separates the contingency
fund from budgetary obligations, but also creates a distinction between allotments and
expenditures, \( E \).

\[ A_t - C_t = S_t + G_t \]  \hspace{1cm} (5a)
\[ E_t = S_t + G_t \]  \hspace{1cm} (5b)

To keep matters simple, equation (6a) embodies the assumption that agency
officials engage in a uniform level of spending during the first eleven months of the first
fiscal year. Hence, budgetary allotments will exceed monthly expenditures by the
amount of funding accrued in the contingency fund.

\[ \sum_{t=1}^{11} A_t - \sum_{t=1}^{11} C_t = \sum_{t=1}^{11} E_t = \sum_{t=1}^{11} S_t + \sum_{t=1}^{11} G_t \]  \hspace{1cm} (6a)

\textsuperscript{17} Federal personnel, to include Senior Executive Service (SES) members, may receive cash in the form of
incentive and performance awards (DFAS, 2012)
Equation (7) shows that month 12 expenditures exceed the budgetary allotment in month 12 by the sum total of the amount accrued in the contingency fund. In the absence of unforeseen events, officials will have continued to accrue contingency funding which, if unspent, will revert back to the U.S. Treasury. To avoid losing these funds and risking budgetary reductions in subsequent fiscal years, agency officials will engage in year-end spending in order to fully deplete reserve funding (Balakrishnan, et al., 2007; McCaffery & Mutty, 1999; Zimmerman, 1976). The agency does so by using the accrued contingency funds to purchase additional goods and services, as in equation (7)

\[ A_{12} < E_{12} = S_{12} + G_{12} + \sum_{t=1}^{11} C_t \]  

(7)

where \( \sum_{t=1}^{11} C_t \) would be divided among additional purchases of \( S \) and/or \( G \) at the discretion of agency officials. The concept of allocating contingency fund balances

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18 This effort to deplete reserve funding is the spike in expenditure rates referred to in the Obligation section of chapter 2, or the year-end “bulge” in expenditures that Schick (2007) refers to as the end result of prudent financial management on the part of the program managers.

19 The assumption of uniform spending for the first 11 months of the fiscal year with year-end spending confined to month 12 is made to exemplify the model. Agency officials may spread year-end purchases over a number of months but incorporating such an approach here would introduce unnecessary complications to the model. What is more, McCaffery and Mutty (1999) and Balakrishnan, Soderstrom, and West (2007) present evidence that the bulk of year-end purchases are made during the final month of the fiscal year.
across purchases of $S$ and $G$ will be integral to an appreciation of equations (10a), (10b), and (10c) below.

On the final day of the fiscal year, the sum total of expenses must equal the sum total of budgetary allotments which, in turn, must also equal the agency’s total annual budget, as in equation (8).

\[
\sum_{t=1}^{12} A_t = \sum_{t=1}^{12} E_t = B_T
\]  

(8)

**Years two and three: lump-sum budget without spending restrictions**

With the timely approval of the annual appropriations act by Congress and the subsequent signing into law of appropriations by the president, the process will simply repeat itself during the second and third fiscal years, FY\(_{j+1}\) and FY\(_{j+2}\), respectively.

**Scenario two: Implementation of a continuing resolution in the second fiscal year.**

**Year one: ex ante reaction to continuing appropriations**

To consider the possible ex ante and ex post reactions of agency officials to the implementation of partial-year spending restrictions, assume agency officials learn of a pending budget impasse during the third quarter of FY\(_j\) and are able to determine that the organization will open FY\(_{j+1}\) under the constraints of an interim continuing
appropriations act. Officials will react to this development by devoting a portion of the agency’s contingency funding to purchase an additional stockpile of G.

Similar to the setting in scenario one, the agency will use allotted funding to purchase routine levels of S and G, and accrue contingency funds as the fiscal year progresses. Budget allotments will continue to exceed expenditures during, say, the first ten months of FY_j.20

\[
\sum_{t=1}^{10} A_{t,FY_j} - \sum_{t=1}^{10} C_{t,FY_j} = \sum_{t=1}^{10} E_{t,FY_j} = \sum_{t=1}^{10} S_{t,FY_j} + \sum_{t=1}^{10} G_{t,FY_j} \tag{9a}
\]

\[
\sum_{t=1}^{10} A_{t,FY_j} > \sum_{t=1}^{10} E_{t,FY_j} \tag{9b}
\]

Upon learning of the impending continuing resolution, organization officials will begin to stockpile additional levels of G. To help distinguish between that portion of G purchased for routine business operations from that fraction of G intended for stockpile, the former segment will continue to be referred to as G, while the latter will be denoted using R, for reserve.21 To acquire R, the agency must forego the accrual of C_{11,FY_j} to

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20 The 10-month timeframe used in equations (9a) and (9b) is an arbitrary figure. Agency officials would, of course, begin to stockpile sundries at any time after making a determination regarding continuing resolutions. The discussion herein assumes normal and uniform operations during the first 10 months of the fiscal year; discretely assigns a lump-sum purchase of reserves to month 11; and confines year-end purchases to month 12 to help illustrate the concept.

21 Agency officials would not typically partition supplies and the like into discrete bundles labeled “routine” and “stockpile.” That convention is employed here, again, to facilitate explanation.
purchase $R_{11,FY_j}$ with the underlying assumption that $C_{11,FY_j} = R_{11,FY_j}$. Month 11 expenditures, then, will equal month 11 allotments as portrayed in equation (10a).

$$A_{11,FY_j} = E_{11,FY_j} = S_{11,FY_j} + \left(G_{11,FY_j} + R_{11,FY_j}\right) \quad \text{(10a)}$$

Alternately, if agency officials feel compelled to accumulate an even larger stockpile of tangible goods, they may do so by drawing-down contingency funding by discretionary amounts, $C_0$, as shown in equations (10b) and (10c).

$$A_{11,FY_j} < E_{11,FY_j} = S_{11,FY_j} + \left(G_{11,FY_j} + R'_{11,FY_j}\right) \quad \text{(10b)}$$

Where

$$R'_{11,FY_j} = \sum_{t=1}^{11} C_{t,FY_j} - \left[\sum_{t=1}^{11} C_{t,FY_j} - \left(C_{11,FY_j} + C_0,FY_j\right)\right] \quad \text{(10c)}$$

It is important to recall that unused contingency funds are drawn down in the final month of the fiscal year through the purchase of additional $S$ as well as additional $G$; therefore, to purchase a stockpile of $R$ and $R'$, agency officials must forego the purchase of some level of additional $S$ at the end of the fiscal year.

Similar to equation (7), equation (11) shows that month 12 expenditures will again exceed budgetary allotments by the sum total of the contingency funds remaining as agency officials take up year-end spending.

$$A_{12,FY_j} < E_{12,FY_j} = S_{12,FY_j} + G_{12,FY_j} + \left(\sum_{t=1}^{11} C_{t,FY_j} - R_{11,FY_j}\right) \quad \text{(11)}$$
The notion that agency officials might stockpile additional tangible goods, in anticipation of a continuing resolution, leads to the first testable hypothesis.

*Hypothesis 1: When a continuing resolution is on the horizon for the coming fiscal year, the rate of spending on tangible goods during the final quarter of the terminating fiscal year will exceed the rate of spending on tangible goods for the corresponding timeframe when a continuing resolution will not be in effect in the coming fiscal year.*

On the final day of FY\(j\), the sum total of allotments, expenses, and total agency budget would equate to each other, as can be seen in equation (12).

\[
\sum_{t=1}^{12} A_{t,FY_j} = \sum_{t=1}^{12} E_{t,FY_j} = B_{T,FY_j}
\] (12)

*Year two: implementation of interim continuing appropriations and ex post reaction.*

The agency will begin FY\(j+1\) under the restrictions of an interim continuing resolution and must restrict spending to prior year levels. Interim continuing resolutions provide for an attenuated level of operations until a specific date or until regular appropriations are passed. Agencies may be instructed to limit spending to the lesser of the House- or Senate-approved versions of the applicable appropriations bill, or the previous year’s rate of spending (Pulmonte, 2011; I. Rubin, 2007; Streeter, 2008b; Tollestrup, 2011). In keeping with previous findings (Hartman, 1982; Lee, et al., 2008; I.
Rubin, 2007; Schick, 2007; Streeter, 2008a; Wildavsky & Caiden, 2004), the discussion
will move forward under the assumption that the agency is restricted to the previous
year’s rate of spending. Using the agency’s prior year obligation rate, in lieu of House or
Senate figures, simply provides a reference point for the model. As such, month 1
expenditures in the new fiscal year will equal the month 1 expenditures from the prior
fiscal year, as displayed in equation (13).

\[ E_{1,FYj+1} = E_{1,FYj} = S_{1,FYj} + G_{1,FYj} \]  

(13)

The idea that agency spending, while under an interim continuing resolution, is
tied to the previous fiscal year’s rate of spending informs the second testable
hypothesis.

**Hypothesis 2:** While under a continuing resolution, the rate of spending on
tangible goods will be less than or equal to the rate of spending on tangible
goods during corresponding periods in the fiscal year void of continuing
resolutions.

While under the constraints of an interim continuing resolution, the stockpile
provides agency officials with a degree of spending latitude. The spending restrictions
allow the agency to perform at routine levels of operation but without the benefit of a
contingency fund to offset unforeseen events. Because of the stockpile of \( R_{11, FYj} \),
however, agency officials have the flexibility to forego the purchase of \( G_{1, FYj+1} \) to the
extent that $R_{11,FY_j}$ would offset the need for $G$.\footnote{Unexecuted single-year funding cannot be carried across fiscal year boundaries, but executed funding in the form of supply inventories can be. Zimmerman (1976) discusses transfers between fiscal years and submits that “excess funds can only be ‘saved’ in the form of durable goods [and an] implication is that spending in the first month of the next fiscal year is curtailed since the group can maintain operations by consuming the durable inventories acquired in the previous year.”} In other words, the fungible nature of lump-sum funding allows agency officials to shift monies previously dedicated to the purchase of $G_{1,FY_{j+1}}$ over to the purchase of additional $S_{1,FY_{j+1}}$, or to mitigate a minor emergency, while still consuming routine levels of $G$ from the stockpile.\footnote{The shifting of expenditures mentioned above should not be confused with transfers. The transfer of funds refers to the shifting of funds between appropriations which is prohibited without statutory authority (GAO, 2004e). Closely related to the discussion above is the practice of reprogramming, which the GAO defines as a shifting of funds from one object to another within an appropriation (GAO, 2004e).} If the need for additional $S$ does not become pressing enough to drawdown $R_{11,FY_j}$, the agency would simply maintain $R_{11,FY_j}$ until after Congress and the president provide regular appropriations.

Assume, then, that the president signs the associated appropriations act into law at the end of the first month of $FY_{j+1}$ and the agency is allowed to resume normal operations for the remainder of the fiscal year. In keeping with a simplified discussion, assume further that the agency does not receive an increase in appropriations over $FY_j$ levels. That is to say, the current year’s budget is equal to the prior year’s budget, as in equation (14).

$$B_{T,FY_j} = B_{T,FY_{j+1}} \tag{14}$$

The $FY_{j+1}$ monthly budget allottment, for the remainder of the fiscal year, will increase by the amount withheld from the agency while under the restrictions of the continuing resolution. Referring to equation (3a), the monthly budget allottment under
scenario one was computed by dividing the total agency budget by the total number of applicable time periods. A similar computation applies to scenario two, but the aggregate $FY_{j+1}$ allotment is now reduced by the amount of expenditures accrued while under continuing resolutions and then spread evenly across a fewer number of time periods, as figured in equation (15).

$$A_{t,FY_{j+1}} = \frac{B_T - \sum_{t=1}^{CR} E_{t,FY_{j+1}}}{T - CR}$$ (15)

Where $CR$ signifies the total number of months spent under the continuing resolution.

Thus, by virtue of equation (15), the $FY_{j+1}$ monthly budgetary allotment will be marginally higher than the $FY_j$ monthly budgetary allotment.

$$A_{t,FY_{j+1}} > A_{t,FY_j}$$ (16)

In the second month of $FY_{j+1}$, the allotment will continue to exceed expenditures, but the agency will purchase higher levels of $S$ by curtailing the purchase of $G$, thereby making-up for services foregone in the previous fiscal year; will deplete $R$ through dissaving; and will resume the accrual of $C$ at a marginally higher level. One may arrive at this notion by holding the purchase of $S$, in equation (4) constant at $FY_j$ levels and by figuring $C$ as a deterministic percentage of $A_t$. In so doing, one may contemplate the behavior of agency officials with regard to the purchase of additional amounts of $S$, vis-à-vis the curtailment of $G$.  

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With the passage of the appropriations act, uncertainty about $B_T$ will dissipate and agency personnel will consume the balance of $R$ through dissaving which would preclude the need to purchase some or all of $G_{2, FY_{j+1}}$ (Balakrishnan, et al., 2007; Zimmerman, 1976). Thus, funding intended for the purchase of $G_{2, FY_{j+1}}$ will then be diverted to either additional $C_{2, FY_{j+1}}$ or $S_{2, FY_{j+1}}$. Using the funds to accrue additional $C$ would ensure that the agency is that much more prepared to weather an unforeseen event. However, the purchase of additional $S$ presents agency officials with two advantages. First, in the short-term, the consumption of additional levels of $S$ will help meet operational needs of the agency through the provision of, say, additional official travel or employee training. Second, in the long-term, $S_{2, FY_{j+1}}$ expenditures will be higher by the amount of $G_{2, FY_{j+1}}$ diverted to $S_{2, FY_{j+1}}$, and this diversion will help to maintain month two buying power in the event of continuing appropriations in $FY_{j+2}$.

The argument is restated below in more arithmetic terms.

First, recall equation (4)

$$A_t = S_t + G_t + C_t$$

(4)

Assume the agency receives month two allotment, $A_{2, FY_{j+1}}$, which will be marginally higher than $A_{1, FY_{j}}$, subject to equations (13) and (14)

$$A_{2, FY_{j+1}} = S_{2, FY_{j+1}} + G_{2, FY_{j+1}} + C_{2, FY_{j+1}}$$

(17a)

Assuming:

$$S_{2, FY_{j+1}} = S_{2, FY_{j}}$$

(17b)

$$G_{2, FY_{j+1}} = 0, \text{ as the agency depletes } R_{11, FY_{j}} \text{ through dissaving.}$$

(17c)

$$C_{2, FY_{j+1}} = \text{a fixed nominal percentage of } A_{2, FY_{j+1}}$$

(17d)
Agency officials must now determine how best to use the funds originally intended for the purchase of $G_{2,FY_{j+1}}$. Accruing additional levels of $C$ places the organization in a much better position to mitigate minor emergencies. However, referring to equation (5b), additional accrual of $C$ will cause $E_{2,FY_{j}}$ to exceed $E_{2,FY_{j+1}}$. Should the agency be subject to continuing resolutions in $FY_{j+2}$, organizational expenditures will be limited to the $E_{2,FY_{j+1}}$ level. Therefore, it benefits the agency to purchase additional $S_{2,FY_{j+1}}$ using the unencumbered $G_{2,FY_{j+1}}$ funding. It follows, then, that $S_{2,FY_{j+1}}$ expenditures will be approximately equal to the sum total of $S_{2,FY_{j}}$ and $G_{2,FY_{j}}$, as in equation (17e).

$$S_{2,FY_{j+1}} \approx S_{2,FY_{j}} + G_{2,FY_{j}} \quad (17e)$$

This line of reasoning leads to two hypotheses that are inversely related.

*Hypothesis 3a:* The average rate of spending on service-type activities during the period immediately following the termination of a continuing resolution will exceed the average rate of spending on service-type activities goods during a corresponding period of a fiscal year void of continuing resolutions.

*Hypothesis 3b:* The average rate of spending on tangible goods during the period immediately following the termination of a continuing resolution will be less than the average rate of spending on tangible goods during a corresponding period of a fiscal year void of continuing resolutions.
Having depleted \( R_{11,FY_j} \), agency officials will resume routine spending patterns. Assuming the \( FY_{j+2} \) appropriations are approved in a timely manner, spending in months three through eleven, represented by equations (18a) and (18b) will closely resemble spending in equations (9a) and (9b).

\[
\sum_{t=3}^{11} A_{t,FY_{j+1}} - \sum_{t=3}^{11} C_{t,FY_{j+1}} = \sum_{t=3}^{11} E_{t,FY_{j+1}} = \sum_{t=3}^{11} S_{t,FY_{j+1}} + \sum_{t=3}^{11} G_{t,FY_{j+1}} \quad (18a)
\]

\[
\sum_{t=3}^{11} A_{t,FY_j} > \sum_{t=3}^{11} E_{t,FY_j} \quad (18b)
\]

Similar to equation (11), expenditures in the final month of \( FY_{j+1} \) will exceed budgetary allotments as the organization attends to year-end spending, as in equation (19).

\[
A_{12,FY_{j+1}} < E_{12,FY_{j+1}} = S_{12,FY_{j+1}} + G_{12,FY_{j+1}} + \left( \sum_{t=1}^{11} C_{t,FY_{j+1}} - R_{11,FY_{j+1}} \right) \quad (19)
\]

As in equation (12), the agency will have fully executed its total annual budget by the final day of the fiscal year, and allotments and expenditures should equal the agency’s total budget per equation (20).

\[
\sum_{t=1}^{12} A_{t,FY_{j+1}} = \sum_{t=1}^{12} E_{t,FY_{j+1}} = B_{T,FY_{j+1}} \quad (20)
\]
Year three: routine occurrence of interim continuing appropriations.

