ABSTRACT

Title of Document:	ANALYTICAL TOOLS AND DECISION RULES: CREDIT BUDGETING AND TAX EXPENDITURES
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Numerous reforms have improved the supply and quality of federal financial, budget, and performance information. Debate persists, however, about the value of information and how to best use it to improve decisions and outcomes. To make information more powerful, some reforms move beyond enriching information to using it as the basis of decision rules that dictate or constrain decisions, actions, or outcomes. A motivation behind decision rules is the concern that information alone does not suffice, but decision rules raise fresh challenges and disagreements.

The dissertation's case studies examine the emergence and evolution of federal budget decision rules. The first case – the Federal Credit Reform Act of 1990 (FCRA) - examines a budget decision rule that has been sustained for almost three decades. The second case - budgeting for tax expenditures – examines reforms that resulted in more analytical information but stopped short of a tax expenditure specific budget decision rule. In both cases, concerns emerged decades ago about a lack of budget oversight and control; analytical tools were improved; and budget decision rules were proposed. By

juxtaposing a "*successful*" reform (i.e., enacted and sustained) and an "*unsuccessful*" reform (i.e. non-enacted) the dissertation examines the factors and conditions influencing whether analytical information is reformatted into a workable and sustained budget decision rule.

The case study experiences suggest a cautioned approach to the establishment of federal budget decision rules with a first principle of avoiding overloading the budget and budget processes, especially when existing budget processes are not fully functioning. While sound budget principles and technical expertise help shape budget decision rules, the quest for analytical improvement must be balanced with political, institutional, and implementational realities. The case studies indicate that analytical tools and budget decision rules matter, but that those seeking to establish new budget decision rules should consider the fragile role they play, and avoid overpromising benefits and underestimating the need for careful design and continued oversight and refinement.

ANALYTICAL TOOLS AND DECISION RULES: CREDIT BUDGETING AND TAX EXPENDITURES

By

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Dissertation submitted to the Faculty of the Graduate School of the

University of Maryland, College Park, in partial fulfillment

of the requirements for the degree of

Doctor of Philosophy

2018

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Dedication

For Dr. Paul Posner and Dr. Susan Irving, who introduced me to the field of federal budgeting and encouraged me to undertake this endeavor.

For Dr. Allen Schick, who supported and encouraged me throughout this process.

Acknowledgements

Dr. Paul Posner and Dr. Susan Irving introduced me to the world of federal budgeting and encouraged me to undertake this endeavor. Christine Bonham was a wonderful boss and mentor. Their insights, and their belief in me, helped me grow as an analyst and a person. I was lucky to have started my career in GAO's talented and hard-working Budget Issues group, but I am even luckier for the long-standing friendships that stem from that time.

I must express my deep gratitude and admiration for my advisor, Dr. Allen Schick. I will be forever grateful for your belief in me, your understanding, and your commitment to completing this project. To my committee, thank you for your time, insights and support. Professors Ken Apfel, Douglas Besharov, Philip Joyce, Jack Meyer, Peter Reuter and Phillip Swagel provided encouragement and valuable insights during my studies. I am especially thankful for Professor Schick's and Professor Destler's encouragement to continue in the program despite the challenges and complications of newborns and aging parents. Dr. Tracy Gordon provided optimism and insights at important moments.

To my family and friends who have lived this journey with me, I can't thank you enough for encouragement and support. Balancing twin boys with work and doctoral studies would not have been possible without the support of my mother. Aunt Martha, you always managed to show up at just the right time to help in countless ways without being asked. Julie Rovner, the love of horses connected us, but your interest and policy insights encouraged me to pursue policy studies. I benefited greatly from our many policy discussions. Friends from many parts of my life provided support and listened with good humor. I can't thank them enough for the many calls and moments of support you have provided over the years. Somehow, they always managed to transform stress into laughter.

Finally, completing doctoral studies while working and raising twin boys would not have been possible without the support of my wonderful husband, Marc. Words are insufficient to express my gratitude for your limitless love, patience, and support. You lived this journey with me and I am forever grateful for your belief in me and your emotional and practical support. The sacrifices you made are far too numerous to list. Thank you for being my full partner and helping me balance this pursuit with creating the loving home we envisioned for our boys. To Brian and Kevin, being your mom changed my world in so many wonderful ways. You bring me so much joy and you inspire me to be the best I can be each day. I know you sacrificed for this pursuit and I have always felt your love. I can't wait to cheer on your future pursuits and successes.

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Chapter One:
Introduction, Background, and Emerging Themes

In today's digitally-connected age, information is increasingly abundant. As in the private sector, governments are producing more financial, budget, and performance information in the hope of improving policy, management, and oversight. For decades, government officials, practitioners, and researchers have emphasized the importance of transparency and accountability, including the need for accurate and timely financial, budget, and performance information. Numerous public-sector reforms have improved both the supply and quality of information. Along with more information has come heightened expectations for information-based, performance-based, and evidence-based decision making and accountability. Yet, despite these efforts, uncertainty and debate persist about the value of information and how to best use it to improve policymaking, management, and oversight (Apfel, 2008; Joyce, 2008; Maron, 2008; Posner, 2008, Rivlin, 2008, and Rubin, 2002).

To make information more powerful, some reforms move beyond enriching information to using it as the basis of "*decision rules"* that prescribe or proscribe certain actions or outcomes (Schick, 2007, p.109). Rather than simply providing information to guide and inform policy, decision rules use information to dictate or constrain decisions, actions, or outcomes (Schick, 2007; GAO, 1997b; and GAO, 2003c). A key motivation behind decision rules is the concern that information alone does not suffice to improve decision making or policy outcomes. Decision rules, however, raise fresh challenges, and significant disagreement remains about their effectiveness in policy and political

processes. Nevertheless, some decision rules have been enacted and sustained, and calls for new decision rules abound.

Federal budgeting and related accountability systems provide a window into these issues. I present two case studies pertaining to the emergence, establishment, and evolution of decision rules. The first case, the Federal Credit Reform Act of 1990 (FCRA), examines a budget decision rule that has been sustained for over two decades.[1] The second case, tax expenditures,[2] is an area where policy concerns have led to significantly more information and some budget constraints,[3] but not to a tax expenditure specific budget decision rule. I provide a more detailed discussion of the cases in Chapter Two, which provides an overview of the dissertation's objectives, scope, and methodology.

Based on the case study findings, literature review, and cross-case analysis, the dissertation contributes to understanding of the following:

- *What key factors or conditions influence whether analytical information is reformulated into a sustained and workable budget decision rule? How and why do these factors influence the emergence, establishment, and use of budget decision rules?*

[1] FCRA's objective was to improve the transparency and budget control of federal direct loans and loan guarantees by changing how their costs are measured, funded, and recognized in the federal budget.
[2] Tax expenditures are commonly described as special tax provisions that provide preferential tax treatment for select taxpayers or for select activities.
[3] As discussed in Chapter Seven, the establishment of new tax expenditures is indirectly addressed by the Pay-As-You-Go (PAYGO) budget rules, but these rules do not directly control tax expenditures or the growth in existing tax expenditures.

In examining this question, the dissertation examines the relationship between analytical information and budget decision rules and their role and limits.

Background and Literature Review

The dissertation research builds on and applies Schick's distinction between *"analytical tools"* and *"decision rules"* (Schick, 2007, p. 111). Analytical information can be generated and reported solely to inform decisionmakers without prescribing or proscribing actions or outcomes. In these cases, information is an analytical tool to help assess and guide policies or actions. Alternatively, information may be formulated as the basis of a decision rule with the aim of dictating or constraining decisions, actions, or outcomes. Schick (2007) describes the critical difference between analytical tools and decision rules in terms of the discretion permitted to decisionmakers.

In the first phase of the research, I conducted an extensive review of decades of literature and other documents related to the use of analytical tools and decision rules in U.S. federal budget process as well as some related accountability processes.[4] My review included but was not limited to: (1) government reports and research; (2) academic articles; (3) legislative reviews, including congressional testimonies; and (4) reports and commentary from research and advocacy organizations. The primary focus was the United States federal level; however, when relevant, lessons were drawn from state-level and international experiences. While the scope for case study selection was narrowed to program- or policy- specific budget decision rules, this initial literature and document review was broader, including more general federal budget and fiscal rules.

[4] Detailed literature and document reviews were also conducted as part of the case study research.

This literature and document review: (1) provided background for the case study selection and research; (2) helped shape a framework to guide the case study research; and (3) informed and provided context for the cross-case analysis. It also identified examples from federal budgeting to help clarify concepts and highlight differences among federal budget decision rules. In the following subsections, I summarize background and context drawn from the literature review.

Perennial quest for information, but uncertainty and debate remain about its value.

Public management and budgeting, both theory and practice, has been marked by a quest for improved information driven by the belief that better information will result in better outcomes. Joyce (2008) reminded us that Stein (1989) argued that informing choices is the most important budget reform that the country can make. Decades of performance budgeting literature has stressed the potential benefits of information to link resources and results (GAO, 2005c; Joyce, 2008; Schick, 1966 and Schick, 1971). Studies of long-term fiscal challenges and risks have called for innovations, such as net present value estimates[5] and options-pricing to recognize the impact of certain decisions on future budgets (Brixi and Schick, 2002; GAO, 2003c; and Kotlikoff, 1993). Joyce (2008) explains the underlying premises behind these efforts is that "*more information is necessarily better"* and "*better information will result in better decisions"* (Joyce, 2008, p. 955). He argued *"[i]t is almost an article of faith that more accurate and transparent*

[5] Net present value is a single number that expresses current and future cash flows in terms of an equivalent lump sum received (or paid) today. Payments or receipts are discounted to an equivalent present value using an interest rate, referred to as the discount rate (CBO, 2012c).

budget information leads to a better budget process, and (presumably) better budget outcomes" (Joyce, 2008, p. 945).

Importantly, these issues have moved beyond theory into practice. One does not have to look far to see the proliferation of public-sector reforms aimed at increasing the supply of financial, performance, and budget information. The United States, other governments, and international organizations such as the International Monetary Fund (IMF), Organization of Economic Cooperation and Development (OECD), and World Bank, have undertaken numerous efforts aimed at improving budget and policy decision making by increasing the amount and quality of information.[6]

Joyce (2008) provided a comprehensive discussion of the significant expansion in both the sources and amount of information related to U.S. federal budgeting.[7] For more than a half century, the Federal Government has undertaken many governmentwide reforms aimed at expanding and enriching budget, financial, and performance information.[8] Building on earlier reforms, two notable reforms occurred during the

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[6] The IMF's establishment of a *Code of Fiscal Transparency* in 1998, which outlines best practices for governments to provide a clearer picture of government finances, is just one example of the international emphasis placed on public sector information transparency and disclosure (IMF, 2014 and Joyce, 2008).

[7] Joyce (2008) specifically highlights three sources of increased budget information: (1) the increasing amount of information available in the president's budget; (2) the explosion of data produced by the Congress; and (3) the proliferation of thinks tanks, including the increased attention of think tanks to budget issues.

[8] The federal government has undertaken various governmentwide reforms aimed at improving the performance information available to support federal budgeting and better linking spending decisions with performance (CBO, 1993; Joyce, 2008, and GAO, 1997c). In 1949, the first Hoover Commission sought to integrate more performance data into the budget process and shift the focus away from control of expenditures or inputs to focus on efficiency and effectiveness (CBO, 1993; and GAO, 2005c). The Budget and Accounting Procedures Act of 1950 (BAPA), among other things, required the President to present his budget submission to the Congress by the functions and activities of government. President Johnson mandated the governmentwide Planning-Programming-Budgeting Systems (1965-1971) for budget formulation which focused on presenting and analyzing choices among long-term policy objectives and alternatives for achieving them (GAO, 2005c). Management by Objectives (1973-1975) established a process to

1990s: The Chief Financial Officers (CFO) Act of 1990[9] and the Government Performance and Results Act of 1993 (the Results Act). These laws, and their subsequent expansions, significantly increased the amount and quality of information available. The CFO Act, as expanded by the Government Management and Reform Act (GMRA) of 1994, requires the annual preparation and audit of organization-wide financial statements for 24 executive departments and agencies.[10] Government financial statements now include basic financial statements, e.g. the balance sheet and the statement of net cost, and supplemental information, e.g. stewardship information[11] (FASAB, 2012 and OMB, 2013). Federal accounting standards also now require the accumulation and reporting of the cost information for federal programs, activities, and outputs (FASAB, 1995).

The Results Act focuses on performance. It requires federal agencies to develop strategic and performance goals and measure and report annually on progress toward achievement of those goals (GAO, 1997c, 2003a, 2013). Pursuant to the Results Act, agencies provide strategic plans, annual performance plans, and annual performance

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hold agency mangers responsible for achieving agreed-upon outputs and outcomes (GAO, 2005c). Zero-based budgeting (1977-1981) was intended to provide a comprehensive review of federal budget, rather than the traditional, incremental approach (CBO, 1993). The National Performance Review (1993-2001) was an executive branch effort that emphasized results and managerial flexibility.

[9] The CFO ACT- as expanded by the Government Management Reform Act of 1994 and amended by the Federal Financial Management Improvement Act of 1996 – was designed to improve federal financial management. It established chief financial officers across the federal government and required the preparation of audited annual financial statements.

[10] The requirements for the annual preparation and audit of organization wide financial statements were further extended to the remainder of the executive agencies[10] by the Accountability of Tax Dollars Act (ATDA) of 2002 (Pub. L. No. 107-289) and to "mixed ownership" or "wholly-owned" government corporations by the Government Corporation Control Act (59 Stat. 597, codified at 31 U.S.S. § 841-869)

[11] Stewardship Information refers to the reporting for the federal government's stewardship over (1) certain resources entrusted to it and (2) certain responsibilities assumed by it, identified as the current service assessment These items do not meet the criteria of asset and liability reporting but are important for understanding the operation and financial condition of the government. Some examples include: museums, library collections, parks, or memorials (FASAB, 2012).

reports. Subsequent reforms built on this foundation. The Bush Administration introduced its President's Management Agenda (PMA) to improve performance and management by focusing on several key areas.[12] The Obama Administration undertook several initiatives to support evidence-based policy and improve the quality and use of performance data (Haskins, 2011 and Joyce, 2011). The GPRA Modernization Act (GPRAMA) of 2010[13] requires additional information and analytical tools.[14]

Numerous government publications provide additional information to support federal budget decisions. The President's budget includes multiple documents containing information on a wide range of issues, such as economic and budget analyses; historical trends; detailed appropriation and fund data; performance and management issues; and analyses related to specific policy areas.[15] The Fiscal Year 2016 Analytical Perspectives volume of the President's budget presents information on a variety of topics, such as aid to state and local governments; federal investments; tax expenditures; and federal credit

[12] These areas included: strategic management of human capital, budget and performance integration, expanded electronic government, improved financial performance, and competitive sourcing. As part of the budget and performance efforts, the Performance Assessment and Rating Tool (PART) was established as a diagnostic tool to help provide more evaluation of federal programs during executive budget formulation (GAO 2004). Efforts in this area also sought to change budget decision rules to better integrate performance information into budget accounts (GAO, 2005c).

[13] Pub. L. No. 11-352, 124 Stat. 3866

[14] Under GPRAMA, among other things, OMB is required to establish federal government priority goals (known as Cross-Agency Priority goals) and certain agencies are required to develop a limited number of Agency Priority Goals every 2 years. GPRAMA also required OMB to develop a single, governmentwide performance website to communicate governmentwide and agency performance information (GAO, 2013b).

[15] The President's budget documents for Fiscal Year 2016 include: (1) Budget of United States Government that provides information on the President's priorities, overviews by agency, and summary tables; (2) Analytical Perspectives that provides supplemental information to highlight specific policy areas or present budget data to help place the budget in perspective; (3) Historical Tables that provide a variety of budget data, such as receipts and outlays, over an extended period of time, generally from 1940 to the current budget window; and (4) Appendix, that provides detailed information on appropriations and funds.

and insurance. Mikesell and Mullins (2011) found that a comparison over years shows *"…easier accessibility of fiscal information, improved organization of information for making budget decisions, more information provided for making these decisions…."* (p.6).

Legislative support agencies also publish information to support federal budget decisions. CBO provides various, and arguably increasingly sophisticated, budget analyses. CBO's *Budget Outlook* reports include long-term budget analyses under varying assumptions and discussions of specific spending, such as health care.[16] Other CBO publications provide detailed analyses of specific policy topics or programs, such as government sponsored enterprises (GSEs), federal investment spending, and federal credit programs. CRS provides information on appropriations and a wide range of analyses of fiscal policy and the budgetary implications of legislation (Kaiser, Olsezek and Tatelman, 2011). GAO conducts reviews and analyses of governmentwide financial management issues as well as of specific policies and programs. As discussed by Joyce (2008), the creation of the congressional budget committees led to a significant expansion in the analytical capacity of and information provided by Congress on budget matters (p. 951).

The information described above serve as analytical tools. Even required government reporting does not (and is not intended to) dictate or constrain how decisionmakers use the information. As an example, information on federal liabilities and the long-term estimated costs of Social Security is available in numerous sources, such as the *Financial Report of United States Government*, the *Analytical Perspectives*

[16] For example, see Congressional Budget Office The 2015 Long-term Budget Outlook https://www.cbo.gov/publication/50250

volume of the President's Budget, the Trustee's Reports, and various CBO and GAO analyses. These costs, however, are not recognized in the primary measure used for budget funding and control -- the cash flows over the budget window (GAO, 2006a and 2006b). While this information is widely available, current budget rules do not require policymakers to fund or otherwise address these future costs.

When used as an analytical tool information can be expanded to incorporate varied perspectives. For example, budget information may be presented using differing assumptions and methodologies to provide a range of perspectives and estimates. CBO's long-term budget forecasts present a range of estimates. The Medicare and Social Security Trustees and CBO estimate the future costs of Social Security and Medicare using alternative scenarios. GAO conducts long-term fiscal simulations using different sets of policy assumptions (GAO, 2018). Adding more information and perspectives can help make an analytical tool more robust and potentially more useful, but also may increase complexity and confusion.

Despite the emphasis on the potential benefits of improved information and the seemingly endless succession of reforms, questions remain about whether and how information (and, more generally, expertise) can be used to improve public sector decision making and accountability (Arnold, 1990; Esterling, 2004; Joyce, 2003/2008/2011; Mayhew, 1972; Mikesell and Mullins, 2011; and Schick, 2007). Joyce (2008) noted that with respect to budgeting *"… there have been substantial strides made in the quality and amount of information available to decisionmakers. This has not, unfortunately, carried with it an improvement in the quality of budget decisions"* (p.

946). Mikesell and Mullins (2011) argued that the sheer number of reform efforts reflect that *"success"* has been elusive (p.5).

Importantly, significant debate surrounds the role and value of information within political processes, such as federal budgeting. Wildavsky (1964) argued that the budget lies at the heart of the political process. In exploring the complexities of implementation, Pressman and Wildavsky (1984) argued for skepticism *"...when anyone suggest that inherent features of political life can be summarily abolished"* (p. 162). Other prominent congressional scholars have presented theories for a limited role of information and expertise in policymaking given the pressures faced by and motivations of individual policymakers (Arnold, 1992, Fiorina, 1989; and Mayhew, 1972). Joyce (2008) reminded us that Wildavsky made distinctions between the supply of information and the demand for information. Wildavsky (1969) argued that it is one thing to talk about *"measuring effectiveness, estimating costs, and comparing alternatives, but that is a far cry from being able to take the creative leap of formulating a better policy"* (p.255). Mezey (1989) questioned Congress's ability to bring information to bear upon its public policy decisions. Reischauer (1983) argued that *"[w]hether Congress chooses to use information or not is a political question"* (p. 59).

Other experts and policy participants, however, have suggested a more positive role for information. Posner (2008) and Apfel (2008) acknowledged limits but argued that information has an important, if contingent and episodic, role in federal budgeting. Esterling (2004) noted that other researchers, including Smith (1992) and O'Day (1995) found (to varying degrees) a positive role for expertise in several policy areas. Based on

his own research, Esterling (2004) asserted that research and empirical evidence matter in lobbying politics, and thus in legislative policymaking.

Regardless of the potential benefits of information-based reforms, there is the potential for information overload. Jones and Baumgartner (2005) argue that "… *there is so much information in the U.S. political system that winnowing through it is more of a problem than finding more of it"* (p. viii). Reflecting this sense of information overload, one policy participant described information in the political system as *"…taking a drink from a firehose."* Mullen (2006) argued that the sheer volume of reporting requirements results in crowded management space. Hedley (1994) suggested that *"implementing accounting rules in the wrong context can be extremely dysfunctional to the government, by increasing bureaucracy without a commensurate increase in individual accountability or reductions in government spending"* (p.161). Schick (2007) warned that "*the more information that is provided, the greater the likelihood that some of it will get in the way of completing budget tasks on schedule…"* (p.112).

Despite the above concerns, proposals to expand and improve information remain widespread. GAO has suggested that net present value estimates be required for all major proposals whose costs escalate outside the 10-year budget window (GAO, 2006b). GAO's *"fiscal exposures"*[17] work recommended publication of supplemental information on the expected future spending arising from commitments made today (GAO, 2003c and GAO, 2013a). In 2010, Congressman Quigley recommended information expansions, including: (1) net present value (NPV) estimates for any major legislation for which costs escalate outside the 10-year window; (2) annual reports on fiscal exposures and (3)

[17] GAO uses the term *"fiscal exposures"* to describe responsibilities, programs, and activities that may legally commit or create the expectation for future federal spending.

Quadrennial Fiscal Sustainability Reviews (Meyers, 2014 and Quigley, 2010, pp. 29-33). The Peterson-Pew Commission on Budget Reforms (2010) also offered recommendations, including: (1) displaying tax expenditures together with spending programs; (2) reorganizing the President's budget to focus on mission and objectives; and (3) establishing a system of national indicators (Peterson-Pew, 2010, pp.30-32). The President's Commission to Study Capital Budgeting (1999) concluded that there is a need for better budget information on the cost of maintenance and the implications of deferred maintenance. Concern about federal investment led to calls for analytical tools, such as societal return on initial investment (SORI) and budget presentations of investment spending relative to other spending (GAO, 1995 and Redburn, 2017).

Decision rules vary in design and objective.

Decision rules seek to change behavior and outcomes not by informing choices, but by incentivizing, constraining, or enforcing them (Schick, 2007 and GAO, 1997b, 2000a, 2003). Decision rules, however, vary significantly in design and objective. The literature makes broad distinctions between (1) process rules that focus on the procedures, measures, and concepts that govern decisions and (2) outcome or prescriptive[18] rules that specify particular budget or policy actions or outcomes (GAO, 2003c: Hanushek, 1986; Joyce, 1994; Poterba, 1996; Primo, 2007; and Schick, 2007).

In budgeting, a process decision rule might change the cost measurement basis or organizational structure used to recognize, fund, and control budget decisions. Process rules matter because information relevant to budget decisions may be presented in

[18] Schick (2007) refers to these as substantive decision rules.

numerous ways in the budget, but only one measurement basis (e.g. cash or accrual) and account structure (e.g. program, organization unit, or expenditure item) can serve as the primary basis for budget recognition, funding, and control (GAO, 1997b, 2003; and Schick, 2007). In Schick's words, *[t]here are many ways to tell the budget's story, but there can be only one way to decide the budget"* (Schick, 2007, P. 113). However, while process decision rules attempt to influence behavior by changing the way decisions are funded or controlled, they stop short of directly dictating specific actions or outcomes. FCRA is an example of a process-based rule.

My GAO work on the budget treatment of federal insurance programs and other fiscal exposures helps illustrate ways analytical information might be used to support federal budget decisions (GAO, 1997b, 2003).[19] One approach for federal insurance programs is to provide supplemental budget information on the long-term cost of these programs. This information would be available as an analytical tool, but no new budget decision rules would be established. While this approach may stimulate consideration of long-term costs, policymakers would be free to address or ignore these costs. Going further, a process budget decision rule could require long-term costs be used as the budget cost measure for federal insurance programs. Specially, the net present value of the risk assumed[20] by these programs could be used to measure budget authority and/or

[19] These examples draw from the author's previous work as a key contributor to several GAO reports, including: (1) *Budget Issues: Budgeting for Federal Insurance Programs*; (2) *Accrual Budgeting: Experiences of Other Nations and Implications for the United States*; and (3) *Fiscal Exposures: Improving the Budgetary Focus on Long-term Costs and Uncertainties*.

[20] GAO uses the term *"risk assumed"* for federal insurance programs to refer to the portion of the full risk premium based on the expected cost of losses inherent in the government's commitment that is not charged to the insured. Under such an approach, the government subsidy cost is defined as the difference between the full-risk premium and the actual premium charged (GAO, 1997b, p. 62).

budget outlays, instead of the traditional cash-based measurement. This type of process budget decision rule would go beyond simply requiring information on these costs to requiring that they be recognized, funded, and subject to budget enforcement procedures, as applicable. As a result, policymakers would have a greater incentive to consider these costs at the time decisions to extend insurance are made. However, the decision rule itself would not dictate a particular policy action or outcome with respect to the level or composition of federal insurance (GAO, 1997b). Going further, a prescriptive or outcome budget decision rule could dictate a specific action or policy outcome with respect to the level or composition of federal insurance e.g. a predetermined ceiling on long-term cost of federal insurance (GAO, 1997b).[21]

U.S. experience with two fiscal rules.

"Fiscal rules" that pertain to budget aggregates (such as the deficit/surplus or aggregate revenue and spending levels) are not the dissertation's specific focus, but they help illustrate divergent approaches to rules as constraints on budget policy. Two significant budget rules aimed at constraining deficit spending include: (1) Gramm-Rudman-Hollings (GRH) [22]and (2) the Budget Enforcement Act (BEA) of 1990.

GRH was a major milestone in thinking about the role and objectives of budget decision rules (Joyce, 1994 and Schick, 2007). GRH set a timeline for progressive

[21] CBO (2018) outlines three approaches for policymakers to expand the use of accrual and other long-term measures in the federal budget process, including: (1) using accrual and other long-term measure as supplemental information; (2) require the use of accrual-base measurement for purposes of Congressional rules while maintaining the cash budgetary treatment and (3) expanding the use of accrual for all aspect of budget treatment and accounting for activities where changes believed to be helpful.

[22] Balanced Budget and Emergency Deficit Control Act of 1985 is commonly referred to as Gramm-Rudman-Hollings, after the bill's principal sponsors.

reductions in the federal deficit with predetermined deficit targets for each fiscal year from 1986 to 1990. Under the original GRH timeline, budget balance would be achieved in FY 1991.[23] GRH did not specify what spending cuts should be made to achieve the deficit targets, but it did specify that if the projected deficit exceeded the GRH target for a fiscal year by more than $10 billion, then across-the-board cuts (or sequestration) [24] would be used to reach the target. Actual deficits exceeded GRH's targets in each fiscal year the law was in effect. When sequestration proved too politically difficult, GRH was suspended and replaced with the Budget Enforcement Act of 1990.

GRH was different from earlier budget reforms. While earlier foundational budget rules established overarching processes and procedures for the federal budget process these rules avoided specifying or dictating budget or policy outcomes (Joyce, 1994). As noted by Joyce (1994) *"…the drafters of the Congressional Budget Act viewed it as very important the process not be biased in the direction of particular budget outcomes"* (p. 15). In contrast, GRH, for the first time, aimed to control deficit spending (and thus policymakers' actions) by specifying budget outcomes (Joyce, 1994 and Schick, 2000). Schick (2000) notes that GRH incorporated "…*the notion that politicians should be restricted by budget rules when making revenue and spending decisions"* (p.22). Implicit in this was the premise that politicians' actions should and could be controlled by budget decisions rules i.e. that politicians would follow the rules.

While it is impossible to know the impact of GRH on deficit spending without a counterfactual many researchers and policy participants view it as largely a failure

[23] The Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987 (Public Law No: 100-119), also known as Gramm-Rudman-Hollings II, replaced GRH in September 1987. The target for budget balanced was delayed to 1993 (Reischauer, 1993).
[24] Sequestration refers to the automatic cancellation of budgetary resources.

because it did not achieve intended deficit reduction and was suspended.[25] As noted by Poterba (1996), Primo (2007), and others, statistically assessing GRH's impact on budget outcomes is very challenging. The results from the limited number of empirical studies conducted have varied and somewhat inconclusive results.[26] Fortunately, for purposes of this dissertation, the general lessons learned from GRH's design and implementation are more relevant than its precise impact on budget outcomes. Primo (2007) argues that political compromise resulted in ineffective design and that the law lacked credible enforcement. Reischauer (1993) argues policymakers sought to avoid the rule with *"overly optimistic economic assumptions and outright budget gimmickry"* (p. 3). A take away from the GRH experience was that prescriptive or outcome-based rules (such as fixed deficit targets) can be manipulated and become unworkable and ineffective due to unforeseen events, such as economic changes, that are beyond the direct control of policymakers (Joyce, 1994, Primo, 2007; Reischauer, 1990b and 1990c; and Schick, 2000).

In response to GRH, the lawmakers tried a different approach with BEA. Rather than setting predetermined deficit targets, BEA focused on those revenue and spending

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[25] Porteba concludes that *"[t]he difficulty of performing the counter-factual experiment of observing spending in the absence of GRH makes it difficult to evaluate observed budget outcomes, and the lessons from the GRH experience may simply be too subtle to interpret with confidence"* (p. 22).

[26] Porteba (1996) provides an overview various research on GRH's impact on deficits. Gramlich (1990) concludes that GRH seem to have little effect on budget outcomes, concluding "*the fact the GRH was instituted as primary deficits were dropping seems largely coincidental ... changes in the process due to GRH seemed to have little to do with the improvement"* (p.80 as cited in Porteba, p. 21). Hahm et al (1992) state that their analysis suggests that that G*RH* reduced total spending and the deficit by $59 billion by fiscal year 1989. The authors, however, note that while this is a nontrivial amount the uncertainties in model used are such that this estimated reduction is not statistically significant at conventional levels and their result results may describe budgeting during the GRH era rather than identify the precise effects of GRH itself (Hahm et al, 1992, p. 207, 222-224).

actions under the legislative control of Congress and the President (Joyce, 1994, Rubin, 2002 and Schick, 2000). BEA placed limits on the level of discretionary spending[27] and established a pay-as-you-go (PAYGO) process[28] to ensure that any tax or direct spending changes were deficit neutral (CRS, 2001 and Joyce, 1994). [29] The PAYGO process and discretionary caps effectively superseded the GRH deficit targets. The sequestration process was retained as a means of enforcing the spending caps and PAYGO provisions (Marples, 2015). Importantly, while BEA's PAYGO process placed indirect constraint on the creation of the new entitlement programs and tax expenditures, it did not control growth in existing entitlements and tax expenditures. Under PAYGO, spending for major entitlement programs, including Social Security, Medicare and Medicaid, has continued to grow.[30] The continuing growth in these major entitlement programs and tax

[27] Discretionary spending is budget authority (other than appropriated entitlements) and outlays provided in annual appropriations acts.

[28] All direct spending and tax legislation enacted for a fiscal year must be deficit-neutral in the aggregate. If Congress enacts direct spending or receipts legislation that cause a net increase in the deficit, it must be offset by either increasing revenues or decreasing direct spending in the same fiscal year. The PAYGO requirement is enforced by sequestration (GAO, 1993a and Heniff, 2001).

[29] Direct spending authority is under the control of the authorizing committees. It is treated differently than discretionary spending which is under the control of appropriations committees and controlled through the annual appropriation process. Direct spending is mandatory – not controlled with appropriations (GAO, 1993a and Heniff, 2001).

[30] The statutory PAYGO process and discretionary spending limits were extended by the Budget Enforcement Act of 1997. Both discretionary caps and PAYGO were in effect from 1991 to late 2002. The discretionary caps expired and the statutory PAYGO process was effectively terminated in late 2002 (CRS, 2010). While there were a series of proposals to restore the statutory PAYGO process over the next few years, none were enacted. The 2008 and 2009 budget resolutions reestablished PAYGO as a procedural rule. In February 2010, the Statutory Pay-As-You-Go Act of 2010 established a new budget enforcement mechanism generally requiring that direct spending and revenue legislation enacted into law not increase the deficit. (CRS, 2010). The new PAYGO process was established on permanent basis with no expiration dates included in the Act. The Budget Control Act of 2011 established discretionary spending cap for each of the fiscal year 2012-2021 (Levit, 2014).

expenditures have renewed calls for both enhanced reporting and new (stronger) budget decision rules.

Continued debate on feasibility and value of decision rules.

Reformers use concerns about the role of information to argue both for and against the establishment of new (and presumably stronger) budget decision rules. Proponents of budget decision rules argue that information alone does not go far enough (Brookings-Heritage, 2008 and Penner and Steuerle, 2005). They argue that failure to recognize, fund, and control costs directly in the budget at the time decisions are made limits incentives to address costs, or worse, may create perverse incentives (Brixi and Schick, 2002; Elliott, 2011; GAO, 1997b, 2003, 2013; Surrey and McDaniel 1985; and Burman and Phaup, 2011). In this view, decision rules are necessary to make information powerful in the political process. As pointed out by Schick (2007), "*reformers want information to be more than available; they want it to transform the way governments go about budget work. They want different information to produce different results"* (p. 110). Some proponents have credited rules as a providing political cover for tough policy decisions (Brookings-Heritage, 2008; Penner and Steuerle, 2005; and Posner, 2009). Primo (2007) and Posner (2008, 2009) suggested the effectiveness of decision rules may increase if the public is aware of the rule and supports its intended outcome. The Commission on the Fiscal Future of the United States argued that *"...a well-designed rule can nudge them [policymakers] in the right direction and can provide political "cover"* (p. 191).

Critics of rules argue that they are often futile, serving only to present the appearance of change. In this view, rules may fail for many of the same reasons that information alone fails (Aaron and Schultze, 2008; Meyers, 2009, 2014; and Reischauer, 2001). Some public sector decision rules are viewed as limited because they generally are endogenously designed and enforced (Primo, 2007 and Meyers, 2009, 2014). Kettl (2003) argued *"[p]rocedures simply cannot force elected officials to make decisions that they do not want to make"* (p. 129). In discussing fiscal rules, Primo (2007) noted "*[t}o the extent that rules are determined as part of a collective choice process the determination of what rules to enact will suffer from the same problems that plague policymaking."* Further, rules are not self-executing and policymakers can choose to ignore or circumvent them just as they can choose to ignore information ((Aaron and Schultze, 2008; Meyers, 2009; Primo, 2007; and Reischauer, 2001). Meyers (2009) argued "…[r]*ules fail because they are endogenous to the political institutions that write them, meaning they can be changed whenever the institutions want"* (p. 214). Primo (2010) reminds us *"...that Congress has extraordinary leeway to write budget rules, even statutory ones, and then choose to ignore them"* (p. 11).

Some critics view decision rules as more than ineffective, arguing that they may make matters worse by creating perverse incentives and other harmful effects. Opponents of budget rules argue that some they complicate the budget process, create an illusion that a problem has been solved, encourage brinkmanship, delay hard choices, and create incentives for the use of gimmicks (Aaron and Schultze, 2008 and Meyers, 2009, 2014). Meyers (2014) argued that "*action-forcing mechanisms"* such as caps, triggers and sequesters have contributed to a *"...implosion of the federal budget process"* and that

even if proponents *"…aspirations were partially realized, their logic was flawed, and the collateral damage was substantial"* (p. 1).