Between 1952 and 2010, Congress and the president enacted all regular appropriations on only four occasions: 1977, 1989, 1995, and 1997. While continuing resolutions are not applied in a blanket fashion, federal agencies ordinarily spend the first four months of the fiscal year under the restrictions of a continuing resolution (Pulmonte, 2011; Streeter, 2008b; Tollestrup, 2011). Thus, it is highly likely that a federal agency will, at some point, endure consecutive fiscal years under the restraints of a continuing appropriations act. For this reason, it is necessary to widen the temporal scope by one more fiscal year to improve the relevance of the model.

As before, assume that agency officials learn of a budget impasse during the third quarter of the fiscal year. Once again, they ascertain that the organization will open the fiscal year, this time FY_{j+2}, under a continuing resolution. Depending on their preferences for risk, officials might pursue one of two courses of action. Those managers who are risk averse might choose, once more, to stockpile a reserve of tangible goods to offset the uncertainty inherent with continuing appropriations. Under this approach, ceteris paribus, equations (9a) through (20) would apply, ad infinitum.

On the other hand, those managers who are risk neutral or risk seeking, viewing FY_{j+1} in retrospect, may come to the conclusion that the practice of stockpiling a reserve of tangible goods presents little, if any, benefit to the organization. While the purchase of R_{11,FYj} had the effect of shifting expenses from one fiscal year to another, the strategy merely delayed the consumption of tangible goods for a brief time and forced agency
officials to defer service-type expenditures. According to this line of thought, the end result for the organization is a zero-sum gain and, holding all else equal, equations (6a) through (8) would eventually prevail.

Discussion

The applicability of the model hinges on the fungible nature of the organization’s resources. In other words, the model is applicable to the extent that an organization is able to substitute one type of funding for another. Base assumption one presumes that the organization is funded with a lump-sum appropriation. It follows that discretion regarding the use of organizational funding lies with agency officials. The lump-sum assumption, then, begs the degree to which the federal government is funded in this fashion.

Lump-sum appropriations

Over time, the need for lump-sum appropriations has evolved to the point at which most discretionary federal expenditures are, indeed, carried-out using lump-sum appropriations. Up until the twentieth century, it was quite common for the House Ways and Means and the Senate Finance Committees to rely upon line-item appropriations to mandate explicitly how agencies were to spend federal dollars. As the government grew in size and complexity, Congress began to group individual items into broader classifications of execution; in consequence, lump-sum appropriations arose out of necessity. Presently, the majority of appropriation accounts in the federal budget
are funded via lump-sum appropriations. In fact, the federal budget is comprised of more than 1,000 appropriation accounts, 200 of which account for more than 90 percent of discretionary federal expenditures (GAO, 2004e; Schick, 2007).

In this way, Congress recognizes the organizational need for both money and administrative discretion to carry-out daily operations. As alluded to in footnote 6, many federal agencies are appropriated a single Supplies and Expenses account which is often labeled Operating Expenses or Operation and Maintenance and is to be used for daily operating expenses (GAO, 2004e; Schick, 2007). Furthermore, as the steward of the nation’s purse, Congress purposefully accords executive agencies a measure of flexibility with regard to budget execution. The following excerpt from a 1975 Comptroller General decision regarding the U.S. Navy’s use of Defense Appropriations and the Navy’s interpretation of the associated conference report, exemplifies the Government Accountability Office position concerning the legal parameters of lump-sum appropriations (GAO, 2004e).

“Congress has recognized that in most instances it is desirable to maintain flexibility to shift around funds within a particular lump-sum appropriation account so that agencies can make necessary adjustments for ‘unforeseen developments, changing requirements, ... and legislation enacted subsequent to appropriations’ (GAO, 2004e).”

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24 An appropriation account such as the Operation and Maintenance, Army appropriation account is the basic unit of an appropriation (i.e., the Operation and Maintenance Appropriation or the Salaries and Expenses Appropriation). In general, an appropriation reflects each unnumbered paragraph in an appropriation act which is the document signed into law by the president (GAO, 2005a).
By that same token, the Supreme Court ruled that in the absence of detailed statutory language, decisions related to the allocation of funding within a lump-sum appropriation are a matter of agency discretion. The case of Lincoln v. Vigil concerned the Indian Health Service’s discontinuation of a program of clinical services for handicapped children in the Southwest in order to establish a nationwide treatment program. The Court was called upon to decide whether the agency was legally permitted to discontinue the program without seeking judicial review. In its ruling, the Court noted that,

“The very point of a lump-sum appropriation is to give an agency the capacity to adapt to changing circumstances and meet its statutory responsibilities in what it sees as the most effective or desirable way (GAO, 2004e; U.S. Supreme Court, 1993).”

Therefore, base assumption one is a very realistic and feasible assumption which need not be relaxed in order for the model to remain applicable. From the argument above, it is apparent that lump-sum appropriations represent a significant portion of the federal budget. Moreover, the legislature not only recognizes the need for agency discretion but also condones administrative flexibility by structuring appropriations in such a way as to facilitate the fungibility of resources. In addition, the Supreme Court added legal precedence to the notion that agency officials are perfectly within legal
parameters when exercising administrative discretion over the use of lump-sum appropriations.

*Line-item appropriations*

Still, one may realistically relax base assumption one by introducing *line-item appropriations*. While lump-sum appropriations cover a broad number of programs, projects, or items, line-item appropriations are available *only* for the specific item described in the appropriation act (GAO, 2004e). To the extent that legislators desire to restrict funding or seek to minimize agency discretion with regard to the execution of federal monies, Congress can and will issue line-item appropriations. The Comptroller General’s 1975 opinion cited previously also includes a sentiment about Congress’s prerogative to regulate agency spending.

“*When Congress does not intend to permit agency flexibility, but intends to impose a legally binding restriction on an agency’s use of funds, it does so by means of explicit statutory language (GAO, 2004e).*”

In addition to line-item restrictions, Congress may also delimit spending by way of provisions in authorization acts or via reference instructions found in conference reports (GAO, 2004e). Correspondingly, the model above is expected to break down to the extent that agency officials are unable to exercise administrative discretion.
Earmarks

A less binding type of restriction that may have similar effects on the model is a congressional earmark. Before going forward, however, it may be helpful to make a distinction between line-item appropriations and earmarks. While the terms earmark and line-item are often used synonymously, the two designations are conceptually different when used in the context of appropriations. Recall that a line-item appropriation is a distinct sum of money dedicated toward a specific purpose. An earmark, however, is an amount of funding within a lump-sum appropriation (GAO, 2004e, 2005a); a specific spending item which will benefit constituents, written into the bill at the request of a member(s) of Congress (Lazarus & Steigerwalt, 2009). The former is an appropriation in and of itself, while the latter is a subunit of a lump-sum appropriation.

Congress may wish to designate part of a lump-sum appropriation for a particular purpose. Using earmarks, the legislature may specify maximum and/or minimum levels of spending with regard to certain objects. In relation to the model, Congress could stipulate that within the Salaries and Expenses appropriation the agency may spend “not more than” a given dollar amount on office supplies. Referring to equation (10), a ceiling-type earmark would limit the ability of agency officials to stockpile semi-durable goods which would cause the model to fail.

It is important to note, however, that a maximum earmark does not imply that funding must be spent on the object in question. That is to say, funding not used for the
express purpose stated in the earmark may be applied elsewhere within the appropriation (GAO, 2004e). In the hypothetical example given, if the funding is not used for the purchase of office supplies it may be used to purchase small equipment.

**Multi-year appropriations**

Not all lump-sum appropriations are limited to a single-year of availability; in fact, there are several types of lump-sum appropriations which operate under multi-year budget authority. Research and development funds are available for two fiscal years, procurement funding is available for three, and construction and shipbuilding monies are available for five years (Schick, 2007).

Base assumption two refers to the lapsing of budgets and the inability of agencies to carry unobligated funding across fiscal year boundaries. By considering the possible effects of an interim continuing resolution on the obligation behavior of agency officials managing a multi-year appropriation, it is possible to explore what might happen with the easing of base assumption two.

Some agencies have reported that having multiyear budget authority helps to mitigate the effects of continuing resolutions on agency spending behavior. GAO (2009b) conducted a case study of six federal agencies to evaluate the effects of continuing appropriations on federal agencies.25 When queried, managers of multi-year appropriations noted that the ability to carry unspent funding across fiscal year

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25 The six agencies included in the GAO case study were: (1) Administration for Children and Families and (2) Food and Drug Administration, which fall under the Department of Health and Human Services; (3) Veterans Health Administration and (4) Veterans Benefit Administration under the Department of Veterans Affairs; and under the Department of Justice, (5) Bureau of Prisons and (6) Federal Bureau of Investigation (GAO, 2009b; Pulmonte, 2011).
boundaries alleviated the need to obligate funding before year-end, and provided less of an incentive to acquire lower priority items which could be obtained quickly.

To illustrate the point, imagine a continuing appropriations act which lasts for five months (i.e., October thru February). Such a resolution would leave an agency funded with a single-year appropriation with only seven months remaining in the fiscal year (i.e., April to September) to execute the remainder of its budget. In contrast, an agency funded with a two-year appropriation, subject to the same CR, would have another 19 months before the end of its fiscal cycle (i.e., April to September, plus the whole of the second fiscal year). In essence, multi-year appropriations may help to reduce distortions in year-end spending which are brought about by a compressed fiscal timeframe.

To determine if a multi-year appropriation would produce similar benefits or disadvantages in the context of the model requires asking whether: (1) an extended fiscal cycle would preclude the need to stockpile additional tangible goods in light of an impending interim continuing resolution; (2) a multi-year appropriation would mitigate spending restrictions in a manner that would relieve agency officials of having to abide by the previous fiscal year’s obligation rate; and (3) agency personnel would refrain from consuming a superfluous stockpile of tangible goods on account of multi-year appropriations. One can explore each of these questions, in turn, through a comparison of the spending behavior of a single-year- and a multi-year agency over the course of four fiscal years.
Assume that Congress funds Agency A with a single-year lump-sum appropriation and Agency B via a two-year lump-sum appropriation; that is, Agency A’s funding is valid for 12 months and Agency B’s funding is valid for 24 months. Assume further that the first and second fiscal years, FY\_j and FY\_j+1, pass without the occurrence of a continuing appropriations act. Now, suppose that Congress implements a continuing resolution at the outset of FY\_j+2. Since the close-out of FY\_j+1 signals the end of the fiscal cycle for both agencies, officials in both organizations would be subject to spending restrictions in FY\_j+2. Consequently, the model predicts that officials in both agencies would engage in stockpiling of tangible goods; therefore, hypothesis one is expected to hold.

To address the notion of obligation rate restrictions, imagine that the continuing resolution lasts for six months. While under the constraint of continuing appropriations, agencies would be instructed to obligate funding at a rate no greater than the previous fiscal year. Aside from an extended fiscal cycle, there is nothing inherently special about multi-year appropriations which would exempt Agency B from having to abide by the spending limitations. Indeed, the substance of the GAO report cited above suggests that officials responsible for multi-year appropriations were held to the same restrictive standard as those officials managing single-year appropriations. While both agencies are under the restrictions of a continuing resolution, the obligation rates for both agencies should not differ from the organizational mean by a statistically significant amount; therefore, hypothesis two is predicted to hold.
Assume the Congress and the president come to final agreement on the FY_{j+2} budget, and the continuing resolution is lifted on the final day of March in FY\_{j+2}, leaving 6 months for Agency A to execute its budget and Agency B with eighteen months to execute appropriations. Assuming no crises happen that would compel either agency to consume stockpile balances during the period under continuing resolution, there is nothing to suggest that agency officials would not follow the spending behavior detailed in equations (17a-e). One would expect to find a curtailment of spending on tangible goods consistent with Zimmerman (1976) and Balakrishnan, Soderstrom, and West (2007); therefore, hypothesis three is predicted to hold.

Finally, if a continuing resolution is passed in FY\_{j+3}, Agency A would be subject to spending restrictions, whereas Agency B would be in the second year of its fiscal cycle operating under an already approved budget. The cycle for both agencies would begin anew with the arrival of FY\_{j+4}. Because multi-year appropriations are only subject to the restrictions of a continuing resolution during the transition to a new budget cycle, continuing appropriations should have an effect only when the transition to a new fiscal year coincides with the passage of a continuing appropriations act.

**Conclusion**

Leland (1968) pioneered the notion of precautionary demand for saving. Zimmerman (1976) applied Leland’s ideas in a nonprofit setting to find that budget and/or expenditure uncertainty led to the establishment of contingency funds and the saving of durable inventory as a means of transferring organizational resources across
fiscal year boundaries. The approach in this chapter seeks to build on Zimmerman’s efforts through a theoretical discussion of *ex ante* and *ex post* modifications in expenditure behavior of federal agency officials faced with the uncertainty of spending restrictions.

A simplified arithmetic model of agency spending behavior illustrates that officials managing federal agencies, which are funded via lump-sum appropriations, will stockpile *additional* levels of tangible goods in anticipation of the spending restrictions that come with interim continuing resolutions. The additional stockpiling of tangible goods will be used to offset the uncertainty that accompanies continuing resolutions and will afford agency officials a measure of spending latitude while the agency is under restraint during the first part of a new fiscal year. After the federal budget passes and the continuing resolution terminates, agency officials will consume the stockpile while applying unencumbered funding to other needs of the organization.

An extended discussion regarding the applicability of the model suggests that the model may be suitable not only to single-year lump-sum appropriations but also to those lump-sum appropriations with multi-year availability. However, the model seems to fail when Congress seeks to govern discretion of agency officials by way of line-item restrictions, provisos, or earmarks. Notwithstanding that limitation, the majority of discretionary federal expenditures are carried-out using lump-sum appropriations so the model may still prove useful in a federal setting.
Given the preceding theoretical exploration of modifications in expenditure behavior, the discussion will now turn toward quantitative analyses of federal budget data. The next two chapters reflect an attempt to determine: (1) which factors account for the modifications in organizational expenditure behavior as agency officials compensate for restrictions on federal spending, and (2) which econometric methods might one use to reveal the expenditure behavior of agency officials under said spending constraints.
Introduction

The purpose of this chapter is to explore quantitatively the influence of continuing resolutions on monthly federal spending patterns at the agency level. More specifically, the analysis involves the application of event study methods to a subset of federal obligations to demonstrate how federal agency officials adjust monthly expenditure behavior to compensate for the uncertainty that accompanies continuing appropriations. This study provides not only another example of the applicability of broadly applied event study methods but also a quantitative measure of the ability of the federal budget and resource management community to adjust to new information.

Findings reveal evidence of ex ante and ex post modifications to spending behavior as a result of the implementation of continuing resolutions. When stopgap measures are on the horizon for the coming fiscal year, federal organizations increase the purchase rates on contract services and supplies three months prior to the end of the terminating fiscal year, beyond the levels normally purchased when continuing resolutions are not a concern. Further, while short-term spending restrictions are in effect, agencies do not deviate from normal monthly expenditure patterns in a statistically significant fashion. After the budget is passed and continuing resolutions
are lifted, however, it takes approximately two months for obligation rates to return to a normal state.

The results highlight: (1) the ability of the federal resource management community to adjust to new information; (2) the continued used of baseline budgeting techniques; and (3) the presence of signaling mechanisms between higher echelons of the federal government and subordinate agencies. The findings also raise concerns about expense shifting vis-à-vis federal appropriations law and the *bona fide* needs rule.

The next section offers a brief discussion of event study methods and the attendant hypotheses, followed by a description of the data. Afterward comes presentation of the econometric model of choice and event study estimation methods. The results section houses estimation and post-estimation findings, and the chapter closes with implications and conclusions.