While experts and reformers articulate strong views on both side of the issue, empirical research on the effects of budget rules has been limited. Some researchers, such as Poterba (1996) draw from the limited research available on fiscal rules to suggest *"fiscal institutions"* or rules may make a difference, noting that that *"preponderance of this evidence suggests that these rules matter…."* (p. 4). Primo (2007) argued for fiscal rules in cases where there is agreement at a macro-level (such as the need for reduced spending), but disagreement on micro-level decisions (such what specific spending cuts to make) a fiscal rule might be useful. Other proponents are more cautious, arguing that while rules may serve to support or reinforce consensus or previous agreements they are not effective in forcing hard decisions or creating consensus where it does not already exist (Hoagland, 2007; Joyce, 2005; Meyers, 2009, 2014; Primo, 2007; Posner 2009; Schick, 1996; Reischauer, 2010; and Wildavsky and Caiden, 2004).

Proposals for new decision rules.

Despite these controversies and challenges, proposals for new decision rules abound.[31] The following provides examples of program- or policy- specific decision rules

[31] The United States has a long history of reforms aimed at improving the overarching procedures, processes, or timelines used in the federal budget process. Notably, the Budget and Accounting Act of 1921, requires the president to submit an annual budget to Congress and bars agencies and departments from submitting their request directly to Congress. The CBA of 1974 greatly expanded the congressional role in the federal budget process. These types of foundational rules provide the overall framework for the federal budget process. However, the focus of this dissertation research and its case study selection was narrowed to decision rules that are: (1) related federal resource allocation; (2) applied to particular programs or types of programs; and (3) formulated using analytical information that was not previously used as a budget measure.

(or proposed rules) related to federal resource allocation. These examples were drawn from my review of federal budget reforms as well as some related accountability reforms. These examples are intended for illustrative purposes only. They are not intended to (and do not) provide an exhaustive list. As can be seen, within the two board categories – process rules and prescriptive rules – decision rules vary significantly in their objectives and design.

Table 1.1 briefly describes more than a dozen enacted or proposed budget process decision rules. Some process budget decision rules based on previously supplemental information have been enacted and sustained. Accrual-based accounting provides an important example. Federal financial reporting, with limited exceptions, is accrual-based[32] and there is a long-standing interest in extending accruals into the federal budget.[33] In 1967 the President's Commission on the Budget recommended that spending and receipts be reflected in the federal budget on an accrual basis. The Commission argued an accrual basis provides a more comprehensive and accurate measure of how federal financial activities affect the economy, but the Commission's recommendation was not adopted. Rather, the Federal Government has selectively adopted budget decision rules requiring accrual measurement for particular programs. FCRA, which is one of the dissertation's case studies, moved beyond providing information on the subsidy costs of federal credit programs to using this information as the basis for

[32] Two federal financial statements: (1) the Reconciliation of Net Operating Revenue (or Cost) and Budget Surplus (or Deficit) and the (2) Statement of Changes in Cash Balance from Budget and other Activities are reported using a budget accounting basis (GAO, 2018).
[33] A few countries, such as New Zealand and Australia, have adopted comprehensive, accrual-based, outcome-focused budgets. Other countries, such as the Netherlands and the United Kingdom, have incorporated accrual budgeting concepts to address specific programmatic or policy concerns (GAO, 2000a).

measuring, recognizing, and funding the budget costs of direct loan and loan guarantee programs. Some federal pensions and military retiree health benefits are partially budgeted for on an accrual basis (CBO, 2018c and GAO, 1998, 2000a). Accrual-based budget measurement is also used for: (1) contributions to the International Monetary Fund; (2) federal interest costs; (3) capital leases and lease-purchase agreements; and (4) the Troubled Asset Relief Program (CBO, 2018c).

Process budget decision rules have been proposed (but not enacted) for a wide range of other policy issues and concerns, including federal insurance, environmental liabilities, post-retirement health benefits, government sponsored enterprises (GSEs), capital assets, federal investment, and tax expenditures. Rubin (2002) refers to some of these reforms as perennial reforms because they *"...reoccur multiple times, with little chance of passage and little change form on iteration to the next"* (p.1).

Despite on-going concerns about budget rules for these areas, proposals for new budget decision rules have not gained traction. As can be seen, many of these proposals seek to expand the use of accrual measurement in the budget to recognize long-term costs or to better align costs with the production of goods and services. A common theme surrounding these proposals is that unless this information is included in the budget, it will not get the attention it deserves.

Table 1.1 Examples of Process Budget Decision Rules (Enacted and Proposed)

Rule	Status	Description
Accrual budgeting for federal loans and loan guarantees	Adopted	Federal Credit Reform Act (FCRA) of 1990 changed the measurement of budget costs for federal direct loans and loan guarantees from net cash flows in a given year to the net present value of the government's subsidy cost over the life the loan.
Partial accrual budgeting for federal employee and military retirement	Adopted	The government's share of retirement costs for federal employees in the Federal Employee Retirement System (FERS) and Military Retirement system are budgeted for on a partial accrual basis. The government's expected costs for these retirement benefits are recognized at the program level as they are earned, but because payments are offset through intragovernmental transfers to federal retirement funds these accrued costs are not included the deficit and surplus (GAO, 2003c).
Partial accrual budgeting for military retiree health care costs	Adopted	Since 2003, the retiree health care costs for Medicare-eligible military retirees has been budgeted on an accrual basis at the program level. These accrued costs are not included in the deficit or surplus.
Accrual budgeting for the Trouble Asset Relief Program (TARP)	Adopted	The *Emergency Economic Stabilization Act of 2008* requires the purchases and sales of financial assets though the TARP be recorded in the budget using procedures similar to FCRA, but with an adjustment for market risk. Market risk refers to the undiversifiable risk that is a consequence of the fluctuation of all assets.
Accrual budgeting for capital leases and lease-purchase agreements	Adopted	The federal budget records the cost of capital leases and lease-purchases agreements upfront on a net present value basis. Operating leases continue to be budgeted on a cash basis.
Partial accrual budgeting for civilian federal pensions	Proposed; Not adopted	Proposals call for budgeting for the government's share of accruing pension costs for civilian employees in the Civil Service Retirement System (CSRS).
Partial accrual budgeting civilian and military post-retirement health benefits	Proposed; but not adopted	Proposals call for partial accrual budgeting for the costs of retirement health benefits for civilian or military retirees under the age of 65 as they are earned. Currently, none of these accruing costs are included in the budget.

Rule	Status	Description
Full accrual for deferred payment programs	Proposed; not adopted	Hearn and Phaup (2016) propose the use of full accrual budgeting for deferred payments for mandatory spending programs, such as deferred pension benefits. Rather than using program level approach with intra-government transfers as described above, under their proposal the cost of all present and deferred compensation would be treated as a current period outlays. As such, thee accrued costs would be in included in budget totals, including the deficit and surplus.
Accrual budgeting for federal insurance programs	Proposed; Not adopted	Proposals call for accrual budgeting for federal insurance programs. In the 1990s, OMB and CBO published reports on budgeting for deposit insurance. In 1998, GAO published a report on budgeting for a range of federal insurance programs. These reports outlined several options for using accrual-based measurement in the budget for federal insurance programs. No new budget rules have been enacted.
Accrual budgeting for environmental liabilities	Proposed, but not adopted	Proposals call for accrual budgeting for environmental liabilities but there are significant definitional and estimation challenges. No new budget rules have been enacted.
Accrual budgeting for government sponsored enterprises	Proposed by not adopted	For decades, accrual budgeting has been proposed for government-sponsored enterprises to better recognize and control the implicit risk to the government posed by these entities. The idea remains controversial and there are significant estimation and implementation challenges. Currently. CBO and OMB use different approaches to estimate the budget cost for Fannie Mae Freddie Mac. CBO treats these GSEs as effectively part of the U.S. Government and measures their cost using FCRA's approach with adjustment for market value and risk (known as a fair-value approach). Conversely, OMB treats the GSEs as nongovernmental entities, and includes only the cash transactions between these GSEs and the Treasury in the budget (CBO, 2018a)

Rule	Status	Description
Budgeting by GNP	Proposed; Not adopted	Budgeting by share of GNP has been proposed to provide a more rational structure for federal budget choices and to encourage more explicit consideration of consequences of those choices on national output (Stein, 1989). No new budget rules requiring this approach have not been adopted.
Regulatory budget	Proposed; not adopted	Proposals for a regulatory budget have been periodically introduced for decades. One recent proposal is for regulatory costs to be included as imputed revenues and outlays in the budget.
Restructuring budget accounts to align with performance	Partially implemented, abandoned	The Bush Administration proposed budget "restructuring" to better align budget resources with performance. Budget restructuring involved changes to congressional budget justifications and, in some cases, appropriation accounts. (GAO, 2005c). The initiative was abandoned.
Tax expenditure "budget" and related proposals	Proposed; Not adopted	A tax expenditure "budget" and other approaches have been proposed to more directly recognize and control the costs of special tax provisions in the budget. While PAYGO rules provide some indirect constraint on tax expenditures, no tax expenditure specific budget decision rules have been enacted. See chapters 7-10.
Capital acquisition funds	Proposed; Not adopted	GAO, OMB, and others periodically propose the use of capital acquisition funds (CAFs) to better align the cost of capital assets with their use over time. A capital asset fund could finance the purchase of capital assets with up-front funding borrowed from the Treasury. The CAFs could then rent the asset to one or more programs, charging a rate that would be sufficient to cover repayments of principal and interest on the Treasury loan (GAO, 2000a). No budget decision rules for CAFs have been enacted.

Rule	Status	Description
Capital budget	Proposed; Not adopted	A capital budget has been repeatedly suggested and remains controversial (Rubin, 2002). While proposals for capital budget vary, many require that spending for long-term capital assets be included in a separate budget. The costs of the asset would then be included in the operating budget over time by using a depreciation charge (CBO, 2008, GAO, 1996, and Penner, 2008). No new budget decision rules for a capital budget have been enacted.
Budgeting for federal investment	Proposed; Not adopted	Various policy participants raise concerns that the federal budget creates bias against investment spending e.g. spending that yields primarily long-term economic and social benefits. Proposals call for changing budget decision rules in order to facilitate more explicit consideration of and improve decisions about investment spending (GAO, 1993a and Redburn, 2017). No new budget decision rules for an investment budget have been enacted.
Dynamic scoring	Proposed; adopted selectively	Budget estimates generally include certain behavioral effects but exclude the impact of policy changes on the overall economy or the secondary "feedback" effects which occur as a result. Dynamic scoring is the process of including these macroeconomic effects into a budget score. (Committee for Responsible Federal Budget, 2012 and CBO, 2015d). The Concurrent Budget Resolution for Fiscal Year 2016 (S. Con. Res. 11) requires CBO to provide dynamic budget score, if practicable, for major legislation or legislation designated by a Chairman of the Budget Committees (CBO, 2018b).

Source: Table compiled by author.

Some enacted (or proposed) budget decision rules go further than process rules. Table 1.2 briefly describes several enacted (or proposed) prescriptive or outcome-based decision rules. These prescriptive (or outcome-based) rules, which dictate or constrain pre-determined actions or policy outcomes, also vary significantly in objective and design. Some, such as the Medicare Trigger use predetermined caps or targets to dictate outcomes and constrain actions e.g. limit spending. Others, such as No Child Left Behind (NCLB), used federal budget resources as a lever to dictate or constrain actions or policies. Others established a hard constraint and also attempted to incentivize some related behavior. For example, Medicare's Sustainable Growth Rate (SGR) limited Medicare Part B spending and it also created incentives for physician behavior through fee adjustments.

Some of these decision rules faced significant opposition after enactment and were not sustained as initially intended or, in some cases, abandoned. Medicare's SGR was routinely overridden by legislative action[34] and had become a significant source of uncertainty and controversy before being repealed in 2015. The Medicare Trigger has resulted in the Medicare Trustees issuing a Medicare *"funding warning"* (which requires Presidential and Congressional action) every year from 2007 through 2013. In response to a determination made in both the 2006 and 2007 Medicare Trustee's reports, President Bush submitted a proposal in 2008, but no action was taken (Davis et al, 2018). No other legislative proposals have been submitted as required by the triggers (Davis et al.,

[34] For the first few years of the SGR system, actual expenditures did not exceed the targets (Hahn and Mulvey, 2011). However, beginning in 2002, actual expenditures have exceeded allowed expenditure targets each year. With the exception of a 4.8% reduction in physician payment rates in 2002, Congress has taken actions each year to override the required reductions (CBO, 2012 and Hahn and Mulvey, 2011).[34] The CBO reported that, under current law, payments were scheduled to be reduced by 27 percent in 2013 (CBO, 2012).

2018).[35] The NCLB, which established an accountability system for education linked to federal funding, began with strong bi-partisan support only to end up mired in controversy about the law's logic and effectiveness. After years of controversy and failing to be reauthorized, the law was replaced in 2015.

Despite these challenges, calls continue for new (and presumably better) outcome decision rules. Various proposals call for the expanded use of "*triggers*" (TBOFF, 2008, and Penner and Steuerle, 2007). For example, some Social Security proposals require presidential and congressional action if the Social Security Board of Trustees determines that the balance ratio of either the Social Security trust funds will be zero for any calendar year during the succeeding 75 years (GAO, 2006b). Some proposals call for a regulatory budget, with limits or caps on regulations either in the aggregate or by agency.

When analytically useful information becomes available, it is tempting to use that information as the basis of decision rules to prescribe or proscribe decisions, actions, or outcomes. However, even when the underlying logic of rules is relatively straightforward, the path from information to workable, sustained decision rule is not, as discussed in the case studies.

[35] The Obama administration took the position that the Recommendation Clause prevents Congress from directing the President to submit legislative proposals that the President does not personally find to be necessary and expedient (CRS, 2014). In each of its reports from 2014 to 2016, the Medicare Trustees projected that Medicare general revenue funding would not exceed 45% of total Medicare outlays within seven fiscal years, and the President was not required to submit legislative proposals (Binder et al., 2018).

Table 1.2 Examples of Outcome-based Budget Decision Rules (Enacted or Proposed)

Rule	Status	Brief Description
Medicare Sustainable Growth Rate (SGR)	Adopted, repealed	The Medicare SGR, enacted in 1997, was designed to automatically limit growth in Medicare spending on physician services by comparing cumulative actual expenditures on physician services with a cumulative target (Hahn and Mulvey, 2011). The target was based on information such as economic growth, increases in the number of beneficiaries, and expansions of benefits. The SGR was intended to bring future spending in line with the targets by reducing future physician fees if past spending exceeded the targets and by increasing physician fees if past spending was below the targets (CBO, 2012). Before its repeal in April 2015, Congress routinely overrode the SGR targets (Hahn and Mulvey, 2011).
Medicare Trigger	Adopted	The Medicare Trigger was established by Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) (. P.L.108-173). The MMA requires Medicare Trustees determine each year whether the general fund revenue funding for Medicare is projected to exceed 45 percent of Medicare revenues in the current year or any of the next six years. If such a determination is made in two consecutive years, a Medicare funding warning is issued. This warning trigger requires presidential and congressional action, including that the President submit a proposal for action to Congress (Davis, 2011 and GAO, 2006b and 2006c). While the trigger requires action, it is a "*soft*" trigger, meaning that while the President is required to submit a proposal, there is no requirement that legislation be enacted and there is no automatic sequester (Davis, 2011 and GAO, 2006b and 2006c). However, as discussed in the text, proposals have not been submitted as required by the trigger (Binder et al, 2018).
Triggers for the major Entitlement Programs	Proposed	Proposals call for new budget decision rules for major entitlement programs. Social Security proposals have included language requiring presidential and congressional action if the Trustees determines there if the balance ratio of either the Social Security trust funds will be zero for any calendar year during the succeeding 75 years (GAO, 2006b). The report *Taking Back Our Fiscal Future* recommended enactment of explicit long-term budgets, including limits on automatic spending growth for Medicare, Medicaid, and Social Security with automatic triggers or other action-forcing mechanisms.

Rule	Status	Brief Description
Savings Targets (SAVEGO)	Proposed, not adopted	The Bipartisan Policy Center (2011) proposed what they called a Save-As-You-Go (SAVEGO) mechanism. Under the proposal, Congress would establish specific amount of annual budget savings in different budget categories with an automatic enforcement mechanism. The categories outlined include: (1) discretionary spending, (2) health care savings (including Medicare Medicaid, other health care programs, and health-related tax expenditures) and (3) other mandatory spending and revenue savings.
Regulatory Budget	Proposed, not adopted	Proposals for regulatory budget have been periodically introduced for decades. These proposals vary, but generally call for Congress to approve an annual *'budget"* for regulations. Some proposals would require limits or caps on regulations either in aggregate or by agency.
No Child Left Behind (NCLB)	Adopted, Repealed	In January 2002, President Bush signed the No Child Left Behind Act of 2001 (P.L.107-110) into law. NCLB made sweeping changes in the 37-year old Elementary and Secondary Education Act (ESEA) by establishing an assessment and accountability system linked to federal funding. NCLB required states receiving Title I funding to develop academic standards, test students, measure progress of individual schools and school districts, and implement consequences for those schools and districts that fail to achieve required progress (Vinovskis, 2009). After much controversy, NCLB was replaced with Every *Child Achieves Act* in 2015. The NCLB provides an example of the evolution from using information inform and guide policy to using information as the basis of accountability. NCLB grew out of the standards-based school reform movement. While standard-based assessments began at the state level, NCLB is cited as the turning point at which test-driven accountability systems became the norm (Jennings, 2012).

Source: Table compiled by author.

Chapter Two:
Overview of Research Objectives, Scope, and Methods

In this chapter, I provide an overview of the dissertation's objectives, scope, and methods. I discuss specific research methods for the case studies in the case study chapters.

Overview of the Research

The primary research components included:

(1) Literature and document review related to the use of analytical tools and decision rules used in U.S. federal budgeting and resource allocation. The scope of this review as well as the background drawn from it are discussed in Chapter One.

(2) Development of a framework to guide and focus case study research.

(3) Case studies of two reforms that reformulate (or propose to reformulate) analytical information into a budget decision rule. The case studies focus on the factors and conditions surrounding the emergence, design, enactment, and evolution of the budget decision rule; and

(4) Comparative case analysis of the factors or conditions that influence emergence of analytical information and whether this information was reformulated into a sustained and workable decision rule.

(5) Cross-cutting analysis of common themes based on the case study findings and the literature review discussed in Chapter One.

Based on the above research, the dissertation contributes to understanding of the following:

- *What key factors (conceptual, technical, and political) influence whether analytical information is reformulated into a sustained and workable budget decision rule? How and why do these factors influence the establishment and use of budget decision rules?*

In examining this question, I examine the relationship between analytical information and budget decision rules and their role and limits.

Introduction to the case studies.

I conducted two detailed case studies as a lens for examining budget decision rules. Numerous reforms increase or improve analytical information, but the dissertation's focus is on reforms that go beyond providing information to establishing (or proposing) a budget decision rule. As discussed in Chapter One, budget rules vary by design and objective. To focus the research, the dissertation's case study selection was narrowed to decision rules that are: (1) related to federal resource allocation; (2) applied to particular programs or types of programs; and (3) formulated based on information previously provided as an analytical tool.[36] Foundational budget rules, which establish the overall framework or process for the federal budget, and fiscal rules, which apply to

[36] These decision rules generally either: (1) use analytical information to change the basis (e.g. measurement or organizational structure) used for budget decisions; (2) use analytical information as the basis for constraining or enforcing budget decisions; or (3) use federal budget resources as the lever within a decision rule that prescribes or proscribes actions or policies based on analytical information.

existing federal budget aggregates, such as debt and the primarily cash-based deficit, are beyond the dissertation's case study scope. These types of more general budget rules, however, provided important background and context, as discussed in Chapter One.

The first case – the Federal Credit Reform Act of 1990 (FCRA), examines a budget decision rule that has been sustained for almost three decades. FCRA was enacted to improve the transparency and budget control of federal direct loans and loan guarantees by changing the rules for how their costs are recognized, measured, and funded in the federal budget. FCRA's design reflects the underlying premises that budget decision rules influence budget outcomes and that significantly influencing behavior requires moving beyond providing information as an analytical tool. In the second case, tax expenditures, policy concerns resulted in increased analytical information and the establishment of some budget constraints, but reforms have stopped short of establishing a tax expenditure specific budget decision rule. [37]

The long and unresolved path of tax expenditures provides a valuable case for considering the issues surrounding decision rules, especially when compared to the FCRA experience. For both tax expenditures and federal credit programs, concerns emerged decades ago that shortcomings in budget treatment, and a resulting lack of budget oversight and control, were contributing to their use and rapid growth. In both cases, analytical tools were improved, and new budget decision rules were proposed. However, a new budget decision rule (FCRA) was enacted for federal credit programs while no direct budget decision rule was enacted for tax expenditures.

[37] The establishment of new tax expenditures is indirectly addressed by the PAYGO process, but these rules do not directly recognize or control tax expenditures or the growth in existing tax expenditures. None of the proposed decision rules that would more directly control tax expenditures have been enacted.

By providing a detailed examination and juxtaposition of a "*successful*" reform (i.e. enacted and sustained) and an "*unsuccessful*" reform (i.e. not enacted) the dissertation contributes to understanding of the factors and conditions influencing budget decision rules. During the case study research, I focused on the *why* and *how* behind the emergence, design, enactment, and evolution of each case study decision rule.

Because FCRA has been sustained for almost three decades this case provided an opportunity to gain additional insights on implementation issues and the rule's role within the policy and political process. As noted by George and Bennett (2004), the use of consistent data compilation, including asking the same general questions across cases, *"…does not prevent the researcher from addressing more specific aspects of the case to bring out idiosyncratic features of each case that may also be of interest for theory development or future research"* (p. 86).

Overview of Research Questions and Methods

For each case study, I traced the evolution of the reform(s) from identification of the policy problem to the development of enriched information to the budget decision rule (or proposed decision rule). To help ensure comparability across case studies, the central research objective, research questions, and overarching approach were the same across the case studies. For each case study, I examined the following questions:

1. ***What prompted the development and reporting of enriched information?***

   During this part of the research, I focused on the policy concerns or dissatisfaction that prompted initial efforts to increase the availability and quality of information. Examples of issues I examined include: What policy problem(s) triggered concerns? To what extent did there appear to be consensus (or disagreement) surrounding problem definition and the underlying causes? What was the perceived information gap? What steps were taken to enrich analytical information and tools?

2. ***Why did reform efforts move (or propose to move) beyond improving information to establishing (or proposing) a new decision rule?***

   For this part of the research, I focused on the reasons and motivations for the introduction of reforms that move beyond improving information to establishing a budget decision rule. Examples of issues I examined include: What types of information and analytical tools were provided? What were the perceived

limitations of existing information and analytical tools alone? To what extent was there consensus (or disagreement) on the need for a new budget decision rule?

3. ***How was analytical information reformulated into a new (or proposed) decision rule?***

   For this part of the research, I examined the rule's design and how factors (conceptual, technical, and political) influenced its design and enactment (or failure to be enacted). Examples of issues I examined include: Which policy participants were involved in the design phase? Which stakeholders took the lead in advocating for (opposing) the rule? What issues were raised about rule's objectives, design, and feasibility? Were disagreements mainly technical in nature or were there more fundamental concerns about rule's conceptual framework or underlying logic? What were the key unresolved issues or points of contention?

4. ***What were the key factors which facilitated or created barriers to the enactment and implementation of the decision rule?***

   For this part of the research I examined how the rule was (or was proposed to be) operationalized and implemented with a focus on its translation from theory to practice. Examples of issues examined include: To what extent did the analytical information required to support the decision rule already exist? What types of data, measurement, and other technical issues where anticipated or encountered?

5. ***What happened to the rule?***

   For this part of the research, I focused on what happened to the rule (or proposed rule). Examples of issues examined include: If the rule was enacted, was its sustained as originally intended? Were significant modifications made after enactment? Did support (opposition) to rule change after enactment? If not enacted, did concerns continue and were there subsequent efforts to establish a rule?

Based on the literature and document review discussed in Chapter One, I identified several dimensions as potentially influencing analytical information and budget decision rules.[38] The dimensions included: (1) Trigger, (2) conceptual, (3) political and institutional, and (4) technical and implementation. Table 2.1 outlines these dimensions with examples of related issues. Importantly, for understanding the scope of the dissertation's research, I developed this framework to guide case study research and help support general comparability across case studies. It was not intended to be and was not used as an audit plan or checklist requiring strict coverage of each element.

The dimensions focus primarily on the *why* and *how* of the decision rule (or proposed rule). The trigger dimension, which relates to research questions 1 and 2, examines the reasons and motivations behind the decision rule i.e. *why* analytical

[38] As discussed in Chapter Once, the literature and documents reviewed, included, but was not limited to, academic research, including journal articles and books; government reports and research; working group documents, including, for example, Federal Accounting Standards Advisory Board; and congressional testimony. While the development of the framework and the identification of the dimensions drew from a wide variety of sources, it particularly built on Rubin's (2003) article on perennial budget reforms and the author's knowledge gained working GAO reports covering various budget, financial, and performance issues (GAO, 1997b, 2000 and 2003).

information was generated? W*hy* was there was a transition from improving analytical tools to proposing a decision rule? The conceptual dimension, which relates to questions 2 and 3, examines the conceptual framework or logic underlying the rule i.e. *how* the rule was designed to address the underlying problem? The technical and implementation dimension, which relates to question 3 and 4, considers the more practical aspects of the rule's design and implementation i.e. was sufficient information to available to support the rule? How did sufficiency of information influence the rule's evolution? [39] The political and institutional dimension, which relates to all the questions, examines how the rule was influenced by and used in the broader political, ideological, and policy environment as well as how the rule fits with existing institutional structures and norms.

[39] The initial literature review and my prior GAO work indicate that estimation issues are more important and potentially more problematic for budget rules than for analytical tools (Diamond and Orszag, 2004; GAO, 1997b, 2003; Joyce, 1994; and Yin, 2009).

Table 2.1 Framework to Focus and Guide Research

Dimension	Examples of Related Issues
Trigger	**Underlying policy problem and information concerns, e.g.:** • Identification of policy problem (e.g. by whom, evidence, over what time period) • Policy participants' views on problem and underlying causes • Development of enriched information (e.g. by whom, what type, where reported) • Perceived benefits and limits of initial information and analytical tools
Conceptual	**Design Issues related to rule's conceptual basis or logic, e.g.:** • Design elements (e.g. process or outcome; underlying logic; objectives; and information used as basis of the rule) • Process used to design rule (e.g. stakeholders involved) • Policy participants' views on whether proposed decision rule would likely to address problem • Alignment of rule with relevant norms and existing institutional structures (e.g. budgeting conventions; congressional processes, existing budget rules) • Consideration of alternative designs • Key areas of consensus and disagreement
Political and Institutional	**Interaction between rule and policy and political environment, e.g.** • Modifications to rule after enactment • Evidence of gaming • Rule's role in and interaction with policy and political processes • Level of support for rule by key policy participants over time
Technical and Implementation	**Measurement challenges and other implementation issues, e.g.** • Estimation methods and assumptions used for decision rule • Discussions of alternative definitions and methodologies • Experience with (and consensus on) definitions, measures, and estimates • Level of consensus on definitional, methodological, and estimation issues • Disputes over definitional, methodological, and estimation issues • Need for modifications during implementation • Indicators of adequacy of information used as basis of rule i.e. accuracy of estimates • Alignment of rule with administrative capacity and institutional structures

Source: Author based on literature review discussed in Chapter One.

For each case study, I conducted the following steps:

- Archival research and historical document review related to the rule's trigger, design and enactment:

  I identified and examined historical documents covering each case study's budget decision rule proposal(s). This review included: (1) legislative proposals and related legislative histories, including written and recorded records of congressional hearings; (2) non-governmental proposals introduced by researchers from academia, think tanks, and advocacy groups; (3) government oversight and research reports; and (4) budget documents and related executive branch reports, testimonies, and guidance.

- Document review related to rule's operationalization, implementation and use:

  I also examined various documents related to the operationalization, implementation, and use of case study decision rules. This review included but was not limited to: (1) congressional hearings related to implementation and refinements to the budget decision rule; (2) case study agency documents, guidance, and reports; (3) OMB reports, requirements, and guidance; (4) government oversight reports and research, e.g. GAO, CBO, CRS, and Office of Inspector Generals; (5) academic research, including books and journal articles; (6) working group documents, such as FASAB discussion papers; (7) financial statements and audits, where applicable; (8) executive agency reports, where applicable; and (9) newspapers and other press commentary.

- Data collection and analysis:

  I compiled and examined trend data on federal loans and tax expenditures. I examined credit subsidy estimates and reestimates. More detailed discussion on data sources and methods are included in case study chapters.

The case study research questions and framework outlined above provided a structure for gathering and analyzing case-specific information. Wherever appropriate and feasible, triangulation among sources was used to strengthen case study findings.

The final phase included cross-case analysis and identified common themes across the cases. I identified, examined, and compared the factors or conditions that influence the emergence of analytical information and whether this information was reformulated into a sustained and workable budget decision rule. I identified common themes related to: (1) the relationship between analytical tools and decision rules and (2) the use and limitations of budget decision rules within the political and policy process.

Justification of Research Objective and Methods

Given the dissertation's research objectives and questions, the mix-method, case study approach along with cross-case analysis provided several advantages, including importantly looking at the issues from numerous angles. A case study approach is the preferred approach for answering the "*why"* and *"how"* questions which are central to the dissertation's objectives (Yin, 2003). As noted Yin (2003), "*the case study's unique strength is its ability to deal with a full variety of evidence"* (p. 8).

Addressing the dissertation's research objectives required understanding the interactions between the reform (the decision rule or proposed decision rule) and the policy and political processes from which it is created and in which it would be used. Yin (2003) describes the case study inquiry as *"cope[ing] with a technically distinctive situation in which there will be many more variables of interests"* and as a result *"[relying] on multiple sources of evidence with data needing to converge in a triangulating fashion."* (pp.13-14). George and Bennett (2004) also note that even "*within a single case we can look at a large number of intervening variables…"* (p. 21). The use of mixed methods also accommodated the variation among the two cases, including the extent and relevance of existing case study research. For these reasons, the comparative case analysis approach was justified and well-suited for this research.

Chapter Three:
Federal Credit Reform Act: Getting to the Rule

The Federal Credit Reform Act of 1990 (FCRA)[40] is a case where a budget decision rule was enacted and successfully sustained for more than two decades. During the 1970s and 1980s, rapid growth and changing composition of federal credit programs[41] heightened concerns about their budget impact. FCRA aimed to improve the budget oversight and control of federal direct loans[42] and loan guarantees[43] by budgeting for these programs on a subsidy cost rather than the traditional cash basis. [44] FCRA's innovative design reflects the underlying premise that: (1) budget decision rules influence budget outcomes and (2) to significantly influence behavior one must move beyond providing information as an analytical tool to establishing authoritative budget decision rules. In other words, budget decision rules matter.

Consistent with the dissertation's research objective, this case study focuses on the emergence, enactment, and evolution of FCRA's budget decision rule. This chapter

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[40] FCRA was enacted as part of the Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508).
[41] Federal credit assistance has long been recognized as an important policy instrument. As discussed in Elliott (2011), the federal government had some early roles in credit assistance, including, the establishment of the Federal Reserve Bank in 1913, but the first major expansion of federal credit programs came in response to the Great Depression. Today, numerous federal credit programs with varied policy objectives serve a wide range of borrowers. The fiscal year 2016 Federal Credit Supplement listed 60 direct loan and 56 guarantee loan programs, not counting legislative proposals (OMB, 2015b).
[42] A direct loan is "*a disbursement of funds by the government to a nonfederal borrower under a contract that requires the repayment of such funds with or without interest."* (Section 502 (1) of the Federal Credit Reform Act)
[43] A loan guarantee is "*a pledge with respect to the payment of all or part of the principal or interest on any debt obligation of a non-federal borrower to a non-federal lender"* (Section 502 of the Federal Credit Reform Act)
[44] The stated objectives of FCRA include: (1) measure more accurately the costs of federal credit programs; (2) place the cost of credit programs on a budgetary equivalent to other federal spending; (3) encourage the delivery of benefits in the form most appropriate for the need of beneficiaries; and (4) improve the allocation of resources among credit programs and between credit and other spending programs. (Section 501)

begins by briefly explaining FCRA's budget rule before examining the "trigger" which promoted concerns about the budget treatment of federal credit programs. The chapter then examines decades of information expansion, incremental budget process reforms, reform proposals, and consensus building that preceded FCRA's enactment. Chapter Four then examines the implementation and use of FCRA's rule. Chapter Five examines trends in direct loans and loan guarantees, before and after FCRA. Chapter Six concludes the case study by providing summary thoughts and observations on the FCRA experience.

The Rule: Federal Credit Reform Act of 1990 changed budget rules for federal direct loans and loan guarantees.

The Federal Credit Reform Act of 1990 (FCRA) significantly changed budgeting for federal credit programs by requiring policymakers to recognize and fund the long-term costs of federal direct loans and federal loans guarantees. Under FCRA, the government's estimated subsidy cost measured on a net present value basis [45] is the basis of budget recognition, funding, and control. This was a significant change because cash-based measurement is the general rule for the federal budget.[46]

FCRA defines the cost of federal direct loans and loan guarantees as "*the estimated long-term cost to the government for a direct loan or loan guarantee or*

[45] Net present value is a single number that expresses current and future cash flows in terms of an equivalent lump sum received (or paid) today. Payments or receipts are discounted to an equivalent present value using an interest rate, referred to as the discount rate (CBO, 2012).
[46] The U.S. federal budget is a cash- and obligations- based budget. The budget occurs in three stages. Budget authority is provided by law to incur obligations that will result in cash outlays. A budget (cash) outlay is a cash payment to liquidate an obligation. An obligation is a legally binding agreement that will result in cash outlays either immediately or in the future. With limited exceptions, obligations are measured on a cash or cash-equivalent basis (GAO, 1997b, 2000a).

modification thereof, calculated on a net present value basis, excluding administrative costs and any incidental effects on government receipts or outlays (Section 502(5A)). These costs commonly referred as *"subsidy costs"*[47] are calculated by discounting the government's expected cash flows over the life of the loan. Credit program cash flows generally include: loan amounts disbursed, principal repaid, interest received, fees collected, and net losses from defaults. Under FCRA, the discount rate used to calculate subsidy costs is the Treasury's borrowing rate.[48] This choice of discount rate has been controversial from the start, as will be discussed later in the case.

FCRA requires that appropriations cover subsidy costs of direct loans and loan guarantees. For discretionary credit programs, FCRA requires agencies receive appropriations for the subsidy costs before credit is extended.[49] For mandatory programs, indefinite budget authority[50] is provided to cover the cost of authorized loans (CBO, 1991). In another somewhat controversial decision, FCRA excludes administrative costs from the calculation of subsidy costs and these costs continue to be funded on a cash basis.

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[47] Although FCRA does not use the term "subsidy costs" it is used widely in operationalization and implementation.

[48] Under FCRA Section 502 (5E), the discount rate used to calculate subsidy costs was the *"average interest rate on marketable Treasury securities of similar maturity*." The required discount rate was revised by the Balanced Budget Act of 1997. According to OMB (2014) for loans made, guaranteed, or modified in FY 2001 and thereafter the cash flow estimated for each year is discounted using the interest rate on the marketable, zero-coupon Treasury security with the same maturity from the date of disbursement as that cash flow. For example, the cash flow for a two-year loan is discounted using the Treasury rate for a two-year zero-coupon note. Discount rates are based on Treasury rates used in the economic assumptions for the budget year. OMB provides these rates to credit agencies (OMB, 2014b).

[49] The appropriated subsidy amount and the estimated subsidy rates limit credit programs. To prepare the budget, estimated subsidy rates are multiplied by the projected or authorized loan volume to arrive at estimates of subsides expected to be obligated or committed by a credit program (CBO, 2003).

[50] Indefinite budget authority is budget authority that, at time of enactment, is for an unspecified amount (GAO, 2005a).

A central element of FCRA is the separation of subsidy costs from nonsubsidized cash flows. To do this, FCRA established three main types of budget accounts for credit programs: (1) program accounts, (2) financing accounts, and (3) liquidating accounts (OMB, 2014b).[51] For direct loan obligations[52] and loan guarantee commitments[53] made after the start of fiscal year 1992, program accounts record the subsidy costs and the administrative costs while the finance account records incidental (non-subsidized) cash flows.[54] Liquidating accounts, which are still measured on a cash-basis, are only used for direct loans and loan guarantees made before FCRA's effective date (GAO, 1997a and OMB, 2014b).

The program and financing accounts affect the budget totals and the deficit/surplus differently. Program accounts are included in budget totals. Financing accounts are non-budgetary; they are included in the *Budget Appendix* for informational

[51] OMB also requires that agencies with negative subsidies must have special fund receipts accounts (GAO, 1998 and OMB, 2014b). These receipt accounts receive and hold receipts generated when a credit program's net present value cash inflows exceed its net present value cash outflows. The receipt accounts also receive and hold receipts when there is a downward reestimate of subsidy costs that indicate that the financing account balance is too high.

[52] A direct loan obligation means a binding agreement by a federal agency to make a direct loan when specified conditions are fulfilled by the borrower (OMB, 2014b).

[53] A loan guarantee commitment means a binding agreement by a federal agency to make a loan guarantee when specified conditions are fulfilled by the borrower, the lender, or any other party to the guarantee agreement (OMB, 2014b)

[54] The program accounts receive separate appropriations for the subsidy costs and the administrative costs. Administrative costs continue to be budgeted for on a cash basis and are outlayed from the program account as they are disbursed. Budget obligations for the subsidy costs are recorded when the government enters into a loan obligation or guarantee commitment. When a direct loan or loan guarantee is disbursed, the program account records outlays for the subsidy amount and simultaneously transfers it to the financing account (OMB, 2014b). The financing account is used to record the cash flows associated with direct loans and loan guarantees over their lives. As explained in OMB Circular A-11, for direct loans, the financing account combines the subsidy payment from the program account with Treasury borrowing to finance the direct loans. It repays Treasury over time using principal and interest collected from borrowers. For loan guarantees, the financing account holds the subsidy payment from the program account as a reserve against future default claims. This reserve, including earned interest, is used to pay default claims over the life of the loans (OMB, 2014b).

purposes only and they are not included in the budget totals. As a result, subsidy costs (rather than annual net cash flows) are now included in a primary focus of budget decision making – the budget deficit or surplus.

Recognizing the uncertainty associated with subsidy cost estimation, FCRA requires the reestimation of subsidy costs. Federal credit agencies must reestimate subsidy cost throughout the life of each loan cohort[55] to reflect actual cash flows and changes in assumptions about future cash flows (OMB, 2014b). These reestimates are penalty-free from a budget stand point, meaning that permanent indefinite budget authority[56] is provided for upward reestimates of subsidy costs and upward reestimates of discretionary programs are not limited by BEA spending constraints. A loan's actual, realized subsidy equals the initial subsidy estimate plus the sum of lifetime reestimates. So at the end of a loan's life, total subsidy cost reconciles with the government's cash payments over the life of the loan. In this way, FCRA is still cash-based, but it changes the timing of recognition of cash flows.

The Trigger: Rapid Growth and Changing Composition of Federal Credit Programs Prompted Concerns About Budget Rules.

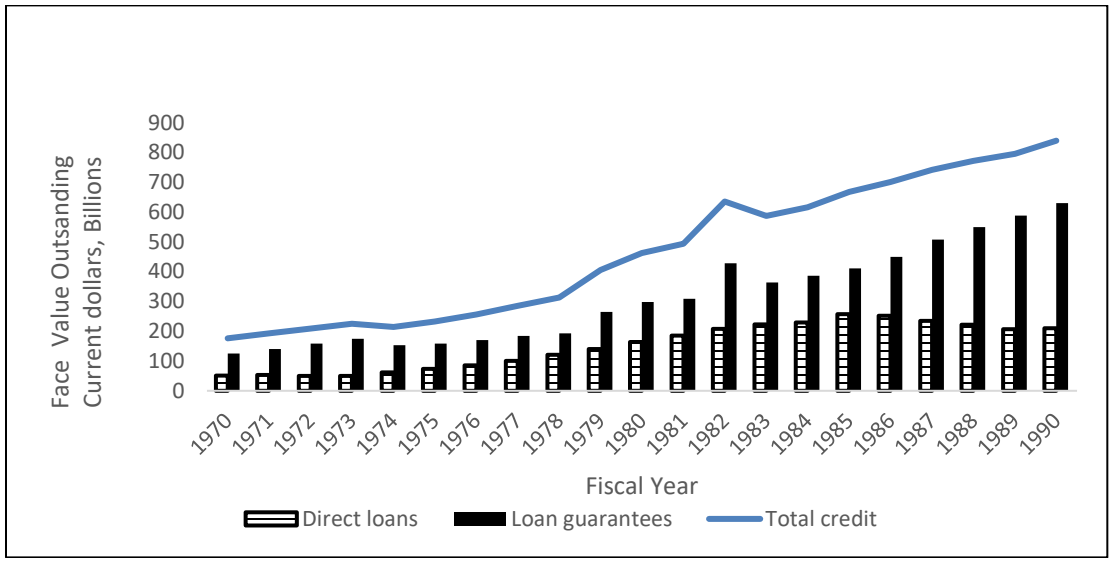
Rapid growth and changing composition of federal credit programs during the late 1970s and 1980s triggered concerns about their budget impact. Numerous government reports, research papers, and congressional testimonies raised alarms that: (1) federal credit programs were growing faster than direct federal expenditures and (2) federal loan

[55] A loan cohort includes all direct loans or loan guarantees of a credit program for which a subsidy appropriation is provided for a given fiscal year (OMB, 2014b).
[56] Permanent indefinite authority is budget authority for an unspecified amount that is available as the result of previously enacted legislation and is available without further legislative action.

guarantees were growing faster than federal direct loans. Government officials, federal budget experts, and other policy participants concurred that shortcomings in the budgeting for federal credit programs, namely the use of cash-based measurement, contributed to these trends (CBO, 1978, 1984, 1989; Gale, 1989; GAO 1980, Ippolito 1984; Lenard and Rhye, 1981; Rivlin, 1979; and OMB, 1978, 1980, 1987, 1989).

Figure 3.1 shows the significant growth in the face value outstanding for federal direct loans and loan guarantees in years leading up to FCRA's enactment. While both direct loans and loan guarantees increased between 1970 to 1990, by the mid-1980s, guaranteed loans were growing significantly relative to direct loans and direct loan were declining.

Figure 3.1 Face Value of Direct Loans and Loan Guarantee, Fiscal Years 1970-1990



Source: Author based on data provided by the U.S. Office of Management and Budget.

The composition of loan guarantees also was changing. Federal loan guarantees to large, single borrowers (such as Lockheed,[57] Chrysler,[58] and New York City[59]) were first made during the 1970s (Rivlin 1981f, p.4 and Ippolito 1984, pp. 77-87). CBO (1978) outlined congressional concerns about a shift in proposed guarantees from *"actuarially sound small-loan programs to the more venturesome proposals for financing specific projects, especially large capital plants"* (p. 16). As evidence of the shift, CBO and GAO pointed to the declining share of federal credit assistance made up of housing credit programs backed by liens on marketable property (CBO, 1978, Bowsher, 1990, and Rivlin, 1981). Rivlin (1981f) reported that the share of all new federal loan guarantee commitments accounted for by FHA and VA mortgages fell from 97 in 1950 to 54 percent by 1980 (p.3).

Consensus emerged about shortcomings of cash budgeting for federal credit programs.

FCRA grew out of considerable consensus on both: (1) the nature of the problem, i.e., the unchecked growth and changing composition of federal credit programs and (2) the contributory role of budget rules i.e. the use of cash-based measurement. Budgeting for federal credit programs is complicated by the mismatch between the federal budget's use of cash-based measurement and the long-term nature of federal credit programs. For most federal programs, cash-based measurement provides a reasonable measure of the budget cost of the government's commitment at the time policy decisions are made

[57] P.L. 92-70
[58] P.L. 86-185
[59] P.L. 96-185

(GAO, 1997b). However, in the case of federal credit programs, a cash-based budget, with its focus on annual net cash flows, fails to accurately recognize the government's total budget cost at the time decisions to provide credit are made.

To illustrate the issue, Table 3.1 provides a simplified, hypothetical example comparing cash-based budgeting for a direct loan and loan guarantee, assuming each has the same ultimate cost to the government.[60] While the shortcomings of cash-based budgeting for federal loans were more complicated than portrayed in this simplified example it provides a useful starting point for understanding the problem. [61] As can be seen, using cash-based measurement results in different budget information and incentives for these credit instruments at the time they are issued even when they have the same ultimate cost to the government. Cash-based measurement overstates the cost of direct loans because the full amount of the loan is recorded in the budget when the loan is extended, ignoring expected future repayments. As noted by Gale (1989) and others, this treatment implies the cost of a direct loan is its total face value and that this cost occurs at the time the loan is made. Conversely, for loan guarantees, cash-based measurement understates the government's costs when guarantees are issued. Further, there is no budget recognition when direct loan defaults occur. For loan guarantees, no budget cost is recorded when a guarantee is issued, ignoring that future defaults may result in significant costs to the government. Thus, under cash-based measurement, at the time policymakers were deciding whether to provide credit assistance, new loan guarantees appeared "*free"* while new direct loans appeared as expensive as grants.

[60] Similar examples are included in existing literature.
[61] Because budget cash flows are recorded on a net basis and cash flows from new and previous credit activities were comingled, the government's cost of new credit may be either be overstated or understated in a given fiscal year.

Table 3.1 Cash-based Budgeting, Direct Loans Vs. Loan Guarantees

Simplified, Hypothetical Example Cash-based Budget Measurement of Direct Loan and Loan Guarantee			
	Amount recognized and funded in the budget in fiscal year credit issued	Defaults or repayments	Government's subsidy cost over life of loan
Direct loan	$100 million	$90 million repayments (negative cash outlays, i.e., cash inflows from loan repayments and interest)	$10 million
Loan guarantee	$0	$10 million default payments (cash outlays for defaults)	$10 million

Source: Table created by author.

Historical documents detail long-standing concerns that cash-based budgeting for federal credit programs distorted incentives for sound policy and management decision-making. Almost three decades before FCRA's enactment, a 1963 report of the Committee on Federal Credit Programs raised concerns about the budget control and oversight of these programs. In 1967, the widely-recognized report by President's Commission on Budget Concepts included a chapter on federal credit programs and noted that the appropriate treatment of federal loan outlays was "*one of the most difficult questions"* the Commission faced (U.S. Government Printing Office, p. 47).

While the CBA of 1974 offered another opportunity to address budgeting for federal credit programs it did not. Rather, the CBA explicitly excluded of loan guarantees from the definitions of budget authority. [62]The main justifications for this

[62] For budget authority [Section 3(a)(2)] and new spending authority [section 401(c)(2)] the CBA states, "*Such term does not include authority to insure or guarantee the repayment of indebtedness incurred by another person or government"* (as cited in CBO, 1978, p. 30).

exclusion were that loan guarantees are contingent (not direct) liabilities of the government as well as political considerations aimed at protecting loan programs, particularly for agriculture, from spending constraints (Schick, 1979). However, while the CBA did not change the budget treatment of federal credit programs its establishment of the CBO opened the door for influential analysis that informed and shaped the debate leading up to FCRA.

During the late 1970s and 1980s, government officials and budget experts continued to warn that cash-based budgeting did not provide adequate information or incentives to assess and control federal credit programs (CBO, 1989 and Gale, 1989). CBO Director, Alice Rivlin, testified multiple times, that loan guarantees were a significant problem because many people viewed them as a "*no-cost financing device"* (CBO, 1978 and Rivlin, 1981). CBO's 1978 report on federal loan guarantees argued:

> *"…proposals to use loan guarantees as a means of financing have great appeal: the appearance of low budgetary costs and minimal federal intervention in the economy. Budgetary costs appear low because guaranteed loans are excluded (by statue) from the definition of budget authority and hence are not adequately addressed in a budget process designed to control new budget authority and hence outlays" (CBO, 1978, p. xii).*

Cash-based budgeting not only made guarantees appear costless, but, in some cases, it made them appear *"profitable."* When the government charged initiation fees for new guarantees (a relatively common practice) budget outlays for the new guarantees could be negative (i.e., reflecting cash inflows or *"income"*), even when the guarantees would ultimately have a cost. As expressed by Gale (1989), under cash-based budgeting, "[*n*]*othing remotely resembling the expected government costs of newly issued guarantees is included as a budget entry"* (p. 5).

Various policy participants cited the shortcomings of the cash-based budget as a key factor in the faster growth of loan guarantees relative to direct loans (CBO, 1978/1979; Cuny, 1991; Elliott, 2004; Gale, 1989, Ipollito, 1984, and Penner, 1984). [63] In 1977, GAO testified:

> *"[w]hen some particular policy instrument such as guaranteed loans is not included in the budget totals, it becomes more attractive to an agency than it should be. Because loan guarantees and other off-budget programs avoid budget ceilings, there is a tendency to use them when some on-budget programs -- direct loans, direct subsidies, etc. – might be more efficient"* (Havens, 1977, p. 3).

A decade later, CBO (1989) expressed similar concerns, arguing that *"a cash-basis treatment of credit encourages spurious attempts to reduce the budget deficit by substituting guarantees for direct loans"* (p. 6).

While loan guarantees received significant attention, cash-based budgeting also created misleading information and perverse incentives for direct loans. Reform proponents argued that because budget outlays included the full value in the first year of a loan there was significant disincentive to expand even worthy direct loan programs (CBO, 1989, Bickley, 2012, Elliott, 2004, and Gale, 1989). Further, the shortcomings of cash-based budgeting for direct loans were even more complicated than portrayed in the above simplified example because the federal budget measures net cash flows and comingles credit activities from various years. Netting means that new loans are offset by repayments or sales of existing loans. This netting and comingling of cash flows

[63] As an example of budget incentives leading to poor policy decisions CBO (1978) highlighted the New Communities Program. Grants for the programs were terminated in 1973, but the program's projects continued to be financed with loan guarantees, with poor results (p. 25). CBO provided additional examples of proposals to replace loan programs with federal guarantees of privately-issued loans. See Congressional Budget Office*, Credit Reform: Comparable Budget Costs for Cash and Credit*, December 1989.

further increased the difficulty of deciphering the cost of new credit activities, resulting in distorted incentives and opportunities for budget gimmicks.

For direct loans, proceeds from loan sales and repayments of principal and interest were recorded as collections in the fiscal year they were received and thus offset all or part of the cost of the new loans. Because cash flows from previous and new loans were comingled it was often difficult to decipher the cost of new loan activity. As an example of the problem, CBO (1978) explained that the fiscal year 1979 budget totals for direct loans were $4.3 billion while new direct loans were estimated at $26.6 billion (p. 49). As another example, CBO (1982) reported that in 1980, the Commodity Credit Corporation extended almost $6 billion in loans, but because repayments of earlier loans were greater, the net budget outlays were negative (p. 7). [64]

Finally, for both loan guarantees and direct loans, the cash-based budget did not address the differing risk levels of credit programs. The government's cost for loans relates more closely to loan characteristics, such as interest rates, likelihood of default, and maturity, then to the volume of loans (Reischauer, 1990c, p. 4). However, under cash-based measurement, all newly-issued direct loans were budgeted for their full face-value regardless of underlying terms and risks, (GAO, 1987). All newly-issued loan guarantees were budgeted at zero costs even if they had different levels of default risk.

[64] There also were concerns about the role of off-budget credit activities and the Federal Financing Bank (FFB) in obscuring the government's cost. A significant problem was the sale of direct loan obligations from on-budget federal agencies to the FFB. When the FFB purchased an agency's loans, the sale counted as a loan repayment (rather than as a means of financing) and, as a result, these transactions offset the agency's outlays for credit activities (Bennett and DiLorenzo, 1983). Importantly, these loan sales reduced total expenditures and the deficit, even though they did not change the government's financial position.

Thus, at time decisions to extend credit were made, the budget did not facilitate understanding and consideration of the specific or relative risks associated with various credit programs.

Fiscal constraints exacerbated the shortcomings of the cash-based budget for federal credit programs. The 1967 Commission warned:

> *"continuing pressure on Congress and the Executive to hold down the level of apparent Federal spending and the budget deficit establish artificial incentives to shift from direct loans to indirect lending whether or not the guarantee or insurance of private loans represents a fully satisfactory substitute"* (U.S. Government Printing Office, 1967).

Almost two decades later, Ippolito (1984) argued:

> *When pressures develop to control budget totals, as has been the case in recent years, credit programs offer a loophole. Substantial amounts of financial assistance can be distributed to a wide range of borrowers with little or no direct budgetary costs"* (p. xiii).

Pre-FCRA: Better Information, Piecemeal Budget Controls, Reform Proposals, and Consensus Building

Decades of information expansion, incremental budget process reform, reform proposals, and consensus building preceded FCRA's enactment.[65] By the early 1950s, OMB had added supplemental information on federal credit programs in the budget. Over the next several decades, OMB expanded the information on federal credit programs included in various budget documents. In response to continuing concerns, lawmakers, government officials, and outside experts proposed a range of reforms to further improve budget oversight and control of credit programs. Over time, considerable consensus emerged that subsidy costs, as opposed to net cash flows, is a more appropriate

[65] While there were heightened concerns about federal credit programs, the expansion of information on federal credit programs was consistent with governmentwide reforms to expand and improve federal financial, budget, and performance information.

budget cost measure for federal credit programs. Table 3.2 provides a snapshot of developments preceding FCRA. These developments are examined in more detail below.

Table 3.2 The Path to FCRA Enactment, 1950s to 1990

1950s:	President's fiscal year 1952 budget includes federal credit as part of "*Special Analyses"*
1960s:	Committee on Federal Credit Programs (1963) reports on federal credit programs
	President Commission on Budget Concepts (1967) addresses federal credit
1970s:	*Special Analyses* of budget began to include "*illustrative"* subsidy cost estimates
	President's fiscal year 1972 budget message calls for legislative action
	Fiscal year 1978 budget includes legislative proposals to address budgeting for loan sales and recommends "*reconsideration"* of the exclusion of guarantees from budget authority
	CBO publishes a comprehensive report on budget treatment of loan guarantees
	Congressional hearings on budgeting for credit programs
	Carter administration pledges its intention to improve budget control of federal credit programs, but does not submit legislative proposals
	Representatives from CBO, GAO, OMB, Treasury, and the Federal Reserve Board all endorse the need for reform
1980s:	President's fiscal year 1981 budget includes the first-ever credit budget
	OMB revises circular A-70 to require federal agencies calculate and transmit subsidy cost data to OMB for all their direct loan and loan guarantee programs.
	GRH requires that all new direct loans and loan guarantees be on-budget
	CBA amended to require allocations of new direct loan obligations and loan guarantee commitments
	Reagan and Bush Administrations submit credit reform proposal
	GAO and CBO issue comprehensive reports reviewing credit reform proposals
	Proposals from Senate Budget Committee, CBO, GAO, OMB and Treasury require the appropriation of subsidy costs before credit extended
1990:	The Federal Credit Reform Act signed into law as part of the Omnibus Budget Reconciliation Act of 1990 (November 5, 1990)

Source: Table compiled by author

Enhanced budget information and analytical tools preceded FCRA.

In the decades preceding FCRA, OMB significantly increased the analytical tools included in the federal budget, including those for federal credit programs. Starting with fiscal year 1947, the President's budget included a separate section entitled *"Special Analyses and Tables.*" Initially, these *Special Analyses* did not include federal credit programs. However, credit programs were included, for the first time, in the fiscal year 1953 budget as "*Special Analyses E, Federal Credit Programs"* (OMB, 1951, pp. 976-981).[66] [67] The *Special Analyses* for credit programs generally included narrative discussion as well as tables listing new commitments, credit expenditures, and the status of credit authority for major credit programs (OMB, 1951). Some presentations included both the gross and net levels of credit activities (OMB, 1951).

By the mid-1960s, these analyses also included short discussions of credit program interest rates, but they did not specifically discuss the government's subsidy costs. The fiscal year 1972 volume provided (for the first time) summary estimates of loan subsidy costs (OMB, 1971b). These estimates of subsidy costs, however, were meant to be illustrative, rather than precise measures of budget costs. The fiscal year 1972 *Special Analyses* stated:

> *"[p]recise subsidy measurements are not available as several assumptions have been required. These estimates are mainly intended to be illustrative rather than exact or comprehensive measures. The data provided here are a first step toward the difficult task of meeting widespread interest in the measurement of the costs of loan subsidies…"* (OMB, 1971b, p.78).

[66] Beginning with the 1967 budget, OMB removed all special analyses from the main budget document and included them in a separate budget volume entitled *Special Analyses.*
[67] In addition to the direct loan and loan guarantee programs that were eventually covered by FCRA, the volume provided information on other federal credit assistance, such as federal insurance and GSEs.

Subsequent *Special Analyses* expanded information on interest subsidies. Analyses included subsidy cost estimates for loans as well as discussions of the importance of interest rate assumptions on these estimates. Over the years, OMB dealt with interest rate assumptions differently. The Fiscal Year 1973 *Special Analyses* noted that *"[t]he selection of an appropriate rate might vary with analytical objectives"* (p.79). Some analyses, including those for fiscal year 1973 and fiscal year 1974, provided subsidy estimates using one, uniform discount rate (OMB, 1972, 1973). Alternatively, the fiscal year 1978 volume presented subsidy costs using three different discount rates to *"…illustrate the importance of interest rate differences to the value of the subsidy"* (OMB, 1977, p. 113).

These experiments and expansions of analytical tools for federal credit programs, however, did not fully address concerns surrounding the budget oversight and control of federal credit programs. The fiscal year 1972 President's budget identified the lack of budget control over federal credit programs as a major problem and suggested the need for *"legislation to enable these credit programs to be reviewed and coordinated with other federal programs"* (OMB, 1971a, p.18). The fiscal year 1978 budget included legislative proposals, calling for the repeal of off-budget entities and changes to the budget treatment of loan sales. It also recommended a *"reconsideration"* of the exclusion of loan guarantees from budget authority (OMB, 1977). No action was taken on these proposals.

The Carter Administration continued to support reform, but it did not submit legislative proposals. The fiscal year 1979 budget stated a commitment "*to work closely with the appropriate Congressional committees to reach agreement on a mutually*

acceptable system" (OMB, 1978, p. 27). The fiscal year 1980 budget repeated the need to *"establish a system of controls"* over federal credit programs, but again the Administration did not submit proposed legislation (OMB, 1979, p. 27 and Rivlin, 1979). The next year, however, the President's fiscal year 1981 budget, included the first-ever federal credit budget.

Credit Budget Was Important Milestone but Did Not Fully Address Concerns.

The publication of the first credit budget was an important milestone in the path to FCRA. The Administration described the credit budget as a "c*omprehensive and systematic review of Federal credit activities*" (OMB, 1980, p. 80). While the unified budget (the primary focus of budget policy) continued to measure federal credit programs on a net cash-basis the separate credit budget provided a statement of federal credit program activity for the fiscal year. It included gross (as opposed to the net) level of credit activity. By using gross levels, the credit budget focused on total new credit, rather the incremental portion resulting from netting new credit with prior credit (CBO, 1982). It also recommended appropriation limits for a range of direct loan and loan guarantee programs. Appropriation limits (which were included in appropriations language) for some credit programs, set annual ceilings on the authority to incur direct loan obligations or to enter into loan guarantee commitments (CBO, 1980 and OMB, 1980). As part of the implementation process, CBO tracked congressional action on the credit budget and periodically reported to the Budget Committee on the status of credit activities (CBO, 1984).

While the credit budget was an important milestone on the path to new budget decision rules for credit programs it had significant shortcomings. Because the credit budget was separate from the unified budget and focused on loan volume (rather than subsidy cost) it did not facilitate comparisons or tradeoffs with other federal programs. Policy participants expressed concerns that: (1) it did not establish (or propose legislation to establish) a formal credit control system; (2) its appropriation limitations were of questionable effectiveness; and (3) it did not focus attention or control on subsidy costs (CBO, 1989, 1991; Cuny, 1991; and OMB, 1988).

In introducing the credit budget, the Administration did not propose legislation to change rules to establish a formal, permanent credit control system.[68] Rather, the Administration suggested that the Congress could establish a framework for considering individual credit program limits by setting targets and ceilings on gross direct loans and loan guarantees. In congressional hearings, representatives from CBO, OMB, the Treasury, and the Board of Governors of the Federal Reserve all recommended that Congress establish its own credit budget to set aggregate targets and ceilings on federal credit, as well as limitations for individual credit programs (CBO, 1980; Control of Federal Credit Programs, 1979 and Reischauer, 1980, p.5).[69] Congress choose not to establish such a process.

While Congress did not adopt its own credit budget, beginning in the early 1980s, it selectively imposed some budgetary controls on direct loans and loan guarantees (Bickley, 2003; CBO, 1982; GAO, 1989; and Ipollito, 1984). Congressional action

[68] The credit budget was implemented as part of OMB's budget preparation process.
[69] CBO (1981) argued that only a process which sets overall targets and ceilings would: (1) provide Congress an opportunity to make allocations among competing programs and (2) help Congress decide on and enforce a ceiling for total federal credit.

included; (1) setting targets in the budget resolution and (2) enacting limitations for some individual credit programs in appropriations language. In the fiscal year 1981 budget resolution, Congress, for the first time, set targets for direct obligations and loan guarantee commitments (Rivlin, 1981, p. 8). These targets, however, were not binding. Congress continued to set targets for federal direct loans and loan guarantees in the budget resolutions for fiscal year 1982 through fiscal year 1985. Beginning with the fiscal year 1982 these targets were allocated among budget functions, but, except for the fiscal year 1983 budget resolution, these targets were nonbinding.[70] In 1985, the CBA was amended to require allocations of new direct loan obligations and new loan guarantee commitments (CBO, 1989 and GAO, 1989).

Congress also included annual volume limitations on the direct loan obligations and loan guarantee commitments in appropriations language, but these were of questionable meaningfulness and effectiveness. First, significant categories of federal credit programs were excluded.[71] The proposed limitations included in the fiscal year 1981 budget covered only about 45 percent of total new direct loan obligations and about 40 percent of new loan guarantee commitments[72,73] (CBO, 1980, p. 7). Further, even

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[70] According to CBO (1984), Congress went further in fiscal year 1983 resolution than it had in the past. Among other things, it included point-of-order enforcement on the second budget resolution ceiling for the credit budget. It also required the allocation of the credit budget to appropriation and authorizing committees by the Budget Committees and allocation of the credit budget among major programs and subcommittees by the committee of jurisdiction.

[71] According to CBO (1980), two general categories of program were exempted: (1) emergency assistance programs, such as disaster loan programs and (2) entitlement programs, such as veterans' credit assistance. There also were several one-time exceptions. In 1984, 28 percent of direct loans obligated and 35 percent of primary guarantees committed were subject to annual limits (CBO, 1985).

[72] Another concern was there were no direct limitations on FFB activities which left *"open a door through which activities may escape the bounds of the unified budget"* (CBO, 1980, p. 7).

[73] In its report on the Administration's fiscal year 1982 Credit Budget, CBO (1981) argued that *"to achieve systematic control over credit programs, the Congress will have to develop a policy on exemptions from annual activity limits" (*p. 22).

when volume limits were in place, the legislated levels often exceeded demand so that they did not provide any real constraint (CBO, 1991 and Pariser, 1992). CBO (1982) reported that the fiscal year 1982 requested limit for the Central Liquidity Faciality of the National credit Union Administration was $750 million above the estimated obligation level. CBO (1991) reported that the loan limits for Export-Import Bank loan guarantees and FHA's mortgage insurance far exceeded actual levels.

Most importantly, the focus of control in the credit budget was on the volume (not the subsidy cost) of credit programs. As discussed in the next section, over time, the analytical focus shifted from the volume of credit activities to the government's subsidy costs. Reflecting this shift, in August 1984, OMB revised *Circular A-70 Policies and Guidelines for Federal Credit Programs* to require federal agencies to calculate the subsidy costs for all their direct loan and loan guarantee programs and transmit this data to OMB (CBO, 1989).[74] While this requirement was generally viewed as a positive step and a catalyst for improving data for estimating subsidy costs, there was significant concern that subsidy costs were not directly integrated into budget reporting and control (Bickley, 1991; Cuny, 1991; CBO, 1989; Wolf, 1987; Ippolito, 1984; and OMB, 1987). Cuny (1991) explained:

> *"…. a fairly general agreement emerged that the credit budget places limitations on the wrong control point. The limitations are on the face value of new credit activity whereas more recent analyses generally agree that the most critical point of control is the level of subsidies subsumed within the new loans or guarantees"* (p. 26).

[74] The required method for calculating subsidy costs was comparison of private financing terms with those of the federal loan program.

President Reagan expressed similar concerns:

> *"The credit budget has the advantage of focusing attention on the decisions that commit the government to new expenditures. But it does not show the cost of these expenditures – the subsidies. Instead it shows the total volume of credit assisted. Thus, it does not distinguish between programs with deep subsidies and those with small ones. Moreover, the credit budget is separate from the unified budget so trade-offs between credit and other spending cannot be made"* (Reagan, 1987, p.1).

The fiscal year 1990 budget continued to highlight the shortcomings of the credit budget, stating that it *"…. does not measure subsidy, nor does it place any direct restriction on the level of subsidy that a program offers to the borrower"* (OMB, 1989).

Elite consensus[75] emerged that <u>appropriated</u> subsidy cost is the appropriate budget measure for federal loan programs, but unresolved issues remained.

The concept of subsidy cost was introduced as a useful budgetary measure for federal credit programs more than two decades before FCRA's enactment. In 1967, the President's Commission on Budget Concepts discussed subsidy cost and recommended that, to the extent practicable, the subsidy portion of federal direct loans be identified and included in the receipt/expenditure account of the budget (CBO, 1989 and U.S. Government Printing Office, 1967). Specifically, the President's Commission argued:

> *"… the subsidy elements in all such loans should be included and specifically disclosed in the expenditure rather than the loan account of the budget to the extent practicable since such subsidies are much more like grants than loans. This will make a meaningful separation of loans from the other budget*

[75] In this dissertation, elite consensus is used to refer to consensus among key stakeholders, including: (1) political leaders associated with the rule's establishment and implementation (such as Chairs and ranking members of relevant committees, such as the appropriations, budget or tax writing committees) and (2) prominent experts and technicians (from government, e.g. CBO, OMB, and GAO; academia; and non-governmental entities, such as think tanks).

> *expenditures possible. Measurement of the subsidy in loans would reflect the interest rate subsidy, capitalized at the time the loan is made, and the provision of adequate allowances for losses.* (U.S. Government Printing Office, 1967, p. 47).

The Commission did not provide specific recommendations for federal loan guarantees, but it expressed *"… concern about the need for coordinated surveillance and direction of all Federal lending activity – direct and guaranteed"* and recommended further study of the budgetary treatment of the loan guarantees (U.S. Government Printing Office, 1967, pp. 49-50). While no immediate action was taken on the Commission's recommendations, some elements of these recommendations were reflected in FCRA's design more than two decades later.

During the 1970s and 1980s various policy participants provided a range of proposals to improve the budget oversight and control of federal credit programs (CBO, 1984, 1989; OMB, 1987, 1989). These proposals varied significantly. One reform option was to further improve and expand analytical tools without changing budget decision rules. One idea was that the subsidy cost information already in the *Special Analysis* could be included more directly in budget account presentations, such as: (1) the *Budget Appendix* presentation for federal credit programs' budget accounts, (2) CBO cost estimates, and (3) Appropriations Committee reports (CBO, 1984). However, as explained by CBO (1984), under this type of approach, subsidy cost estimates would be "*memoranda items."* Because net cash flows, rather than subsidy costs, would continue to be the basis of budget measurement and control CBO and others raised significant doubts about whether this type of reform would sufficiently improve the oversight of federal credit programs. In discussing reform options for loan guarantees, CBO (1978) argued:

> *"[a]n informational analysis for many years has been included in a special analysis on credit programs in the President's budget. Although this analysis has provided an indispensable tool for specialists, it has not provided the Congress with an effective mechanism for understanding or controlling credit activities. A new analysis likely would not improve Congressional control"* (p. 35).

However, moving beyond analytical tools to establish authoritative budget decision rules involved numerous design choices and political hurdles. An important issue was determining and reaching workable consensus on the objective of a new budget decision rule. If the objective was to constrain policymakers' decisions about the level and composition of federal credit, then hard spending limits on volume or subsidy costs would be appropriate. Alternatively, if the objective was to improve budget parity[76] then it would be appropriate to focus on improving budget measurement and recognition of subsidy costs.

As shown in Table 3.3, over time, the focus of reform efforts generally shifted from the controlling the volume of federal credit programs to establishing a spending-equivalent, namely subsidy costs. In the decade preceding FCRA, key players, including CBO, GAO, OMB, and the budget committee, articulated strong support for using subsidy costs to measure the budget costs of federal credit programs. Some, however, continued to argue that to make significant difference a process rule – such as subsidy budgeting – might need to be combined with a hard constraint. In an April 11, 1990 congressional hearing, OMB director, Richard Darman expressed his view that subsidy budgeting alone *"won't do the trick"* and should be combined with a limitation on aggregate credit exposure (C-SPAN, 1990). He argued

[76] Budget parity generally refers to transactions with equivalent economic effects receiving equal treatment in the budget so as not to bias policymaking decisions based on some budget advantage.

"*a more accurate accounting of credit program subsidies and costs will be of little more than academic interest if it is not linked to an effective system to limit and control overall credit exposure" (C-SPAN, 1990).*

However, the enactment of an outcome-based rule providing a constraint on the level of federal credit did not appear politically viable at the time. In response to Darman's suggestion, Rep. Schumer (D-NY), who was chairing the hearing, stated that passing such limits on credit would be "problematic" (CSPAN-1990).