**Event studies**

Recall from the discussion section of chapter three that event studies seek to determine whether a particular event influences a subsequent outcome (Wooldridge, 2009). Since Fama and colleagues’ (1969) seminal work on the connection between stock prices and anticipated stock splits, event study methods have been applied broadly to topics such as motor carrier deregulation by the Interstate Commerce Commission (Rose, 1985); municipal bankruptcy in Orange County, California (Denison, 2000); effects of the Food Stamp Program on work incentives (H. W. Hoynes &
Schanzenbach, 2012); birth weight improvements in neonatal mortality (Almond, et al., 2010); and implementation of the Supplemental Nutrition Program for Women, Infants, and Children (H. Hoynes, et al., 2011).

In the context of this chapter, event study methods are used to explore the link between the implementation of a continuing resolution and the modification of agency expenditure behavior. In the same way the investment community anticipates stock splits, the federal government’s resource management community may be able to anticipate the likelihood of continuing resolutions. Federal budget process literature suggests two points in the congressional budget process which associated agency personnel may monitor for signals regarding the implementation of continuing appropriations acts: (1) the congressional budget resolution, and (2) the hearings of the appropriations committees.

Regarding the first point, Congress establishes budgetary boundaries by allocating budget authority and outlays among House and Senate committees via the congressional budget resolution. The current congressional budget process prescribes a date of April 15 for adoption of the congressional budget resolution, but the reader will recall from Table 2.5 that the resolution rarely passes by that date. Thus, the amount of delay in the adoption of the resolution may be an indicator of the level of budgetary conflict (Schick, 2007) and a sign of impending continuing resolutions.

With respect to the second point, appropriations move through Congress in a structured manner as a result of the Congressional Budget Act of 1974. The House is
scheduled to begin consideration of appropriations bills early in June and the Senate
soon thereafter; sometimes consideration happens concurrently. The bills may pass the
House and Senate by the end of June and may be deliberated upon by conference
committees as early as July. Federal agencies and the Office of Management and
Budget maintain close tabs on appropriations committees and the progress of
appropriations bills, and often are informed of committee intentions prior to the filing
of the committee report. In fact, agencies may appeal to Senate Appropriations
Committees before the House completes its work (Schick, 1980, 2007). Aside from the
congressional budgetary process and any established lines of communication between
Congress, OMB, and the departments, the committees on appropriations for both the
House and the Senate maintain websites updating the general public on the progress
and status of appropriations legislation (U.S. House of Representatives, 2012; U.S.
Senate, 2012).

It stands to reason that agency officials with access to such information may seek
ways to generate supplemental spending latitude for themselves in the event of
expenditure restrictions in the coming fiscal year. By purchasing additional supplies and
contract services during the final months of the terminating fiscal year, agency officials
free-up funding in the coming fiscal year when stopgap measures will impose an upper
limit on expenditures. Thus, dollars that would have been used for the purchase of
supplies and contracts in the new fiscal year can be applied toward other factors of
input, if necessary. (Appendix A provides a list of expenditure categories.)
To be clear, the increase in contract service purchases and supply expenditures is not to be confused with the normal year-end rush to spend unobligated funding. Rather, the associated increase is reflective of a shift between expenditure categories. This practice amounts to a concerted effort to forego certain expenditures in favor of stockpiling additional supplies and the like during the terminating fiscal year as a way to free-up funding in the approaching fiscal year. For example, in any given fiscal year agency personnel might devote X-amount to contract services and supplies and Y-amount to all other expenditures at the end of the fiscal year. When a continuing resolution is on the fiscal horizon, agency personnel would then purchase X+ε of contract services and supplies and Y-ε in all other goods and services. By increasing stockpiles of contract services and supplies, agency personnel effectively shift expenses from the upcoming fiscal year to the terminating fiscal year, thereby unencumbering future monies and providing the agency with additional spending latitude while under the constraints of a continuing resolution. The following hypothesis is suggestive of that approach:

_Hypothesis 1: When a continuing resolution is on the fiscal horizon for the coming fiscal year, the rate of spending on contract services and supplies during the final quarter of the terminating fiscal year will exceed the rate of spending on contract services and supplies for the corresponding timeframe when a continuing resolution will not be in effect in the coming fiscal year._
While the standard provisions of continuing resolutions and the Antideficiency Act are designed to constrain spending, associated funding should be sufficient to enable operations at mildly attenuated levels. Organizations are most often instructed to maintain a rate of operations less than or equal to that of the prior fiscal year (GAO, 2009b; Schick, 2007; Streeter, 2008a; Wildavsky & Caiden, 2004) and continuing resolutions provide a commensurate level of funding to ensure such restrictions. In addition, continuing appropriations cannot be used to fund new initiatives and this “no new starts” criterion prohibits agencies from entering into new contractual arrangements or from funding projects that were not being executed in the prior fiscal year. Even agencies that spend at higher rates under normal operating conditions are prohibited from doing so under a continuing resolution. At the same time, the Antideficiency Act generally prohibits federal employees from incurring obligations or making outlays in excess of appropriations (GAO, 2004e; Pulmonte, 2011). This line of thought leads to the second hypothesis:

**Hypothesis 2:** While under a continuing resolution, the rate of spending on contract services and supplies will be less than or equal to the rate of spending on contract services and supplies during corresponding periods in the fiscal year void of continuing resolutions.

Contradictory reasoning makes it difficult to determine, a priori, agency expenditure behavior immediately after a continuing resolution is lifted. On one hand,
agencies emerging from spending restrictions may have fallen behind budgetary schedules and may try to catch up to spending plans by increasing obligation rates. Such an approach would yield a positive sign on coefficients associated with ex post expenditure activity. On the other hand, ex post coefficients may assume a negative sign if organizations delay obligations to allow sufficient time for appropriations to filter through bureaucratic channels, or if expenditure patterns follow a saving-dissaving model similar to Zimmerman (1976) and Balakrishnan, Soderstrom, and West (2007).

The third hypothesis proposes dissaving behavior after budget approval:

_Hypothesis 3: The average rate of spending on contract services and supplies during the period immediately following the termination of a continuing resolution will be less than the average rate of spending on contract services and supplies during a corresponding period of a fiscal year void of continuing resolutions._

_The Data_ 

The data consist of an unbalanced panel of 3,768 monthly obligations from the Department of the Army and the National Archives and Records Administration (NARA). The data span eight fiscal years and are combined with continuing resolution information contained in the Department of Defense Appropriations Act, and the Financial Services and General Government Appropriations Act under which the NARA is classified as an Independent Agency.
With regard to Department of the Army obligation data, Freedom of Information Act (FOIA) requests went unanswered initially. Fortunately, Army data were provided upon informal request from an Army resource management office and pertain to the Operation and Maintenance, Army (OMA) appropriation account which provides operational funding for the U.S. Army to organize, equip, and train its forces.

Several other FOIA requests for data were made using the online resources available at www.FOIA.gov. Thus far, requests have been sent to seven federal agencies: (1) Department of Commerce, (2) Department of Treasury, (3) Environmental Protection Agency and related regional offices, (4) Federal Labor Relations Authority, (5) Merit Systems Protection Board, (6) National Archives and Records Administration, and (7) Office of Management and Budget.

Of the seven agencies queried, only the National Archives and Records Administration provided useful data in a timely fashion. NARA provided seven years of budgetary obligation data pertaining to fiscal years 2006-2012 in Microsoft Excel format. The expenditure data included fiscal year, month, object class, dollar amount obligated, and number of full-time equivalent personnel employed per annum. Accordingly, this data will be used to verify the validity of the proposed model and estimation methods.

The Environmental Protection Agency also responded affirmatively to the FOIA request. The Agency agreed to provide the requested data after receiving assurance of payment for the requested dataset, and personnel in the EPA’s Office of the Chief
Financial Officer are assisting in the matter; however, as of the date of this dissertation, the data were still being compiled.

Two other agencies answered the FOIA requests with aggregated data which does not provide sufficient detail for analysis. The Merit Systems Protection Board referenced its Fiscal Year 2012 Congressional Budget Justification and the Federal Labor Relations Authority offered its Performance Budget Submission to Congress for fiscal years 2012, 2013, and 2014. On both accounts, the references offered were press release documents containing aggregate figures which are of insufficient detail for this research project. Both agencies recommended using the FOIA appeals process if the data provided did not meet expectations.

The NARA obligation data pertain to NARA’s Salaries and Expenses (S&E) appropriation. Congress commonly provides federal agencies funding for general operating expenses by way of S&E appropriations and it is important to note that the funding contained in the OMA appropriation account is equivalent to the funding contained in the lump-sum S&E appropriation (GAO, 2004d, 2004e; Schick, 2007).

Presently, the majority of appropriation accounts in the discretionary federal budget are funded via lump-sum appropriations.\(^{26}\) In fact, the federal budget is comprised of more than 1,000 appropriation accounts, 200 of which account for more than 90 percent of discretionary federal expenditures (GAO, 2004e; Schick, 2007).

\(^{26}\) An appropriation account such as the Operation and Maintenance, Army appropriation account is the basic unit of an appropriation (i.e., the Operation and Maintenance Appropriation). In general, an appropriation reflects each unnumbered paragraph in an appropriation act which is the document signed into law by the president (GAO, 2005a).
Accordingly, expenditure patterns associated with the OMA and NARA S&E appropriation account may be representative of expenditure patterns contained in the Salaries and Expense appropriations of other federal agencies.

The obligations cover contract services and supply spending from fiscal years 2005 to 2012 and are related to eight spending categories which fall under the heading of contract services and supplies: (1) travel of persons; (2) transportation of things; (3) rents, communications, and utilities; (4) printing and reproduction; (5) contract services; (6) supplies and materials; (7) service charges; and (8) contract personnel and indirect hire foreign nationals (DFAS, 2012). Appendix A provides a categorical list of expenditure categories as compiled by the OMB.

With regard to the structure of the data, the Army obligations data are less aggregated than the NARA data. While the NARA monthly data are aggregated at the agency level, the Army data are more granular in nature thus contributing another organizational level of detail known as Subactivity Group or SAG (Appendix B provides a detailed listing of U.S. Army Operation and Maintenance Subactivity Groups). In the same fashion that Maneuver Units (SAG 111) or Central Supply Activities (SAG 422) are subactivity groups of the Department of the Army, the National Archives and Records Administration can be thought of as a subactivity group of Independent Agencies subsumed within the Financial Services and General Government Appropriations. For this reason, NARA obligations were assigned a pseudo-SAG (SAG 500) to ensure consistency within the dataset.
Further, for time series analysis Wooldridge (2009) recommends converting nominal dollars to real dollars by way of an index such as the Index of Industrial Production (IIP) used in the *Economic Report of the President*. Accordingly, obligations herein are measured in millions and were converted to real 2007 dollars using the Consumer Price Index.

As displayed in Table 5.1, the average monthly contract service and supply obligation was $111.8 million positively skewed with a median value of $16.9 million. However, the data are distorted by $21.5 billion of obligations during the month of September 2007 in the SAG labeled “Additional Activities.” This year-end spending spike coincides with the 2007 troop surge associated with the war in Iraq and is associated with supplemental funding provided by Congress for the war effort (Office of the Assistant Secretary of the Army for Financial Management and Comptroller: Army Budget, 2007). Without the obligations in the Additional Activities SAG, the data remains positively skewed with a median of $15.9 million but with a much lower mean of $52.5 million (see Figures 5.1 and 5.2).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Contract Services &amp; Supplies (in millions)</td>
<td>$111.8</td>
<td>$16.9</td>
<td>$523.8</td>
<td>-$199.3</td>
<td>$19,940.4</td>
</tr>
<tr>
<td>Total Contract Services &amp; Supplies (less: Addit’l Activities)</td>
<td>$52.5</td>
<td>$15.9</td>
<td>$106.1</td>
<td>-$199.3</td>
<td>$1,375.6</td>
</tr>
<tr>
<td>Personnel</td>
<td>11,627</td>
<td>2,680</td>
<td>29,890</td>
<td>23</td>
<td>189,749</td>
</tr>
<tr>
<td>Number of observations</td>
<td>3,768</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

One may also take notice of the minimum obligation of -$199.3 million (refer to Table 5.1). An obligation is a legal requirement to pay for some good or service, while
disbursements involve the outlay of funds (Office of the Secretary of Defense (Comptroller), 2011). Since an obligation can signify a promise to pay at a future date, they are often recorded and then adjusted for various reasons; adjustments can be made because the actual disbursement of funds has not yet taken place. For instance, an erroneously recorded obligation may be reversed in a subsequent month and then properly documented elsewhere. Consequently, 170 negative observations drop from the estimation on account of the application of the log-linear model introduced later in the chapter.

While NARA included personnel figures with agency obligation data, U.S. Army personnel data were retrieved from the OMA [budget] Justification Books available on the Assistant Secretary of the Army for Financial Management and Comptroller (ASA FM&C) website. Since the Justification Books maintained on the ASA FM&C website are preliminary budget estimates subject to Department of Defense markup and revision, the figures pertaining to the corresponding fiscal year are only estimates. To obtain actual figures for a given fiscal year, one must refer to the Budget Estimate two years hence. For example, the actual fiscal year 2011 obligations are contained in the fiscal year 2013 Budget Estimate Submission (BES). The personnel totals include both military end-strength and civilian full-time equivalents (Office of the Assistant Secretary of the Army for Financial Management and Comptroller: Army Budget, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012).
Continuing resolution data originated with Congressional Research Service reports detailing the occurrence of stopgap measures and were reconciled with appropriations acts associated with each of the fiscal years included in the analysis. Streeter (2008b) and Pulmonte (2011) provide a general timeline of continuing resolutions from 1977-2010, while appropriations acts provide the actual dates upon which the president signed the acts into law.


By contrast, NARA was subject to either interim- or full-year continuing resolutions during each year of the analysis. The agency was under the constraints of interim resolutions during the first two months of fiscal year 2006; the first three months of fiscal year 2008; the first six months of fiscal year 2009; and the first three months of fiscal years 2010 and 2012. The agency was also under the constraints of a full-year continuing resolution in fiscal years 2007 and 2011.
Fama and colleagues (1969) event study market model controls for the relationship between an individual stock and the market at large by incorporating the returns of a broad market portfolio (J. J. Binder, 1998). To control for a similar relationship between the agencies under study and the federal government at large, the estimation relies on the monthly outlays of the federal government as reported in the Monthly Treasury Statement compiled by the Financial Management Service Bureau of the U.S. Department of the Treasury (Financial Management Service, 2013).

**Econometric models & estimation methods**

Because of the temporal ordering of the data, time series methods of analysis and estimation are necessary. More precisely, event study methodologies serve to isolate the effects of continuing resolutions on spending behavior. Having already indexed the data, a few pre-estimation procedures help to ensure accurate estimation.

First, Figure 5.1 reveals a stationary time series process with a sharp change in spending behavior in fiscal year 2007. A stationary process refers to the temporal stability of the data such that the joint probability distribution of the data remains unchanged as the data move forward through time (Wooldridge, 2009); the data still appear stationary without the September 2007 year-end obligation data (see Figure 5.2). Indeed, a Fisher-type unit root test with the Phillips-Perron option confirms a stationary process, so one may rule out the presence of a time trend in the data; in other words, contract services and supply obligations do not seem to have grown over time.
Next, monthly time series data often exhibit seasonal patterns and NARA and OMA spending tends to abide by those expectations. For instance, McCaffery and
Mutty (1999) find that all three branches of the U.S. Military (i.e., the Army, Navy, and Air Force) and the Department of Defense exhibit cyclical spending patterns that coincide with the advent of the new fiscal year, year-end close-out, and the receipt of quarterly funding allotments from the Office of Management and Budget. They find that over the course of the fiscal year, obligations are highest during the months of October and September. The letting of new contracts is the impetus for elevated expenditures at the beginning of the fiscal year, while the rush to spend unobligated funds before year-end drives September obligation rates. In addition, obligation rates also tend to increase in January, April, and July when funding allotments arrive. With regard to expenditure patterns at U.S. Army Hospitals, Balakrishnan, Soderstrom, and West (2007) also find a year-end peak in spending patterns but they find the lowest obligation rate in October.

Correspondingly, a cycle plot of the contract services and supply obligations by month shows the routine increase in spending at the end of the fiscal year (see Figure 5.3). Removing the obligations associated with supplemental funding uncovers higher spending during the first and fourth quarters of the fiscal year (Figure 5.4). Dummy variables are, therefore, incorporated to control for seasonality and October serves as the base month.
Because the current period’s budget and obligation rate may be a linear function of budgets and obligation rates from previous periods, a lagged dependent variable is
necessary for an accurate specification of the model. The use of lagged dependent variables, however, may lead to inconsistent estimators if the error term follows a stable autoregressive model. For that reason, one must also test for the presence of serial correlation between the error term and the regressors. A Bruesch-Godfrey test for AR(q) serial correlation, which regresses ordinary least squares residuals on the general regressors, reveals the presence of fourth-order serial correlation.