Table 3.3 Examples of Shift from Volume Control to Subsidy Costs

Year	**Proposal**	**Focus of Reform**	
		Volume	**Subsidy Cost**
1979	H.R. 568 *Federal Credit Program Control Act of 1979*	X	
1979	H.R. 6056 *Federal Credit Program Control Act of 1979*	X	
1979	S. 2151 *Federal Credit Program Control Act of 1979*	X	
1981	S. 265 *Federal Lending Control Act of 1981*	X	
1981	H.R. 2372 *Federal Lending Oversight and Control Act*	X	
1982	S. 2454 *Federal Credit and Tax Expenditure Control Act of 1982*	X	
1983	S.1582 *Federal Credit Reform Act of 1983*	X	
1987	H.R. 1745, S.745 *Federal Credit Reform Act of 1987*		X
1988	H.R. 5568, S. 2785 *Federal Credit Reform Act of 1988*		X
1989	H.R. 1127, S.584 *Federal Credit Reform Act of 1989*		X
	H.R. 3929 *Budget Process Reform Act of 1990*		X
1990	H.R. 5437 *Truth-in-Budgeting Reform Act of 1990*		X
	CBO report and testimony		X
	OMB testimony	X	X
1990	Federal Credit Reform Act of 1990		X

Source: Table compiled by author.

Even though considerable consensus emerged among key policy participants that subsidy cost is the appropriate budgetary measure for federal credit programs, significant debate surrounded the specific design of a new budget decision rule, including: (1) how subsidy costs should be defined and measured and (2) what mechanics would be used to

include subsidy costs in the budget. In the debate preceding FCRA, the term "*subsidy cost*" was described and defined in different ways. As noted by Gale (1989), the "*subsidy"* for federal credit was defined in terms of:

> (1) "B*enefits to borrower:"* Estimates of the economic benefit to the borrower as measured by the difference between the amount paid by the borrower with and without the federal loan or loan guarantee (Gale, 1989, p.12);
>
> (2) "C*ost to government"* Estimates the government's cost of holding the credit asset as measured by the difference between the interest rate on the loan and the government's borrowing rate (i.e. the interest rate on comparable Treasury note) (Gale, 1989, p.12); or
>
> (3) "*Market-loss"* Estimates the difference between the government's costs and the amount received from selling or reinsuring assets on the private market (Gale, 1989, p.12).

Further complicating the matter, CBO (1989) disputed that the distinction between the *"benefit to borrower"* versus "*cost to government"* that was often used in the literature and debate. CBO argued that if the estimate of government's subsidy cost includes market risk (as it suggested it should) than these cost measures are essentially the same. This debate about whether market risk is part of the government's budget costs reemerged and remains a major point of contention.

Proposals also outlined different approaches for including subsidy cost in the budget. In the early-1980s, two main proposals emerged: (1) "*market-plans"*[77] and (2)

[77] CBO provided a comprehensive review of options for budgeting for federal credit, including introducing the market-based plan, in its 1984 report *New Approaches to the Budgetary Treatment of Federal Credit Assistance* (Bickley, 1991 and CBO, 1984). According to CBO

"appropriation plans" (Bickley, 1991; CBO, 1984, 1989; Wolf, 1987; and Gale, 1989). Early versions of market-plan proposals involved altering federal credit programs' operations so that the government's subsidy costs of new federal credit transactions would be included in the budget without directly changing budget decision rules i.e. the federal budget would still use cash-based measurement. The Reagan Administration's 1987 proposal, called for new decision rules with respect to credit program operations that required new federal direct loans to be immediately sold to private investors and new federal guaranteed loans to be reinsured through private companies (CBO, 1984 and 1989; Phaup, 1985; Gale, 1989 and OMB, 1987).[78] The subsidy cost of a direct loan would be the difference between its face value and the market price paid by private lenders i.e. the cash amount needed to cover the government's market loss on the sale. In the case of a loan guarantee, the government's subsidy cost would be the market price for private reinsurance. Importantly, since the transactions for these loan sales or reinsurance purchases would involve cash payments to entities outside the government the budget's cash-based outlays and the deficit/surplus would include the government's subsidy costs (CBO, 1989). Thus, by altering decision rules for credit program operations, the government's subsidy costs would be reflected in the budget without the government having to estimate subsidy costs or make changes to budget measurement or account structures.

(1984), the appropriation-based plan was proposed in 1983 by David Mathiasen, Deputy Associate Director for Budget Review, OMB.

[78] Under some market-based approaches, federal credit agencies would be required to have budget authority to cover these subsidy costs before issuing loans. Other variations of market approaches included proposals to pay subsidy costs to a GSE that would in turn disburse subsidized loans and issue subsidized guarantees.

Proponents of a market-based approach argued it would provide a straightforward way of addressing the problems of cash-based budgeting for federal credit programs. Phaup argued:

> *"the simplest conceptual solution to the misrepresentation of costs arising under current policy is to require the open-market sale of all direct loans originated by government and the reinsurance with private firms of all government guarantees"* (Phaup, 1985, p. 34).

Cited advantages of a market-based approach included: (1) the use of verifiable market valuation to determine government's subsidy costs and (2) more timely recognition of these costs (CBO, 1989, Darman, 1990, Gale, 1989, and Phaup, 1985).[79] Significant concerns, however, surrounded the uncertainty involved with market-based transactions, including that underdeveloped credit markets and a lack of comparable, private instruments could result in underpricing of loans and overpricing of reinsurance (Gale, 1989 and Phaup, 1985). In addition, market-based plans created political challenges because of the visibility of the government's immediate loss on these transactions. Gale (1989), concluded that *[a]lthough loan sales have much to offer under ideal circumstances, across-the-board divesture of federal credit as envisaged by the Market Plan is currently not a feasible alternative"* (p. 20).

Alternatively, *"appropriation plan"* proposals sought to establish new budget decision rules and procedures to recognize and fund subsidy costs (CBO, 1984, 1989 and Gale, 1989). Under an appropriation-based approach, the government's subsidy costs would be included in the budget through appropriations and intra-governmental transfers

[79] Other cited advantages of the market-based approach were that it would reduce the government's administrative costs and create incentives to improve loan management and documentation.

(CBO, 1984, 1989). Appropriations would be required to cover subsidy costs before credit is extended. As noted by CBO (1984, 1989), unlike the market-based approach, an appropriation-based approach would require: (1) the establishment of procedures to estimate and track the government's subsidy costs and (2) the creation of new budget account structures to isolate subsidy costs from incidental cash flows. Cited benefits of an appropriation-based approach included that requiring appropriations for subsidy costs would create a spending-equivalent budget measure and provide for upfront control of budget costs (CBO, 1984). Disadvantages, however, included significant difficulties in estimating subsidy costs, the potential for gaming, and that subsidy cost would be viewed merely as a technicality (CBO, 1984 and Phaup, 1985).

By the late 1980s, key proposals, including those from the Senate Budget Committee, OMB, GAO and CBO, aligned behind the use of an appropriations-based approach. These proposals all had key elements in common, including: (1) the use of subsidy costs measured on a net present value basis as the budget measure for direct loans and loan guarantees, and (2) the appropriation of funds for subsidy costs before credit is extended (GAO, 1989). Each proposal also called for a new budget account system to separate the government's subsidy costs from non-subsidized cash flows (GAO, 1989). [80] As noted by CBO (1989),

> *"The central fiscal agencies of the ederal overnment – including OMB, GAO, and CBO – agree on how the costs of federal credit programs should be treated in the budget. They all believe that costs should be calculated in terms of present value of the long-term costs of extending credit assistance…. Furthermore, the*

[80] Phaup (1985) also describes a *"remarkable consensus"* on key aspects of credit budgeting, including, among other things: (1) "*The current system produces measures of credit costs that are not helpful in policy analysis or budgeting"* (2)*"The present value of credit subsidies ought to be substituted for current cash outflow in budget expenditures….."* and (3) "*The substitution could be achieved by valuing loans and guarantee in terms of expected payment streams to which they entitle or obligate the government"*(p. 38).

agencies agree that the subsidy costs of federal credit programs ought to be subject to the annual appropriation process" (p.68).

Although consensus emerged on the new budget rule's basic conceptual framework there was significant debate and disagreement about exactly how to calculate subsidy costs and how to include these costs in the budget. Key issues debated with respect to the calculation of subsidy costs were: (1) the choice of discount rate and (2) the treatment of administrative costs. While issues ultimately were resolved in the sense that FCRA was enacted, the method of subsidy cost estimation remained subject of debate and recently reemerged as point of significant controversy.

During the debate leading up to FCRA, policy participants were divided about the appropriate discount rate to use in calculating subsidy costs.[81] Two widely discussed approaches included: (1) market-risk approaches which included the cost of market risk into subsidy costs, and (2) cost to government approach which uses the Treasury rate as the discount rate. Table 3.4 provides a comparative overview of proposals' approach and choice of discount rate.

Proposals calling for market-based discount rates evolved from earlier market-based approach that sought to use market-based transactions to sell or reinsure loans. [82]

[81] The present value method involves using a discount rate to adjust future cash flows to current value and the choice of discount rate was (and remains) a critical issue in measuring credit subsidy costs. While the key reform proposals directly preceding the enactment of FCRA had similar conceptual frameworks, they had important differences in the choice of discount rate.

[82] Faced with feasibility concerns and Congress's failure to act on market-plan, modifications were made to the market-based approach. While initially the market-based approach had called for requiring the sale of loans and purchase of reinsurance, later versions of market-based proposals adopted an appropriation-based approach with the use of a market-based discount rate for calculating subsidy costs. Proponents argued that rather than using direct market operations, private market value could be estimated by discounting expected cash flows using a market interest rate.

Faced with continuing concerns about the feasibility of selling and reinsuring loans and Congress's failure to act modifications were made to market-based proposals. Later iterations of market-based proposals adopted the appropriation-based approach but called for the use of a market-based discount rate. The CBO and the Administration's fiscal year 1989 plan endorsed the use of market-based (or risk-based) discount rates. The *Federal Credit Reform Act of 1989*[83] proposed by the Bush Administration called for the use of market prices to calculate subsidy costs.

Alternatively, the GAO and the Senate budget committee proposals supported the cost to government approach, which would use of the risk-free Treasury rate as the discount rate. GAO (1989) argued in favor of this approach based on the notion that *"the budget should report only direct budgetary costs"* and that the use of the Treasury rate most appropriately measures subsidy costs in terms of the government's budgetary cost of extending credit (p.4). In GAO's view, this approach was consistent with the treatment of other federal programs and, would provide a comparable basis to other federal programs (GAO, 1989, p. 4 and Wolf, 1987). The use of the Treasury discount rate also was consistent with the earlier recommendation of the President's Commission on Budget Concepts and academic theory [84] at the time (U.S. Government Printing Office, 1967).

[83] Proposed, but not enacted.

[84] The theory that the government is not risk-adverse is grounded in the work of Arrow and Lind (1970) which argued for using a risk-free rate because any credit losses from a program would extremely small relative to the totality of the federal budget. In addition, the government could use its taxing and borrowing authority to spread any costs over time (Elliott, 2012; GAO, 1987; and Lucas and Phaup, 2010).

Table 3.4 Comparative Overview of Select Proposals Preceding FCRA's Enactment

Year	Proposal	Enacted	Market-based Plans	Appropriation-based Plans	
			Subsidy cost determined and recognized in budget by market transactions (i.e., loan sale or reinsurance purchase)	Subsidy cost calculated administratively using market discount rate	Subsidy costs calculated administratively using the government's borrowing rate as the discount rate
1987	S.745; H.R. 1745 *Federal Credit Reform Act of 1987*	No	X		
1987	Academic proposal Bosworth et al.	n/a			X (adjusted government borrowing rate)
1988	H.R. 5568 S. 2785 *Federal Credit Reform Act of 1987*	No		X	
1989	H.R. 1127 S.584 Federal Credit Reform Act of 1988	No		X	
1989	GAO	n/a			X
1989	CBO	n/a		X	
1990	H.R. 3929 Budget Process Reform Act of 1990				X
1990	H.R. 5437 Truth-in-Budgeting Reform Act of 1990	Procedurally related to final Omnibus bill			X
1990	*Federal Credit Reform Act of 1990*				X

Source: Table compiled by author.

The treatment of administrative costs also was a source of debate. Administrative costs are those associated with loan origination, servicing, and collection. Various practical, institutional, conceptual, and political arguments surrounded whether these costs should be included in subsidy costs (CBO, 1992). On the practical side, there were limitations in many agencies' accounting systems to accurately measuring and allocating the administrative expenses. Some questioned the conceptual merits of including administrative costs, noting that outlays for federal grants generally do not include administrative expenses upfront and thus excluding these costs from federal credit subsidy estimate enhanced comparability (Bickley, 1991). Opponents also noted that funding for future operations years in advance would reduce congressional control and oversight of these funds. As noted by Lucas and Phaup (2008), *"the Appropriation Committees were especially wary of giving agencies control of future outlays for salaries and expenses by drawing on past appropriations and the authority to reestimate these costs"* (p. 100). There also were political concerns that inclusion of administrative costs would disadvantage credit programs in the political process by increasing their absolute and relative costs. While FCRA excluded administrative costs from subsidy costs, it required CBO and OMB to study the issue and provide recommendations.

Proposals also handled nonsubsidized cash flows differently, with important implications for the reporting of credit program costs in the deficit/surplus (Bickley, 1991; C-SPAN, 1990; and Cuny, 1991). Under some proposals, the impact of federal credit programs on budget totals, including the deficit/surplus, would not have changed. The *Federal Credit Reform Act of 1989,*[85] called for appropriating funds for the subsidy

[85]Proposed but not enacted

costs of direct loans and for these costs to be included in the program accounts of credit agencies. However, the impact on the deficit would remain the same, with both subsidized and unsubsidized amounts of direct loans included in budget totals. [86] The amount of loan guarantees still would not be included in the budget totals because of the use of offsetting intragovernmental transfers.

Other proposals reflected concerns that retaining incidental (unsubsidized) cash flows in the budget would undermine the objectives of credit reform (Cuny, 1991). Under this approach (which eventually was adopted in FCRA) only the subsidized portion of the loan was included in budget totals and incidental cash flows were handled "*below*" the line in non-budgetary financing accounts. Proponents of this approach argued that leaving the nonsubsidized cash flows of federal credit programs in the budget "*would allow for the same sort of manipulation of the outlays and deficit totals …. that credit reform was designed to eliminate"* (Cuny, 1991, p. 29).

By the late 1980s, there were signs of a growing willingness to compromise on specifics to address the larger issue. The Savings and Loan (S&L) crisis had called attention to problems with the government's credit and risk exposure. Lawmakers were under considerable pressure to show action on these issues. In his opening statement for

[86] Specifically, under this approach, when loans were made the subsidized amount would be transferred from the agency to a Direct Loan Fund and the nonsubsidized amount would be borrowed by the Direct Loan Fund from Treasury. Because both the subsidized and nonsubsidized portions would be outlayed from the Loan Fund to the borrower the entire amount of the loan would continue to be included in total outlays and the deficit/surplus (Bickley, 1991). For loan guarantees, the subsidy would be paid into a Guaranteed Loan Fund and then invested in Treasury securities. This offsetting intragovernmental transaction would leave the deficit/surplus totals unaffected. As a result, the costs of loan guarantees still would not be included in total outlays or the deficit/surplus until defaults occurred and payments were made to lenders (Bickley, 1991).

at a April 1990 credit reform hearing, Rep. Charles Schumer (D-NY) declared it the *"opportune time for credit reform"* and argued that recent crises had *"lit a fire under people"* (C-SPAN, 1990). Rep Gradison (R-Ohio) also framed his opening remarks with the Savings and Loan crises noting that it is now apparent *"..., as a result of the savings and loan debacle that there is a problem and that it does require action"* (C-SPAN, 1990). Although FCRA did not address the largest and most complicated programs, such deposit insurance and GSEs, it allowed lawmakers to show action addressing the government's exposure to credit risks.

At the same hearing, expert witnesses testified that need to get something done was more important than disagreements about specific reform details. OMB Director Richard Darman testified that credit reform *"merits prompt legislative action"* and that "*second order technical differences should not delay the institution of a more rigorous system of credit control and credit program budgets"* (C-SPAN, 1990). Comptroller General Bowsher testified that that "[r]a*rely will you see a matter on which there is such broad agreement among those who have studied it*" (p. 1). He added that while differences exist "*the areas of agreement outweigh any differences among these proposals and provide a sound basis for moving ahead with needed reform"* (Bowsher, 1990, p, 14).[87,88]

[87] Comptroller General Bowsher noted that *"... the need for credit budgeting reform is a matter on which the Budget Committee, the Office of Management and Budget (OMB), the Congressional Budget Office (CBO), and the General Accounting Office (GAO) are in substantial agreement"* (Bowsher, 1990, p. 1).

[88] Cuny (1991) noted that *"[b]y early 1990 consensus on the merits of credit reform had spread so far that the directors of OMB and CBO and the comptroller general all testified in favor of enacting credit reform"* (p. 27).

FCRA's budgetary impact was expected to be relatively small relative to the total budget. During congressional hearings preceding FCRA's enactment, CBO Director Robert Reischauer explained that if subsidy costs were treated "*below the line*" (the approach enacted under FCRA) there would be a "*slight increase in the measure deficit"* (C-SPAN, 1990). Reischauer estimated the increase as somewhere between $3-$6 billion per year for the next 2 to 3 years (C-SPAN, 1990).

In the end, FCRA required an appropriation-based approach using the risk-free Treasury rate. Of the design issues discussed above the choice of discount rate has been the most controversial. Unsettled disagreement on the discount rate issue continued after FCRA's enactment as part of very large (over 600-pages) and significant Omnibus budget bill, which included among things, a controversial tax increase and the BEA.[89] There were no separate roll call votes in this session on federal credit reform legislation.

The use of the cost of government approach was preferred by the Democratic-controlled Budget Committees. Further, the cost-of-government approach generally results in lower estimates than a market-based approach and therefore lowered the impact of FCRA on the deficit. However, while the cost to government approach favored by the Budget Committee won out, decades later the strong disagreement about treatment of market risk in subsidy cost estimates continues. As discussed below, this seemingly technical issue reveals deep conceptual and political differences about what constitutes a cost to government as well as about the role, scope, and limits of the budget and the budget process.

[89] P.L. 101-508, 104 Stat.1388, The Omnibus Budget Reconciliation Act of 1990 (OBRA 1990).

Chapter Four:

Federal Credit Reform, Implementing and Using the Rule

This chapter examines how FCRA was translated from theory to practice. While FCRA faced implementation challenges, it benefited from on-going refinements and alignment with existing institutional structures and concurrent reforms. A key issue in assessing FCRA's experience is whether subsidy cost estimates have been reasonably accurate. However, recent attention has turned from the accuracy of agencies' subsidy estimates generated using FCRA procedures to concerns about the adequacy of FCRA's estimation procedures. A central concern - FCRA's exclusion of market risk from subsidy costs - has led to calls for amending FCRA to adopt a fair-value approach. The debate about FCRA's estimation procedures and competing subsidy cost estimates have informed and complicated policy and political debates about federal loan programs.

FCRA faced implementation challenges but benefited from on-going refinements and alignment with existing institutional structures and government reforms.

FRCA's operationalization and implementation involved significant challenges. As is often the case with legislation, FCRA was brief and lacked implementation details.[90] As a result, in the years following its enactment, key participants, including federal credit agencies, OMB, Treasury, and FASAB worked to address various implementation issues including those for which FCRA did not provide explicit directions (Bickley, 2012, and GAO, 1998, p. 41). Further, early implementation efforts occurred in an environment of pre-existing and significant federal financial management

[90] FCRA was approximately five and half pages of the *U.S. Code, Congressional and Administrative News* (Bickley, 2012, p. 7).

problems. For years prior to FCRA, GAO, the IGs, and others had reported major problems with federal credit agencies' financial information and reporting systems, including incomplete and unreliable federal credit data.[91] FCRA added new and complex requirements to these weak financial management processes and systems (GAO 1993 and OMB, 1992). One policy participant noted that the challenge was compounded to some extent by deficiencies in staffing levels and technical expertise at both OMB and credit agencies. (Criscitello, 2016). Given these challenges, policy participants raised concerns about credit agencies' ability and willingness to reasonably estimate credit subsidy costs (Criscitello, 2016 and GAO, 1989, 1993).

As implementation began, oversight reports reported federal agencies' difficulties complying with FCRA's requirements (GAO, 1989, 1993). As an example, GAO and the Department of Education's IG were unable to express audit opinions on the federal student loan guarantee program's fiscal year 1992 and 1993 financial statements due to a lack of reliable student loan data. Further, GAO and the IG reported that ineffective internal controls and inadequate student loan data impaired the program's budget estimates (GAO, 1993b). Similarly, USDA's IG testified that *"[t}he Departments loan accounting systems were not equipped to provide the extensive detail necessary to fulfill credit reform requirements."* GAO found that the credit agencies it reviewed

[91] GAO's work prior to FCRA repeatedly found credit agencies could not accurately measure credit losses. As examples: (1) GAO's audit of FHA's fiscal year 1988 financial statements found a significant understatement of losses and cited numerous, significant financial management weaknesses as contributing to these losses; (2) GAO's audit of the Department of Education's fiscal year 1990 financial statements found a lack of proper accounting for billions of dollars in estimated loan losses; and (3) GAO's audit of the Department of Agriculture's fiscal year 1991 financial statements found inaccurate loss estimates for the farm loan program (GAO. 1990, 1991, 1993b). Given the severity of the problems, several credit agencies were included in GAO's and OMB's "high risk" initiatives, which aimed to call attention to significant management and policy issue across the Federal Government (GAO, 1993b, p. 5).

"*experienced significant problems meeting virtually every one of the basic aspects of OMB's credit reform accounting requirements"* [92] (GAO, 1993b, p.6).

As agencies worked to resolve issues, oversight reports reported continuing challenges. Audits of credit agencies' financial statements and GAO's first-ever audit of the fiscal year 1997 governmentwide financial statements found that most federal credit programs were unable to properly estimate and report credit costs and the related loans receivable and loan guarantee liabilities (GAO, 1999).[93] In 1998 and 1999 reports, GAO raised serious concerns about the ability of credit agencies to reasonably estimate subsidy costs for both financial statement and budget purposes.[94] GAO (1998b) warned:

> *"Until federal credit agencies correct these serious data deficiencies information supplied by them about the cost of their credit programs, including information to support annual budget request for these programs, should be used with caution in making future budgetary decisions, managing program costs, and measuring the performance of credit activities"* (p.17).

These implementation challenges, however, were not unexpected and efforts to address them occurred within an existing institutional framework with established roles.

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[92] In summarizing its findings, GAO stated: "*Overall, the major domestic lending agencies could not fully implement OMB's credit reform requirements because agencies' (1) financial systems and controls have long been flawed so that basic data was unavailable or incorrect (2) existing financial systems were not designed to handle the information prescribed, and (3) staff resources were insufficient to meet the added requirements"* (GAO, 1993b, p. 5).

[93] Only two of five major credit agencies reviewed by GAO – Education and SBA -- made reasonable cost estimates in their 1997 financial statements (GAO, 1999, p. 3). However, Education and SBA undertook additional work and made significant adjustments in order to achieve reasonable subsidy estimates for the financial statements and their audit reports raised significant concerns about their budget estimates (GAO, 1999, p. 3).

[94] GAO's reviews included five credit agencies: The Department of Agriculture, The Department of Education, The Department of Housing and Urban Development, The Small Business Administration and the Department of Veteran's Affairs. GAO reviewed two domestic credit programs from each agency. GAO found that reliability of credit data remained questionable for a number reasons, including (1) the poor results of financial statement audits; (2) discrepancies between subsidy rates reported in the budget and data provided to GAO by credit agencies; (3) missing documentation for subsidy estimates; (4) credit agency staff acknowledgements that subsidy cost component data were questionable; and (5) credit agency staff reports of deficiencies in systems support (GAO, 1998, p. 13).

In line with its long-established role in the federal financial management and budget process, FCRA gave OMB primary responsibility for operationalizing and overseeing implementation. Under Section 503(a), the director of the OMB has final responsibility for subsidy cost estimates. The OMB director may delegate authority to calculate subsidy cost estimates to credit agencies, but OMB is responsible for issuing instructions and overseeing implementation. Specifically, FCRA directs OMB to establish written requirements and guidelines consistent with the FCRA's definition of costs.[95]

OMB provided additional guidance and support to federal credit agencies in preparing subsidy cost estimates, including training sessions, memos, assistance from OMB budget examiners, and other technical support (Criscitello, 2016; GAO, 1993b,1998 and OMB, 2012). To help establish a consistent approach to subsidy cost estimation, OMB developed the Credit Subsidy Calculator, a computer model, which provides federal credit agencies to calculate the total estimated subsidy rate and the subsidy cost components[96] based on the cash flows developed by the credit agency (Bowsher, 1990 and OMB, 2014b). All agencies covered by FCRA are required to use OMB's Credit Subsidy Calculator and discount rates to calculate subsidy cost estimates and reestimates "*to ensure government-wide comparability and uniformity of*

[95] To provide agencies requirements and guidance for preparing and monitoring of subsidy estimates, OMB revised *Circular A-11: Preparation and Submission of Budget Estimates* and *Circular A-34, Part IV Instructions on Budget Execution, Credit Apportionment and Budget Execution* (Cuny, 1991 and GAO, 1993b). *A-129 Managing Federal Credit Programs* also provides guidance on managing credit programs. OMB requirements and guidance were to be developed after consultation with the CBO director and both the OMB and the CBO director are responsible for developing more accurate historical data on credit programs, which are used in subsidy cost estimation (Bickley, 2012).

[96] OMB's Credit Subsidy Calculator calculates the portions of the subsidy cost attributable to defaults, interest subsidies, fees, and other subsidy components (OMB, 2014b).

discounting" (OMB, 2014b, p. 13 of Section 185). Treasury provided guidance[97] in the document *Basic Transactions Relating to Guaranteed Loans and Subsidies*, which illustrated how to account for credit transactions. Interagency working groups[98] and training sessions provided venues for raising questions with respect FCRA's implementation and to provide feedback on the challenges faced by agencies (GAO, 1993b).

Importantly, FCRA was aligned with and supported by other governmentwide reform efforts aimed at improving financial management, including the Chief Financial Officers Act Of 1990 (CFO Act)[99] and the establishment of the Federal Accounting Standards Advisory Board (FASAB). The CFO Act, as amended, requires annual financial statement audits for 24 CFO agencies[100] (which includes key federal credit agencies) and the preparation and audit of consolidated financial statements for the U.S. government (GAO, 1999).[101] These reforms increased attention and resource commitment

[97] Treasury guidance developed by its Financial Management Services is illustrative, rather than authoritative.

[98] Several interagency working groups were formed. In 1995, the Governmentwide Credit Reform Subgroup was established to resolve issues faced by: (1) agencies in implementing FCRA and preparing quality cash flow data and (2) auditors reviewing credit subsidy estimates (GAO, 1997a). In 1997, the Credit Reform Task Force of the Accounting and Auditing Policy Committee was formed in order to address key issues surrounding FCRA's implementation and the related federal accounting standards (GAO, 1999).

[99] The CFO Act (which laid the foundation for comprehensive reform of the federal government's financial management) established CFO positions in 24 departments or agencies and required, among other things, the development and maintenance of integrated agency accounting and financial management systems (FASAB, 2012 and GAO, 1991). The Act also required OMB to provide necessary leadership on financial management issues (GAO, 1999).

[100] The CFO Act had required that financial Statements be prepared and audited for trust and revolving fund operations and for agency programs that are substantially commercial functions, including direct loans and loan guarantees. The Act also established a pilot program for the preparation and audit of agency wide financial statements for select agencies for specific years (GAO, 1991).

[101] Additional reforms related to Debt Collection also support improvements in systems and processes related to FCRA. The Debt Collection Act of 1982, called for OMB to require agencies to report debt information to OMB and Treasury (GAO, 1989). Debt Collection Improvement Act

to improving financial management systems, including those used for credit subsidy cost estimation.

The alignment of federal financial accounting standards with FCRA's objectives and budget rules increased attention to and supported development of subsidy cost estimates. In 1993, FASAB issued *Statement of Federal Financial Accounting Standards No. 2, Accounting for Direct Loans and Loan Guarantees* which calls for the general alignment of financial reporting to FCRA's requirements and guidelines. This alignment is significant because financial audits provided additional impetus to improve subsidy cost estimates (CBO, 2003 and GAO 1999, 2002c).[102][103] As noted by GAO (2002c), a credit agency's financial statement audit *"helps provide integrity to the budget estimates, as long as consistency is maintained between the processes and data used to estimate subsidy costs for both the budget and financial statements"* (p. 4).

FCRA, in conjunction with the CFO Act reforms, placed considerable pressure on credit agencies to improve subsidy cost estimates in order to receive a clean audit opinion. In discussing the Department of Agriculture's financial statements GAO (2000b) argued that until the agency Rural Development mission area

> *"makes significant progress in developing well supported and reasonable estimates of its credit program costs, an unqualified opinion of the Department of Agriculture's financial statements will not be possible. Further since USDA is the largest direct lender in the federal government and the credit program amounts are material, the inability to properly implement credit reform will continue to contribute to our inability to give an unqualified opinion on the consolidated financial statements of the U.S. government"* (p. 1).

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of 1986 expanded collection tools and authority available to agencies (GAO, 1998). These efforts to improve credit data paralleled the efforts undertaken as part of FCRA implementation.

[102] Some federal credit programs are material to their agency's financial statements or to the government's consolidated financial statements and thus subject to financial audit

[103] For example, as part of financial statement audits, auditors are to assess a credit agency's cash flow models and assumptions to determine if agency management has a reliable basis for their credit subsidy estimates (GAO, 1999).

FCRA underwent numerous administrative and legislative refinements based on stakeholder input and implementation experiences. GAO (1998a) found that "*OMB and Treasury have refined their guidance to agencies based on greater experiences with the processes and data requirements for implementing credit reform and on more information on agencies' limitations and abilities"* (p. 41). As an example, in response to agency concerns, OMB eliminated the requirement of tranche accounting (GAO, 1993b). To eliminate questionable volatility in subsidy reestimates, OMB eliminated the requirement to reestimate annually for changes in interest rates as loans were disbursed. Under revised guidance, agencies are required to do an interest rate reestimate only when a cohort is 90 percent disbursed (GAO, 1998 and OMB, 2014b). Legislatively, the Balanced Budget Act of 1997 (BBA) amended FCRA to make technical changes aimed at clarifying and simplifying subsidy estimation procedures (Bickley, 2012 and OMB 1998).[104]

FASAB's work developing financial reporting standards in the context of FCRA's budget requirements also provided a forum to identify, debate, and address FCRA's implementation.[105] FCRA's budget rule was in place as FASAB began its work to develop financial reporting standards for direct loans and loan guarantees and historical documents indicate that FCRA's budgeting requirements helped shape the accounting

[104] Under BBA amendments, the definition of the term *"cost"* was modified so that the discount rate is based on the timing of cash flow instead of the loan term (Bickley, 2012).
[105] FASAB's standard for direct loan and loan guarantees was developed as part of a deliberative process, including the issuance of an exposure draft followed by a comment period with significant debate.

standards.[106] Over time, FASAB published amendments and a technical release to clarify, refine, or expand financial reporting requirements and guidance (FASAB, 2000, 2001, and 2004). These revisions have sought to ensure the consistency of financial reporting standards with FCRA's budget requirements and to improve the financial information on federal credit programs. In 1998, presentations to the FASAB Board, agency representatives explained how the systems and procedures needed to meet FCRA's budget requirements supported information used for financial reporting (FASAB, 2000).

Efforts were undertaken to provide financial statement users with more information to improve understanding of changes in subsidy costs. In the late 1990s, FASAB conducted surveys and questionnaires on how difficult it had been for credit agencies to prepare and report subsidy cost data and on the use and useful of subsidy data in decision-making process. FASAB's amendments of standards considered survey findings that showed congressional staff needed more rather than less detailed data on subsidy costs for direct loans and loan guarantees. In 2000, FASAB issued *Statement of Federal Financial Accounting Standards No. 18*, which amended reporting requirements, to among other things, require disclosure and discussion of changes in program subsidy rates, subsidy expense, and subsidy reestimates. Reporting entities now are required to disclose, discuss and explain events and changes, such as changes in economic conditions and other risk factors, that have had significant and measurable effects on subsidy rates (FASAB, 2000).

[106] During the deliberative stage, some respondents to the financial statement's exposure draft opposed the use of the net present value accounting. However, Board argued that "[*t]he Federal Credit Reform Act of 1990 requires using present value for the budget. The Board does not believe that this requirement should be ignored for financial reporting"* (FASAB, 1993, 18).

While FCRA's implementation has been challenging, there are signs that it supported long-needed improvements in information necessary for the oversight and management of federal credit programs. One indicator is recent financial statement audits of major credit agencies.[107] As discussed above, as FCRA was implemented, several credit agencies received disclaimers[108] or qualified[109] opinions, at least in part, due to issues related to their credit programs.[110]All the major credit agencies that were the focus of the dissertation's research now have "clean" or unqualified opinions.

My review of the status of GAO recommendations relevant to FCRA's implementation found that recommendations had been acted upon. Oversight reports also provided examples of how FCRA (in conjunction with other financial management reforms) prompted actions to help improve data and processes related to subsidy cost estimation. OMB testified that agencies, including, USDA and VA, worked with OMB to refine cash flow spreadsheets or reestimation calculations (Dorn, 2002 and GAO, 1998). Both Education and SBA adopted new computer systems and significantly refined their historical information (GAO, 1998 and GAO, 2005a). In 1999, USDA's CFO established a task force to assist in resolving the agency credit reform problems (GAO, 2000c and Vinadero, 2000). These types of improvements to data and processes

[107] Financial audit results, however, must be used with some caution as agencies' subsidy cost estimates for financial statements are not always fully based on the same data and processes as is used for budget estimates or agencies may have made adjustments to financial statement data that is not reflected in budget estimates. Nevertheless, improvements in financial statement reporting of credit agencies provide one indicator of improvements in underlying data and cost estimate methods.

[108] A disclaimer means the auditor was unable to obtain sufficient audit evidence and is unable to issue an opinion on the financial statements.

[109] A qualified opinion includes exceptions to conformity with Generally Accepted Accounting Standards (GAAP) such as limitations in audit scope or specific deviation from GAAP.

[110] For example, the Fiscal Year 1996 financial statements audits for three of the largest federal credit agencies – USDA, Education and HUD – received disclaimers or qualified opinions due at least in part to problems associated with their credit programs (GAO, 1998).

are ongoing. GAO reported that the Department of Agriculture's Rural Housing Service hired a Chief Risk Officer and is developing an econometric model intended to support portfolio analysis and help improve estimates of credit subsidy costs for the single-family guarantee program (GAO, 2015b, 2016c and GAO 2017, p.14).

FCRA's budget requirements also prompted significant expansion to supplemental budget and financial information on federal credit programs. The *Federal Credit Supplement*, which is now included as part of the President's budget submission, provides tabular information on federal credit programs subject to FCRA. My review of the supplement, over the years, shows expansions of the information provided including, a presentation providing the components of subsidy cost: (1) financing costs, (2) fees, (3) defaults (net of recoveries) and (4) "all other" costs. The Supplement also provides breakdowns of subsidy reestimates between the percentage point change due to interest and technical assumptions.

Subsidy cost estimation involves significant challenges.

A key issue in assessing FCRA's experience is whether subsidy cost estimates have provided reasonably accurate signals of the government's cost for federal credit programs. Under FCRA, the federal budget records outlays for the net present value of expected cash flows. Actual cash flows, however, remain uncertain until the end of the loan, which may be decades after the initial estimate (CBO, 2003b and GAO, 2014b). Given that loans occur over long time periods and involve uncertain variables, some reestimation is expected.

In anticipation of estimation uncertainty, FCRA requires subsidy cost reestimation over the life of the loan. Specifically, OMB requires two types of reestimates: (1) interest rate reestimates and (2) technical reestimates. Interest rate reestimates adjust for the difference between actual interest rates and the discount rates assumed when subsidy estimates were made for budget formulation and obligation (OMB, 2014b).[111] Technical reestimates, which include all changes in assumptions other than interest, make adjustments based on actual cash flows to date, new assumptions about loan performance, or improvements in the data or methods used to estimate cash flows (OMB, 2014b).[112] The following subsection looks at subsidy estimates and reestimates prepared in accordance with FCRA procedures. The next subsection explores the continuing debate surrounding the appropriateness and completeness of FCRA's subsidy estimation procedures.

Aggregated net subsidy reestimates over extended periods relatively small in relation to total federal loans and total federal budget.

My calculations found that net subsidy reestimates aggregated over an extended period are relatively small when gauged in the context of the entirety of federal credit activities over the same period. Using data reported in the fiscal year 2019 *Federal Credit Supplement*. I calculated the total net lifetime reestimate of subsidy costs for

[111] Interest rate reestimates must be made when a cohort is at least 90 percent disbursed (OMB, 2014b).
[112] Technical reestimates must be made after the close of each fiscal year, unless OMB has approved an alternative plan.

federal credit programs' fiscal year 1992 to fiscal year 2017 cohorts. [113] Reestimates for TARP were excluded. [114] The sum of the net lifetime reestimate was $50.9 billion upward when the interest rate component was included. When the interest component is excluded, the sum of net lifetime reestimates of subsidy costs is $34.9 billion upward.[115] While significant dollar amounts, these reestimates represent less than 1 percent of the loan amounts disbursed or guaranteed.

Other analyses, which used different groupings of credit programs and different time periods, had the same overall message. Each found that aggregated net reestimates over an extended period are relatively minor when considered in the context of total federal credit activities over the same period. In the *FY 2015 Analytical Perspectives of the President's Budget*, OMB described FCRA estimates as "*fairly accurate overall*" with lifetime reestimates representing less than one percent of face value of loans and guarantees made under FCRA (OMB, 2014a, p. 338).[116] GAO (2016a) conducted a comprehensive analysis of direct loan and loan guarantee cohorts for fiscal year 2001 through 2014 and found upward reestimates of $3.1 billion and $39 billion,

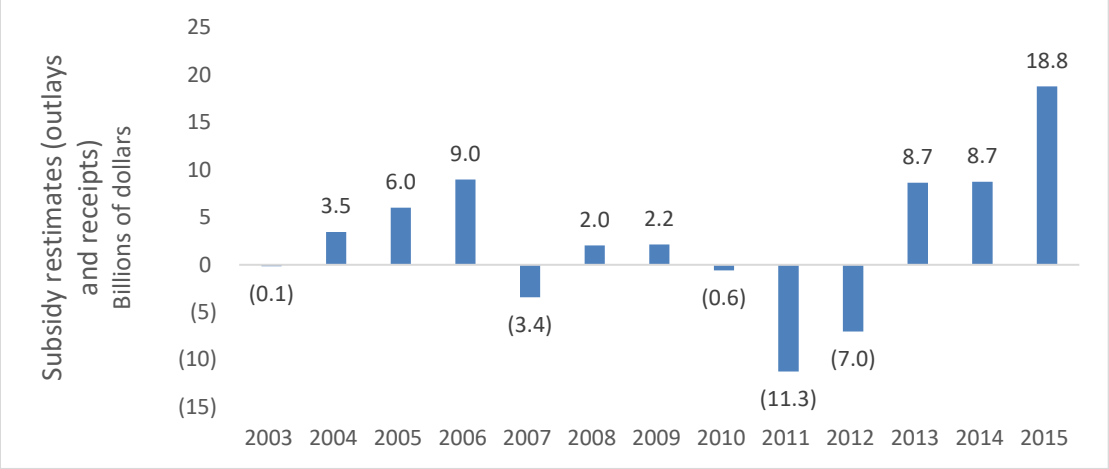
[113] Summation of net lifetime subsidy reestimates across cohorts of loan disbursed to date as reported in the FY 2019 Federal credit Supplement. Data from *Table 7 - Direct loans: Subsidy Reestimates* (OMB, 2018c). and *Table 8 -Loan Guarantees: Subsidy Reestimates* (OMB, 2018c).
[114] The TARP programs were excluded for two reasons. TARP was created and operated under highly unusual circumstances during the recent financial crisis. Further, while these programs were required to estimate subsidy costs, these costs were required to be calculated using a market discount rate as opposed to the Treasury rate as required by FCRA. If TARP reestimates are included, the reestimate, including the interest component, is $25.3 billion downward. If the interest component is excluded the reestimate, is a $33.8 billion downward.
[115] The full subsidy rate reestimates provide useful information on the extent to which signals about a program's costs, including the impact on the deficit, differ from those available when credit was extended. However, as noted by OMB, removing the interest rate provides better insights into the accuracy of agencies' cash flow projections that underlie subsidy cost estimates.
[116] OMB (2014a) reported the net lifetime reestimates of subsidy costs for credit programs since FCRA has been in place as $17 billion upward (p. 338). OMB, however, did not provide detail on this analysis or the underlying data.

respectively.[117] According to GAO, these reestimate amounts also represented less than 1 percent of the loan amounts disbursed or guaranteed during the period.

Annual reestimates, while significant dollar amounts, generally are negligible in the context of total net budget outlays. Figure 4.1 shows the outlays and receipts from credit subsidy reestimates for loans disbursed between 1992 and 2014 as reported in the *Fiscal Year 2016 Federal Credit Supplement*. For the reasons noted above, I excluded TARP. As shown in Tables 4.1 and 4.2, the annual impact of subsidy reestimates on net outlays has fluctuated over time, but generally it is not significant when gauged in the context of the total net outlays. As shown in Table 4.1, for each fiscal year, the annual subsidy reestimates were .5% or less of total net outlays. However, when TARP is included, the picture looks different for several years. With TARP included the negative outlays for fiscal years 2010 and 2011 are significantly larger at $107 billion and $63 billion, respectively.

[117] GAO (2016a) conducted a comprehensive review of trends in subsidy cost reestimates across and within federal credit programs for the fiscal 2001 thorough fiscal 2014 cohorts. GAO used data reported in the fiscal years 2003 through fiscal year 2016 *Federal Credit Supplement*.

Figure 4.1 Reestimates of Credit Subsidies (excluding interest), Loans Disbursed Between Fiscal Year 1992 and 2014, excluding TARP



Source: Graph created by author based on data from OMB (2015b), *Table 20.6 Reestimates of Credit Subsidies of Loans Disbursed Between 1992 -2014.*

Table 4.1 Outlays and Receipts for Subsidy Cost Reestimates as Percentage of Total Budget Outlays, by Fiscal Year

Fiscal Year	Budget outlays	Subsidy reestimates, outlays and receipts (excluding TARP)	Subsidy reestimates as percentage of budget outlays (excluding TARP)	Subsidy reestimates, in billions of dollars (including TARP)	Subsidy reestimate as percentage of budget outlays (including TARP)
	In billions of dollars				
2003	2,160	(.1)	0%	(.1)	0%
2004	2,293	3.5	.2%	3.5	.2%
2005	2,472	6	.2%	6	.2%
2006	2,655	9	.3%	9	.3%
2007	2,729	(3.4)	(.1%)	(3.4)	(.1%)
2008	2,983	2.0	.1%	2.0	.1%
2009	3,158	2.2	.1%	2.2	.1%
2010	2,457	(.6)	.0%	(107.2)	(3.1%)
2011	3,603	(11.3)	(.3%)	(63.4)	(1.8%)
2012	3,537	(7.0)	(.2%)	7.5	.2%
2013	2,455	8.7	.4%	(1.2)	0%
2014	3,506	8.7	.2%	4.5	.1%
2015	3,759	18.8	.5%	18.2	.5%

Source: Table compiled by author based on data from *Budget of the U.S. Government, Analytical Perspectives, Table 20.6 Reestimates of Credit Subsidies of Loans Disbursed Between 1992 - 2014 and Historical Tables, Table 1.1 Summary of Receipts, Outlays, and Surpluses or Deficits 1789-2020.*

Another issue is how reestimates influence the total subsidy costs for a given fiscal year. CBO raised concerns that current method for budgeting for reestimates may distort budget information. Under current methods, annual reestimates for all a program's cohorts may be combined into a single budget adjustment. CBO notes that "… "*combining reestimates that tend to move in the same direction can result in an adjustment that is large compared with account activity."* This is like the issue of netting cash flows over fiscal years that was a concern leading up to FCRA. Table 4.2 compares new subsidy budget authority with reestimated subsidy budget authority for fiscal years 1998 to 2014. As can be seen, in some fiscal years, subsidy reestimates do significantly offset new subsidy budget authority.

Table 4.2 Subsidy Budget Authority, New and Reestimated, Fiscal Years 1998-2017

Fiscal Year	New Subsidy Budget Authority	Reestimated Budget Authority	Total Subsidy Budget Authority	Reestimated Budget Authority as Percentage of Total Subsidy Budget Authority
	In billions of dollars			
1998	2.5	6.6	9.1	72.5%
1999	1.6	5.3	6.9	76.8%
2000	2.9	-4.1	-1.2	341.7%
2001	2.6	-8.9	-6.3	141.3%
2002	2.9	-1.9	1	-190.0%
2003	4.5	-0.6	3.9	-15.4%
2004	7.7	4.6	12.3	37.4%
2005	12.2	7.3	19.5	37.4%
2006	21.9	10.1	32	31.6%
2007	7.1	-3.4	3.7	-91.9%
2008	2.3	2.8	5.1	54.9%
2009	132.3	0.4	132.7	0.3%
2010	(14.1)	(117.5)	(131.6)	89.3%
2011	(23.1)	(70.8)	(93.9)	75.4%
2012	(34.1)	11.9	-22.2	-53.6%
2013	(47.7)	1.1	-46.6	-2.4%
2014	(36.1)	0.4	-35.7	-1.1%
2015	(7.0)	9.0	2	450%
2016	(16.5)	(5.6)	(22.2)	25%
2017	(9.8)	49.3	39.5	125%

Source: Table compiled by author based on OMB data. These amounts are drawn from summary charts included in the *Analytical Perspectives*. Prior to fiscal year 1998 breakouts of new and reestimated subsidy budget authority were not reported. Author calculated percentages.

Existing research does not indicate consistent downward bias in initial subsidy estimates

When FCRA was enacted, there was concern that credit agencies would have incentives to underestimate initial subsidy cost estimates (CBO, 2000 and GAO, 1998). This concern stemmed from differences in the budget treatment of the initial subsidy cost estimates and subsequent upward subsidy reestimates. FCRA provides permanent indefinite authority for upward reestimates. As a result, initial subsidy costs must compete with other spending programs, but subsequent upward reestimates may be less

visible and exempt from spending controls (CBO, 2001 and GAO, 1998). Torregrosa explained the concerns as follows:

> "…. *proponents of discretionary programs at an agency might underestimate initial subsidies in order to lend more and then make up the difference with a "costless" reestimate. For mandatory credit programs, which do not require appropriations, low initial estimates could reduce a program's visibility and attractiveness as a target for budgetary savings"* (Torregrosa, 2001, p. 116)

While existing research is not conclusive, it does not indicate consistent or widespread downward bias in initial subsidy estimates. GAO (1998a) found "*somewhat similar patterns"* in credit subsidy estimates for discretionary and mandatory programs.[118] CBO (2000) examined subsidy reestimates for evidence of a downward bias in initial subsidy estimates and concluded:

> *"The pattern of reestimates under credit reform provides no visible evidence to support the idea that departments and agencies are abusing the permanent and indefinite spending authority provided for reestimates. Moreover, most reestimates have not substantially raised overall spending"* (p. 21).

More recently, Griffith and Caperton (2012) conducted an analysis of 104 credit programs comparing fiscal year 1992 initial estimates with current reestimate shown in fiscal year 2013 budget and found that of the credit programs included in their analysis 56 programs overestimated their costs while 48 underestimated their costs over time period examined.[119] Most recently, GAO (2016a) conducted a comprehensive analysis of

[118] GAO (1998a) looked at subsidy estimates and reestimates for two domestic programs from each of the five largest credit agencies. GAO found that the estimated subsidy rates of 8 of the 15 discretionary cohorts increased in the first reestimate following the initial appropriation while reestimates for the 7 of 12 mandatory cohorts decreased. GAO (1998a) qualified its finding by stating *"[n]o real conclusions can be drawn from this observation about whether some discretionary programs may have sought to benefit from initially underestimating subsidy costs"* (p. 20).

[119] Programs related to the financial crisis such as the TARP programs were excluded.

reestimates for fiscal years 2001 through 2014 cohorts and *"did not identify any overall consistent trends in under – or overestimates of subsidy costs across federal credit programs government-wide"* (p. 17). However, as discussed in the next subsection significant reestimates for some credit programs, including some of the largest programs, illustrate estimation challenges.

Significant reestimates for some programs illustrate estimation issues.

An important issue is whether subsidy cost estimates provide reasonable budget information and incentives for individual credit programs. My review of almost two decades of oversight reports found numerous examples of program level subsidy reestimates. Multiple GAO reports have found significant subsidy reestimates for federal student loan programs (GAO, 1998a; GAO, 2001a; GAO, 2005a; GAO, 2014b; GAO, 2016a). GAO's recent examination of trends in subsidy reestimates found that "*a few credit programs had significant upward or downward reestimates, which could generally be explained by portfolio or economic changes, as well as revisions in estimation methodologies"* (GAO, 2016a, p. 24).[120] CBO projected that FHA's guarantee program for single-family mortgages extended from 1992 to 2013 would cost of $2.2 billion over their lifetime, rather than the large negative subsidy (budgetary income) of $63 billion projected by the initial subsidy estimates[121] (CBO, 2014a, p.1).

[120] GAO (2016a) conducted a comprehensive examination of net lifetime reestimates for the fiscal years 2001 through 2014 cohorts.

[121] As an example of the assumptions and uncertainty associated with some subsidy cost estimates, CBO (2014a) notes that when its subsidy estimate is adjusted for inflation using the GDP price index its projection of subsidy costs is $1.5 billion. CBO also notes that in simulations of the estimates two-thirds of outcomes were between subsidy costs of $15.4 billion and savings of $11.9 billion (p. 2).

I examined reestimates of subsidy rates across a range of federal credit programs by comparing the initial subsidy rate to the most current revised subsidy rate for selected credit programs by cohort. My initial review used the subsidy rates reported in the Fiscal Year 2015 *Federal Credit Supplement*. When data was available, the comparisons were run both with and without the percentage point change due to interest rates. The full subsidy rate adjustment provides useful information on the extent to which signals about a program's costs differ from those available when credit was extended, including the impact on the deficit. However, as noted by OMB, removing the interest rate component[122] is necessary to isolate agencies' ability to project expected cash flows. Reestimates without the interest component provide better insights agencies' improvements to the accuracy of cash flow projections that underlie subsidy cost estimates.

My analyses of reestimated subsidy rates using data from the Fiscal Year 2015 *Federal Credit Supplement* found a mixed picture of reestimates, indicating no consistent pattern across programs reviewed. Most of the programs had mix of upward and downward reestimates of subsidy rates across cohorts, but these reestimates generally did not change the sign[123] of the subsidy rate. A few programs, however, had significant reestimates, including a change in the sign of the subsidy rate. For programs with significant reestimates based on this initial analysis, I updated the analysis using data from the Fiscal Year 2019 *Federal Credit Supplement* and examined factors behind the

[122] The percentage point change due to interest rates
[123] Sign refers to whether the subsidy is positive (a budget cost to the government) or negative (a budget savings or *"profit"* for the government).

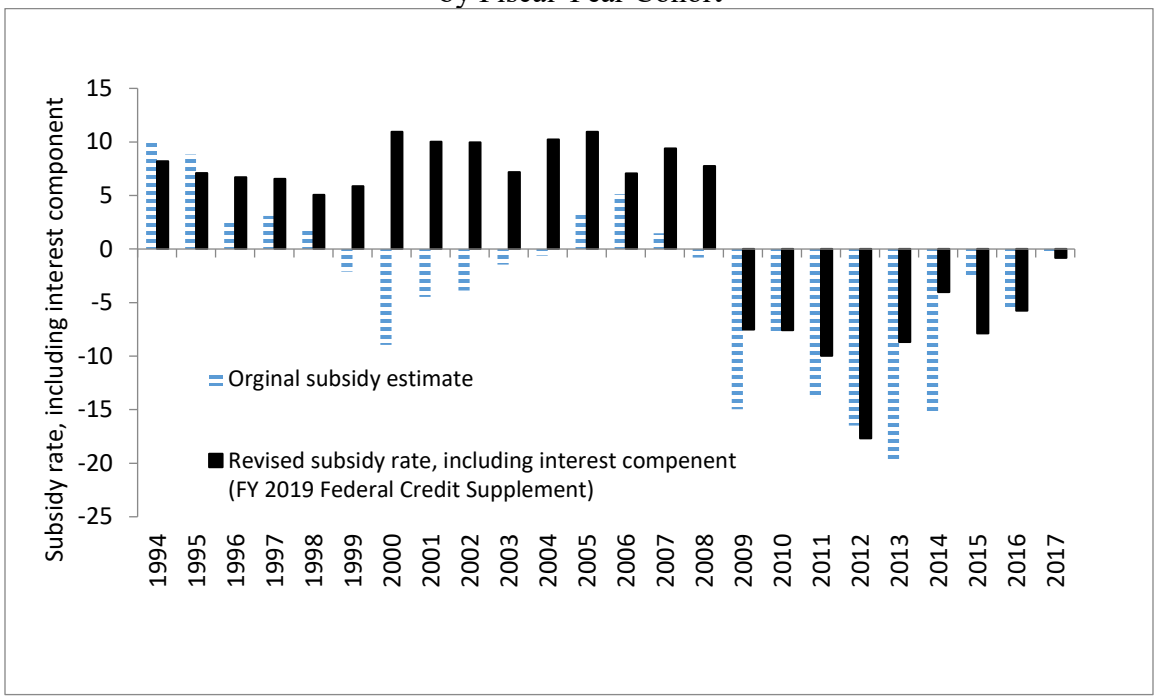
reestimates with a focus on the implications for the feasibility and usefulness of budget decision rules.

For some programs with both upward and downward adjustments to subsidy rates, the current net lifetime subsidy reestimates showed lower cost than initially expected. As an example, the direct loan programs from the Agricultural Credit Insurance Fund within the Department of Agriculture had both upward and downward subsidy rate adjustments across cohorts of its various credit programs, with net lifetime reestimates for all the Fund's programs having a downward adjustment of $1 billion, about 3 percent of the programs' total loan disbursements.

Other programs with both upward and downward subsidy rate adjustments across cohorts are now estimated to cost the government more than originally projected. As shown in Figure 4.2, the Education's Federal Direct Loan Program (FDLP) had mostly upward adjustments to cohort subsidy rates. For a few cohorts, the sign of the subsidy rate changed significantly, shifting from projecting a negative subsidy rate (budget savings or *"profit")* to having a positive subsidy rate (budget cost). The program's net lifetime reestimates totaled $48 billion upward, which while represents less than 1% of program's total loan disbursements is a significantly higher cost to taxpayers than initially projected.[124]

[124] When the interest component is excluded, the program's net subsidy reestimate is $38 billion upward.

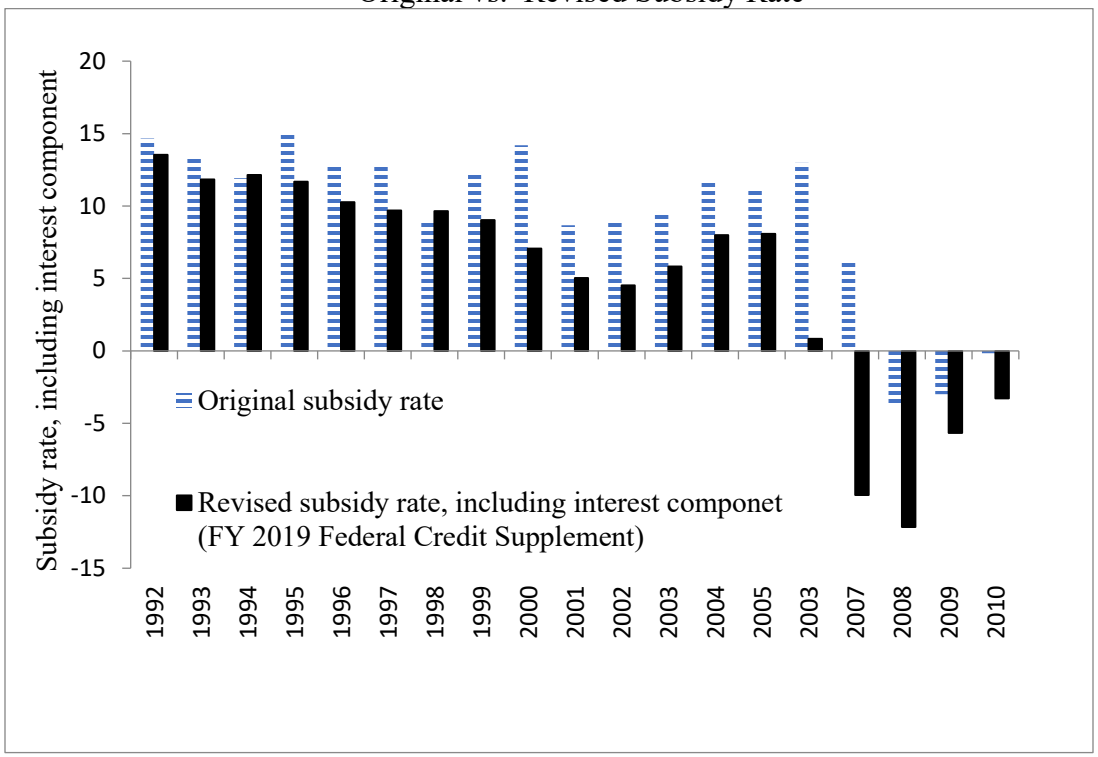
Figure 4.2 Federal Direct Loan Program, Original vs. Revised Subsidy Rate, by Fiscal Year Cohort



Source: Graph created by author using data from *Federal Credit Supplement*, Fiscal Year 2019

The Federal Family Education Loan Guarantee program (FFELP) also had significant subsidy reestimates, but in the opposite direction. As shown in Figure 4.3 for almost every cohort, subsidy rates were revised downward, meaning lower cost to (or more income for) the government. The program's net lifetime reestimates totaled $64 billion downward, which is about 7.1 percent of the program's total loan disbursements. This downward adjustment represents significant lower costs to taxpayers than initially projected.

Figure 4.3 Federal Family Education Loan Guarantee Program,
Original vs. Revised Subsidy Rate



Source: Graph created by author using data from *Federal Credit Supplement*, Fiscal Year 2019

The subsidy rate adjustments for the FDLP and FFELP illustrate difficulties in estimating subsidy costs for some credit programs. The cash flow projections used in the student loan programs' subsidy estimates are dependent on various assumptions about loan performance and borrower behavior, which are affected by economic conditions. Estimated subsidy costs fluctuate with a variety of factors, such as: the government's borrowing rate; interest rates charged to borrowers; whether and how quickly borrowers repay their loans; whether borrowers default on their loans; and the recovery amounts on defaulted loans (GAO, 2014b, 2016a).

As discussed by GAO and others, subsidy estimates for both programs (but especially the FDLP) are sensitive to interest rate fluctuations. Differences between the borrower rate and the discount rate can have significant impacts on the subsidy costs for

the programs (GAO, 2001a, 2005a, 2014a).[125] Because interest rates cannot be accurately predicted there will be volatility in subsidy estimates.

GAO's recent review of reestimate trends found that interest rates (along other factors) were a significant factor in the reestimates for both the FDLP and FFELP programs. According to GAO (2016), other factors driving the FDLP's upward reestimate were revised assumptions related to income-driven repayment plans[126] and public service loan forgiveness and rising borrower default rates. GAO reported that many factors were involved for the FFEL program's downward reestimate, but key drivers were interest rate changes and the treatment of programmatic changes as modifications under FCRA (GAO, 2016a). [127]

FHA's Single-family mortgage program also had significant changes in subsidy rates (See Figure 4.4). For each cohort from fiscal year 1994 to fiscal year 2010 the program's subsidy rate was adjusted upward, meaning an increase in a positive subsidy rate or a reduction in a negative subsidy rate. The fiscal year 2000 to fiscal year 2009 cohorts shifted from negative subsidy rates to positive subsidy rates. In other words, the program went from being projected to make the government money to being projected to

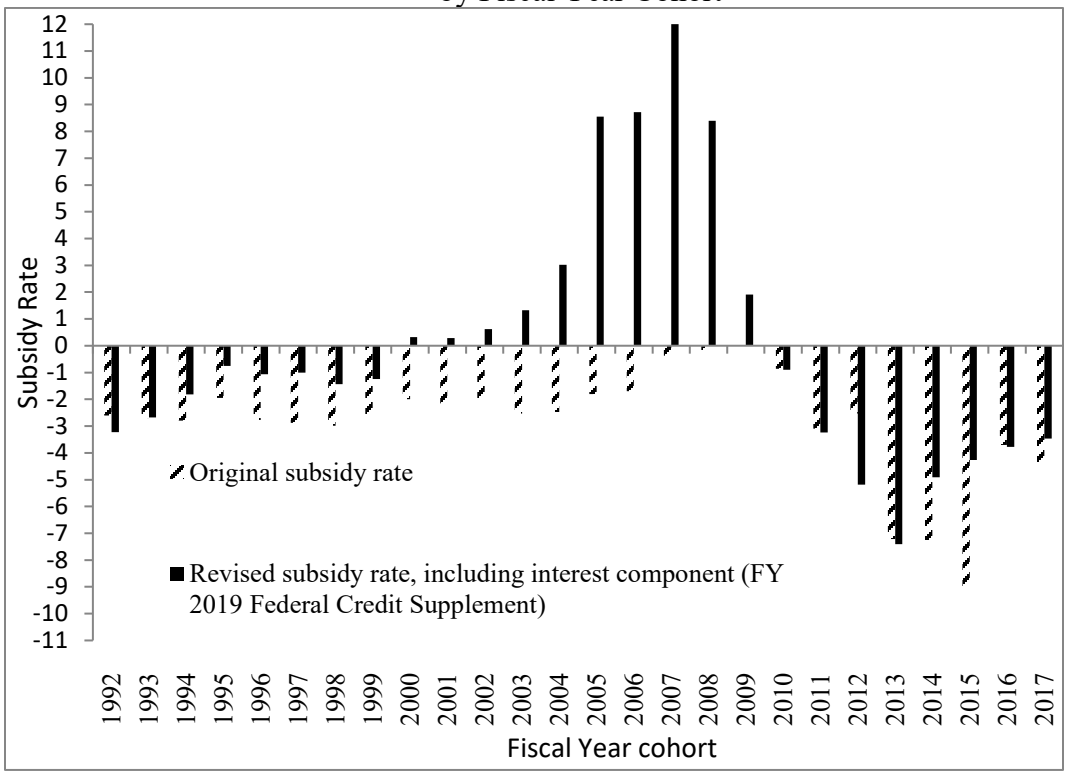
[125] GAO discusses that interest rates have significant but differing impact on the two student loan programs. For the direct loan program, lower than expected interest rates result in lower than expected borrower payments to the government and thus higher than expected subsidy costs. For the guarantee program, lower than expected interest rates result in lower special allowance payments from the government to private lenders, which results in lower than expected subsidy costs (GAO, 2005a, 2014b).

[126] Income-driven Repayment (IDR) plans primarily base payment amounts on a borrower's income and extend prepayment periods from the standard 10 years to up to 25 years with any remaining balance forgiven at the end of that period (GAO, 2016a and GAO, 2016b).

[127] Oversight reports during the last decade that other factors have contributed to reestimates of the student loan programs, including, for example, changes in anticipated borrower behavior, such as greater than anticipated loan consolidation or use of Income-driven Repayment Plans (GAO, 2001a, 2005a, 2016a). In addition, reestimates have resulted from improvements in data on borrower behavior and the resulting refinements to cash flow models (GAO, 2001a, 2005a, 2014b).

cost the government money. This is particularly important because the FHA is intended to be self-financing. The largest shifts occurred in the fiscal year 2006 and fiscal year 2007 cohorts, which changed from -1.7% to 8.7% and from -.37% to 12%, respectively. The program's net lifetime reestimate is $77 billion upward, which represents 2.3 percent of the program's total loan disbursements. While recent fiscal year cohorts have negative subsidy rates the net lifetime reestimate represents a significantly greater cost to the government than initially anticipated.

Figure 4.4 FHA Mutual Mortgage Insurance Program, Original vs Revised Subsidy Rate, by Fiscal Year Cohort



Source: Graph created by author using data from *Federal Credit Supplement*, Fiscal Year 2019

The FHA's credit subsidy estimates are heavily influenced by economic conditions. FHA's credit subsidy estimates rely on cash flow projections of: (1) insurance premium revenues to be collected by FHA (2) insurance claims to be paid by

FHA, and (3) recoveries to be collected by FHA from selling foreclosed properties (Jones, 2018a, 2018b and U.S. HUD OIG, 2013). These cash flow projections require various assumptions about the borrower and mortgage characteristics as well as economic conditions, such as housing prices, unemployment, and interest rates. Housing prices, for example, influence probability of default and foreclosure as well as the severity of losses on defaults. (Jones, 2018a, 2018b and HUD OIG, 2013).

The FHA mortgage insurance program was significantly affected by the severe recession and sharp downturn in the housing market in the late 2000s. FHA had made improvements to its cash flows models, but projections did not fully anticipate or incorporate the implications of extreme economic scenarios (GAO, 2010a, p. 8-9). According to CBO (2013), the higher subsidy costs for FHA's single-family mortgage guarantees reflected higher–than-expected defaults by borrowers and lower–than-expected recoveries when defaulted on homes were sold. GAO (2016a) found that downward adjustments to housing prices and interest rates assumptions were important factors in the program's upward subsidy cost reestimates during the financial crisis.[128] As economic condition improved, premiums increased, and the quality of newly issued loans improved the program returned to negative subsidy rates beginning with the fiscal year 2010 cohort (Jones, 2018a, 2018b). [129]

[128] GAO also found that higher than expected losses stemming from portfolio and mortgage market developments contributed to the upward reestimates (GAO, 2016a, p. 29).
[129] In the aftermath of the financial crisis, FHA adopted policy changes including raising fees and making changes to certain eligibility criteria for FHA-insured loans (Jones, 2018a and 2018b).

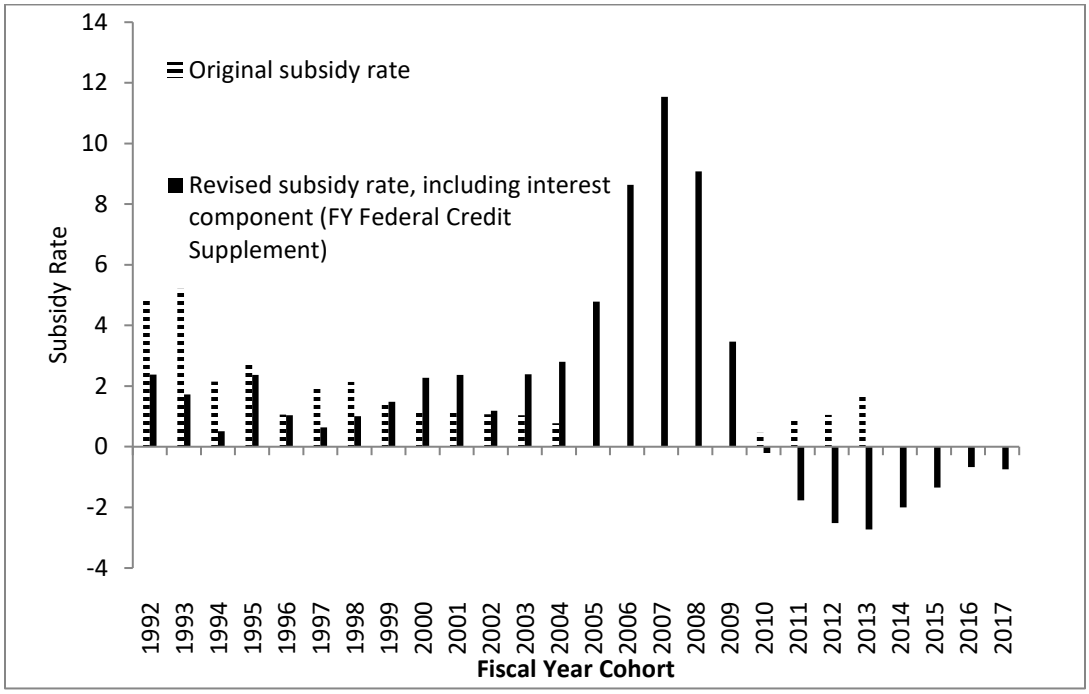
SBA's loan programs also were significantly impacted by the financial crisis. Some cohorts for SBA's Section 504[130] and Section 7(a) [131] programs were originally estimated to have zero (or very little) cost to the government but were adjusted upwards resulting in significant positive subsidy rates (See Figures 4.5 and 4.6). According to the SBA, upward reestimates for both programs were driven mostly by the negative effects of the severe economic downturn, including high unemployment and the distressed housing market, which led to higher than projected purchases of defaulted guarantees and lower recovery rates (SBA, 2010). Loan defaults were a key factor driving 7(a) subsidy estimates, with purchases of defaulted guarantees for fiscal year 2009 85 percent higher than fiscal year 2008 (SBA, 2010). As the economy recovered, both programs returned to negative subsidy rates. For the Section 7(a) program, the sum of net lifetime reestimates showed a $2.6 billion upward adjustment, which amounts to less than 1 percent of the program's total loan disbursements. For the Section 504 program, the sum of the net lifetime reestimates totaled $2.2 billion upward adjustment, which amounts to 3.4 percent of the program's total loan disbursements.[132]

[130] The 504 program uses SBA guarantees to assist small business. Under the program, SBA provides its guarantee through certified development companies (CDC), which are private, nonprofit corporations.