Using a lagged dependent variable also introduces endogeneity to the equation, so instrumental variables are compulsory for proper estimation. Since the correct methods call for estimation of a large-N panel, autocorrelation within individual SAGs but not between them, and explanatory variables that are not strictly exogenous, the Arellano-Bover/Blundell-Bond linear dynamic panel-data approach should be appropriate for estimating the following log-linear model:

\[
\log\left(\frac{CSS}{Pers}\right) = \alpha_0 + \sum_{j=-3}^{2} \beta_k CR_{t-j} + \beta_i \log(Outlays)_t + \sum_{j=-1}^{20} \gamma_i \log\left(\frac{CSS}{Pers}\right)_{t-j} + \delta_j \text{Month} + u_t
\]

Where:

- \(CSS = \text{Contract services & supplies obligations per SAG by month}\)
- \(Pers = \text{Annual number of personnel per SAG, to include civilian full-time equivalents and military end-strength.}\)
- \((CSS/Pers) = \text{The ratio of contract services and supplies obligations per SAG to associated personnel (i.e., contract services and supply expenditures per employee) expressed in logarithmic form.}\)

The dependent variable is also lagged for 30 periods. This structure controls for autocorrelation during the first four periods and provides for correct specification of the model as determined in post estimation.
CR = Indicator variable for continuing resolutions equal to 1 if there is a continuing resolution in effect and zero otherwise.

The CR variable is lagged by three periods and led by two periods to detect ex ante and ex post effects of spending restrictions.

Outlays = Monthly outlays of the U.S. Treasury expressed in logarithmic form

Month = Indicator variable corresponding to the applicable fiscal month thereby controlling for seasonality; October is the base month.

\[ u_t = \epsilon_t + \nu_{t-1} + \nu_{t-2} + \nu_{t-3} + \nu_{t-4} \]

Results

Referring to Table 5.2, estimation of the model assuming a generalized method of moments approach reveals abnormal spending behavior before and after the implementation of a continuing resolution. First, on average and holding all else equal, the main effect of the implementation of interim continuing resolutions on contract services and supplies expenditures is an increase of 22.8 percent in the third month prior to the implementation of stopgap measures (i.e., July of the terminating fiscal year). This finding is consistent with Hypothesis 1 and underscores the notion that agencies monitor closely aspects of the congressional budget process. If a continuing resolution seems imminent, agency officials will begin to stockpile supplies and to increase contract-related expenditures at a rate higher than that which would normally occur with the receipt of fourth quarter allotment. What is more, average contract and supply obligation rates show mild attenuation during the months of August and September but do not seem to be affected in a statistically significant manner by an
impending resolution. This pattern suggests that the July purchases are one-time or bulk expenditures.

Second, while continuing appropriations are in effect they have virtually no influence on obligation rates. This finding is in agreement with Hypothesis 2 and suggests that continuing resolutions provide sufficient means for agencies to operate while under expenditure restrictions.

Third, obligation rates tend to fall by 23.7 percent, *ceteris paribus*, two months after the President signs the budget into law. This finding is in accord with Hypothesis 3 and hints that agency officials spend-down stockpiles of supplies as uncertainty associated with interim resolutions dissipates. In agreement with Zimmerman (1976), agency officials may devote unencumbered funding to other factor inputs. Since this dataset only applies to contract services and supply purchases, however, such behavior is not estimable here. At the same time, the two-month delay in effect may imply that organizations allow sufficient time for appropriations to filter through bureaucratic channels before spending-down excess stores of supplies and the like.

Results are also in line with Balakrishnan, Soderstrom, and West (2007) findings that support the expense-shifting hypotheses. Their analysis of pharmaceutical supply purchases at U.S. Army Hospitals shows that increases in saving expenditures carried-out at the end of the terminating fiscal year tend to be smaller in magnitude than the dissaving practices at the beginning of the subsequent fiscal year. Said another way, managers at U.S. Army Hospitals tend to build-up supply reserves at the end of the fiscal
year to help mitigate budgetary uncertainty and then spend down those reserves over
the course of the next fiscal year, but managers do so in a tightly controlled manner.
Balakrishnan and colleagues (2007) focus exclusively on supply purchases at U.S. Army
Hospitals, but were unable to rule out budget uncertainty in general, and continuing
resolutions in particular, as a contributing factor for expense shifting. The analysis in
this chapter extends the Balakrishnan and colleagues findings by encompassing contract
and supply spending across two federal agencies, but presents evidence of expense
shifting as a result of continuing resolutions.

Post-estimation

A post estimation Sargan test of overidentifying restrictions suggests that the
model is correctly specified. To say that a model is overidentified means that
instrumental variables outnumber endogenous variables. Thus, the idea behind
overidentifying restrictions is that there are more instruments than necessary to
estimate parameters consistently. Referring to Table 5.3, the estimation technique
above applies 751 instruments to 49 parameters yielding a chi-square statistic of
731.6684 with 702 degrees of freedom and a p-value equal to 0.2123. Therefore, with
reasonable assurance, one fails to reject the null hypothesis of the Sargan test that
overidentifying restrictions are valid.

Estimation of the model under assumptions of heteroscedasticity and
compensation for robust standard errors does not overturn any of the results from the
GMM approach, but doing so enables the application of another post-estimation test to
ensure correct specification of the model. An Arellano-Bond post estimation test presents the null hypothesis that there is no serial correlation in the first-differenced errors (see Table 5.3). Rejecting the null hypothesis at order one does not imply that the model is misspecified, because first-differencing to eliminate fixed effects creates first order autocorrelation, whereas rejection at higher orders (i.e., order two and higher) suggests invalidity of the moment conditions, because autocorrelated disturbances in the original model would be implied. The output of the Arellano-Bond post-estimation test does not present evidence that the model is misspecified.

Moreover, removing the obligations associated with Additional Activities from the estimation does not change the results of the estimation in a significant manner in either of the models.

*Lags of the dependent variable*

Also of note are the levels of correlation with previous years’ obligation rates. The four-month lag of the dependent variable controls for autocorrelation in the first four periods immediately preceding the current period of execution, and brings to light the level of statistical significance associated with the 11th, 12th, 22nd, 24th, and 25th lags of the dependent variable. Correlation between the current time period and lags of approximately one and two years earlier highlights the importance of the previous year’s budget and obligation rates to the current year’s budget and obligation rates. This finding is further evidence of the incremental nature of budgeting (Joseph White, 1994; Wildavsky & Caiden, 2004) and the continued use of baseline budgeting techniques (Schick, 1994).
Along with the positive correlation, the model finds statistically significant negative correlation at the 14th, 21st, 26th, and 28th lags. These patterns of correlation may represent an interaction of continuing resolutions with the recursive nature of budget formulation. Negative correlations could possibly point to bulk purchases made in one fiscal year but not in the next. For example, July/August of Fiscal Year 02 occurs 14 or 15 months after the July/August of FY00 timeframe. If a bulk purchase of additional supplies were made in anticipation of an interim continuing resolution in July or August of FY00 but not in July/August of FY01, the corresponding obligation rates should be negatively correlated.

The model also displays an affinity for the 30th lag of the dependent variable during estimation trials. Estimating the GMM model with less than 27 lags of the dependent variable results in rejection of the null hypothesis under the Sargan test. Once the 27th lag of the dependent variable is introduced as an endogenous variable, the estimation becomes viable. More importantly, the statistical significance of the CR variable begins to manifest with the introduction of the 30th lag. The leap in viability of the model may be due to white noise but likely results from the minimum number of periods necessary to conduct an event study. Fama and colleagues (1969) use a 29 time period lag prior to a stock split to conduct the original event study, and Binder (1998) echoes those methods in his review of event study methodologies.
## Table 5.2: Regression Results

<table>
<thead>
<tr>
<th>Log(CSS/Pers)</th>
<th>GMM Estimator</th>
<th>Robust Estimator</th>
<th>Robust Standard Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>Standard Errors</td>
<td>Coefficient</td>
</tr>
<tr>
<td><strong>Endogenous Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-Month Lag (of Dep. Var.)</td>
<td>0.123***</td>
<td>(0.0322)</td>
<td>0.123**</td>
</tr>
<tr>
<td>2-Month Lag</td>
<td>0.108***</td>
<td>(0.0340)</td>
<td>0.108*</td>
</tr>
<tr>
<td>3-Month Lag</td>
<td>0.132***</td>
<td>(0.0391)</td>
<td>0.132***</td>
</tr>
<tr>
<td>4-Month Lag</td>
<td>0.065*</td>
<td>(0.0391)</td>
<td>0.065</td>
</tr>
<tr>
<td>5-Month Lag</td>
<td>-0.037</td>
<td>(0.0384)</td>
<td>-0.037</td>
</tr>
<tr>
<td>6-Month Lag</td>
<td>-0.003</td>
<td>(0.0371)</td>
<td>-0.003</td>
</tr>
<tr>
<td>7-Month Lag</td>
<td>0.005</td>
<td>(0.0371)</td>
<td>0.005</td>
</tr>
<tr>
<td>8-Month Lag</td>
<td>0.024</td>
<td>(0.0383)</td>
<td>0.024</td>
</tr>
<tr>
<td>9-Month Lag</td>
<td>0.023</td>
<td>(0.0367)</td>
<td>0.023</td>
</tr>
<tr>
<td>10-Month Lag</td>
<td>-0.041</td>
<td>(0.0364)</td>
<td>-0.041</td>
</tr>
<tr>
<td>11-Month Lag</td>
<td>0.107***</td>
<td>(0.0369)</td>
<td>0.107**</td>
</tr>
<tr>
<td>12-Month Lag</td>
<td>0.205***</td>
<td>(0.0374)</td>
<td>0.205***</td>
</tr>
<tr>
<td>13-Month Lag</td>
<td>-0.015</td>
<td>(0.0381)</td>
<td>-0.015</td>
</tr>
<tr>
<td>14-Month Lag</td>
<td>-0.085**</td>
<td>(0.0382)</td>
<td>-0.085*</td>
</tr>
<tr>
<td>15-Month Lag</td>
<td>-0.047</td>
<td>(0.0390)</td>
<td>-0.047</td>
</tr>
<tr>
<td>16-Month Lag</td>
<td>0.045</td>
<td>(0.0392)</td>
<td>0.045</td>
</tr>
<tr>
<td>17-Month Lag</td>
<td>-0.015</td>
<td>(0.0386)</td>
<td>-0.015</td>
</tr>
<tr>
<td>18-Month Lag</td>
<td>-0.024</td>
<td>(0.0373)</td>
<td>-0.024</td>
</tr>
<tr>
<td>19-Month Lag</td>
<td>0.030</td>
<td>(0.0361)</td>
<td>0.030</td>
</tr>
<tr>
<td>20-Month Lag</td>
<td>0.014</td>
<td>(0.0359)</td>
<td>0.014</td>
</tr>
<tr>
<td>21-Month Lag</td>
<td>-0.128***</td>
<td>(0.0356)</td>
<td>-0.128**</td>
</tr>
<tr>
<td>22-Month Lag</td>
<td>0.091**</td>
<td>(0.0358)</td>
<td>0.091**</td>
</tr>
<tr>
<td>23-Month Lag</td>
<td>-0.013</td>
<td>(0.0364)</td>
<td>-0.013</td>
</tr>
<tr>
<td>24-Month Lag</td>
<td>0.119***</td>
<td>(0.0363)</td>
<td>0.119*</td>
</tr>
<tr>
<td>25-Month Lag</td>
<td>0.090**</td>
<td>(0.0365)</td>
<td>0.090</td>
</tr>
<tr>
<td>26-Month Lag</td>
<td>-0.093**</td>
<td>(0.0375)</td>
<td>-0.093*</td>
</tr>
<tr>
<td>27-Month Lag</td>
<td>0.015</td>
<td>(0.0365)</td>
<td>0.015</td>
</tr>
<tr>
<td>28-Month Lag</td>
<td>-0.091**</td>
<td>(0.0360)</td>
<td>-0.091*</td>
</tr>
<tr>
<td>29-Month Lag</td>
<td>-0.015</td>
<td>(0.0354)</td>
<td>-0.015</td>
</tr>
<tr>
<td>30-Month Lag</td>
<td>0.078**</td>
<td>(0.0364)</td>
<td>0.078</td>
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</table>

Observations 741

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1
Table 5.2: Continued

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<thead>
<tr>
<th>Exogenous Variables</th>
<th>GMM Estimator</th>
<th>Robust Estimator</th>
<th>Robust Standard Errors</th>
<th>Standard Errors</th>
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</thead>
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<tr>
<td>Log(CSS/Pers)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Control Variable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log(Outlays)</td>
<td>-0.043</td>
<td>(0.155)</td>
<td>-0.043</td>
<td>(0.175)</td>
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<tr>
<td><strong>Dummy Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>November</td>
<td>0.222</td>
<td>(0.160)</td>
<td>0.222</td>
<td>(0.182)</td>
</tr>
<tr>
<td>December</td>
<td>0.077</td>
<td>(0.176)</td>
<td>0.077</td>
<td>(0.226)</td>
</tr>
<tr>
<td>January</td>
<td>0.117</td>
<td>(0.175)</td>
<td>0.117</td>
<td>(0.204)</td>
</tr>
<tr>
<td>February</td>
<td>-0.015</td>
<td>(0.160)</td>
<td>-0.015</td>
<td>(0.147)</td>
</tr>
<tr>
<td>March</td>
<td>0.098</td>
<td>(0.153)</td>
<td>0.098</td>
<td>(0.131)</td>
</tr>
<tr>
<td>April</td>
<td>0.165</td>
<td>(0.136)</td>
<td>0.165</td>
<td>(0.158)</td>
</tr>
<tr>
<td>May</td>
<td>0.179</td>
<td>(0.144)</td>
<td>0.179</td>
<td>(0.162)</td>
</tr>
<tr>
<td>June</td>
<td>0.361**</td>
<td>(0.141)</td>
<td>0.361**</td>
<td>(0.174)</td>
</tr>
<tr>
<td>July</td>
<td>0.208</td>
<td>(0.144)</td>
<td>0.208</td>
<td>(0.162)</td>
</tr>
<tr>
<td>August</td>
<td>0.241</td>
<td>(0.164)</td>
<td>0.241</td>
<td>(0.232)</td>
</tr>
<tr>
<td>September</td>
<td>0.939***</td>
<td>(0.161)</td>
<td>0.939***</td>
<td>(0.214)</td>
</tr>
<tr>
<td>Constant term</td>
<td>3.228</td>
<td>(1.988)</td>
<td>3.228</td>
<td>(2.230)</td>
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<tr>
<td>Observations</td>
<td>741</td>
<td></td>
<td>741</td>
<td></td>
</tr>
</tbody>
</table>

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1
### Table 5.3: Post-estimation Tests

Sargan test of overidentifying restrictions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$H_0$: Overidentifying restrictions are valid</td>
<td></td>
</tr>
<tr>
<td>Chi-square statistic</td>
<td>731.6684</td>
</tr>
<tr>
<td>Degrees of freedom</td>
<td>702</td>
</tr>
<tr>
<td>Prob &gt; Chi2</td>
<td>0.2123</td>
</tr>
</tbody>
</table>

Arellano-Bond test for zero autocorrelation in first-differenced errors

<table>
<thead>
<tr>
<th>Order</th>
<th>$z$</th>
<th>Prob &gt; $z$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-4.1912</td>
<td>0.0000</td>
</tr>
<tr>
<td>2</td>
<td>-1.2292</td>
<td>0.2190</td>
</tr>
<tr>
<td>3</td>
<td>0.7264</td>
<td>0.4676</td>
</tr>
<tr>
<td>4</td>
<td>-0.7989</td>
<td>0.4244</td>
</tr>
</tbody>
</table>

### Table 5.4: Isolating the Effect of the 30th Lag While Controlling for Autocorrelation During Periods Immediately Preceding Implementation of a Continuing Resolution

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Month Lag (Dep. Var.)</td>
<td>0.295***</td>
<td>(0.0337)</td>
</tr>
<tr>
<td>2-Month Lag</td>
<td>0.224***</td>
<td>(0.0351)</td>
</tr>
<tr>
<td>3-Month Lag</td>
<td>0.157***</td>
<td>(0.0352)</td>
</tr>
<tr>
<td>4-Month Lag</td>
<td>0.129***</td>
<td>(0.0343)</td>
</tr>
<tr>
<td>29-Month Lag</td>
<td>0.049*</td>
<td>(0.0291)</td>
</tr>
<tr>
<td>30-Month Lag</td>
<td>0.116***</td>
<td>(0.0290)</td>
</tr>
<tr>
<td>31-Month Lag</td>
<td>0.016</td>
<td>(0.0288)</td>
</tr>
<tr>
<td>Constant term</td>
<td>0.178</td>
<td>(0.1200)</td>
</tr>
<tr>
<td>Observations</td>
<td>967</td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.855</td>
<td></td>
</tr>
</tbody>
</table>

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1
Implications and Conclusion

Thus, the model finds evidence of expense shifting as a result of the implementation of continuing resolutions. To quantify the effects, organizations within federal agencies increase spending on contract services and supply purchases by an average of $11.970 million or $1,029.54 per employee when there is a possibility of continuing appropriations in the coming fiscal year. Incidentally, this increase in spending does not seem to take place during the final month of the fiscal year when the typical year-end spending takes place nor even the month prior to that. Instead, the surge in spending happens a full three months before the end of the fiscal year.