[131] The 7(a) program guarantees loans made to small businesses that are unable to obtain financing on similar terms in the private credit market.

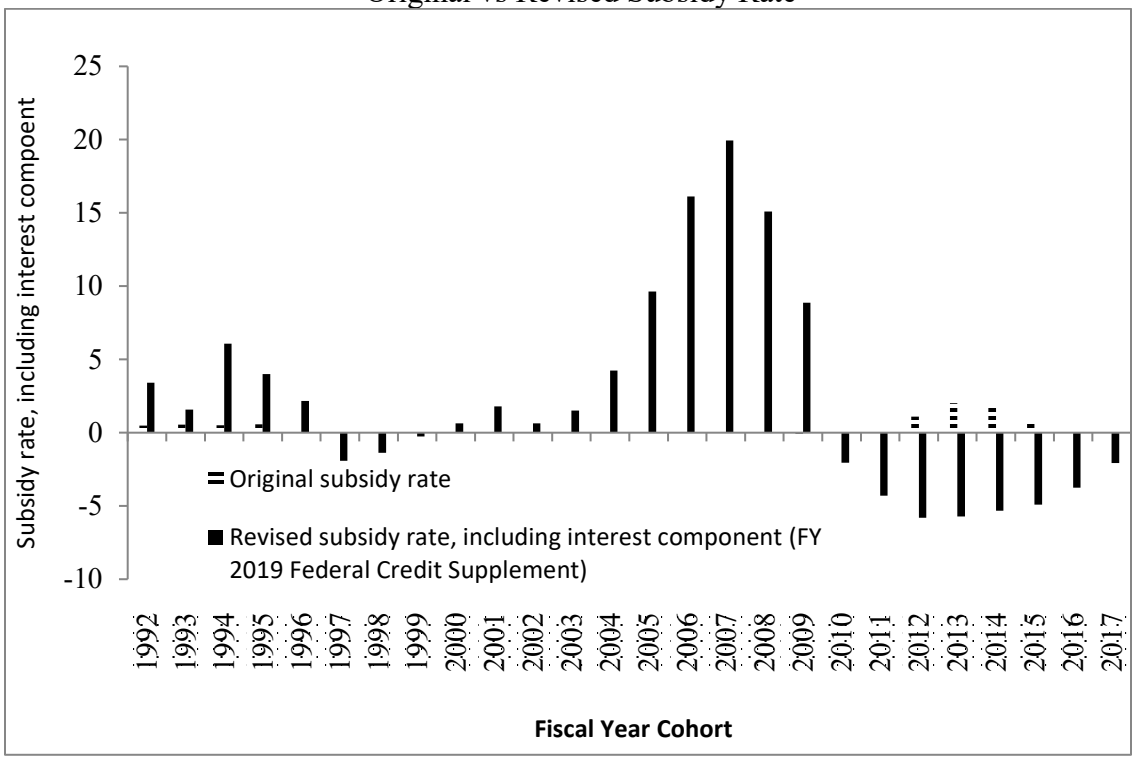
[132] As another example of the how the picture of a credit program's costs can change, my initial analyses (using data from the FY 2015 supplement) showed the net lifetime reestimates for the section 7(a) program as a $4 billion upward adjustment, which was just over 2 percent of the program's total loan disbursements. The sum of the net lifetime reestimates for the Section 504 program was $4.6 billion upwards, which represented 9.6 percent of the program's total loan disbursements. Using the data from the FY 2019 for the same cohorts as the initial analysis (FY 1992-FY2014) showed a sum of net lifetime estimates of $2.5 billion, which amounted to 4.4 percent of the program's net lifetime reestimates.

Figure 4.5 7(a) General Business Loan Guarantees, Original vs. Revised Subsidy Rate



Source: Graph created by author using data from *Federal Credit Supplement*, Fiscal Year 2019

Figure 4.6 Section 504 Certified Development Companies Debentures, Original vs Revised Subsidy Rate



Source: Graph created by author using data from *Federal Credit Supplement*, Fiscal Year 2019

SBA's subsidy estimation experience helps illustrate some of the technical and political challenges associated with subsidy cost estimation. In the early 2000s, just a few years before the financial crisis, some policy participants expressed concern that SBA's subsidy cost estimation methodology was too conservative because it used all loan performance data since 1986, which some believed overestimated defaults and underestimated recoveries. At the time, the program had a net lifetime reestimate of nearly $1 billion downward, indicating that the expected cost to the government would be less than originally anticipated (GAO, 2001b). In 2003, congressional concerns about

overestimation of SBA subsidy costs led to the introduction of legislation[133] that directed SBA to use a new, updated subsidy model. In voicing support for the legislation congressional lawmakers expressed concerns that OMB's and SBA's overestimation of subsidy costs was impeding the program's mission. Representative John Spratt (D, SC) argued that OMB and SBA were using an "*overly conservative credit subsidy calculation model."* He asserted:

> "*OMB has had chronic problems with overestimating the credit subsidy rate for general business loans, the so-called 7(a) program and related programs. As a result, SBA has historically underestimated the volume of loans that can be supported by a given level of appropriations"* (Cong. Rec. H355, 2003)

SBA adopted a methodology that uses the five most recent years of actual loan performance. At the time, some experts noted that the proposed methodology would be more sensitive to fluctuations in economic conditions. GAO reported that with the new approach *"a sudden downtown in the economy would be much more likely to result in actual performance being different than estimated and thus would likely result in larger upward reestimates than under the current approach"* (GAO, 2001b, p. 2). Later, when financial crisis hit, SBA was significantly affected by the downturn in the economy, resulting in large upward reestimates. This experience highlights the inherent uncertainty, but also the political challenges associated with estimating expected cash flows over long periods.

[133] S.141 "*A bill to improve the calculation of the Federal subsidy rate with respect to certain small business loans, and for other purposes*." The bill was introduced in the Senate on January 10, 2003 and became Public Law No. 108-8 on February 25, 2003. Legislation was necessary because OMB cannot change the assumptions in the President's budget request after it has been sent to Congress.

DOE's loan programs experienced significant subsidy rate adjustments, which exemplifying the challenges of estimating costs for unique risks. The DOE provided a relatively small number of loans for innovative projects. [134, 135] These projects tended to be complex and inherently difficult to forecast. An independent consultant's report outlined several factors that make estimating subsidy costs for these loans particularly challenging, including: (1) many covered projects use novel technologies and/or involve significant scale-up risk; (2) many covered projects are in early development stages; and (3) loans tend to have longer terms than are typically found in the commercial market (Allison, 2012, p. 32).

The program's subsidy reestimates reflect these challenges. The combined net lifetime reestimate for the Advanced Technology Vehicle Manufacturing (ATVM) program and Loan Guarantee Program (LGP) was 2.9 billion downward adjustment, which is 26 percent of loans disbursed. The ATVM program had a significant net lifetime downward reestimate totaling 2.8 billion, which is 39 percent of the loans disbursed. The net lifetime reestimate for the LGP program was smaller showing .1 billion downward, which is 2.5 percent of loans disbursed. Most of ATVM's reestimate stemmed from the fiscal year 2009 cohort, which has a significant downward subsidy rate adjustment from 38.3 percent to 1.8 percent. The fiscal year 2011 cohort subsidy rate was revised significantly upward adjustment from 22.9 percent to 81.8 percent.

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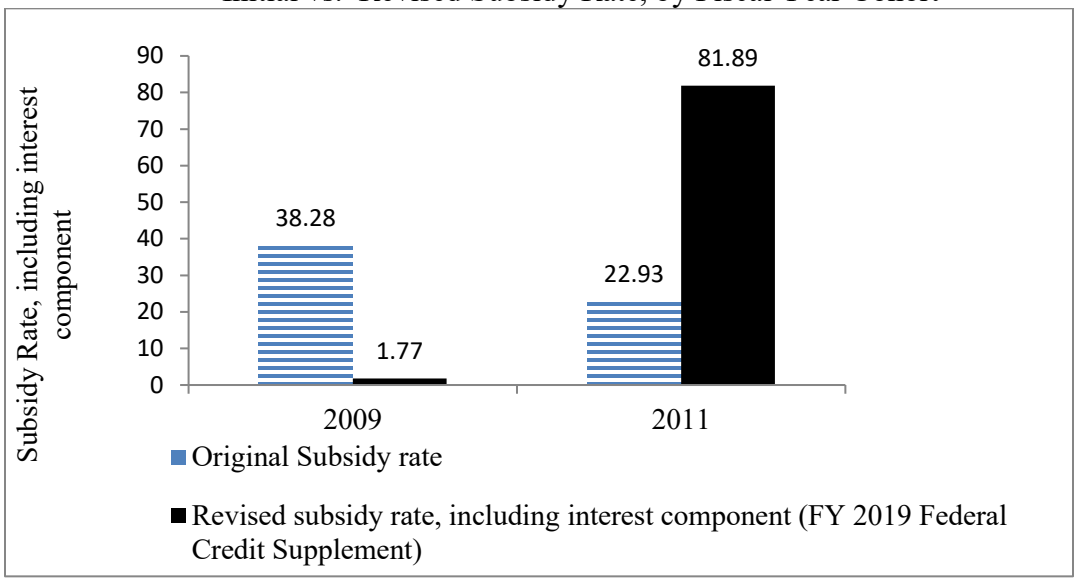
[134] The Loan Guarantee Program (LGP) was established in Title XVII of the Energy Policy Act of 2005 to accelerate deployment of innovative clean energy technology. The Advanced Technology Vehicle Manufacturing (ATVM) loan program was established in Section 136 of the Energy Independence and Security Act of 2007 to support production of fuel-efficient, advanced technology vehicles and qualifying components in the United States.

[135] As of November 2014, DOE's portfolio consisted of 34 direct loans and loan guarantees (GAO, 2015a, p. 14).

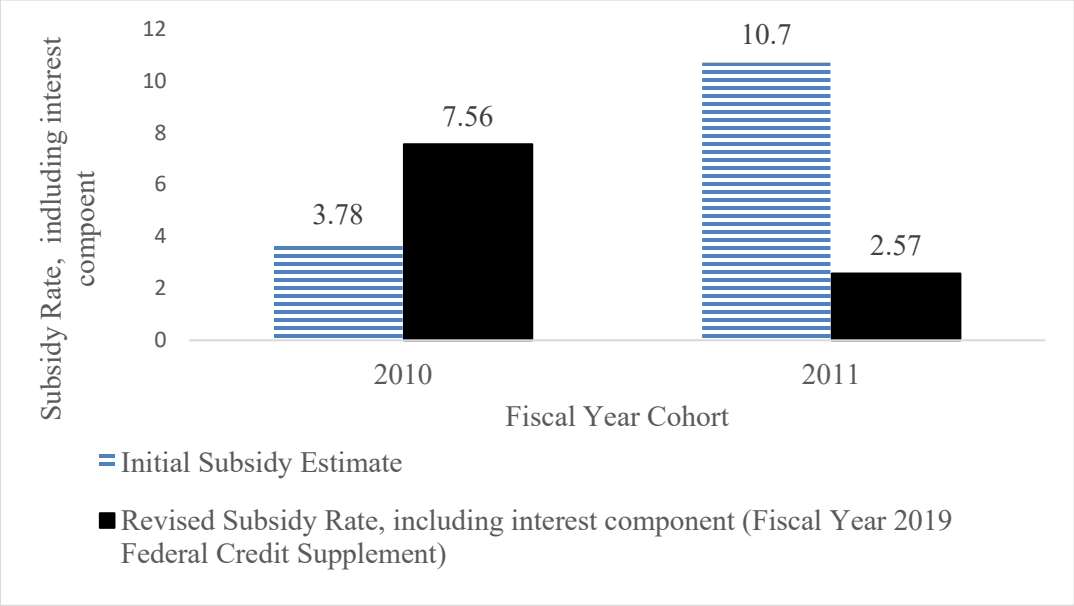
However, the level of loans disbursed for the fiscal year 2011 cohort was much lower ($.04 billion) than the fiscal year 2009 cohort ($7.2 billion). GAO (2015a) reported that while two ATVM loans defaulted, the estimated subsidy costs for the program dropped primarily as the result of a significantly improved credit rating for a single loan, which was repaid in full 9 years ahead of schedule, resulting in a net gain to the Treasury (GAO, 2015a).

Figure 4.7 Advanced Technology Vehicles Manufacturing Loans, Initial vs. Revised Subsidy Rate, by Fiscal Year Cohort



Source: Graph created by author using data from *Federal Credit Supplement*, Fiscal Year 2019

Figure 4.8 DOE Loan Guarantee Program, Initial vs. Revised Subsidy Rate, by Fiscal Year Cohort



Source: Graph created by author using data included *Federal Credit Supplement*, Fiscal Year 2019

Despite Challenges, Subsidy Estimation Process Has Prompted Attention to Policy and Management Issues

While subsidy estimation has been challenging and some significant reestimates have occurred, the process can provide useful signals to policy participants about risks associated with and management of loan programs. Oversight reports and hearings provide examples of FCRA's subsidy estimates and reestimates being used to prompt attention to and investigation of policy and program management issues. FHA's subsidy estimates and reestimates prompted examination of risk factors and areas for improved oversight and management (GAO, 2005a and GAO, 2013c). In response to FHA's substantial credit subsidy reestimate of $7 billion at the end of the fiscal year 2003 Rep. Bob Ney, Chairman, Subcommittee on Housing and Community Opportunity, requested

GAO examine the reestimate, including determining the factors which contributed to the reestimate and the underlying loan performance factors (GAO, 2005b). Based on GAO recommendations, FHA's contractor incorporated the source of down-payment assistance and borrowers credit scores in subsequent actuarial reviews (GAO, 2007, p.15).[136]

The interaction between FHA's subsidy cost reestimates for its single-family mortgage insurance program and the program's capital reserve fund[137] helped call attention to the program's changing role and financial condition. Transfers from the capital fund to the program account were made to cover the large upward reestimates discussed earlier.[138] Both depletion of the capital reserve account and concerns that FHA would need to draw on permanent, indefinite budget authority in the future to cover subsidy cost reestimates helped prompt attention to the program's policies and financial condition.

Difficulties estimating subsidy costs and significant reestimates called attention of USDAs financial and risk management of its loan programs. Significant upward reestimates for the Rural Housing Services (RHS) Single-Family Mortgage guarantee program prompted a congressional request for GAO to review the agency's subsidy estimation procedures and management of its loan programs. GAO (2016c) identified

[136] Specifically GAO was asked to: (1) assess the significance of the $7 billion reestimate, (2) determine what factors contributed to the $7 billion reestimate and the underlying loan performance variables influencing these factors, (3) assess how the loan performance variables underlying the reestimate could impact future estimates of new loans, and (4) assess what the reestimate and the underlying loan performance variables mean for the long-term viability of the Fund.

[137] The capital reserve account holds reserves in excess of those needed for estimated subsidy costs and helps cover costs unexpected increases in costs. As with other programs covered by FCRA, the financing account holds reserves need to cover estimated subsidy costs (GAO, 2011b).

[138] Historically the programs had estimated negative credit subsidies. Based on these estimates the negative subsidies in excess of those need for estimated subsidy costs were transferred from the program to the capital reserve account, which accumulated substantial balances.

several areas where RHS policies and procedures were not fully consistent with OMB standards for managing credit programs. RHS has undertaken several steps to improve its loan management, including: (1) hiring a Chief Risk Office to lead risk management function, (2) developing an econometric model to help predict and assess potential risk and (3) strengthened its Credit Policy Committee (GAO, 2017a),

A 2014 GAO report highlighted the inherent risks associated with the federal student direct loan program and the implications for policy proposals. The report found that borrower interest rates cannot be set in advance to consistently balance government revenue and costs because subsidy cost estimates are too sensitive to certain variables and fluctuate significantly over time. GAO concluded that the risks inherent in the program and the resulting estimation variability would impede proposals aimed at precisely tying borrower's interest rates to the government's costs (GAO, 2014b).

FCRA subsidy cost estimates have been used to heighten awareness of or explain the risks inherent in the mission and design of some credit programs. CBO and GAO reviews highlighted the difficulties associated with estimating subsidy cost for programs covering small numbers of loans or unique or complex risks. As discussed earlier, one concern prior to FCRA was the changing composition of federal credit programs from being primarily large actuarially sound programs to including risker, larger loans to a smaller number of borrowers or a single borrower. CBO testimony on a proposed loan guarantee program to increase access to local television signals in rural areas discussed the factors affecting the program's subsidy cost estimates, warning that the venture was both financially and technically risky and explaining how the program might be

structured to mitigate the government's subsidy costs. CBO also provided information on the subsidy cost and risks involved with loan guarantees of nuclear power plants.

Analysis of subsidy estimates were cited in debates about credit programs' design, including zero-subsidy programs or proposals. In its 2008 review of DOE's LGP, GAO highlighted the potential for self-section bias due to combination of the inherent difficulties estimating program's cost and the "*borrower pays*" design. GAO cautioned about the potential for an unbalanced portfolio leading to increased taxpayer costs because the risks inherent in DOE's loan guarantee program "… w*ill make it difficult for DOE to estimate subsidy costs with a reasonable degree of accuracy, which could lead to financial losses and may introduce biases in the programs that ultimately receive loan guarantees"* (GAO, 2008, p. 5).

FCRA subsidy estimation methods remain significant source of debate.

Concerns about credit subsidy estimates go beyond how accurately agencies are applying FCRA's estimation procedures to concerns about the estimation procedures themselves. Vigorous debate reemerged in recent years about the treatment of market risk and the associated choice of discount rate. To a lesser extent, concerns also continue about the treatment of administrative costs. While almost all reform efforts focus on modifying FCRA's net present value approach, Marron (2014) raises the possibility that FCRA's use of discounted net cash flows is itself misguided.

Critics claim that FCRA's subsidy cost estimates create some of the very problems it was meant to prevent: perverse budget incentives, distorted policy debates and the creation of budget loopholes (CBO, 2014b, 2018e, 2018f; Delisle, 2015; Elliott,

2015; Holt-Eakin, 2015; Lucas, 2014; Lucas and Phaup, 2008, 2010; Miller, 2014; and Phaup, 2012). The following section examines the key conceptual and technical arguments on both sides of the debate. The next two sections then examine the extent to which fair-values are now available and how the existence of competing subsidy cost estimates (FCRA and fair-value) have been used the policy and political process. This ongoing debate over complicated issues illustrates some of the challenges associated with bringing analytical information directly into the budget.

Treatment of market risk remains highly controversial

Echoing voices of the past, some policy participants challenge FCRA's use risk-free Treasury rates to discount cash flows for subsidy cost estimates. Elliott notes that despite *"near-universal"* agreement that subsidy costs should be measured on a discounted cash flow basis there continues to be a *"critical policy argument*" about the appropriate discount rate (Elliott, p.15). Proponents of reform argue that, by failing to capture the cost of the market risk,[139] FCRA provides incomplete and misleading estimates of the government's subsidy cost. Others, however, strongly oppose the inclusion of market risk in credit subsidy estimates, arguing that doing so violates budgetary norms, overstates budget costs, and skews cost comparisons with other federal programs. Table 4.3 provides a summary snapshot of positions of some participants in this debate from government, academia, and the think tank community.

[139] Market risk is the component of financial risk that cannot be eliminated through portfolio diversification. Market risk arises from shifts in macroeconomic conditions, such as productivity and employment, and from changes in expectations about future macroeconomic conditions (CBO, 2014b).

Table 4.3 Examples of Positions in Recent FCRA vs. Fair Value Debate (2000-Present)

Support of Fair-Value Approach	
Government Organization	CBO (2003b, 2004, 2012b, 2014b, 2015c, 2016, 2018f) Federal Reserve Bank of Kansas City (April 2013) OMB (2018a) Senate Budget Committee (Warren, 2016)
Academic/research community	Lucas (2014) Lucas and Phaup (2008, 2010) Phaup (2012) Swagel (2013)
Think Tank Affiliated Researchers	American Action Forum (Holtz-Eakin, 2015 and Miller, 2014) American Enterprise Institute (Capretta, 2018) Brookings Institution (Elliott 2009, 2011, 2012, 2015) Center for Federal Financial Institutions (Elliott, 2012) Heritage Foundation (Katz, 2017) Mercatus Center (de Rugy & DeHaven, 2017) New America (Delisle, 2015)
Commissions	Peterson-Pew Commission on Budget Reform (2010)
Other	National Affairs (Delisle and Richwine, 2014) Financial Economist Roundtable (2012)
Support of FCRA Approach	
Government Organization	GAO (2016a) OMB (2013, 2014a, 2014b, 2015) Senate Budget Committee (2014)
Academic/research community	Karmin (2012)
Think Tank	Center for Budget and Policy Priorities (Van de Water, 2015; Kogan, 2014; Kogan, et al., 2013; and Bernstein, 2013) Center for American Progress (Griffith, 2012)
Other	Letter to congressional member (Reischauer, 2013)
Support Alternative Reform (not FCRA or fair-value)	
Think Tank Affiliated Researcher	Urban Institute and Tax Policy Center; Marron (2016, 2014)

Source: Table compiled by author.

Nearly all reform efforts advocate for a fair-value approach, which includes the cost of market risk in subsidy cost estimates. Both FCRA and fair-value estimates are based on cash flows that account for the time value of money and default risk. While

default risk captures the cost of expected losses from defaults, market risk measures the cost associated with bearing the uncertainty surrounding these estimates. Private investors require a risk premium (i.e. additional compensation above the expected return for risk-free Treasury securities) as compensation for bearing exposure to market risk. A fair-value approach recognizes the government's assumption of market risk as a cost to the government above the average expected losses from defaults (CBO, 2018f and Bickley, 2012).

A commonly discussed reform approach adjusts the discount rate to account for market risk.[140] CBO uses this approach for its annual updates of credit subsidy estimates (CBO, 2018f). Under this approach, FCRA and CBO's fair-value subsidy cost estimates are based on similar cash flow projections, but the fair-value approach uses market-based discount rates while FCRA uses treasury rates. [141] CBO (2014b) explains "*the difference between the FCRA and the fair value discount rates can be interpreted as the additional compensation that investors would require to bear the risk associated with federal credit"* (p. 4). Because the fair-value approach includes a risk premium the subsidy cost of federal credit programs generally is higher using the fair-value approach than FCRA's approach (CBO 2018c, p.3).[142]

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[140] Several methods can be used to estimate and incorporate market risk, including: observable market prices, (2) adjusted discount rates; and (3) options-pricing (CBO, 2004, 2012b, and 2014b). CBO has used more sophisticated techniques, such as options-pricing, to estimates the fair value of some credit, such as FHA's Mortgage Insurance (CBO, 2004 and 2014a). CBO (2004) explains the application of options pricing for valuing federal loan and loan guarantees.
[141] For most direct loan programs CBO uses the cash flows that OMB uses for its FCRA-based subsidy estimates. However, CBO uses its own cash flow estimates for the Department of Education student loan programs and FHA's single-family mortgage program. For other loan guarantees, CBO use cash flow information from OMB, but also its own approximations of interest payments and principal based on OMB data. See *How CBO Produces Fair-value Estimate of the Cost of Federal Credit Programs: A Primer.*
[142] The risk premium is added to the risk-free Treasury rate. The resulting difference between FCRA and fair-value estimates depends on the annual risk premium associated with the

For over a decade, CBO has actively advanced the use of fair-value cost estimation for federal credit programs. In a series of reports and testimonies, CBO outlined concerns about FCRA's budget information and incentives; provided arguments for a fair-value approach; and applied a fair-value approach to various federal credit programs (CBO 2018f, 2014b, 2012b, 2007, 2004). The agency's technical expertise, reputation, and role as official budget scorekeeper added credibility and increased attention to the issue. Prominent academics and researchers (some with prior affiliations with CBO) were instrumental in laying out arguments for the inclusion of market risk and applying fair-value approaches to federal credit programs (Lucas et al., 2004; Lucas and Phaup, 2008, 2010). Various commissions also articulated support for revising FRCA to adopt a fair-value approach for credit programs. In 2010, the National Commission on Fiscal Responsibility and Reform indicated potential support for a fair-value approach. The Pew-Peterson Commission on Budget Reform proposed fair-value accounting for federal credit programs. In 2012, the Financial Economist Roundtable (FER)[143] issued a statement endorsing amending FCRA to adopt a fair-value approach (Financial Economist Roundtable, 2012).

Presidential administrations and Congress have weighed in on the debate. While the Obama Administration strongly supported FCRA's estimation method,[144]the Trump

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underlying loan, the average life of the loan, and for loan guarantees, the structure of the guarantee. The effect of the difference in discount rates is larger the longer the average life of the loan (CBO, 2018f, p. 3).

[143] The Financial Economist Roundtable (FER) is a group of senior financial economists who have made significant contributions the finance literature and seek to apply their knowledge to current policy debates. FER statements are distributed to relevant policymakers and the media (FER, 2012)

[144] The *Analytical Perspectives* for fiscal years 2014 and 2015 included discussions that concluded the drawbacks of fair-value budgeting for federal credit programs outweighed its potential benefits (OMB, 2013, p. 386-399 and OMB, 2014a, p. 337 -340). OMB stated that using

Administration has signaled support for a fair-value approach (OMB, 2018a, p. 124). Numerous Congressional Committees and lawmakers have requested CBO provide information on the fair-value approach or for subsidy cost estimates using this approach. In June 2015, the Joint Economic Committee held a hearing during which experts testified strongly on both sides of the issue (U.S. Congress, Joint Economic Committee, 2015). GAO recently conducted a congressionally requested review of FCRA's credit subsidy estimates and the fair-value approach (GAO, 2016a).[145] Congress mandated the use of fair-value cost estimation for the Troubled Asset Relief Program (TARP). The Economic Emergency Stabilization Act (EESA) of 2008[146] required that OMB and CBO estimate TARP cost consistent with FCRA's approach, but with discount rates adjusted for market risks (OMB, 2015a). [147]

In recent years, Republican lawmakers introduced legislation to amend FCRA to require fair-value subsidy cost estimates. From 2011 to 2015, lawmakers introduced bills that would have required the cost of federal credit programs be estimated using a fair-value approach or that would have required CBO, upon request of the budget committee, to provide supplemental estimates of subsidy costs using the fair-value approach. In

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fair-value approach estimates in the budget would "… *represent a step backward from the methods in use today"* (OMB, 2014a, p. 340). OMB stated that doing so "*would not be an improvement over the methods in use today*" (OMB, 2013, p. 399).

[145] The GAO study was requested by Senator Christopher Coons (D), Ranking Member, Subcommittee on Financial Services and General Appropriations, Committee on Appropriations

[146] As discussed earlier, the Emergency Economic Stabilization Act (EESA) of 2008 (P.L. 110-343) authorized the Treasury to purchase or guarantee troubled assets to restore the liquidity and stability of the financial system (OMB, 2015a). Section 123 of the Emergency Stabilization Act of 2008 required that TARP be scored using a net present value calculation with a discount rate that incorporates market risk.

[147] A fair-value approach also is used to budget for some International Monetary fund lending facilities (CBO, 2012). In addition, CBO, but not OMB, uses fair-value for baseline budget projects for Fannie Mae and Freddie Mac (CBO, 2018a, p. 2).

2012 and 2014, the House passed legislation amending FCRA to require fair-value estimates for federal credit programs, but both bills died in the Democratic-controlled Senate.[148] In both cases, votes were almost completely along party lines, with Republicans heavily favoring and Democrats strongly opposing the bills. *The Budget and Accounting Transparency Act of 2012* (H.R. 3581) passed the House in February 2012, with a vote of 245 to 180.[149] Democratic lawmakers introduced two proposed amendments to delay bill or narrow the bill, but both failed on almost entirely along party lines.[150] The *Budget and Accounting Transparency Act of 2014* passed the house in April. 2014, with a vote of 230-155.[151] No legislation was enacted into law. In 2015, legislation to amend FCRA to require fair-value subsidy estimates again was introduced, but it was not voted on (H.R. 119 and S. 399).

Although FCRA has not been amended to require fair-value subsidy cost estimates, recent budget resolutions included provisions requiring CBO to provide supplemental fair-value subsidy cost estimates. The fiscal year 2018 concurrent budget

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[148] These bills would have required fair-value using SFAS 157 as promulgated by the Financial Accounting Standards Board, which sets accounting standards for the private sectors.

[149] Of voting Republicans, 238 voted for and 2 voted against the bill. Of the 185 voting Democrats, 7 voted for the bill and 178 voted against. One Republican and 7 Democrats did not cast votes. http://clerk.house.gov/evs/2012/roll042.xml

[150] Rep. Tonko (D-NY) offered an amendment to convene a commission of budget and accounting experts to provide recommendations to Congress about the best measure to account for the costs of Federal credit programs. The Congress would then have an opportunity to vote on the commission's recommendations. The Tonka amendment failed by vote of 187 to 238, with almost all Republicans voting against and almost all Democrats voting for the amendment. Two Republicans voted for the amendment and 236 voted against the amendment. Two Democrats voted against and 185 voted for the amendment. http://clerk.house.gov/evs/2012/roll040.xml Rep Waltz (D-Mn) offered an amendment to exclude loans to students and veterans from including market risk in subsidy estimates. The amendment failed by vote of 190 to 238. All 189 voting Democrats voted against the amendment. One Republican voted for and 238 voted against the amendment. http://clerk.house.gov/evs/2012/roll041.xml

[151] 263 Republicans voted for the bill. Of the 181 voting Democrats, 16 voted for the bill and 165 voted against. 18 Republicans and 18 Democrats did not cast votes. http://clerk.house.gov/evs/2014/roll166.xml

resolution[152] directs CBO, if requested by a Budget Committee Chair, to include supplemental fair-value estimates of any legislation modifying or establishing a direct loan or loan guarantee program, regardless of program or policy area. In the cases of student financial assistance and housing (including residential mortgages), CBO is directed to include fair-value estimates for all estimates for legislation modifying or establishing a direct loan or loan guarantee programs. No request from a Chairman is required for these estimates. In the House, it is permitted to use fair-value estimates as the basis for budget enforcement. CBO also is required to include in its *The Budget and Economic Outlook 2018 to 2027* a comparative baseline projection using both FCRA and fair-value approaches for student financial assistance, housing (including residential mortgage) and other major credit programs.

Fair-value subsidy cost estimates are more available for federal credit programs, but the debate and controversy surrounding their appropriateness and usefulness continues. Over a decade of debate has clarified some issues, but it has done little to resolve fundamental disagreements. Central technical issues include whether the Federal Government is exposed to market risk and if so whether this exposure is a budget cost. For lawmakers, debate is about whether credit program costs are higher or lower than FCRA cost estimates and whether the government is making a profit or loss on credit programs.

Proponents of a fair-value approach, including the CBO, argue that market risk is a cost to the government and as such it should be included in the budget. CBO (2014b) explained:

[152] The Fiscal Year 2019 House Budget Resolution includes similar language.

> *"The government is exposed to market risk through its credit programs because when the economy is weak, borrowers default on their debt obligations more frequently and recoveries from defaulting borrowers are smaller. That market risk is effectively passed along to taxpayers and beneficiaries of government programs because they bear the consequences of the government's financial losses. Moreover, that risk is costly to those taxpayers and beneficiaries because they also tend to value resources more highly when the economy is weak." (pp. 3-4).*

In this view, the role of the budget is to record is to quantify all the costs that are present in the economic environment, which in the opinion of fair-value proponents includes the cost of market risk for credit programs (Joint Economic Committee, 2015). Former CBO Director, Holtz-Eakin testified:

> *You cannot pretend that the Federal Government is a riskless entity. All it does is transmit the risk in the economic environment through it back to the taxpayers who are subject to those risk to begin with. So measure them comprehensively. Trace them back to the taxpayer because that is ultimately who is going to pay (*Joint Economic Committee*, 2015, p. 24)*

Fair-value proponents claim that, by excluding the cost of bearing market risk from subsidy cost estimates, FCRA understates the cost of federal credit programs (CBO, 2004, 2018; CRS, 2014; Delisle, 2010, 2015; Elliott, 2011, 2015; FER, 2012; Lucas and Phaup, 2008; and Miller, 2014). CBO (2004) argued:

> *"Using the Treasury rates to discount expected cash flow neglects the cost of market risk and results in the systematic understatement of costs for both direct and guaranteed loans. Using risk-adjusted discount rates, which include the cost of market risk, would correct that understatement and improve the comparability of budgetary costs for credit and other programs"* (p. 3).

Further, proponents stress that FCRA's exclusion of market risk is not just a technical issue but misleads policymakers and creates incentives for the overuse of credit programs. In 2014, CBO Director Elmendorf warned:

> *"…FCRA accounting creates a budgetary incentive to expand the programs beyond the scale that would be chosen if the budget reflected comprehensive estimates of the costs of those programs"* (Elmendorf, p. 8).

Worse, some such as Delisle, a former Republican budget committee staffer, argues that FCRA's estimation methods create a significant *"loophole"* that may have been "*unintentional"* but "*… now threatens to undermine the benefits and intent behind this important law…."* (Delisle, 2010a, p. 1).

How FCRA creates *"profits"* and what subsidies are reflected in the budget and provided to borrowers remain points of confusion in the debate.[153] Under FCRA's approach, the government may show a *"profit"* (or negative budget outlays) when it extends credit at rates above the risk-free Treasury rate. As a result, the government can appear to be "*profiting*" even when it is extending credit to borrowers at below market rate i.e. subsidizing borrowers.[154] Because the government has gains from lending at rates higher than its borrowing rates, the government may be able to take over risker lending and turn it into federal lending without showing budget costs and perhaps even showing a *"profits."* As discussed later. these types of issues create confusion and challenges when FCRA subsidy estimates are used in the policy and political process.

Opponents of fair-value argue that: (1) market risk is not relevant to the Federal Government or (2) if it is relevant, it is not a budget cost. A long-held premise is the Federal Government is not exposed to market (or its exposure is much lower) because it

[153] Marron (2014) provided a detailed discussion of these issues, which informed the summary provided here.

[154] As discussed in Marron (2014), FCRA's subsidy number combines the gains taxpayers receive as compensation for bearing risk with the costs from subsidies given to borrowers. Because these two components are combined into a single number, Marron concludes *"FCRA does not measure subsidies; instead it measures the returns the government expects to net on the loan, which equal the government's compensation for bearing financial risk less any subsidies."* (p. 24).

can borrow at lower rates than private institutions and it can spread risk more widely and over long periods of time. [155] One assertion is that because the Federal Government can borrow to cover losses, it can avoid market risk by postponing tax increases or spending cuts until good times. (Sastry and Sheiner, 2015, p. 6). The government's sovereign power to collect payments is also credited with reducing its risk exposure and lowering its lending costs. Some argue that given the complexities involved about which elements of market risk apply to the Federal Government it is a *"better approximation to treat the government as risk neutral than to treat it as having the same risk aversion as the marginal investor"* (Sastry and Sheiner, 2015, p. 7).