Controlling for the regular receipt of fourth quarter funding allotment, the surge in expenditures coincides with the appropriations committee schedule, thereby implying a high degree of anticipation within the resource management community regarding the implementation of spending constraints. The spike in expenditures is suggestive of the presence of signaling mechanisms between higher echelons of the federal government and the agency in question; this relationship is the focus of the next chapter.

Further, federal agencies seem to be unaffected by the actual application of expenditure constraints as obligation rates continue unabated while continuing resolutions are in effect. Once the president signs the associated appropriation act into law, however, obligation rates tend to fall below normal levels by approximately $12.443 million or $1,070.18 per employee in the second month after the budget passes. The overall pattern may confirm a savings-dissaving approach with regard to contractual and supply obligations.
The model also highlights the incremental nature of budgeting and importance of simple baseline budgeting techniques to the federal budget cycle. Obligation rates one- and two-years prior to the current period of spending display the highest level of statistical significance among the lagged dependent variables; thus, the best predictor of the current year’s spending rate is the previous year’s spending rate.

**Expense shifting vis-à-vis bona fide needs**

In a normative sense, continuing resolutions are not necessarily a bad policy; in fact, they provide a feasible alternative to shutting down the federal government in the event of protracted disagreements over the budget. Still, qualitative research suggests that stopgap measures generate budgetary uncertainty and distortions in year-end spending. One manifestation of these distortions is the shifting of expenditures between fiscal years. Indeed, the federal budget and resource management community seem to have adapted to stopgap measures by way of saving-dissaving practices that straddle fiscal years.

At issue, then, would be whether agencies have violated the *bona fide* needs rule through the purchase of additional supplies and contract services. The rule, which is based in statutes such as the Antideficiency Act and the Adequacy of Appropriations Act, and various rulings of the Comptroller General, holds that an appropriation is available only for the needs of the current fiscal year, not those of a future fiscal year. Therefore, agencies should be earnest in purchasing only what they need to make it through the current fiscal year (GAO, 2004d).
To that end, the GAO offers the following example for consideration:

“... suppose that, as the end of a fiscal year approaches, an agency purchases a truckload of pencils when it is clear that, based on current usage, it already has in stock enough pencils to last several years into the future. It would seem apparent that the agency was merely trying to use up its appropriation before it expired, and the purchase would violate the *bona fide needs rule.*”

With that example in mind, the Federal Appropriations Law handbook is careful to point out that the spirit of the rule is not to prevent the maintenance of legitimate levels of inventories which are purchased to avoid a disruption of operations. Instead, a violation of the rule would occur when the magnitude of purchases evolves from reasonable to excessive, the determination of which depends on the facts and circumstances of the particular case at hand (GAO, 2004d).

In a broad sense, continuing appropriations acts may present agency officials with the prospect of walking a policy tightrope. Federal resource managers must balance their desire to offset the budgetary uncertainty that comes with continuing resolutions with their obligation to abide by federal fiscal law, and overcompensation in either direction could spell misfortune for both the agency and the individual.

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Chapter Six
Budgetary Signals: Organizational Learning, Agenda Setting, and Federal Bureaucracies

Introduction

The findings in the previous chapter demonstrate that federal agencies are able to anticipate the enactment of continuing appropriations acts. In response to the implementation of stopgap measures, federal agencies tend to increase spending on contract services and supply purchases, beyond normal seasonal levels, during the final quarter of the terminating fiscal year. Through the accrual of additional stockpiles of supplies and the shifting of contract expenditures between fiscal years, agency personnel afford themselves an added degree of spending latitude while under the fiscal constraints of a continuing resolution. In other words, the federal budget and resource management community seem to have adapted to stopgap measures by way of saving-dissaving behavior that straddles fiscal years.

In light of the finding that federal agencies engage in expense shifting in response to pending enactment of continuing resolutions, we are left with a puzzle. How is it that agencies know that they should alter spending well in advance of the failure to adopt an appropriations act? The purpose of this chapter is to explore budgetary signaling mechanisms between the highest echelons of the federal government and subordinate federal agencies. Explicitly stated, this research seeks to determine which factors in the federal budget process act as signaling mechanisms between the president, Congress, and executive agencies. In seeking to answer this
research question, this chapter explores the concept of organizational learning and suggests a theoretical framework of agenda setting in which federal organizations monitor germane sources of information, compile implicit indices of indicators, and then process that information to reach decisions.

The notion of organizational learning first emerged in the early 1960s. While it has since expanded and evolved, the concept has been applied sparingly to the public sector. Thus, this study aims to expand the knowledge of organizational learning as it relates to the federal bureaucracy. The results show that federal agencies have learned to monitor particular sources in the federal budget process to gain insight about the likelihood of continuing appropriations acts being passed. Moreover, decision-makers may also be able to determine which budgetary signals are most relevant to a given problem in the congressional budgetary scheme. These findings contribute to the field of public budgeting by providing a link between theories of organizational learning and agenda setting by way of the information processing aspect of the Implicit Index Approach.

This chapter is organized in the following manner. The next section provides a brief review of the organizational learning literature with an emphasis on the research related to information processing. This topic carries-over into the theory section, which discusses a framework of information processing within the field of agenda setting. A brief discussion of a priori theoretical expectations precedes a description of the data,
while the fifth section discusses the econometric model of choice and the associated estimation methods. Results of the analysis follow and the final section concludes.

The Organizational Learning Literature

As a formal theory, the notion of organizational learning goes as far back as 1963 when Cyert and March conceptualized the term as the process by which an organization adapts to its environment and the associated external shocks in a rational and systematic manner, given the internal decision rules of the organization (Cyert & March, 1963). Since that seminal work, the definition has evolved as the concept of organizational learning has spread to multiple disciplines. Scholars in fields, such as organizational theory, economics, information management, business management, marketing, and psychology (Dodgson, 1993; Easterby-Smith & Lyles, 2011) have set-out to capture the essence of the term and the resulting definitions represent a panoply of thought.

As it is perceived currently, organizational learning may occur at the individual (Dodgson, 1993) or system level (Cyert & March, 1963; Dixon, 1992) and the term may refer to the study of learning processes of and within organizations (Easterby-Smith & Lyles, 2011). The phenomenon can be thought of as the development of insights, knowledge, and associations between past, present, and future organizational activities (Fiol & Lyles, 1985). Sinkula (1994) characterizes it as the method by which knowledge is maintained such that it benefits future organizational users, while Rashman, Withers, and Hartley (2009) survey the literature and describes organizational learning as the
sharing of thoughts and actions, in an organizational context, with cognitive (Shipton & Defillippi, 2011), social (Gherardi, Nicolini, & Odella, 1998), behavioral (Cyert & March, 1963; Huber, 1991), and technical implications (Huber, 1991).

As learning takes place, the organization is thought to change over time. Further elaboration on the concept of organizational learning holds that as organizations learn to make sense of their environment, members of the organization will encode historical inferences into the organizational norms, training programs, policies, strategies, and culture of the organization (Levitt & March, 1988; Sinkula, 1994). These shared assumptions, beliefs, and norms form an organizational memory which serves to guide individual and organizational actions (Argyris & Schön, 1978; Huber, 1991; Walsh & Ungson, 1991). Thus, enhanced knowledge and understanding of “how things are done (Argyris & Schön, 1978)” lead to improved actions (Fiol & Lyles, 1985) and fundamental changes to the structural elements and outcomes of the organization (Herbert Alexander Simon, 1969).

In the same way that the definition of organizational learning has expanded, the field of study has become very diverse and nuanced. For instance, Huber (1991) and Dixon (1992) articulate a number of constructs related to organizational learning such as: (1) knowledge acquisition, which concerns the processes by which organizations acquire or obtain information, (2) the sharing of knowledge via information distribution; (3) information interpretation, or the process by which information is assigned meaning; and (4) the storage and retrieval of information which is referred to as
organizational memory. As another example, Easterby-Smith and Lyles (2011) map the field of study into four topics: (1) organizational learning, which, as mentioned above, refers to the study of learning processes of and within organizations; (2) the learning organization, which is seen as an organizational ideal; (3) organizational knowledge, which is concerned with the nature of knowledge within the organization; and (4) knowledge management, which addresses the storage, measurement, dissemination, and leverage of knowledge by the organization.

Because the literature is expansive and multi-faceted, review articles abound (Crossan, Lane, & White, 1999; Dixon, 1992; Dodgson, 1993; Friedman, Lipshitz, & Popper, 2005; Huber, 1991; Levitt & March, 1988; Miner & Mezias, 1996; Rashman, et al., 2009; Shipton, 2006). Among these reviews, Shipton (2006) serves as a particularly helpful resource for identifying literature which is related to the processing of information by the organization. To compare different elements of the organizational learning literature, Professor Shipton uses a two-by-two matrix with the prescriptive/normative and descriptive/explanatory literature arrayed along a vertical continuum, while the individual/organizational literature is ordered along the horizontal axis. From an explanatory perspective, organizational learning depends, in part, on whether organizations use a behaviorist or cognitive approach to process information.

Organizations that rely on a behaviorist approach process information by way of routines and standard operating procedures. Organizational learning, then, is a method of skill-building based on repeated execution of routines and procedures (Argote, 2012;
Organizational routines are the result of trial and error learning and they reflect a concerted effort to select and retain past behaviors (Gavetti & Levinthal, 2000). Routines are essentially procedural memories (M. D. Cohen & Bacdayan, 1994) and they serve as repositories of learning (Shipton, 2006). Indeed, Levitt and March (1988) find that members of organizations may use routines that guide behavior (e.g., forms, rules, and paradigms) as a means of storing and retrieving experiences. This practice offers individuals within the organization access to the substance of historical lessons and enables these encodings to withstand personnel turnover and the passage of time.

From a cognitive perspective, the processing of information enhances the organization’s potential for changed behavior. This style of organizational learning brings about changes that are not readily apparent, but which develop the organizational knowledge base favorably to afford the organization flexibility in times of perceived need (Nonaka, Takeuchi, & Takeuchi, 1995; Shipton, 2006; Shrivastava, 1983). Exposure to variegated circumstances, experiences, and points of view may increase the propensity for individuals within the organization to question the adequacy and effectiveness of current routines and procedures (Shipton, 2006). Thus, in turbulent environments when conventional routines and procedures become obsolete, the ability of an organization not only to recognize the value of new information, but also to assimilate and apply it may ensure that the organization is able to adjust accordingly (W. M. Cohen & Levinthal, 1990; Huber, 1991; Lichtenthaler, 2009).
Incidentally, organizational learning research tends to focus on private sector entities over public sector organizations. Although the field of organizational learning has grown significantly since the early 1990s, multiple authors agree that little of the research pertains to public and non-profit agencies (Bate & Robert, 2002; Easterby-Smith & Lyles, 2011; Kelman, 2005). A systematic review of the organizational learning and knowledge literature by Rashman, Withers, and Hartley (2009) suggests an over-reliance on the private sector with regard to theoretical and empirical endeavors. Their survey of literature includes research efforts pertaining to organizational learning, inter-organizational learning, and organizational knowledge and excludes papers that are normative or purely descriptive in nature. Of the 131 papers analyzed, 61 focused on the private sector while only 29 focused exclusively on public sector entities (the remaining 41 papers addressed multiple sectors or did not specify a sector). Rashman and colleagues find the organizational learning literature, as it relates to public organizations, to be thin and fragmented. While the associated research addresses a wide range of institutions and extends across a number of disciplines and journals, the limited number of articles addressing public sector issues amounts to an under-representation in the literature that may hold implications for the generalizability of current theories of organizational learning and knowledge (Rashman, et al., 2009). Thus, organizational learning, as it relates to public sector entities, is a subject that is in need of further exploration.

Fortunately, there is an avenue of approach toward this endeavor in the policymaking literature. Jones and Baumgartner (2005) explore, theoretically and
empirically, the manner by which government institutions and policymakers process information. The authors develop a theory of disproportionate information processing which relies, in part, on a micro-theory of information processing called the Implicit Index Approach. Using behavioral models, Jones and Baumgartner explore boundedly rational decision making from an individual viewpoint and from a collective frame of reference. In so doing, they are able to draw similarities between individual and organizational decision-making perspectives. This approach serves as a viable theoretical framework to help explain organizational learning as it relates to the public sector in general and federal agencies in specific. Below is a brief description of Jones and Baumgartner’s idea of agenda setting and their Implicit Index Model in which organizations monitor their respective environments for signals which may inform leadership decisions.

**A Micro-theory of Information Processing**

Unlike individuals, organizations are able to process large amounts of information by delegating responsibility to organizational sub-units. Because individuals are boundedly rational, they process information *in seriatim*. On balance, time constraints and limited cognitive abilities make it so that individuals must focus their own attention on one issue at a time when making decisions (Herbert A. Simon, 1991). To a certain extent, division of labor enables organizational leaders to augment cognitive abilities to allow for simultaneous management of multiple issues. By creating specialized sub-units, agencies are able to delegate the responsibility for disparate
issues to units which are organizationally structured to suit a particular field. Thus, organizations are much more adept at managing a litany of multidimensional issues than are individual persons (B. D. Jones & Baumgartner, 2005).

There are myriad examples of this type of delegation of responsibility at the federal level. From a fiscal perspective, Congress uses the committee system to delegate consideration of budget policy to House and Senate Budget Committees, which then formulate budgetary legislation for the approval of the full Congress. Likewise, the Office of Management and Budget (OMB) bears the responsibility for formulating, compiling, and submitting the president’s annual budget submission to Congress. Similarly, each cabinet-level department has a budget office that formulates and submits an annual budget to the OMB. For instance, the Office of Management within the Treasury Department compiles the Congressional Justification of Appropriations for the Department of the Treasury, while the Under Secretary of Defense (Comptroller) compiles similar documentation for the Department of Defense.

Yet, even organizations as large as the federal government suffer cognitive limitations which force them, at some point, to switch from parallel- to serial processing, which further implies issue prioritization. The use of a single point of adjudication will force a decision-making body to prioritize issues, thereby creating a logjam of sorts in the processing of information. Furthermore, increasing the number of decision-makers does not alleviate the bottleneck; even with 535 members, Congress can vote on only one issue at a time. At the individual level, issue prioritization is known as attention-
shifting because one must focus one’s attention on a single matter while ignoring all other issues. At the organizational-level, issue prioritization is called agenda setting (B. D. Jones & Baumgartner, 2005).

In an organizational context, specialized units, such as the ones mentioned previously, work to detect signals in the environment during the agenda setting stage of decision-making. These signals come from a variety of origins and they help to inform the decision-making process. While some of those sources are highly dependable, some of them are irrelevant, others are redundant, and there are far too many for a single agency to monitor and evaluate effectively. Therefore, agencies select only the most relevant of sources to monitor and those who rely on the information derive indices comprised of only the most germane indicators. Incidentally, these indices are not explicitly published like the Consumer Price Index or the Standard and Poor’s 500. Instead, they are internal to the agency and are more akin to organizational norms that evolve over time (B. D. Jones & Baumgartner, 2005).

Jones and Baumgartner (2005) refer to this practice of cataloguing information as the Implicit Index Approach. With regard to any given problem which an organization may face and as illustrated in Figure 6.1, a variety of sources produce indicators which yield information about the state of the world. Decision-makers rely on this information to inform their decision calculus. Random errors, distortion, or noise enters the equation when decision-makers interpret information from sources toward the construction of indicators, and again as decision-makers combine indicators into an
index which informs their ultimate decision. In summary, decision-makers, upon recognition of a problem, select a series of what they perceive to be the most pertinent and reliable sources of information about that problem. Then, taking biases into account, they assimilate the information, determine a course of action, and make a final decision (B. D. Jones & Baumgartner, 2005).

**Figure 6.1: The Implicit Index Model: Combining Information from Diverse Sources**

At this point, principal-agent theory may also play a role in the organizational learning process. Agency theory postulates that the relationship between elected officials and nonelected bureaucrats is hierarchical, and that differences between bureaucratic agents and democratic principals will result in bureaucratic agents pursuing interests of the agency over those of the principal (Nicholson & Snyder, 2012; Wilson, 2000). It follows then that if federal agencies, acting as bureaucratic agents, are seeking
to monitor the most relevant sources of information in their environment, they will monitor the actions of democratic principals for indicators that inform the organization’s decision-making process and ultimately influence organizational learning.

In fact, research on political control of the bureaucracy demonstrates the feasibility of this line of thought. As Wood and Waterman (1991) explain, congressional control over the resources of federal agencies compels agency decision-makers to keep close tabs on the rewards and sanctions that legislators distribute. However, bureaucratic agents often have multiple principals (Wilson, 2000) and, with respect to budgetary resources, federal organizations are also subject to the control of the president via the OMB (Wood & Waterman, 1991). At a minimum, federal organizations must monitor Congress and the president when processing information about continuing resolutions. Thus, examining certain aspects of these two sources, one may be able to determine which factors of the federal budgetary process act as signaling mechanisms or indicators for bureaucratic agencies in the processing of information related to continuing resolutions.

**Expectations**

Bearing in mind that bureaucratic agencies monitor Congress and the president for budget-related signals, one might formulate a series of a priori expectations regarding the association and influence of certain factors on the implementation of continuing resolutions. In keeping with the Implicit Index Model, federal agencies might view the president and Congress as relevant sources of information. In turn, certain
elements associated with those two entities may serve as indicators which are compiled into an index that informs the decision-making process.

*Presidential factors*

Concerning the president, there are several factors which may act as signaling mechanisms to the bureaucracy. First, the party of the president is an obvious element of consideration but one for which the influence is difficult to predict a priori. On one hand, a president from the Republican Party may favor budget reductions toward a smaller federal government, while a president from the Democratic Party may favor budget increases in support of more robust social programs. Either of these scenarios is likely to generate budgetary discord and may ultimately lead to delays in the appropriation of funding. Thus, the relationship between the party of the president and the enactment of continuing resolutions is predicted to be a positive one.

Second, the length of a president’s tenure may also influence the incidence of continuing resolutions. Stimson (1976) shows that presidential approval ratings tend to decline in the second term and Schick (2007) submits that budgetary successes are more difficult to come by later in one’s presidency. Hence, the relationship between presidential tenure and the implementation of continuing resolutions is thought to be a positive one. As the length of a president’s tenure increases, instances of continuing resolutions should increase as well.

Third, the dynamic between the president and members of Congress is sure to influence budgetary dialogue. Recall from chapter three that veto negotiations over the
federal budget are most prevalent under conditions of divided government. Indeed, Edwards and colleagues (1997) find that presidents are more apt to oppose significant legislation when the government is divided and that important legislation fails to pass more often under divided government. Coleman (1999), however, found that unified government leads to greater production of significant legislation, while other studies have shown that legislative gridlock can occur equally under circumstances of divided and unified government and that legislative production has little to do with whether the government is divided (Fiorina, 1996; Krehbiel, 1996; Mayhew, 1991). Assuming the status of the government exhibits statistical significance in this study, a priori expectations are toward a positive relationship between divided government and the occurrence of continuing appropriations.

Congressional polarization factors

Polarization in the U.S. Congress, as measured by the distance between party means, tends to vary across time. At times, the average ideological views of political parties differ greatly from each other, at other times the differences are less pronounced. Since 1975, the distance between party means has grown wider and several scholars (Beckmann & McGann, 2008; Cummins, 2012; D. R. Jones, 2001, 2010) find polarization to be a contributing factor to legislative gridlock. Apropos of the budget discussion, Cummins (2012) examines gridlock in the context of delayed budget adoption at the state level and finds party polarization to be a key factor for California’s inability to pass a state budget in a timely manner. Assuming an increase in polarization
leads to an increase in legislative gridlock, then one might expect an increase in polarization to yield an increase in the likelihood of continuing resolutions.

Factors related to the congressional budget resolution

There are also a number of factors associated with the congressional budget resolution that may help predict the implementation of continuing appropriations acts. First, recall from chapter two that the congressional budget resolution is rarely approved in a timely fashion. Recall also that intense and sustained conflict over budget policy engenders dysfunction within the regular appropriations process, and delay in adoption of the congressional budget resolution is a prime indicator of dissonance over budgetary matters (Schick, 2007). It follows that delay in the adoption of the congressional budget resolution should increase the likelihood of continuing resolutions.

Two additional factors which may be relevant are the number of changes made to the budget resolution and the number of members who object to the adoption of the resolution. Naturally, changes to the budget resolution, in the form of amendments or reserve funds (discussed further below), take time to negotiate, and the resolution cannot pass without an adequate number of supporting votes. Thus, one might anticipate a positive relationship between these factors and the implementation of continuing resolutions. As the number of changes considered to the budget resolution increases, so too should the likelihood of continuing resolutions. Similarly, as the number of nay votes pertaining to the adoption of the budget resolution increases, the probability of continuing resolutions being implemented should increase as well.
Another factor might be the views that members of Congress have toward the substance of the budget resolution. Members of Congress will often make public statements about pending legislation that may have bearing on the implementation of stopgap measures. For instance, either or both chambers of Congress can formally articulate their opinions regarding matters of national interest by way of “sense of the House,” “sense of the Senate,” or “sense of the Congress” provisions. Such provisions have no formal effect on policy, but foreign governments and domestic agencies attend to them as early signals of policy intent (Davis, 2013; Rundquist, 2003). However, “sense of” provisions can be used to express both positive and negative views of policy and legislation (Davis, 2013); therefore, the relationship between continuing resolutions and formal expressions of opinion is thought to be ambiguous.

Factors related to the appropriation hearings

Finally, certain aspects of the appropriations hearings may also act as indicators for decision-makers. Recall from the discussions of the annual appropriations process that the House begins consideration and mark-up of annual appropriations in May with the Senate following suit soon thereafter, and that agencies monitor the legislative actions of appropriations committees. The appropriations for which the associated hearings have not concluded by the end of the fiscal year must suffer continuing resolutions. Thus, the amount of time it takes for appropriations hearings to conclude may be an indicator of pending continuing appropriations and the relationship is thought to be a positive one. As the duration in time of appropriations hearings increases, the implementation of continuing resolutions should also increase.
Data

The data for the analysis consists of an unbalanced panel of 4,067 observations related to the passage of annual appropriations of 15 cabinet-level departments. Temporally, the data span a period of thirty-four federal fiscal years, from 1976 to 2010, and includes elements pertaining to divided government, polarization, congressional budget resolutions, and appropriations hearings.

The dependent variable

The basic unit of analysis is continuing resolutions. To be more specific, the analysis relates to the odds of the implementation of a continuing resolution given the influence of certain presidential and congressional factors in the federal budget process. Data having to do with continuing resolutions were retrieved from the Proquest Congressional database. The annual Appropriations Acts for the Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, Homeland Security, Housing and Urban Development, Interior, Justice, Labor, State, Transportation, Treasury, and Veterans Affairs were queried for each fiscal year between 1976 and 2010. Those appropriations which were signed into public law on or before the first day of October of each fiscal year are assumed to have passed without being subject to a continuing resolution or any other restrictions on spending, such as a funding gap. For those appropriations signed into public law after the first day of October, it is assumed that a continuing resolution or the like was incorporated. Continuing resolutions is a dichotomized binary variable coded 1 if continuing
appropriations are present or coded 0 to represent the timely passage of an annual budget.

Table 6.1 shows the number of times, between Fiscal Years 1976 and 2010, that the 15 annual Appropriations Acts mentioned above were signed into law on or before the first day of the federal fiscal year. Each fiscal year in which the budget for those agencies was passed in a timely manner is denoted with an “X.” Conversely, those times during which budgets were delayed beyond the first day of the fiscal year signifies the presence of continuing resolutions for the respective agency; such instances are identified with a dash. Further, four agencies were not designated as cabinet-level department until after 1976, and a null sign is used to designate the fiscal years during which these agencies were not yet in existence. Finally, the party of the president residing in office is identified in the second column; “D” represents a president from the Democratic Party, while “R” represents a Republican.

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Table 6.1 follows on the next page.
Table 6.1: Instances of Continuing Appropriations Acts by Department by Fiscal Year (1976 – 2010)

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</tr>
</tbody>
</table>

- denotes implementation of a continuing resolution
X denotes timely passage of annual appropriations
Ø denotes periods during which the agency was not a cabinet-level organization
D represents a Democratic president
R represents a Republican president
**Independent variables**

Beyond the federal agencies themselves, two key entities are involved in the overall formulation of the federal budget: the president and Congress. Thus, the analysis will employ 19 independent variables related to the president, congressional polarization, the congressional budget resolution, and the appropriations committees. A description of the explanatory variables follows this paragraph. To help summarize this information, Table 6.3 contains summary statistics and Table 6.4 lists abbreviated descriptions of each variable and the expected sign of the coefficient upon estimation.

Data for divided government and the presidential came from the Database of Political Institutions 2012 (Norwegian Social Science Data Services, 2012). Compiled by the Development Research Group of the World Bank, and most recently updated in January 2013, this database contains information on 180 countries and is used for comparative studies of political economy and political institutions. Beck (2001) presents the database and examines the effect of divided government on public debt. Three categorical variables pertaining to divided government and the party of the U.S. president were chosen from the database: (1) *Democratic president* is an indicator variable coded 1 if a Democratic president is in office or coded 0 otherwise, (2) *Years in office* signifies the number of years that the president has been in office, and (3) *Unified government* is an indicator variable which is coded 1 if the party of the executive controls all houses of the government or coded 0 otherwise.
Following the efforts of Binder (1999) on legislative gridlock and Woon and Anderson (2012) on the timing of congressional appropriations, political polarization scores were also used as explanatory variables. House and Senate polarization data pertaining to the liberal-conservative aspect of party polarization were retrieved from Voteview.com, which was established by Howard Rosenthal and Keith Poole and which is currently affiliated with the Department of Political Science at the University of Georgia (Keith T. Poole & Rosenthal, 2014). An average of the polarization figures for the House and Senate was computed and labeled *Average polarization*. Multiple regression was used to determine the level of residual polarization attributable to either chamber and labeled as *Residual polarization (House)* and *Residual polarization (Senate)*.

Several explanatory variables came from a Congressional Research Service report titled *Congressional Budget Resolutions: Historical Information* (Heniff & Murray, 2013). The report includes a comprehensive list of the resolutions and accompanying measures adopted and rejected by Congress since implementation of the Budget Resolution Act in 1974. The first variable chosen from this report pertains to the amount of delay in adoption of the congressional budget resolution. The congressional calendar plans for adoption of the resolution by April 15 (May 15 prior to 1987). However, as Table 6.2 shows, Congress rarely adopts the budget resolution in a timely manner and delays are often perceived as an indication of budgetary conflict (Schick, 2007). Thus, the variable *Deadline*, represents the number of days by which adoption of the budget resolution exceeds the target adoption date.
For this analysis, it is important to take notice of the instances during which Congress did not formally adopt a budget resolution. Since the passage of the Congressional Budget Act of 1974, Congress has failed, on six occasions, to complete action on an annual budget resolution: (1) in 1998 for Fiscal Year (FY) 1999; (2) in 2002 for FY2003; (3) in 2004 for FY2005; (4) in 2006 for FY2007; (5) in 2010 for FY2011; and (6) in 2011 for FY2012 (Heniff & Murray, 2013). The accompanying dataset encompass four of these fiscal years.

In the absence of a formal budget resolution, Congress may rely on a deeming resolution to address the issue in an ad hoc manner. While the term deeming resolution does not have an official definition or any specific rule which governs its use, members of Congress use the legislation as an annual budget resolution to establish enforceable budget levels for a budget cycle. In addition to providing revised spending allocations to the appropriations committees, deeming resolutions may also adjust aggregate budget levels and spending allocations to other House and Senate committees (Lynch, 2010).

Instead of leaving the Deadline data field open-ended, marking it as missing, or assigning an arbitrary date when Congress failed to pass a formal budget resolution, the date which the House adopted the associated deeming resolution was used instead. For Fiscal Year 1999, January 6, 1999 was used, which was 266 days past the April 15 target adoption date. For Fiscal Year 2003, March 20, 2002 was used. This date occurs prior to the deadline, so the data field was zero-filled. For Fiscal Year 2005, the House adopted the deeming resolution on May 19, 2004, which was 34 days past deadline, and for
Fiscal Year 2007, May 18, 2006 was used, which was 33 days past deadline (Lynch, 2010). Accordingly, an indicator variable labeled Deeming resolution was coded 1 to signify the application of a deeming resolution, and coded 0 otherwise.

This space was left blank intentionally.

Table 6.2 follows on the next page.
<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Date adopted</th>
<th>Days after deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(Target date: 15 May)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>14 – May – 1975</td>
<td>0</td>
</tr>
<tr>
<td>1977</td>
<td>13 – May – 1976</td>
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<td>1 – Oct – 1984</td>
<td>139</td>
</tr>
<tr>
<td>1986</td>
<td>1 – Aug – 1985</td>
<td>78</td>
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<tr>
<td><strong>(Target date: 15 April)</strong></td>
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<tr>
<td>1988</td>
<td>24 – Jun – 1987</td>
<td>70</td>
</tr>
<tr>
<td>1989</td>
<td>6 – Jun – 1988</td>
<td>52</td>
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<tr>
<td>1990</td>
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<td>1995</td>
<td>12 – May – 1994</td>
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<td>1999</td>
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<td>15 – Apr – 1999</td>
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<td>28 – Apr – 2005</td>
<td>13</td>
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<td>2007</td>
<td>Adopted deeming resolution</td>
<td>33</td>
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<tr>
<td>2008</td>
<td>17 – May – 2007</td>
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<td>51</td>
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<tr>
<td>2010</td>
<td>29 – Apr – 2009</td>
<td>14</td>
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</table>


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As originally enacted, the Congressional Budget Act of 1974 required that Congress adopt two budget resolutions each year: (1) an advisory resolution by May 15 and (2) a binding resolution by September 15. The Balanced Budget and Emergency Deficit Control Act of 1985 eliminated the requirement for a second resolution and set April 15 as the target adoption date (Heniff & Murray, 2008).
To capture the amount of disagreement and compromise associated with adoption of the congressional budget resolution, “Nay” votes and amendments were also chosen as explanatory variables. If delay in adoption of the resolution is a barometer of budgetary discord (Schick, 2007), then the number of amendments considered while crafting the resolution and the number of members voting against adoption of the resolution should also help to gauge levels of budgetary conflict. Hence, four variables are devoted to the number of amendments accepted and rejected by both houses of congress: Amendments accepted (House), Amendments rejected (House), Amendments accepted (Senate), and Amendments rejected (Senate). In addition, another four variables capture the number of Nay votes cast, in the House and Senate, during the vote on initial passage of the resolution and the again during the vote on adoption of the conference reports: Nay votes initial passage (House), Nay votes conference (House), Nay votes initial passage (Senate), and Nay votes conference (Senate).

A component of the budget resolution which relates to revisions in spending and revenue generation may also point to delays in preparation of the budget resolution. To formulate the resolution, committees are given a budget for the legislation in their jurisdiction and committee members are instructed not to generate spending that will exceed the committee’s allocated budget (Schick, 2007). In a similar manner, tax committees are instructed to meet revenue floors. Incidentally, if a committee were to report legislation that increases federal spending beyond committee allocations or reduces revenue below budget resolution floors, the legislation would be subject to a
Budget Act point of order. So long as the legislation does not increase the budget deficit, reserve funds enable the Chairman of the Budget Committee to adjust committee allocations and budget resolution aggregates to reflect the attendant legislative changes. In essence, reserve funds provide congressional committees the flexibility to consider spending and/or revenue legislation that would normally be subject to procedural objections (Heniff & Murray, 2013; Horney, 2009a, 2009b).

Hence, the presence of a reserve fund(s) in the budget resolution signifies the need to compromise and to make budgetary adjustments, which may lead to an extension of the budgetary timeline and an increase in the likelihood of continuing resolutions. This variable is named, creatively enough, Reserve funds.

Another important component of the budget resolution relates to the desire for one or both chambers of Congress to express an opinion on a budgetary matter in a formal setting. Declaratory statements are non-binding proclamations that allow the relevant chamber, or the Congress as a whole, to make a public statement without formally affecting public policy. Accordingly, domestic agencies tend to view these “sense of” provisions as an early indication that Congress may alter established laws (Davis, 2013). Over time, the number of declaratory statements included in the budget resolution has increased. The first 18 resolutions included an average of 2.5 declaratory statements, while the last 10 have averaged 24 such declarations (Heniff & Murray, 2013; Heniff, Raiter, & Murray, 2008). Because members of Congress seek to broadcast

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28 A point of order is a query, raised during a formal debate or meeting, as to whether parliamentary procedures are being followed. Point-of-order provisions included in the Congressional Budget Act of 1974 permit any member in either congressional chamber to prevent the consideration of legislation that would violate budget resolution policies (Lynch, 2010).
their sentiments on the budget and because agencies actively monitor those sentiments, the variable *Declaratory statements* represents declaratory statements that may portend the implementation of continuing resolutions.