CBO and other fair-value proponents, however, rebut claims that the Federal Government's characteristics eliminate its exposure to market risk (CBO, 2004/2014; Lucas (2014, 2016 and Lucas and Phaup, 2008). CBO argued:

> *"even if the government can spread risk widely, it cannot eliminate the component of risk that is associated with fluctuations in the aggregate economy (market risk) and that risk is costly to the taxpayers and beneficiaries of government who ultimately bear it"* (Elmendorf, p. 5).

Fair-value proponents also dispute that the government's cost is best defined by its borrowing costs (CBO, 2004 and Lucas and Phaup, 2010). In discussing the issue, CBO (2004) distinguishes between the financing of risk and the existence of risk as follows:

[155] The theory that the government is not risk-adverse is grounded in the work of Arrow and Lind (1970) which argued for using a risk-free rate because any credit losses from a program would extremely small relative to the totality of the federal budget. In addition, the government could use its taxing and borrowing authority to spread costs over time. Recently, Lucas (2014) challenged Arrow and Lind's theory and presented a case for governments using market rates for discounting.

> *"The authority to draw on the resources of others to ensure repayment of debt obligations does not reduce the risk the government assumes by extending risky loans and guarantees. Rather, it is the means by which such risk is shifted to taxpayers and beneficiaries of government programs, who are in essence, equity holders in the government's financial activities"* (p. 4).

Some FCRA supporters conceded that market risk is relevant to the Federal Government and thus important to decisions about federal credit programs, but they strongly dispute that it is a budget cost. Rather, market risk is a social cost. In a widely-cited letter to Representative Van Hollen, Former CBO Director Reischauer objected strongly to the inclusion of market risk in the subsidy cost estimates used in the budget.

> *A society's aversion to risk may be an appropriate factor to take into account in a cost-benefit assessment of any spending or tax proposal, but adding a cost to the budget does not make sense. Nor is it clear that the cost of societal risk aversion should be based on individual or institutional risk which is what the private market reflects. Inclusion of a risk aversion cost for credit programs would be inconsistent with the treatment of other programs in the budget … and would add a cost element from a traditional cost-benefit analysis without adding anything based on the corresponding benefit side of such an analysis. It would also make budget accounting less straightforward and transparent (Reischauer, 2012, p. 1).*

Opponents of adding market risk as a budget cost argue that the budget should only include cash transactions of the government. The Senate Budget Committee stated that while market risk may carry societal costs *"those are not same as budget costs"* (U.S. Senate Budget Committee, 2014, p. 2). Karmin (2012) argued "*...the key point – and the point that should be decisive in deciding whether to reflect risk in the federal budget – is that the "cost of risk" does not create a fiscal effect and so should not be recorded in the federal budget"* (p. 32). The Center for Budget and Program Priorities (CBPP), a liberal-leaning think tank, which includes several former CBO and budget

committee staff, has been vocal in its view that *"risk aversion is not, in fact, a budgetary cost"* (Kogan et al., 2014, p. 1). Marron, who is a proponent of reforming FCRA, argues:

> *"the government's ability to bear financial risk has no bearing on how we should measure the fiscal effects of federal lending. It is relevant to whether and how the government should extend credit but it should not influence how we construct budget projections."* (Marron, 2014, p.19)

As was the case in the debate leading up to FCRA, GAO put itself at odds with CBO by reaffirming its support for FCRA's use of the Treasury rate. GAO (2016a) states:

> "… *we do not support the fair-value approach to estimate subsidy costs for the budget and believe the current FCRA methodology is more appropriate, as it represents the best estimate of the direct cost to the government and is consistent with current budgetary practices* (p. 33).

The issue of non-cash cost remains a significant source of confusion. Both FCRA and fair-value account for the time value of money which create differences between the reported cash deficit and Treasury borrowing during the life of a loan.[156] However, in FCRA's case, it is a timing difference and over time a credit program's ultimate costs are tied to cash flows, which are observable and measurable. Under FCRA, at the end of a loan's life the government's costs (the initial subsidy estimate and subsequent reestimates) will measure the actual net cash flows to and from the government. Fair value estimates also account for the time value of money, but its inclusion of a risk premium creates an unobservable factor that may always remain unknown. As a result,

[156] Under FCRA, the difference between outlays and the deficit results from timing differences. The subsidy costs for direct loans are outlayed to the financing account when loans are obligated. At that point subsidy costs included in the deficit, even though the draw on Treasury funds will not occur until loan disbursement. Similarly, the deficit includes the subsidy costs for loan guarantees in the year the guarantees are extended even though the cash outlay from the government will not occur until a default occurs and payments are made to private lenders.

under a fair-value approach, at the end of a loan an adjustment would be necessary even if estimated cash flows occurred exactly as expected (Kogan et al, 2013; Lucas and Phaup, 2008 and OMB, 2014a).[157]

Given the differing opinions about whether market risk is a budget cost, it is not surprising that policy participants are strongly divided about whether FCRA or fair-value subsidy estimates best support cost comparability among credit programs and between credit and other federal spending. Phaup (2012) argued that *"... some credit programs expose taxpayers to much more market risk than others, but FCRA accounting does not recognize those differential costs between credit programs"* (p. 4). Lucas (2014) explains that one reason given for using the treasury rate is to ensure consistent application across programs but argues that *"...using the same discount rate for different program favors high-risk programs and therefore does not meet the goal of consistency across programs* (p. 89). In articulating support for fair-value, Elliott questioned Congressional members, "*Do you as a Member of Congress want ta budget number to reflect the difference between very certain results and very uncertain results?"* (JEC, 2015).

Fair-value proponents also argue that FCRA's understatement of subsidy costs results in a bias in favor of credit programs over other types of federal programs (Castelli et al, 2014b; CBO, 2004; Phaup, 2012; and Lucas, 2010). The premise is that a fair-value approach improves comparability because for most non-credit federal programs the cash

[157] This occurs because at the end of a loan's life the full accounting should result in the net cash flows to the Treasury; however, under fair-value, an adjustment is necessary to adjust the risk premium to leave actual cash transactions.

costs used in the budget are fair-value costs since they are based on the market prices of goods and services purchased by the government.

Opponents, however, counter that uncertainty associated with market risk is not unique to credit programs; it can be a significant factor for many federal programs, especially mandatory programs, such as unemployment benefits, which are closely tied to general economic conditions. Reischauer stated *"... inclusion of a risk aversion cost for credit programs would be inconsistent with the treatment of other programs in the budget (many of which have costs that are at least as uncertain as the costs of credit programs – for instance, many agricultural programs and Medicare)*" (Reischauer, 2012, p. 1). In this view, the use of the fair-value subsidy estimates would create a bias against credit programs by making them appear more expensive that other forms of federal spending. OMB (2015) states that inclusion of premium for uncertainty was scored only for credit programs it *"could distort decision making, placing a thumb on the scale against credit assistance"* (p. 338).

While almost all reforms focus on modifying FCRA's estimation procedures, but Marron goes further to challenge the conceptual soundness of the net present value approach used by both FCRA and fair-value. Marron contends that both FCRA and fair-value approaches are flawed. In his 2014 report, he argued:

> *"FCRA does a good job measuring the lifetime fiscal effects, but it therefore cannot measure fiscal effects at origination or over the budget window or the subsidies given to borrowers. In fact, FCRA negative subsidy estimates suggest that the government profits at borrowers' expense even when it offers subsidized loans"* (Marron, 2014b, p. vi).

> *"Fair-value does the reverse; it measures subsidies well but therefore cannot measure fiscal effects over the budget window or the loan's life"* (Marron, 2014b, p. vi).

Rather than focusing on a single lump sum (as FCRA and fair-value approaches do), Marron's *"expected returns"* approach would track the year-by-year net financial returns that a loan is expected to generate (Marron, 2014b). While Marron's work provides valuable insights into the complexities of measuring and budgeting for the costs of federal credit, it has its own unresolved issues[158] and so far, it has not resulted in new reform efforts. I have not found any legislative proposals calling for using the expected value approach as the basis for amending or replacing FCRA. I also have not found significant statements about or endorsement of the expected value approach by other key players in the debate, including CBO, GAO, OMB, or recent budget reform commissions.

Treatment of administrative costs remains a source of concern.

Concerns also remain about FCRA's exclusion of administrative costs from subsidy costs. Reflecting unresolved debate, Section 503 of FCRA directed the CBO and OMB to analyze and report on FCRA's treatment of administrative costs.[159]CBO's 1992 report outlined key advantages and disadvantages of revising FCRA's subsidy estimation procedures to include administrative costs. CBO's analysis confirmed that budget treatment of administrative costs for federal credit programs matters because these costs can be significant, and their size and timing vary significantly across credit programs (CBO, 1992). According to CBO, a key argument for the inclusion of administrative

[158] It is unclear how the Marron proposals would fit the principle of recognizing upfront costs.
[159] Section 503 directed CBO and OMB *to "each analyze and report to Congress on differences in long-term administrative costs for credit programs versus grant programs by January 31, 1992."* These reports were "… *to recommend to Congress any changes, if necessary, in the treatment of administrative costs under credit reform accounting."*

costs is that their exclusion understates the cost of federal credit programs, but there also are practical and conceptual arguments for not including them.[160] After weighing the issues, CBO (1992) concluded:

> *"… the Congressional Budget Office does not recommend changing the budgetary treatment of the administrative costs of credit programs at this time. The apparent disadvantages associated with moving administrative costs into the subsidy outweigh the apparent advantages."* (p. xii)

Pariser (1992) notes that the OMB report generally concurred with CBO's analysis and outlined several issues that would need to be resolved before administrative costs could be included in subsidy cost estimates, such as, the establishment of a common definition of administrative costs (p.25).[161]

In 1993[162] and 1994,[163] bills were introduced to among other things amend FCRA to include administrative costs in subsidy estimates. While no action was taken on these proposals, concerns continue to be raised periodically that FCRA's exclusion administrative costs distorts the costs of federal credit programs (Lucas and Phaup, 2008). Ironically, given the concerns prior to FCRA that the cash-based budget created a bias towards loan guarantees over direct loans, several policy experts and commentators now argue that because FCRA's excludes administrative costs of direct loans, it creates a

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[160] CBO (1992) explains that including administrative expenses in subsidy costs would reduce Congress's "*contemporaneous control over funding for these costs"* (CBO, 1992). The inclusion of administrative costs may also reduce the comparability of costs between credit and some other federal programs because noncredit programs do not budget for these costs on a present-value basis. Further, agencies' accounting systems would require significant changes to sufficiently account and track administrative costs (CBO, 1992).

[161] Other issues outline by OMB included: (1) improvements in the quality and availability of accounting information on administrative costs, (2) development of a basis for determining the proper level of spending for federal administrative costs, and (3) design of budget procedures to help control but allow for changes administrative costs (Pariser, 1992, p. 25).

[162] H.R. 2053 The Administrative Cost Inclusion Act of 1993.

[163] H.R. 4178 Federal Credit Cost Reduction Act of 1994.

bias towards direct loans over loan guarantees (Lucas and Phaup, 2008, 2010, and Lucas and Moore, 2007).[164]

More recent oversight reports provide some evidence with respect to the magnitude of these costs and thus their significance in assessing credit program costs. A 2006 CBO report on FHA's mortgage insurance found that adding administrative costs would change the program's subsidy per $100 of insurance sold from a gain of 37 cents to a cost of 33 cents (CBO, 2006). CBO (2005) found that including the costs of the federal student direct loan programs would raise its subsidy rate by approximately 1.5 percentage points. Similarly, the Department of Education estimates show that inclusion of administrative costs would reduce the estimated negative subsidy rate for the FDLP program for fiscal year 2016 by 1.7 percent from -14.65 to -12.95.[165] While these costs may be significant enough to influence budget and policy decisions, revising FCRA's subsidy estimation procedures to include administrative costs raises complicated issues as discussed above. To date, most fair-value estimates have not included administrative costs (CBO, 2018f, p. 5).

[164] Under FCRA, administrative expenses paid directly by the federal government are excluded from subsidy cost estimates and included in the budget on a cash basis when they are paid. Lucas and Phaup (2008) and others argue this creates a bias because administrative costs occurred by private lenders are included in subsidy cost estimates for guaranteed loans as part of the payments made to guaranteed lenders (Lucas and Phaup, 2010).

[165] The Department of Education includes a table in the fiscal year 2016 Budget Appendix with subsidy rates for administrative costs projected on a comparable basis to the programs' subsidy rates.

Debate about subsidy estimation procedures and fair-value estimates have informed and complicated the policy and political debate.

The on-going debate about FCRA's estimation procedures and the increasing availability of fair-value estimates has informed and complicated policy and political debates. In recent years, CBO has provided fair-value subsidy cost estimates for various federal credit programs in addition to its official cost estimates using FCRA procedures. Table 4.6 shown later in the chapter provides examples from CBO reports and testimonies. Table 4.7 provides examples from CBO cost estimates, including correspondence with congressional members. As can be seen, the FCRA and fair-value approaches provide significantly different estimates of subsidy costs, and therefore different signals and incentives with respect to specific federal credit programs and the impact of federal credit programs on the budget deficit (CBO, 2014b; Elliott, 2011; and Marron, 2014b). In other words, the choice matters in real-world policy and political debates.

The aggregate effect of federal credit programs on the budget deficit is different depending on the cost estimation method used. A 2012 CBO illustrative analysis of the cost of new federal direct loans and loan guarantees for more than 100 federal credit programs in fiscal year 2013 found that the deficit would be $56 billion greater using a fair-value approach than using FCRA procedures (CBO, 2012b). New loans were projected to have budget savings of $45 billion using FCRA procedures and a budget cost of $11 billion using a fair-value approach (CBO, 2012b, p. 1). In another analysis, CBO (2012a) projected the cost of discretionary spending for federal credit program as a budget savings of $4 billion using FCRA and a budget cost of $20 billion using fair-

value, resulting in a difference of $24 billion subject to budget controls.[166] More recently, CBO (2018e) projected the costs for 79 credit programs, including the guarantees for Fannie Mae and Freddie Mac, and found a $75.3 billion difference between the two estimation methods. CBO projected that using FCRA procedures new loans and guarantees for fiscal year 2019 would have a budget savings of $37.4 billion but using a fair-value approach would have a budget cost of $37.9 billion (CBO, 2018e, p. 3). Removing Freddie Mac and Fannie Mae from this analysis results in a difference of $49.3 billion.[167]

The choice of estimation methods also has significant implications at the program level. Table 4.4 shows CBO's projections for fiscal year 2019 for the loan programs of six departments or agencies. In each case, subsidy cost estimates are higher using the fair-value approach than using FCRA. In four of the six cases, the subsidy shifted from zero or negative (budget savings) to positive (budget costs).Table 4.4 CBO's Projected Subsidy Costs for Fiscal Year 2019, FCRA vs Fair-value

Department or Agency	Average Subsidy rate Percent		Subsidy (Billions of Dollars)		
	FCRA	Fair-value	FCRA	Fair-value	Difference
HUD	-3.7	2.7	-9.5	7.1	16.6
Education	-4.1	16.2	-4.1	16.1	20.2
VA	.7	2.8	1.0	4.0	3.0
SBA	*	9.7	**	4.3	4.3
Agriculture	-1.3	5.2	-.5	2.1	2.6
Export-Import Bank	-5.6	-2.7	-.9	-.4	.5

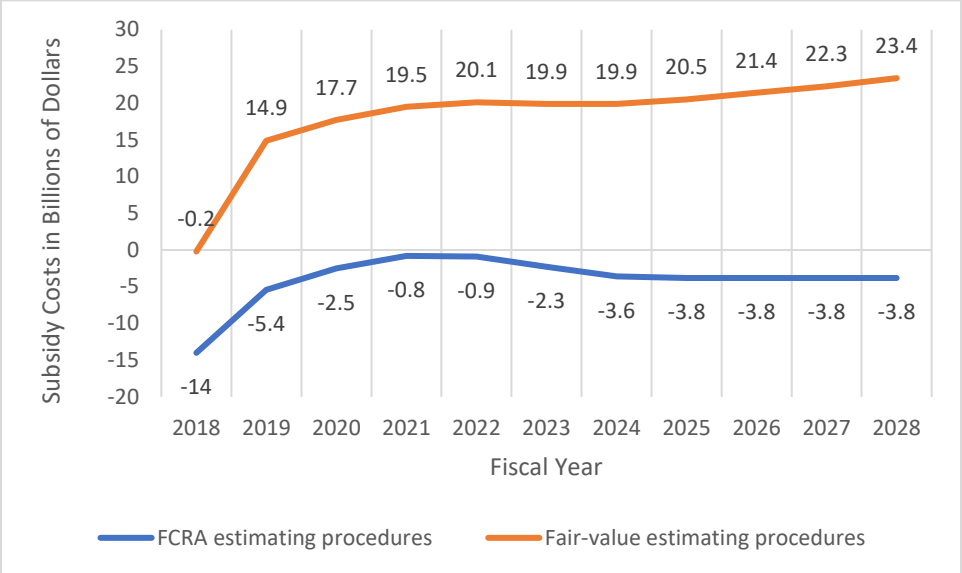
Source: Table adapted from CBO, 2018, *Table 1: Projected Costs of Federal Credit Programs in 2019*(CBO, 2018, p. 3). Author calculated differences.

CBO has also reported fair-value estimates over the 10-year budget window for some major credit programs. As shown in Figure 4.9, CBO's April 2018 baseline for the

[166] CBO cost estimate *for H.R. 3581 Budget and Accounting Transparency Act of 2012.*
[167] CBO's projected costs for Fannie Mae and Freddie Mac together are budgetary savings of $23.5 billion using FCRA procedures and $2.4 billion cost using a fair-value approach (CBO, 2018e, p. 3)

Student Loan Program Budget Account is significantly greater using a fair-value approach. Using FCRA, CBO projected budget savings of $45 billion over the 2016-2028 budget window, but using a fair-value approach, CBO projected a budget cost of $199 billion, a difference of $244 billion. CBO projected the cost of the FHA single-family mortgage guarantees for fiscal years 2015-2024 as $63 billion in budget savings on a FCRA basis, but a budget cost of $30 billion on a fair-value basis, a difference of $93 billion (CBO, 2014b). CBO (2014b) projected the subsidy cost for the Export-Import Bank for fiscal year 2015-2024 as budget savings of $14 using FCRA and as a budget cost of $2 billion using a fair-value approach, a $16 billion difference.

Figure 4.9 CBO April 2018 Baseline, Student Loan Program Account



Source: Figure created by author based on CBO data.

The choice of estimation methods results in significant (and somewhat confusing) differences in the projected budget impact for various policy options. In cases where the FCRA baseline estimates show budget savings, reducing loan volume may result in

reduced budget savings (increased budget cost). In other words, reducing government loans, increases costs. CBO (2017b) found that the policy options it reviewed for FHA's Single-Family Mortgage Insurance Program reduced budgetary saving relative to the baseline prepared using FCRA procedures (p. 12). Table 4.5 displays CBO's costs estimates for various policy options all of which reduce loan volume. Using FCRA procedures, CBO projected increased budget cost (reduced savings) but using a fair-value approach CBO projected a decrease in budget costs.[168] Other CBO analyses of proposals to reduce the volume of student loans showed that the proposals would reduce savings (increase budget costs) using FCRA procedures but reduce budget costs using a fair-value approach (CBO, 2013; 2016b, p. 2). This type of counter-intuitive result has increased confusion and controversy about FCRA procedures.

[168] According to CBO, using FCRA procedures, the baseline projected budgetary savings (meaning that present value of projected insurance losses is smaller than the present value of the fees and premiums that FHA is projected to collect). Each policy option reduced the volume of loans which reduced budget savings (increased budget costs). Under the fair-value approach, the baseline estimate showed a budget cost and each policy options reduced loan volumes, resulting in lower budget cost (CBO 2017c, p. 12).

Table 4.5 CBO's Projections, Effects of Policy Options
Costs of FHA's Single-family Program in 2018

Policy Option	Fair-value Estimate for 2018 Cohort of Guarantees, Cost of Program (Billions of dollars)	FCRA estimate for 2018 Cohort of Guarantees Budgetary Cost of Program (Billions of dollars)
CBO Current Law Baseline	**5.1**	**-7.4**
Partial guarantees		
With FHA in first loss position	1.9	-3.7
With FHA in second loss position	3.3	-3.7
Risk-based Pricing	4.7	-7.0
Residual-Income Test	4.6	-6.7
Lower Loan Limits	4.4	-5.4
Restricted Eligibility	3.2	-5.1
Mortgage Counseling	3.7	-5.8
Don-payment Grants in Exchange for Shared Appreciation	4.8	-6.1

Source: Table adapted by author from *CBO: Options to Manage FHA's Exposure to Risk from Guaranteeing Single Family Mortgages, Table 3*, p. 12.

While competing estimates provide additional information and perspectives, they also create confusion and controversy. The existence of competing estimates for politically sensitive programs combined with strongly conflicting views among key players about which estimation procedure is most appropriate confused policy participants, including the public.

Table 4.6 Example of FCRA vs Fair-value Subsidy Estimates, CBO Reports and Testimonies

Agency or Program(s)	Description and Source	Date	FCRA procedures	Fair Value Method	Difference
All or selected group of federal credit programs	Cost of new loans and guarantees to be issued in 2019, 79 credit programs, including Fannie Mae and Freddie Mac (CBO, 2018e, p. 3)	June 2018	Budget savings, $37.4 billion	Budget cost, $37.9 billion	$75.8 billion
	Cost of new loans and guarantees issued in 2013, 103 federal credit programs[169] (CBO 2012b, p.1)	June 2012	Budget savings, $45 billion	Budget cost of $11 billion	$56 billion
Department of Education, federal student loan programs	April 2018 baseline, Student loan Program Budget Account (CBO, 2018d)	April 2018	Budget savings, $45 billion	Budget cost, $199 billion	$244 billion
	Fiscal year 2019 (CBO, 2018e, p.1)	June 2018	Budget savings, $4.1 billion	Budget cost $16.1 billion	$20.2 billion
	Four largest student loan programs, FY 2015-2024 CBO, 2014b).	May 2014	Budget savings, $135 billion	Budget costs, $88 billion	$223 billion
	Loans issued, FY 2010 - 2020 (CBO, 2010c)	March 2010	Budget savings of $46 billion	Budget cost of $157 billion	$203 billion
	Federal Direct Student Loan Program	June 2013	Budget savings, $37 billion, for FY 2013	Budget savings, $6, FY 2013	$31 billion (FY 2013)

[169] The CBO analysis did not include: (1) Mortgage guarantees of Fannie Mar and Freddie Mac; (2) Troubled Asset Relief program and additional l guarantees provide by Government National Mortgage Association and the Small Business Administration (see CBO, 2012 for additional information)

Agency or Program(s)	Description and Source	Date	FCRA procedures	Fair Value Method	Difference
	(CBO, 2013b, p. 1)		Budget savings, $184 billion, FY 2013-2023	Budget cost, $95 billion, FY 2013-2023	$279 billion (FY 2013-2023)
FHA Single-family mortgage guarantees	Fiscal year 2019 (CBO, 2018e, p. 1)	June 2018	Budget savings, $9.5 billion	Budget cost, $7.1 billion	$16.6 billion
	Guarantees for fiscal years 2014-2015 (CBO, 2014b, p. 4)	September, 2014	Budget savings, $16.4 billion	Budget cost, $2 billion	$18.4 billion
	Guarantees issued FY 2011-2024 (CBO, 2014a)	May 2014	Budget savings, $63 billion	Budget cost $30 billion	$93 billion
	Fiscal year 2012	May 2011	Budget savings, $4.4 billion	Budget cost, $3.5 billion	$7.9 billion
Fannie Mae and Freddie Mac	Projections of mandatory outlays (2011-2020) (CBO 2010b)	September 2010	Budget savings, $44 billion	Budget cost, $53 billion	$97 billion
Export-Import Bank	Export-Import Bank (Bank's six largest credit programs) (CBO, 2014b; Elmendorf, 2014)	June 2014 May 2014	Budget savings, $14 billion	Budget cost, $2 billion	$16 billion
Small Business Administration	SBA's 7(a) program (CBO, 2007, p. 1)	October 2007	Budget cost, $24 million	Budget cost, $120 million	$96 million
Treasury	Loan guarantee to American West Airlines (CBO, 2004, p. 13)	2004	Budget savings, $47.4 million	Budget cost, $26.3 million	$73.7 million
Treasury	Loan guarantee to Chrysler (CBO, 2004, p.13)	2004	Budget cost, $107.6 million	Budget cost, $239 million	$131.4 million

Source: Author compiled using information reported in various CBO documents as cited in the table. Author calculated difference.

Table 4.7 Examples of FCRA vs Fair Value, CBO Baseline and Cost Estimates

Program(s)	**Description (Cost estimate unless noted)**	**Date**	**FCRA procedures**	**Fair Value Method**	**Difference**
All or selected group of credit programs	H.R. 3581 *Budget and Accounting Transparency Act* of 2012. Estimate for discretionary spending program (CBO, 2012a)	January 2012	Budget savings, $4 billion	Budget cost, $20 billion	$24 billion
Federal student loan programs	April 2018 baseline, Student loan Program Budget Account (CBO, 2018i)	April 2018	Budget savings, 8.7 billion	Budget cost, $236 billion	$244.7 billion
	President's proposal to eliminate FFEL and replace with loans from FDLP (CBO, 2009)	July 2009	Budget savings of $80 billion (including $7 billion in administrative cost offset	Budget savings of $47	$33 billion
	President's proposal to eliminate FFEL and replace with loans from the FDLP (CBO, 2010c).	March 2010	Budget savings, $62 billion	Budget savings, $40	$22 billion
	Private Student Loan Debt Swap Act of 2009	November 2009	Budget savings, $9 billion	Budget cost, $700 million	$9.7 billion
	Cost estimate, H.R. 4508 "*Promoting Real Opportunity, Success and Prosperity through Education Reform Act"* (CBO, 2018d)	July 2018	Budget savings, $14.6 billion	Budget Savings, $16.9 billion	$2.3 billion
Small Business Admission	H.R. 5297 *Small Business Lending Act* (CBO 2010a)	May 2010	Budget cost, $1.4 billion	Budget cost, $3.4 billion	$2 billion

Program(s)	Description (Cost estimate unless noted)	Date	FCRA procedures	Fair Value Method	Difference
Export-Import Bank	H.R.3611, Export-Import Bank Reform and Reauthorization (CBO, 2015e, p. 1)	October, 2015	Budget savings, $2.3 billion	Budget cost $.3 billion	$2.6
	Export-Import Bank Reauthorization and Reform Act of 2015	July, 2015	Budget savings, $2.3 billion	Budget cost, $1 billion	$2.3 billion
Department of Veterans' Affairs	S. 385 Energy Savings and Industrial Competitiveness Act (CBO, 2017a, p.7)	June, 2017	Budget cost, $6 billion	Budget Cost, $8 billion	$2 billion
Federal Housing Administration and Government National Mortgage Association	S. 385 Energy Savings and Industrial Competitiveness Act, Discretionary spending, Outlays (CBO, 2017a, p.7)	June, 2017	Budget savings, $12 billion	Budget cost, $12 billion	$24 billion
	H. R. 3700 Housing Opportunity Through Modernization Act of 2015 (CBO, 2016a, p. 9)	January, 2016	Budget savings, $117 million	Budget costs, $117 million	$234 million

Source: Author compiled using information reported in various CBO documents as noted in table. Author calculated difference.

With more fair-value subsidy estimates available, the FCRA estimation debate became intertwined with policy and politics, and positions largely fractured along partisan lines. In recent debate, Republicans generally supported adoption of fair-value budgeting for credit programs while Democrats supported FCRA's approach. The fair-value approach, which incorporates a market perspective and results in higher subsidy cost estimates tends to support more conservative policy positions, such as the use of private sector approaches and the elimination or scaling back of federal credit programs. Conversely, the lower budget cost (or budget savings) under FCRA's approach tends to support a more liberal agenda of government assistance. As noted in the existing literature, policy participants' positions on budgeting for market-risk, however, have not always or completely reflected this current partisan spilt, with some positions seemingly tied to the specific policy outcomes at stake (Chingos, 2015; Delisle, 2015; Delisle and Rischwine, 2014; and Richwine, 2014).

Debate on recent proposals to revise FCRA to require fair-value subsidy cost estimates reflect the current partisan split, with Republican favoring and Democrats opposing. The contentious and political tone of the debate surrounding this seemingly technical, wonky issue signals the high stakes at hand and suggests difficulty separating budget decision rules from underlying policy and politics. In introducing legislation calling for fair-value estimates, Senator Fischer (R-Neb) issued the following press release referring to FCRA:

> "*These congressional required budget gimmicks hide the true costs of government spending. Even for a wasteful federal government such spending tricks totaling hundreds of billions of dollars are shocking"* (Fischer, 2014, p.1)

During floor debate, Senator Garrett (R-NJ) painted FCRA as dishonest, arguing "*for too many years, Washington has operated by a special set of rules"* and *"Why shouldn't Washington play by the same rules every American family and business must play by when taking out a loan?"* (Cong. Rec. H541, 2012).

Arguing against a fair-value approach, Carolyn Maloney (D-NY) stated *"…Republicans are trying to change the rules of game using an accounting system that will make programs like student loans look more expensive"* and warned *"[m]illions of American have something to lose if proponents of this accounting have their way"* (Maloney, 2015, p.2). In response to the House passing legislation to require a fair-value estimates, Rep. Bill Pascrell (D- NJ) stated:

> "*It's nothing but a dishonest attempt to make worthy government programs appear more costly so that those ideologically opposed to government and government spending can more easily undermine those very programs"* (as cited in Marcos, 2014).

Reflecting the high policy stakes involved, Rep. Watt (D-MN) offered an amendment to exclude market risk from loans to students and veterans, arguing:

> *"My amendment would ensure that we hold them, the veterans and the students, harmless until we know how this unvetted, untested piece of legislation will work… Protect the students and veterans in this … let's make sure there is a firewall between those that can least afford to have this go bad (Cong. Rec. H547, 2012).*

The debate about and (at times) the politicization of FCRA's budget rule has been on display in various policy debates, including federal students, housing policy, and the reauthorization of the Export-Import Bank. Budget rules have long played a role in the establishment and evolution of the federal student loan programs, and these programs

remain at the forefront of FCRA estimation debate. In 1958, the National Defense Education Act[170] established the first federal student loan program using direct loans. However, as Congress sought to expand student financial aid cash-based budget rules favored guarantees and The Higher Education Act of 1965 created the student loan guarantee program. Over time, some analyses found that direct federal lending would provide a lower cost option due to complications and inefficiencies associated with the guarantee program. While some proposals called for the establishment of a direct loan program, cash-budgeting created a barrier and no action was taken (Delisle, 2017 and Lucas and Moore, 2010). Shortly after FCRA's enactment, however, the Higher Education Act was amended to create a pilot, direct leading program, the Federal Direct Loan Demonstration Program. Some researchers and policy participants credited FCRA with clearing the way for a direct lending program (Delisle, 2017, Lucas and Moore, 2010 and Warren, 2016).[171] *The Student Loan Reform Act* enacted as part of the Omnibus Reconciliation Act of 1993 phased in significant expansion of the direct loan program.[172]

The student direct loan and loan guarantee programs operated side by side until the financial crisis and the election of President Obama provided a policy opportunity for eliminating student guarantees in favor of solely using direct loans. In October 2008. as an initial response to the retreat of private student loan lenders from the market during the

[170] H. R. 13247 is Public Law 85-864 (72 Stat. 1580.

[171] Delisle (2017) argued that FCRA's enactment *"... made the potential direct loan savings official in the eyes of Congress and the first estimates showed that a proposed Direct loan program could cut costs by as much as $2 billion a year"* (p. 8). Warren (2016) argued that FCRA enactment *"..., made federal direct lending financially feasible"* (p.5). Lucas and Moore, 2010, argued "[f*}federal budget rules have had a significant effect on the structure and evaluation of the federal loan program. Most notably, the federal loan program appears to have been made feasible form a budgetary perspective by FCRA"* (p. 171).

[172] Identical bills H.R. 2055 and S.920 were introduced, but there were no separate roll call votes on these bills before they were included in the larger Omnibus bill.

financial crisis, the Bush Administration and Congress passed the *"Ensuring Continued Access to Student Loans Act"* (ECASLA) on a largely bi-partisan basis.[173] Under the ECASLA, the government either: (1) purchased FFELP loans, which provided lenders with the capital to make new loans, or (2) made loans to FFELP lenders to make loans to students. With credit markets drying up and students increasingly using direct loans,[174] the Obama Administration proposed to eliminate the guarantee loan program altogether and expand the direct loan program.

During the debate over Obama's controversial proposal, both sides pounced on their favored subsidy cost estimates. CBO's official cost estimate projected budget savings of about $87 billion[175] over the 2010-2019 period[176] using FCRA procedures (CBO, 2009a, p. 3). A few days later, in response to a congressional request that the estimate be adjusted for market risk, CBO projected lower budget savings of $47 using a fair-value approach (CBO, 2009b, p.1). The projected savings were $33 billion less using the fair-value, after considering a $7 billion offset for administrative costs. These conflicting estimates quickly became part of the political conflict.

The Student Aid and Fiscal Responsibility Act of 2009 (SAFRA), which included the President's proposal, passed the House 233 to 171, largely along party lines (U.S.

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[173] Public Law 110-350.

[174] During the financial crisis, many lenders suspended or eliminated their private student loan programs due to sharp increase in funding costs and concerns about deteriorating credit quality of borrowers (CBO, 2013b, VIII).

[175] According to CBO (2009) about $7 billion of these savings were from a reduction in the administrative costs, which would be offset by an increase in future appropriations. Thus, the estimated net budgetary savings would be about $80 billion over the 2010-2019 period.

[176] CBO cost estimate for H.R. 3221. In March 2010, CBO estimated a savings in mandatory costs of $68 billion over the period from 2010 through 2020, using FCRA procedures. After adjusting for in annual discretionary administrative costs, the net budgetary savings would be about $62 billion. Using a fair-value approach, CBO estimated a savings of about $40 billion, a difference of $22 billion.

House of Representatives, Office of Clerk, Roll Call Vote 719).[177] The bill then stalled in the Senate. Democrat proponents pointed to the official budget estimate prepared using FCRA procedures to claim that in addition to being beneficial for students the legislation was fiscally responsible. Republican opponents countered that savings touted by the Democrats were significantly reduced under a fair-value approach. A press release from Rep Kline (R-MN) argued:

> *"[t]this analysis from the Congressional Budget Office confirms once and for all that these savings are a myth. A government takeover of our student loan programs is just a budgetary gimmick designed to finance the latest entitlement spending spree, leaving our children and grandchildren to pick up the tab"* (Kline, 2009, p.1).

Democrats hit back with the official budget estimates and their own claims of budget gimmicks. Rep. Miller (D-GA) issued a press release "*Republicans Try to Cook Books on Historic Student Aid Bill*" stating:

> *"It's clear the Republicans did not like the truth- that our legislation generates almost $90 billion that could be used to help students, families, and taxpayers – so they shamelessly decided to have a little fun with the numbers."* (Miller, 2009, p.1)

> *This is nothing more than a desperate attempt to confuse the public and manipulate a clear determination by CBO that switching to the Direct Loan program is the most sound, fiscally responsible policy decision we could make for families and Taxpayers. This is yet another predictable political gimmick……"* (Miller, 2009, p.1).