Schick (1980, 2007) suggests that federal organizations monitor closely the actions of appropriations committees. The Congressional Budget and Impoundment Control Act of 1974 structured the congressional calendar such that bills often pass the House and Senate by the end of June and move to conference as early as July. Accordingly, agencies, such as the Office of Management and Budget, maintain tabs on appropriations committees and review proposed legislation and testimony in hopes of influencing congressional budget decisions prior to the beginning of the associated fiscal year. Hence, data on congressional hearings was obtained to analyze the relationship between appropriations hearings and the implementation of continuing appropriations.

The congressional hearings data were retrieved from the Policy Agendas Project website (www.policyagendas.org). The Policy Agendas Project, currently located at the Department of Government at the University of Texas at Austin, was initiated in 1993 to facilitate the study of policy changes across time (Department of Government at the University of Texas, 2014). The Agendas Project Hearings Data Set contains information on all congressional hearings conducted between 1947 and 2014 (B. D. Jones & Baumgartner, 2013). Two data fields were chosen with the notion that the longer it takes for hearings to conclude, the greater the likelihood of continuing appropriations:
(1) *Sessions* represent the number of sessions within a hearing and (2) *Days* signifies the duration of the hearings, expressed in days.

**Variables conspicuously absent from the data**

Appropriations committee roll call votes were excluded from the dataset. Whereas the roll call votes associated with the initial passage and subsequent adoption of the congressional budget resolutions were reported in *Congressional Budget Resolutions: Historical Information*, roll call votes pertaining to the appropriations committees hearings were not available in a format such that they could be merged consistently across all years with the data used in this analysis. What is more, some appropriations committee roll call votes do not take place in a timely manner. While appropriations committee hearings are scheduled to begin as early as June of the terminating fiscal year (Schick, 1980, 2007), the associated roll call votes may not take place until after the terminating fiscal year has passed and the new fiscal year has begun. When this occurs, those particular votes would cease to be a factor that affects the year-end spending decisions of federal agencies.

Finally, budget reconciliation directives were not included in the data either. When spending, revenue, and debt-limit levels set forth in the congressional budget resolution require changes to existing laws, the budget resolution will instruct affected committees to report legislation incorporating such statutory changes (Committee on the Budget: U.S. House of Representatives, 2013b; Heniff & Murray, 2013; Schick, 2007). However, budget reconciliation occurs with such frequency that, within this dataset,
they are almost collinear with the dependent variable. Including budget reconciliation
directives as a variable results in endogeneity by construction; therefore, instances of
budget reconciliation were also excluded from the data.

<table>
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<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
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<td>Continuing resolution (CR)</td>
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<td>0</td>
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<td>0.467</td>
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<td>Years in office</td>
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Number of observations: 4,067

**Econometric Model and Estimation Methods**

Because of (1) the reliance on a limited dependent variable, (2) the use of
predicted values in subsequent analysis, and (3) the structure of the error terms, binary
logistic regression is preferred as an estimation method over the use of linear
probability models.
The unit of analysis, continuing resolutions, is a binary-outcome variable that is coded 1 to signify the implementation of spending restrictions and coded 0 when annual appropriations are passed in a timely manner. Binary-outcome variables have an upper-and lower limit of one and zero, respectively. Using a linear probability model may result in fitted probabilities of greater than unity or less than zero, which presents problems if the predicted values are going to be used in subsequent analysis. In addition, summary statistics show that the mean for continuing resolutions is 0.796, which is to say that continuing appropriations are implemented, on average, during 79.6 percent of the fiscal years within the data. This statistic is in line with prior findings in the literature that 75 percent of all spending bills between 1976 and 2009 were not passed before the beginning of the fiscal year (Woon & Anderson, 2012). When such probabilities are closer to unity, logistic regression is the preferred method of estimation (Acock, 2012).

The non-normal and heteroscedastic structure of the error terms also rules-out the use of linear probability models. Figure 6.1 provides a graphical display of the kernel density estimate of the residuals in relation to a normal distribution, and a Shapiro-Francia test for normality confirms that the residuals are not normally distributed (p<0.0001). Two tests for heteroscedasticity confirm non-uniform variance in the error terms. White’s general test for heteroscedasticity reports chi-square(94) = 1283.94, p<0.001 and a Breusch-Pagan/Cook-Weisbert test for heteroscedasticity reports chi-square(1) = 389.24, p<0.001; thus, one must accept the alternative hypothesis that the variance of the error terms is not homogeneous.
Hence, logit regression was used to estimate the following log-linear model:

$$\ln \left( \frac{P(CR)}{1 - P(CR)} \right) = \alpha_i + \beta_i(P) + \beta_i(C) + \beta_i(BR) + \beta_i(A) + \mu_i$$

Where the dependent variable is the natural log of the odds ratio that Congress will pass a continuing appropriations act in the absence of annual appropriations. $P$ is a vector of three variables associated with the president, $C$ represents is a vector of congressional polarization variables, $BR$ is a vector of twelve variables associated with the congressional budget resolution, $A$ is a vector of two variables associated with the hearings of appropriations committees, and $\beta$ are the associated coefficients. $\alpha$ is the constant term, $\mu$ is the disturbance term, and the subscript $i$ denotes the $i^{th}$ observation from the sample of size $N$. Table 6.4 includes a summary of all variables along with the expected sign of the coefficients.
Table 6.4: Determinants of Continuing Resolutions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Expected sign of coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variable</strong></td>
<td>$\ln \left( \frac{\text{Pr}(CR)}{1 - \text{Pr}(CR)} \right)$ - Natural log of the odds ratio that Congress will pass continuing appropriations in lieu of annual appropriations</td>
<td></td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Presidential variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democratic president</td>
<td>- Indicator variable for U.S. President, equal to 1 if a Democratic president is in office and equal to zero otherwise.</td>
<td>+</td>
</tr>
<tr>
<td>Years in office</td>
<td>- Number of years the president has been in office.</td>
<td>+</td>
</tr>
<tr>
<td>Unified government</td>
<td>- Indicator variable equal to 1 if the party of the president is in control of both chambers of Congress and equal to zero otherwise.</td>
<td>-</td>
</tr>
<tr>
<td><strong>Congressional polarization factors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average polarization</td>
<td>- Average polarization, on the liberal-conservative spectrum, of the House and Senate.</td>
<td>+</td>
</tr>
<tr>
<td>Residual polarization (House)</td>
<td>- Residual polarization in the House</td>
<td>+</td>
</tr>
<tr>
<td>Residual polarization (Senate)</td>
<td>- Residual polarization in the Senate</td>
<td>+</td>
</tr>
<tr>
<td><strong>Factors related to the congressional budget resolution</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deadline</td>
<td>- Number of days past the target date of adoption for the budget resolution.</td>
<td>+</td>
</tr>
<tr>
<td>Deeming resolution</td>
<td>- Indicator variable equal to 1 if House adopted a deeming resolution and equal to zero otherwise.</td>
<td>+ or -</td>
</tr>
<tr>
<td>Nay votes initial passage (House)</td>
<td>- Number of nay votes regarding initial passage of the budget resolution in the House.</td>
<td>+</td>
</tr>
<tr>
<td>Nay votes conference (House)</td>
<td>- Number of nay votes regarding adoption of the budget resolution conference report in the House.</td>
<td>+</td>
</tr>
<tr>
<td>Amendments accepted (House)</td>
<td>- Number of amendments to the budget resolution accepted in the House.</td>
<td>+</td>
</tr>
<tr>
<td>Amendments rejected (House)</td>
<td>- Number of amendments to the budget resolution rejected in the House.</td>
<td>+</td>
</tr>
<tr>
<td>Nay votes initial passage (Senate)</td>
<td>- Number of nay votes on initial passage of the budget resolution in the Senate.</td>
<td>+</td>
</tr>
<tr>
<td>Nay votes conference (Senate)</td>
<td>- Number of nay votes on adoption of the budget resolution conference report in the Senate.</td>
<td>+</td>
</tr>
</tbody>
</table>
Table 6.4: Continued

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amendments accepted (Senate)</td>
<td>Number of amendments to the budget resolution accepted in the Senate.</td>
<td>+</td>
</tr>
<tr>
<td>Amendments rejected (Senate)</td>
<td>Number of amendments to the budget resolution rejected in the Senate.</td>
<td>+</td>
</tr>
<tr>
<td>Reserve funds</td>
<td>Number of reserve funds included in the budget resolution.</td>
<td>+</td>
</tr>
<tr>
<td>Declaratory statements</td>
<td>Number of declaratory statements included in the budget resolution.</td>
<td>+ or -</td>
</tr>
</tbody>
</table>

Factors related to the appropriations hearings

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days</td>
<td>Duration of hearings, expressed in days.</td>
<td>+</td>
</tr>
<tr>
<td>Sessions</td>
<td>Number of sessions within a hearing.</td>
<td>+</td>
</tr>
</tbody>
</table>

Results

Table 6.5 reports the maximum likelihood logit regression coefficients along with standard errors. The model was run twice using the same covariates but the first iteration (1) includes estimates of the effect of residual polarization in the House, while the second iteration (2) includes estimates of the effect of residual polarization in the Senate. For the overall model, Stata reports a likelihood ratio chi-squared(19) = 925.76, p < 0.001; as a whole, the model is statistically significant. When forecasting the occurrence of continuing appropriations, the model is correct 84.60 percent of the time, and when predicting the timely passage of annual appropriations, the model is accurate 93.51 percent of the time. In general, the model accurately predicts 85.17 percent of cases, and when the model errs it is most likely to predict a continuing resolution.
Table 6.5: Results of Binary Logistic Regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient 1</th>
<th>Standard Error 1</th>
<th>Coefficient 2</th>
<th>Standard Error 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presidential factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democratic president</td>
<td>-2.010***</td>
<td>(0.159)</td>
<td>-2.010***</td>
<td>(0.159)</td>
</tr>
<tr>
<td>Years in office</td>
<td>0.324***</td>
<td>(0.030)</td>
<td>0.324***</td>
<td>(0.030)</td>
</tr>
<tr>
<td>Unified government</td>
<td>1.000***</td>
<td>(0.197)</td>
<td>1.000***</td>
<td>(0.197)</td>
</tr>
<tr>
<td><strong>Congressional polarization factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average polarization</td>
<td>-2.629*</td>
<td>(1.496)</td>
<td>-2.435</td>
<td>(1.482)</td>
</tr>
<tr>
<td>Residual polarization (House)</td>
<td>7.510***</td>
<td>(2.869)</td>
<td>-14.600***</td>
<td>(5.578)</td>
</tr>
<tr>
<td>Residual polarization (Senate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Budget resolution factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deadline</td>
<td>0.009***</td>
<td>(0.002)</td>
<td>0.009***</td>
<td>(0.002)</td>
</tr>
<tr>
<td>Deeming resolution</td>
<td>-3.019***</td>
<td>(0.668)</td>
<td>-3.019***</td>
<td>(0.668)</td>
</tr>
<tr>
<td>Nay votes initial passage (House)</td>
<td>0.036***</td>
<td>(0.003)</td>
<td>0.036***</td>
<td>(0.003)</td>
</tr>
<tr>
<td>Nay votes conference (House)</td>
<td>-0.012***</td>
<td>(0.001)</td>
<td>-0.012***</td>
<td>(0.001)</td>
</tr>
<tr>
<td>Amendments accepted (House)</td>
<td>0.150***</td>
<td>(0.043)</td>
<td>0.150***</td>
<td>(0.043)</td>
</tr>
<tr>
<td>Amendments rejected (House)</td>
<td>-0.110***</td>
<td>(0.018)</td>
<td>-0.110***</td>
<td>(0.018)</td>
</tr>
<tr>
<td>Nay votes initial passage (Senate)</td>
<td>-0.032***</td>
<td>(0.008)</td>
<td>-0.032***</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Nay votes conference (Senate)</td>
<td>-0.027***</td>
<td>(0.010)</td>
<td>-0.027***</td>
<td>(0.010)</td>
</tr>
<tr>
<td>Amendments accepted (Senate)</td>
<td>-0.022***</td>
<td>(0.006)</td>
<td>-0.022***</td>
<td>(0.006)</td>
</tr>
<tr>
<td>Amendments rejected (Senate)</td>
<td>0.028***</td>
<td>(0.005)</td>
<td>0.028***</td>
<td>(0.005)</td>
</tr>
<tr>
<td>Reserve funds</td>
<td>0.135***</td>
<td>(0.016)</td>
<td>0.135***</td>
<td>(0.016)</td>
</tr>
<tr>
<td>Declaratory statements</td>
<td>0.020***</td>
<td>(0.007)</td>
<td>0.020***</td>
<td>(0.007)</td>
</tr>
<tr>
<td><strong>Appropriations hearings factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days</td>
<td>0.023</td>
<td>(0.025)</td>
<td>0.023</td>
<td>(0.025)</td>
</tr>
<tr>
<td>Sessions</td>
<td>0.009</td>
<td>(0.012)</td>
<td>0.009</td>
<td>(0.012)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.092</td>
<td>(0.869)</td>
<td>-0.226</td>
<td>(0.850)</td>
</tr>
<tr>
<td>Observations</td>
<td>4,067</td>
<td></td>
<td>4,067</td>
<td></td>
</tr>
<tr>
<td>Positive predictive value</td>
<td>84.60%</td>
<td></td>
<td>84.60%</td>
<td></td>
</tr>
<tr>
<td>Negative predictive value</td>
<td>93.51%</td>
<td></td>
<td>93.51%</td>
<td></td>
</tr>
</tbody>
</table>

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: Odds ratios can be computed by exponentiating the coefficient. For example, the coefficient for Democratic president is -2.010179. Exponentiating the coefficient (i.e., \(e^{-2.010179}\)) yields an odds ratio of 0.133968. Subtracting 1 from this number and multiplying by 100 yields -86.60353 percent.
Presidential factors

All three of the coefficients related to the president are highly statistically significant. The negative coefficient on the Democratic president variable indicates that, on average, the election of a Democratic president decreases the odds of a continuing resolution being implemented by 86.6 percent (refer to the note to Table 6.5 for odds ratio calculations and percentage conversions). Said another way, the odds of a continuing resolution are 2.01 times less likely under a Democratic president than under a Republican president. Yet the positive coefficient on Years on office shows that, on balance, for each additional year that a president holds office, the odds of a continuing resolution being enacted increase some 38.3 percent, holding all other independent variables constant. What is more, the Unified government coefficient indicates that if the party of the president controls all houses of the government, the probability of continuing appropriations increases. In other words, the odds of a continuing resolution are almost 172 percent greater under conditions of unified government than they are under divided government.

The unified government finding runs counter to expectations and seems counterintuitive, but literature on divided and unified government does offer explanations. Skowronek (1993) submits that presidents, such as Carter and Hoover, have been known to be legislatively unsuccessful under unified government if the broader policy regime is in decline. Woon and Anderson (2012) and Schick (2007) add that internal party conflict is a major cause of delay in the passage of congressional appropriations, while Quirk and Nesmith (1995) propose that incidental factors like the
budget deficit and issue complexity during the George H. W. Bush Administration had more of an influence over legislative gridlock than did divided government (government was divided during Bush’s presidency). To underscore Quirk and Nesmith’s suggestion, President Clinton operated under a unified government during the 103rd Congress (1993-1994) but Democrats did not hold a strong majority and the Clinton deficit reduction plan passed the House by only two votes, 218-214 (Eaton & Tumulty, 1993; Rosenbaum, 1993). That same year, 13 of the 14 cabinet-level departments listed in Table 6.1 were subject to continuing resolutions. President George W. Bush also operated under a unified government during the 108th (2003-2004) and 109th (2005-2006) Congresses but, similar to the Clinton example, a majority of cabinet-level departments experienced continuing appropriations during that time. Hence, over the timeframe under study and within this particular dataset, unified government is associated with an increase in continuing resolutions.

Congressional polarization factors

Also over this 34-year period in this data set, average polarization exhibits a negative influence on the incidence of continuing appropriations; however, average polarization exhibits statistical significance in the House iteration of the model only. Controlling for polarization in the House, a one standard deviation increase in Average polarization leads to a 30.2 percent decrease in odds of continuing resolutions being enacted. Average polarization does not exhibit statistical significance in the Senate iteration of the model.
The residual effects of party polarization present a more nuanced story. Controlling for average polarization, residual polarization in the House tends to increase the likelihood of stopgap measures. On average and ceteris paribus, an increase of one standard deviation in Residual polarization (House) increases the odds of continuing resolutions by some 20.9 percent. Conversely, a one standard deviation increase in Residual polarization (Senate) reduces the odds of continuing appropriations by 17.3 percent. Thus, on balance, continuing resolutions are more likely to be a result of polarization in the House than in the Senate.

Budget resolution factors

All of the budget resolution factors are highly statistically significant. Other things equal, the positive Deadline coefficient illustrates that the more tardy Congress is at adopting a budget resolution, the more likely continuing appropriations are to be implemented; by and large, the odds increase by 0.9 percent with each day that legislators miss the target adoption date. On four occasions, the House adopted a deeming resolution in place of a budget resolution and when such an occurrence takes place, continuing resolutions are 3.02 times less likely to be implemented. The Reserve funds coefficient shows that revisions to spending- and revenue legislation also tend to increase the likelihood of continuing resolutions, which is consistent with a priori expectations. On average, the addition of one more reserve fund to the budget resolution will increase the odds of a stopgap measure by 14.4 percent. The Declaratory statements variable is also statistically significant and the sign of the coefficient is in the expected direction. Thus, adding a declaratory statement to the congressional budget
resolution tends to increase the chances that stopgap measures will be implemented by approximately 2 percent.

While each of the voting and amendment variables displayed statistical significance, the signs of the coefficients generally exhibited an alternating pattern. With regard to actions in the House, a vote against initial passage of the resolution typically increases the odds of a stopgap measure by 3.6 percent, while a vote against adoption of the conference report will decrease the odds of a continuing resolution by 1.2 percent. For each amendment to the budget resolution accepted, odds of a continuing resolution increase by 16.2 percent, while the rejection of an amendment will likely decrease the odds by 10.4 percent, ceteris paribus. In the Senate, holding all covariates constant, negative votes for initial passage of the resolution will, ordinarily, decrease the odds of a continuing resolution by 3.1 percent. Likewise, nay votes for adoption of the conference report portend a decrease in the odds of stopgap measures by 2.7 percent. Each amendment to the resolution accepted by members of the Senate usually decreases the odds of continuing appropriations by 2.1 percent, while each rejected amendment increases the odds by 2.8 percent.

One may notice that the signs of the coefficients tend to be opposite of each other, both within and between the chambers; some run counter to expectations, others agree with the anticipated influence. There seems to be a game at play between legislators with regard to initial passage of the resolution and the conference report, and again between the number of amendments accepted and rejected. However, it is
impossible to tease out the reasons for this vacillation in signs using only the variables in this data set. While outside the immediate scope of this study, the roll call voting literature (K. T. Poole & Rosenthal, 1991; Snyder & Groseclose, 2000) suggests party influence over congressional voting behavior is most prevalent in substantive matters, such as budget resolutions, taxation, and welfare policy. Thus, an opportunity for future research may exist in the incorporation of party divisions into the data to help reveal nuances of congressional voting behavior.

The change in signs may also be an artefact of the role that each chamber of Congress is expected to assume. Wildavsky (1979) refers to these roles as “expectations of behavior attached to institutional positions.” For instance, the House Appropriations Committee acts as guardian of the Treasury, while the Senate Appropriations Committee serves as an appeals court (Wildavsky, 1979). With the polarization results in mind, one might imagine the House as a first mover in the appropriations game, responsible for setting budget policy which may contribute, incidentally, to continuing resolutions. The Senate, as second mover and court of appeals, may revise the budget policy thereby contributing to a reduction in the likelihood of continuing appropriations.

This alternating pattern also lends weight to an observation made by Jones and Baumgartner regarding the selection of indicators when constructing indices. Coupled with the notion that decision-makers cannot be sure of the relevance of the indicators to the decision at hand, computational errors may be systematic and biased or they may be the result of random noise. Therefore, decision-makers tend to rely on a
combination of several biased indicators in the hopes that misleading information from one direction will counterbalance inaccuracies elsewhere (B. D. Jones & Baumgartner, 2005).

**Appropriations hearings factors**

Finally, neither of the appropriations hearings factors is statistically significant. Either the length of Congressional consideration is irrelevant, or the relevant factors are better measured by other variables.

**Conclusions**

The findings demonstrate the importance of the president and Congress as sources of information for federal agencies seeking to gain insight to the likelihood of continuing resolutions being enacted. Previous research demonstrates the significance of congressional and presidential control over the budgetary resources of bureaucratic agencies. Taken together with the findings that agencies engage in expense shifting in response to the pending enactment of continuing appropriations acts, the findings in this chapter suggest that bureaucratic agencies have learned to monitor particular aspects of the federal budget process.

Moreover, the differentiation among indicators in the congressional budget process underscores the notion of organizational learning. Earlier studies suggest a positive relationship between budgeting conflict and delay in the adoption of the congressional budget resolution, as well as agency monitoring of the actions of
appropriations committees. Results here suggest that implicit indices pertaining to the enactment of continuing resolutions might include indicators such as the party of the president and the tenure in office; party polarization; the delay in adoption of the congressional budget resolution; the number of reserve funds established; the sense of the Congress; and possibly the roll call votes from initial passage and conference reports. Conversely, decision-makers may not lend much weight to the amount of time it takes for appropriations committees to conclude their business.

Thus, this study has provided a link between organizational learning and agenda setting by way of the information processing aspect of the Implicit Index Approach. The field of organizational learning has been concerned mostly with entities in the private sector, leaving the topic, as it pertains to the public sector, largely unexplored. At the same time, there is a robust literature on agenda setting which is just one aspect of how government entities prioritize and process information. It seems natural enough, then, to think of the concepts of organizational learning and agenda setting as being two sides of the same coin; indeed, the Implicit Index Approach illustrates the close relationship between the two topics. The research in this chapter has demonstrated the ability of bureaucratic agencies to learn and to prioritize and process information while also contributing to the overall field of knowledge of public budgeting.
Chapter Seven
Conclusion

Contributions to the field of budgeting

For almost 140 years Congress has been using continuing resolutions to help govern federal spending, yet the attendant literature is surprisingly thin on empirical studies that isolate and quantify the behavioral effects of stopgap measures. Classifying the attendant literature into government-wide and agency-specific segments reveals an abundance of empirical case studies which conclude that continuing appropriations generate uncertainty for federal agencies. Theoretical work by Leland and Zimmerman informs the field of budgeting that uncertainty combined with risk aversion leads to precautionary saving behavior which may take the form of contingency funding and saving-dissaving strategies. Indeed, Balakrishnan and colleagues confirm expense-shifting behavior at U.S. Army hospitals but are unable to attribute the behavior to the implementation of continuing appropriations. Quantitative analysis of the effects of continuing resolutions on federal spending behavior has been all but nonexistent. This circumstance is due in part to the notion that agency personnel do not track explicitly the effects of continuing resolutions, and federal organizations are very reluctant to divulge budget and expenditure data to outside parties.

One of the main contributions of this dissertation is the presentation of quantitative evidence of expense shifting between fiscal years in response to the
implementation of continuing resolutions. By monitoring certain facets of the federal budget process, resource managers seem able to anticipate the use of stopgap measures to the extent that these resource managers engage in the strategic purchase and consumption of additional inventories and contract services. In so doing, managers shift expenditures between fiscal years while affording themselves additional spending latitude in the face of spending constraints. Thus, the research presented verifies the influence of continuing appropriations acts on federal spending behavior.

This research also builds on the expense-shifting findings by exploring the signaling mechanisms between higher echelons of the federal government and subordinate agencies, and agencies’ capacity to interpret those signals. When it comes to budgetary discord, not only do organizations keep a watchful eye on the president but also on the amount of disagreement surrounding the congressional budget resolution. When combined with theoretical work on organizational learning and agenda setting, the findings in this study suggest that federal agencies have learned to rely on an implicit index of signals coming from the president and Congress to help inform expenditure decisions.

Thus, continuing resolutions provide a feasible alternative to shuttering the federal government while the president and Congress are at loggerheads over budgetary differences, but enactment of continuing appropriations leaves federal organizations uneasy about availability of future resources. In response to this uncertainty, the federal resource management community has learned to shift
expenditures to help prevent a disruption of operations, but they do so at the risk of violating federal law and the bona fide needs rule. The findings of this research illustrate both the ability of public sector organizations to learn from their environment, and the difficulty of abiding by policy while ensuring the prudent use of federal funding.

Future research

With regard to future research on continuing appropriations, two questions readily come to mind as a result of this dissertation. First, do spending restrictions have the same effect at the state level as at the federal level? Currently, only nine U.S. states use stopgap measures similar to continuing appropriations (Grooters & Eckl, 1998; Kousser & Phillips, 2009). In addition to conducting a similar event study and agenda setting approach as has been conducted in this dissertation, one might also compare and contrast those states that use stopgap measures to those states which do not.

One might also question the effect that polarization has on the occurrence and duration of continuing resolutions. Polarization in the U.S. Congress, as measured by the distance between party means, tends to vary over time. Since 1975, the distance between party means has grown wider thereby impeding the enactment of proposals on the legislative agenda and leading to the notion that polarization increases legislative gridlock (D. R. Jones, 2001, 2010). In addition, conflict is inherent to the budgeting process and interim continuing appropriations are the legislative mechanism used to keep the government operating while the president and Congress reconcile budgetary differences. Interim continuing appropriations, then, might be thought of as one
manifestation of legislative gridlock. If polarization increases gridlock and interim
continuing resolutions are a manifestation of gridlock, it follows that as party
polarization grows the duration of interim continuing resolutions should increase in a
corresponding manner. One might rely on the party polarization hypothesis (D. R.
Jones, 2001) in estimating the relationship between the increase in polarization and the
duration of interim continuing resolutions.

Thus, the subject of continuing resolutions provides ample opportunity for
scholarly research. Congress has used continuing resolutions since the mid-1800s and
much has been written about these stopgap measures, yet there are still prospects for
quantitative efforts. What is more, the combination of the federal fiscal cycle and
persistent budgetary conflict almost guarantees that the subject of continuing
appropriations and government shutdowns remains in the foreground of federal budget
discussions.
### Appendix A: Table of Standard Continuing Resolution Provisions

<table>
<thead>
<tr>
<th>Provision</th>
<th>Government Accountability Office (GAO) Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate for operations</td>
<td>Appropriates amounts necessary to continue projects and activities that were conducted in the prior fiscal year at a specific rate for operations.</td>
</tr>
<tr>
<td>Extent and manner</td>
<td>Incorporates restrictions from prior year’s appropriations acts or the acts currently under consideration.</td>
</tr>
<tr>
<td>No new starts</td>
<td>Amounts appropriated under a continuing resolution are not available to initiate or resume projects or activities for which appropriations, funds, or authority were not available during the prior fiscal year.</td>
</tr>
<tr>
<td>Coverage of continuing resolution obligations</td>
<td>Appropriations made available under the continuing resolution shall remain available to cover all properly incurred obligations and expenditures during the continuing resolution period.</td>
</tr>
<tr>
<td>Adjustment of accounts</td>
<td>Expenditures made during the continuing resolution period are to be charged against applicable appropriations acts one they are finally enacted.</td>
</tr>
<tr>
<td>Apportionment timing</td>
<td>Apportionment time requirements under 31 U.S.C. § 1513 are suspended during the continuing resolution period but appropriations provided under a continuing resolution must still be apportioned to comply with the Antideficiency Act and other federal laws.</td>
</tr>
<tr>
<td>High rate of operations</td>
<td>Programs/activities with high rates of obligation or complete distribution of appropriations at beginning of prior fiscal year shall not follow the same pattern of obligation nor should obligations be made that would impinge upon final funding prerogatives.</td>
</tr>
<tr>
<td>Limited funding actions</td>
<td>Agencies are directed to implement only the most limited funding action to continue operations at the enacted rate.</td>
</tr>
<tr>
<td>Appropriated entitlements</td>
<td>Authorizes entitlements and other mandatory payments whose budget authority was provided in the prior year appropriations acts to continue at a rate to maintain program levels under current law (or to operate at present levels). Amounts available for payments due on or about the first of each month after October are to continue to be made 30 days after the termination date of the continuing resolution.</td>
</tr>
<tr>
<td>Furlough restriction</td>
<td>Authorizes the Office of Management and Budget and other authorized government officials to apportion up to the full amount of the rate for operations to avoid a furlough of civilian employees. This authority may not be used until after an agency has taken all necessary action to defer or reduce non-personnel related administrative expenses.</td>
</tr>
<tr>
<td>Termination date</td>
<td>Date on which continuing resolution expires. Based on earlier of specific date or enactment of annual appropriations acts.</td>
</tr>
</tbody>
</table>

### Appendix B: OMB Table of Object Classifications

<table>
<thead>
<tr>
<th>Object Class</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td><strong>Personnel compensation and benefits</strong></td>
</tr>
<tr>
<td>11.0</td>
<td>Personnel compensation</td>
</tr>
<tr>
<td>11.1</td>
<td><em>Full-time permanent</em></td>
</tr>
<tr>
<td>11.3</td>
<td><em>Other than full-time permanent</em></td>
</tr>
<tr>
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<td>Benefits for former personnel</td>
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<td><strong>Contractual services and supplies</strong></td>
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<td>Travel and transportation of persons</td>
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<td>Transportation of things</td>
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<td><em>Rental payments to others</em></td>
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<td><em>Communications, utilities, and miscellaneous charges</em></td>
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<td>25.2</td>
<td><em>Other services from non-federal sources</em></td>
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<td>25.3</td>
<td><em>Other goods and services from federal sources</em></td>
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<td>Operation and maintenance of facilities</td>
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<td>25.7</td>
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<td>Subsistence and support of persons</td>
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<td>Insurance claims and indemnities</td>
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<td>Financial transfers</td>
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| 99 | Subtotal, obligations |

Adopted from OMB Circular A-11 (Office of Management and Budget, 2012)
### Appendix C: Table of U.S. Army Operation and Maintenance Subactivity Groups

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<td>Echelons Above Brigade</td>
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<td>Theater-level Assets</td>
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<td>115</td>
<td>Land Forces Operations Support</td>
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<td>Aviation Assets</td>
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<td>Force Readiness Operations Support</td>
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<td>Land Forces Systems Readiness</td>
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<td>Land Forces Depot Maintenance</td>
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<td>131</td>
<td>Base Operations Support</td>
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<td>132</td>
<td>Sustainment, Restoration and Modernization</td>
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<td>Management and Operational Headquarters</td>
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<td>134</td>
<td>Combatant Commands Core Operations</td>
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<td>135</td>
<td>Additional Activities</td>
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<td>Combatant Commands Direct Mission Support</td>
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**Operating Forces (Budget Activity 01)**

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<td>Mobilization (Budget Activity 02)</td>
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**Training and Recruiting (Budget Activity 03)**

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<td>Administration and Service-wide Activities (Budget Activity 04)</td>
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### Appendix C: Continued

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<td>431</td>
<td>Administration</td>
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<td>Service-wide Communications</td>
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<td>Manpower Management</td>
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<td>434</td>
<td>Other Personnel Support</td>
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<td>435</td>
<td>Other Service Support</td>
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<td>436</td>
<td>Army Claims</td>
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<td>437</td>
<td>Other Construction Support and Real Estate Management</td>
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<td>438</td>
<td>Financial Improvement and Audit Readiness</td>
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<td>441</td>
<td>International Military Headquarters</td>
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<tr>
<td>442</td>
<td>Miscellaneous Support of Other Nations</td>
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</table>

Adapted from Department of the Army Fiscal Year 2013 Budget Estimates Justification Book (Office of the Assistant Secretary of the Army for Financial Management and Comptroller: Army Budget, 2012).
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   • Financial management of non-profit organizations

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   • Financial management of non-profit organizations
   • Municipal securities
   • Research methods

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• “Continuing Resolutions and Lump-Sum Appropriations: A Theory of Expenditure Behavior of Federal Agency Officials with regard to Temporary Spending Restrictions”
• “Continuing Resolutions: Evidence of Expense Shifting in Contract and Supplies Spending”
• “Budgetary Signals: Organizational Learning, Agenda Setting, and Federal Bureaucracies”
• “An Effect of Party Polarization on the Duration of Interim Continuing Resolutions”
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- Spring 2014: Teaching Assistant for Capstone in Public Administration

*Non-academic*

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- Association for Budgeting and Financial Management
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- American Society of Military Comptrollers

CERTIFICATIONS
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HONORS
- Beta Gamma Sigma International Honor Society
- Delta Epsilon Iota Academic Honor Society