[177] 247 Democrats and 6 Republicans voted for the bill; 167 Republicans and 4 Democrats voted against the bill. Ten members did not cast a vote (U.S. House of Representatives, Office of Clerk, Roll Call Vote 719)

In the end, SAFRA was passed as part of the large and controversial heath care reform bill, the *Health Care and Education Reconciliation Act of 2010* (H.R.4872).[178]

Credit subsidy estimates have remained prominent in the debate about the student loan programs, with on-going controversy and confusion about whether students are subsidized and whether the government *"profits"* from these programs. The clashing subsidy estimates came in to play during debate over interest rates on student debt. Sen. Warren (D-mass), a leading voice for student loan reform, repeatedly claimed FCRA-based negative subsidy cost estimates proved that the government is "*making obscene profits on the back of our students"* (Warren, 2013, p.2). In a June 2013 floor speech, she called it "*morally wrong"* that

> "*... the federal government is making a profit from our students…The Congressional Budget Office calculated the government will make $52 billion this year off student loans" (*Warren, 2013, p.1)

Senator Warren reiterated these concerns in multiple floor speeches and press opportunities, arguing: *"[w]hile student are paying more, the federal government is boosting its own profits"* (Warren, 2013, p. 1). Warren was not alone in using FCRA estimates as support for protect borrowers from interest rate increases by claiming that government *"profits"* off students. Senator Tom Harkin, Chairman of Senate Committee on Health, Education, Labor and Pensions is quoted "*Republicans still want to raise money off of students, and we don't want to do that"* (as cited in Raju and Everett, 2013).

Opponents countered that "*profits"* from student loans are *"illusory"* and the significant budgetary savings (profit) estimated for the student loan program disappear when subsidy costs are estimated using a fair-value approach. In floor speech Senator

[178] Public Law 111-152.

Lamar Alexander stressed CBO's support of the fair-value approach, arguing that *"It is not true that under the recommended form [emphasis added] of evaluating the cost to the government that taxpayers come out better than students"* (Alexander, 2013, p.1).

Delisle, researcher at New America, a conservative-leaning think tank, argued

> " [f]*ederal student loans are not profitable for the government, nor does the government break even on the loans, Using fair value estimates, student loans are the government's most expensive loan program"* (as cited in Salam, 2012, p. 2).

Other opponents point to CBO costs estimates for specific proposals as exemplifying the problems with FCRA. In discussing Senator Warren's proposal to refinance federal and private student loans,[179] Matthew Chingos of the Brookings Institution questioned:

> *"… how would this generous benefit be paid for? Miraculously, it will pay for itself due to the arcane accounting rules that Congress imposed on federal credit programs … For example, the CBO analysis of the Warren proposal estimates that the government can take on half of the existing balances of private student loan debt in the country, reduce interest rates, and still book a profit of $5 bill. A method of accounting that could produce this result is lubricous, but it is the law of the land until Congress says otherwise" (Chingos, 2014, p.1).*

Another student loan refinancing proposal received attention as an example of the "*budgetary loopholes"* provided by FCRA. Delisle (2014) claimed that the *Private Student Loan Debt Swap Act of 2009,* which would have allowed borrowers with student loans not backed by the Federal Government to swap their debt for new loans issued by the Department of Education, demonstrates the poor incentives created by FCRA. FCRA

[179] CBO Cost estimate for S.2432, *Bank on Students Emergency Loan Refinancing Act*. The bill would have allowed most individuals with student loans (both federal and private) to refinance those loans. Into new federal direct leans (CBO, 2014). CBO projected that enacting the bill reduce deficits over the 2015-2024 period by about $14 billion. Chingos is referring CBO's estimate that refinancing private student loans would reduce direct spending by $5 billion over the 2015-2024 period (CBO, 2014, p. 5)

and fair value estimates provided very different pictures of the cost of the proposed program. CBO's preliminary estimate using FCRA estimation procedures showed the program would have a negative subsidy of $9.2 billion while its estimate using fair-value method showed the program would cost $700 million, a difference of almost $10 billion (CBO, 2014c and Delisle, 2014).

Credit subsidy estimates also were at the forefront of political fight surrounding the Ex-Im Bank's reauthorization. While the debate involved broader issues about the government's role in the economy, a recurring issue was whether the Bank is self-sufficient. CBO found that for fiscal year 2015 to 2024 EX-IM would generate budgetary savings of about $14 billion using FCRA procedures but have budget cost of $2 billion using a fair-value approach (CBO, 2014d).[180] During the 2015 reauthorization fight CBO estimated the cost of new loans and guarantees would have a budget savings of $2.6 over the 2016-2020 budget window using FCRA, but the budget effect would be close to zero using a fair value approach (CBO, 2015e).

Supporters and opponents of Export-Import Bank latched on to their preferred cost subsidy estimates to bolster their positions. Bank proponents pointed to FCRA's estimates as evidence of its *"self-sufficiency."* In discussing the Bank's role in supporting business, the Bank's President Hochberg argued "…*that we are able to support them while also helping to reduce the deficit is a bonus for taxpayers"* (cited in Cirilli, 2014, p.1). To support their position that the Bank is costly, proponents attacked FCRA's legitimacy and touted the higher fair-value subsidy estimates. In his opening statement at a congressional hearing on the Bank, House Financial Services Committee Chairman

[180] Estimates include EX-IM Bank's six largest programs

Rep. Hensarling (R-Texas) asserted that *"proper"* accounting demonstrates that the Bank actual costs taxpayers billions. He emphasized *"that is the difference between Washington accounting and main street accounting"* (Examining Reauthorization, 2014). A 2014 National Review article portrayed the Bank's surplus, based on FCRA cost estimates, as *".... another illustration of how improper accounting can conceal government monkey-business"* (de Rugy, 2014, p.1) The *Washington Examiner* argued that the Bank's *"profit"* is *"accounting fiction"* (Carney, 2014, p. 1). After much delay, a rarely-used procedural maneuver was used to reauthorize the Bank as part of the *FAST Act.*[181] A proposed amendment which sought to require fair value accounting for the Bank failed by a vote of 133-295, with all voting Democrats against (U.S. House of Representatives, Office of Clerk, Roll Call Vote 615).[182]

Subsidy cost estimation was also raised in the congressional oversight of the FHA's Mutual Mortgage Insurance program. In response to a congressional request, CBO (2006) found that while FCRA estimates showed the program resulting in a net gain, fair value estimates showed the program has a cost of between 2 and 5 percent of the amount to insured loans. While not a central issue of FHA oversight hearings, multiple expert witnesses testified in favor of the adoption of a fair-value accounting (Calabria, 2011, pp. 2-3; Holtz-Eakin, 2013; Swagel, 2013, p. 6).

While the current partisan split generally has Democrats supporting FCRA and Republicans supporting a fair-value approach, policy participants' positions have not

[181] H.R. 361, *"The Export-Import Bank Reform and Reauthorization Act of 2015"* become law as part of H.R. 22, *FAST Act*, which was signed into law on December 4, 2015. Public Law No. 114-94. No separate roll call votes were held on the Export-Import Bank's reauthorization.
[182] 133 Republicans voted for the amendment. 110 Republicans and 185 Democrats voted against. There were 5 no votes.

always or completely reflected this partisan spilt, with some positions seemingly tied to the specific policy outcomes at stake (Chingos, 2015 Delisle, 2015, Delisle and Richwine, 2014), and Richwine, 2014).[183] In a 2014 National Affairs article, Delisle and Rawine discussed how policy participants' position on budgeting for risk have changed over time. Specifically, they pointed out that during the Social Security privatization debate, some conservatives ignored the market risk in assessing proposals to invest Social Security funds in private markets while the liberal-leaning CBPP, now a fair-value critic, argued for the recognition of market risk. In a 2005 CBPP brief discussed the importance of considering market risk because there is *"no free lunch"* (Furman and Greenstien, 2005, p. 11).[184] In 2014 CBPP released a reversal of its position stating:

> *"… risk is an important consideration in assessing the pros and cons of a proposal it is not an actual cost to the government and therefore doesn't belong in the budget. This conclusion is different from the one CBPP reached in 2005 which, upon further consideration, we now believe was mistaken"* (Van de Water, 2014, p. 1).

The reporting of seemingly technical issue in the press articles and blogs provides another indicator of the stakes involved and how the budget rule has become intertwined with policy and political debates. Multiple press publications published articles and

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[183] Richwine (2014) argues *"[f]or both parties market risk is costly except when it not"* (p.1). Chingos (2015) argues that *Democrats these days use FCRA estimates to argue for lower interest ratees on student loans, but in earlier years railed against use to calculate the cost of Social Security reform. Republicans tended to flip-flop in the opposite direction" (Chingos, 2015, endnote 10.*

[184] In doing so, they pointed to CBO analysis of shifting Treasury bonds to stocks where CBO explained: *Government investment in private securities does not offer a free lunch: although it could increase the expected value of the budgetary resources, it would do so at the cost of exposing the government, future taxpayers and beneficiaries of federal programs to greater risk. If that risk was taken into account the returns on private securities would be no greater than the returns on government securities* (CBO, 2003a, p. 2). Further, CBPP pointed to the budget treatment of the Railroad Retirement Board which is adjusts returns for risk.

commentaries on FCRA versus fair-value cost estimation for federal credit programs. Some question or outright attack FCRA's legitimacy. FCRA has been described as: "*bogus federal accounting*" (Anonymous, 2014); "*budgetary illusion"* (Carney, 2014)*;* "*bizarre and faulty;*" *"cooked accounting rules"*(Garrett, 2013, p.1); *"phantom loan revenues"* (Winegarden, 2013, P.1); a *"budgetary malfeasance"* (Richwine, 2013, p.1); "*unorthodox budget rules"* (Grunwald, 2015a); and "*widely discredited"* (Phillips, 2014, p. 1).

A series of Wall Street Journal commentaries promotes the use of fair-value accounting, referring to the current system (under FCRA) as "… *fantasy world of government accounting"* (Winegarden, 2013b, and Anonymous, 2014). From the other side of the debate, the fair value approach has been described as "*a dangerous game,"* "*an accounting trick"* (Griffith, 2012) and a *[b]udgeting gimmick"* (Flores and Zonta, 2017). Other articles convey frustration in deciphering not only the technical issues involved, but the reasons and motivations underlying the different sides of the debate. In the end, some articles figuratively throw up hands in frustration about the inability to decipher which is the right method (Kessler, 2013).

While supplemental fair-value subsidy costs estimates are becoming more accepted and available for use as an analytical tool, the debate about the adequacy of FCRA's subsidy cost estimates and the use of fair-value cost estimates in budget rules appears far from over. Over a decade of recent debate has clarified some issues, but it has not resolved fundamental disagreements about the use of fair-value estimates for federal credit programs. The lengthy debate on complex conceptual and technical issues illustrates some of the challenges using analytical information directly in the budget.

However, the choice of estimation procedures is much more than an academic, technical issue; it has significant implications for broader policy and political debates about the role of government and credit policy.

While virtually all budget estimates certainly involve subjectivity and uncertainty, the issues are intensified for credit subsidy estimates because: (1) some cost differences are large;[185] (2) there is significant confusion about the conceptual and technical complexities; (3) differences reflect fundamental disagreements about what constitutes a budget cost; and (4) the actual cash cost to the government will not be known for many years. Importantly, key budget oversight institutions - CBO, OMB, and GAO - are divided on the issue. The official scorekeeper, the non-partisan Congressional Budget Office, is at odds with FCRA's budget rule. Further confusing the matter, past and present CBO directors and staff have expressed conflicting views. While the complex technical and conceptual issues surrounding subsidy cost estimation are a source of serious and significant professional disagreement, this expert disagreement opens the door for FCRA to be used as a political weapon in policy and political debates.

The long-term implications of the subsidy estimation debate for FCRA's sustainability are not yet clear. While the differences between the estimates are stark for some credit programs and make powerful sound bites, the arguments behind the different estimation methods are conceptually and technically complex.

[185] The significant differences in cost estimates is driven in part by the sheer size of the largest credit programs.

Chapter Five:

Federal Credit Reform, Trends in Federal Direct Loans and Loan Guarantees

FCRA is significant because of its design and its underlying premise that budget rules influence budget outcomes. A key premise before FCRA was that cash-based budgeting created a policymaking preference for loan guarantees over direct loans. If this was the case, one would expect loan guarantees to grow faster relative to direct loans before FCRA and for some moderation of this trend to occur after FCRA's enactment. In this chapter, I examine trends of the level and the composition (i.e. the mix between direct loans and loan guarantees) of federal credit before and after FCRA. For this review, I constructed trends of direct loan and loan guarantee data at aggregated and program levels.

Trends in Aggregated Federal Direct loans and Loan Guarantees, 1970-2017

First, I examined trends of aggregated direct loans and loan guarantees covering both the pre- and post- FCRA periods. The period examined (1970-2017) includes 22 fiscal years before and 25 years after FCRA took effect. For these analyses, I compiled and examined trends in aggregated data by fiscal year for (1) the face value of direct loans and loan guarantees outstanding and (2) direct loan obligations and loan guarantee commitments. The data are actuals for these fiscal years, not budget estimates.

To explore the premise that, prior to FCRA, budget rules created a preference to use loan guarantees over direct loans, I calculated the ratio of loan guarantees to total credit (i.e. direct loans plus loan guarantees) by fiscal year for both data sets.[186] This ratio

[186] In calculating these ratios, total credit refers to federal loan guarantees plus federal direct loans covered by FCRA. It does not include federal insurance programs or activities of GSEs because

was also useful in considering the more recent concern that FCRA has created an incentive to use direct loans over loan guarantees. In theory, FCRA was to neutralize the budget treatment of direct loans and loan guarantees so that neither credit instrument has a budget advantage and policymakers are *"free"* to make choices based on policy preferences without incentives distorted by budget bias.

To construct the trend for face value outstanding, data on the aggregate face value of credit outstanding by fiscal year were either obtained directly from OMB or drawn from the *Analytical Perspectives* of the President's budget. Specifically, for fiscal years 1970 to 2010, data were obtained directly from OMB staff. Data for fiscal years 2011 to 2017 were drawn from *Analytical Perspectives* of the President budget (various years). These data were adjusted to constant dollars (2009) using the budget composite, nondefense deflator published in the President's budget.

To construct the trend of direct loan obligations and loan guarantee commitments by fiscal year, I compiled data drawn from various volumes of the President's budget, including: (1) *Special Analyses* (fiscal years 1972 - 1990), (2) *Budget of the U.S. Government* (fiscal years 1991–1994) and (3) *Analytical Perspectives* (fiscal years 1995-2019). I adjusted these data to constant dollars (2009) using the budget composite nondefense deflator.

The use of credit outstanding as a measure of the level and composition of federal credit has several advantages. It is a generally understood, available, and relatively consistently reported measure of the government's credit activities. However, while providing a useful indicator of the general trend in federal credit activities, the face value

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they are not covered by FCRA. A similar approach was used by Hedley (1994) shortly after FCRA's enactment.

of loans outstanding has some shortcomings for the analysis of budget decisions. Because it is a cumulative measure of federal credit activities over time it does not isolate the budget decisions made in a given fiscal year.

The level of direct loan obligations[187] and loan guarantee commitments[188] provides another (and closer gauge) of budgetary decisions about federal credit for a given year.[189] Because they are not cumulative over time, loan obligations and guarantee commitments provide a better indicator of the budget decisions made in a given fiscal year. However, because these data have some significant year-to-year variations, trend analysis is sensitive to the specific period chosen. Further, because these data were compiled from various budget volumes over a three-decade period there is potential for inconsistency and error. To reduce these errors, I cross-checked data across multiple budget volumes where possible. In cases of conflicting information, I used the data reported in the most recent volumes. I believe that any observed inconsistencies in the data are not material to my analysis.

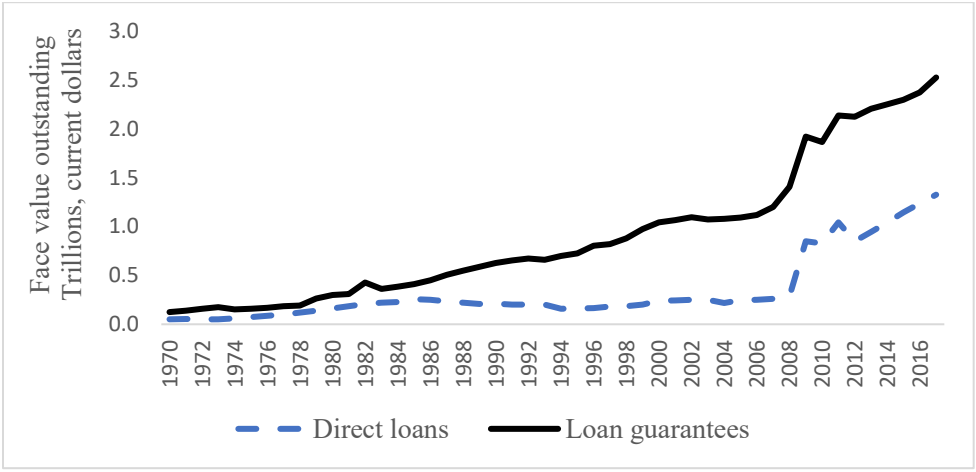
Both data sets have the disadvantage of not capturing the government's cost (i.e. the government's subsidy). Although FCRA now requires the government's subsidy cost for federal direct loans and loan guarantees to be reported as a budget costs, prior to FCRA subsidy cost information was not consistently available and was of questionable

[187] From the mid-1970 until the mid-1980s, the use of off-budget direct loans escalated. I only included direct loan obligations in the main data set for direct loan obligations I compiled a separate trend of off-budget direct loan obligations which is discussed later in this section.
[188] For consistency across years and to avoid double counting, the data included only primary loan guarantees, which excludes secondary guarantees.
[189] Aggregated data on "new loans issued" in a given fiscal year were not consistently reported over the period under consideration. Direct loan obligations and guarantee commitments provides a proxy measure, which was reported in a more consistent matter across the multi-decade period reviewed.

quality. Therefore, credit outstanding and loan obligations and commitments provide the best proxies for assessing the association between FCRA and policymakers' budget choices with respect to the level and composition of the federal credit assistance both before and after FCRA. Although there are some expected inconsistencies between the data sets (most likely due to timing) using both data sets provided a useful cross-check on the overall message.

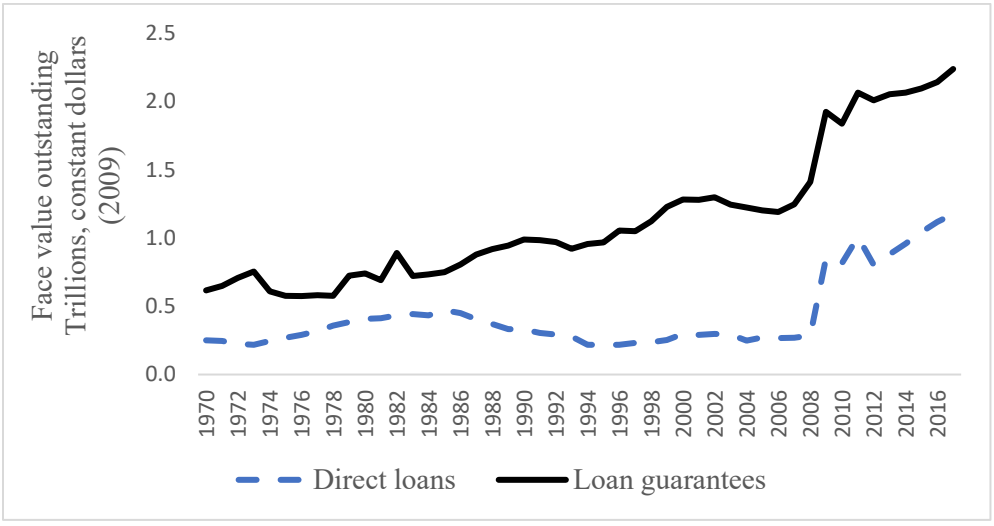
I examined the face value of loans outstanding for both direct loans and loan guarantees. Figures 5.1 and 5.2 show the level of loans outstanding for the fiscal years 1970 to 2017, in current and constant dollars, respectively. The level of loans outstanding for both direct loans and loan guarantees increased significantly over this period. Between 1970 and 2017, the level of direct loans and loan guarantees outstanding, adjusted for inflation, increased 367 percent and 263 percent, respectively. Loan guarantees outstanding remained at significantly higher levels than direct loans outstanding over the entire period.

Figure 5.1 Face value of Federal Direct Loans and Loan Guarantees, Current Dollars Fiscal Years 1970-2017



Source: Graph created by author based on OMB data. Graph adapted from *Chart 19-1 included in Analytical Perspectives, Budget of the U.S. Government, Fiscal Year 2019*, p. 257.

Figure 5.2 Face Value of Direct Loans and Loan Guarantees, Fiscal Years 1970- 2017, Constant Dollars (2009)



Source: Graph created by author based on OMB data.

Breaking the trend data into pre- and post- FCRA periods provides additional insights. For the entire period before FCRA's enactment, the level of loans outstanding

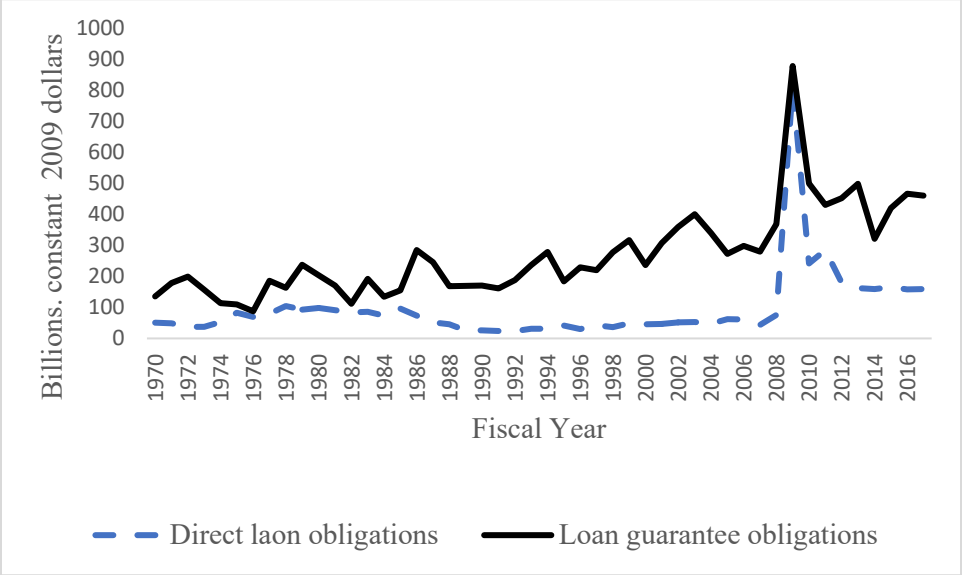
increased for both direct loans and loan guarantees, but the percent increase from the beginning to end of the period was almost three times higher for loan guarantees than direct loans. In the post-FCRA period, the level of outstanding loans for both direct loans and loan guarantees increased significantly, but direct loans increased more than loan guarantees. The percent increase from the beginning to end of the post-FCRA period was almost three times higher for direct loans than for loan guarantees.

Growth over the post-FCRA period, however, was not consistent, with most of the growth in direct loans occurring after the financial crisis of the mid-2000s. In the decade immediately after FCRA's enactment, loan guarantees outstanding continued to increase while direct loans outstanding remained relatively level or declined until 2008. The level of both direct loans and loan guarantees outstanding increased sharply as the Government took action in response to the financial crisis, but the increase was significantly greater for direct loans. Direct loans outstanding were 251 percent higher in 2011 than 2008. While much of the increase in the level of direct loans outstanding occurred in the height of the financial crisis, the level of direct loans outstanding remained higher than pre-crisis levels and continued to increase after the crisis. Loan guarantees outstanding also increased sharply during the crisis and remained at higher than pre-crisis levels.

Next, I examined aggregated amounts of direct loan obligations and loan commitments. As shown in Figure 5.3, the dollar amount of direct loan obligations and loan guarantee commitments increased significantly from 1970 to 2017. As with loans outstanding, loan guarantee commitments remained higher than direct loan obligations

for the entire period, but the differences in the trends were not as significant as for the outstanding loans.

Figure 5.3 Direct Loan Obligations and Loan Commitments, Fiscal Years 1970 - 2017



Source: Graph compiled by author based on OMB data.

Table 5.1 compares the pre-FCRA and post-FCRA periods for direct loan obligations and loan guarantee commitments. Consistent with the concerns of the time, the pre-FCRA period shows an increase in the dollar amount of guarantee commitments and decrease in the amount of direct loan obligations.[190] While the trends from both data sets are consistent with the premise that pre-FCRA budget rules created a policy preference for loan guarantees over direct loans, a closer examination of the data raises some questions and suggest other factors also played a role.

[190] This increase is smaller than some reports because it includes adjustments for inflation and excludes secondary guarantees. Further, as noted in the text, the change between specific years masks some sharp increases during the period.

Table 5.1 Percent change in Loan Obligations and Guarantee Commitments, Pre and Post FCRA

	Entire Period	**Pre-FCRA Enactment 1970 vs 1991**	**Post-FCRA Enactment[1] (1992-2017)**
Direct loan obligations	212%	(53%)	547%
Loan guarantee commitments	241%	19%	145%

Source: Author's calculations based on OMB data.

To further examine the issues, I divided the obligations and commitments trend data into shorter segments and looked at percent changes across these periods to better assess the impact of certain events. [191] Because percent change between two points is sensitive to the years used, I examined the underlying data closely throughout the analysis. First, I divided the pre-FRCA trend into two time periods as shown in Table 5.2. From the beginning to end of the entire pre-FCRA period, loan guarantee commitments increased and direct loan obligations decreased, but this pattern was not consistent across the entire period. Direct loan obligations increased in the 1970s and decreased in the 1980s before FCRA enactment. Loan guarantees increased over both pre-FCRA periods, including some sharp increases. After controlling for inflation and adjusting for secondary guarantees and FFB activities, loan guarantee commitments were 171% higher for fiscal year 1979 than for fiscal year 1976 and 112% higher for fiscal year 1986 than for fiscal year 1984. These spikes are constant with the concerns of the time about the issuance of guarantees of large loans to single borrowers. In contrast, the

[191] While this analysis was conducted on both data sets, I provide only the findings of the obligations and commitments data here to provide a more concise overview. The overall findings were similar for the trend of loan levels outstanding, with a few inconsistencies likely the result of timing differences in the reporting of the different measures.

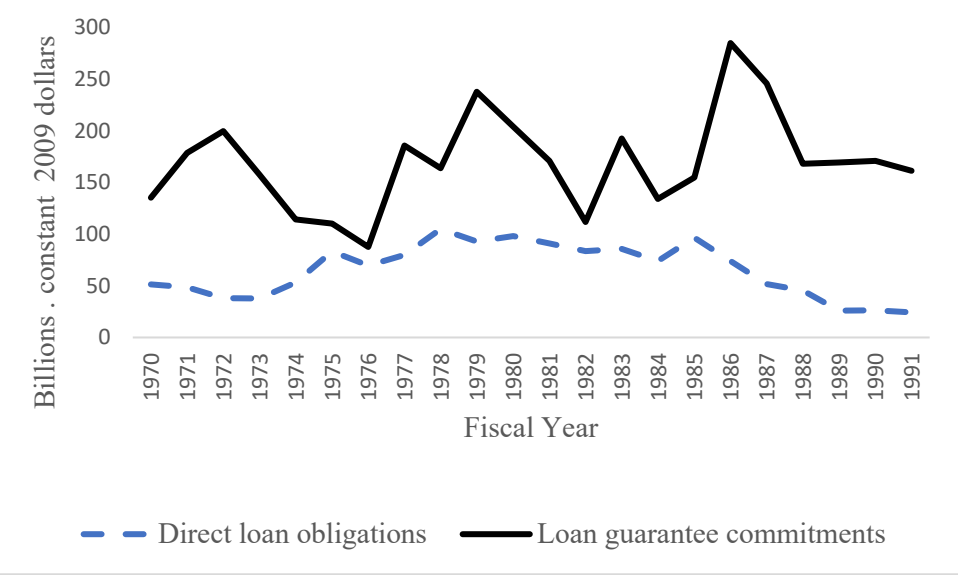
pre-FCRA trend for direct loan obligations is smoother, increasing before declining starting in 1985.

Table 5.2 Percent change in Loan Obligations and Guarantee Commitments, Pre-FCRA

Face Value Outstanding	**Pre-FCRA Entire period**	**Pre-FCRA Enactment 1970 vs 1980**	**Pre-FCRA Enactment[1] 1981 vs. 1991**
Direct loans	(53%)	78%	(71%)
Loan guarantees	19%	26%	44%

Source: Author's calculations based on OMB data.

Figure 5.4 Loan Obligations and Loan Commitments, Fiscal Years 1970-1991



Source: Author based on OMB data.

These data, however, do not fully capture the issues because beginning in the 1970s until the mid-1980s some direct loan programs were shifted off-budget as a means of budget avoidance until legislation moved these programs back on budget. To help understand the impact of this shift, I developed an obligations trend for off-budget direct

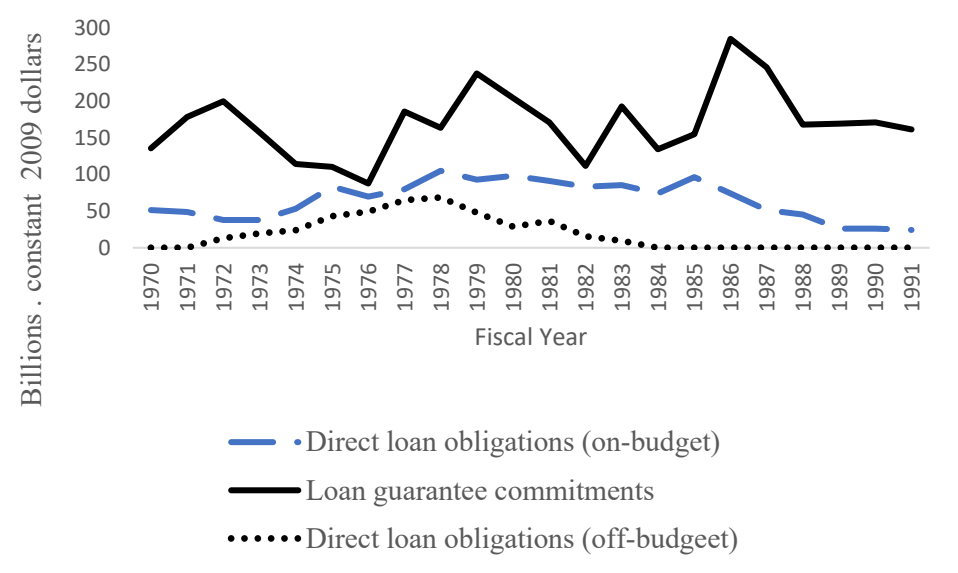
loans and recalculated percent change between beginning and end of the periods with these loans included. As shown in Table 5.3 and Figure 5.5, when both on- and off-budget direct loans are considered the overall message of increased direct loans in the 1970s followed by decreased direct loans in the 1980s remains the same, but the magnitude of the changes is greater.

Table 5.3. Percent change in Direct Loan and Loan Guarantees, Pre-FCRA, On and Off budget loans

	Pre-FCRA Enactment 1970 vs 1980	**Pre-FCRA Enactment[1] 1981 vs. 1991**
Direct loan obligations (on and off budget)	149%	(75%)
Loan guarantee commitment	26%	44%

Source: Author's calculations based on OMB data.

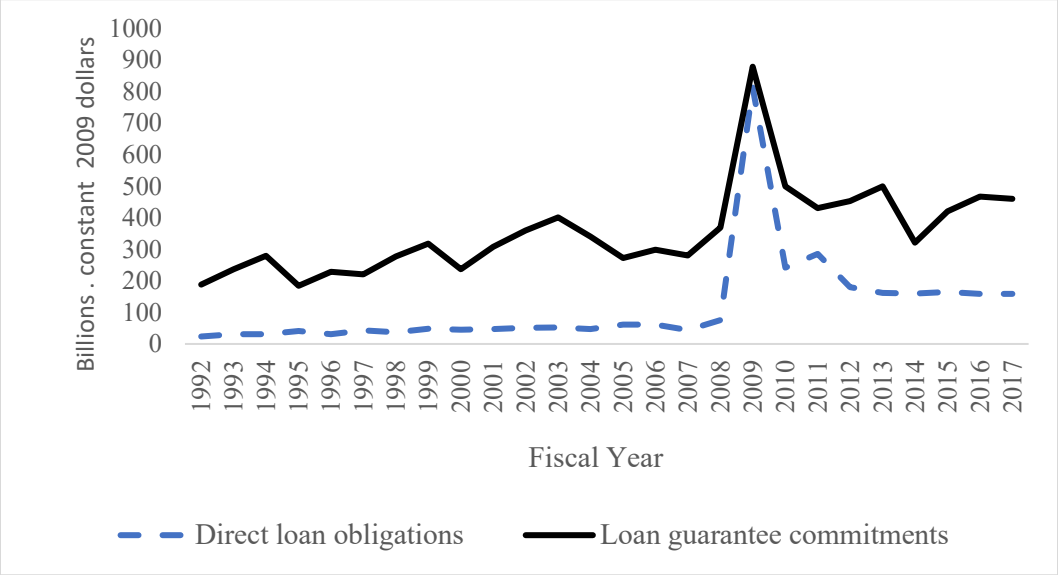
Figure 5.5 Direct loan Obligations and Loan Guarantee Commitments, Fiscal Years 1970-1991



Source: Author's calculations based on OMB data.

Next, I examined the post-FCRA period more closely by dividing it into several shorter time segments. After FCRA's enactment, the level of both direct loan obligations and loan guarantee commitments significantly increased. The 2017 dollar amount direct loan obligations was 574% higher than the 1992 level while the 2017 amount of loan guarantees commitments was 145% higher than the 1992 level. The dollar amount of both direct loan obligations and loan guarantee commitments increased in the period immediately after FCRA's enactment but rose sharply after fiscal year 2008 in response to the nation's fiscal crisis. The increase was significantly more for direct loans than loan guarantee commitments. The dollar amount for direct loan obligations was 277% greater in 2011 than the 2008 amount. While the dollar amounts of both direct loan obligations and loan guarantee commitments declined from a peak in fiscal year 2009 they remained higher than before the crisis. Between 2012 and 2017, the percent increase in loan guarantee commitments (102%) was more than the percent increase direct loan obligations (12%).

Figure 5.6 Direct Loan Obligations and Loan Guarantee Commitments, Fiscal Years 1992-2017



Source: Graph created by the author based on OMB data.

Table 5.4 Direct Loan Obligations and Loan Guarantee Commitments, Post-FCRA

	Entire Period 1992 vs. 2017	**Pre-financial Crisis 2002 vs. 2007**	**Financial Crisis Response and After 2008 vs 2017**
Direct loans obligations	574%	86%	110%
Guarantee Loan commitments	145%	49%	25%

Source: Table created by author based on OMB data. Calculation done by author.

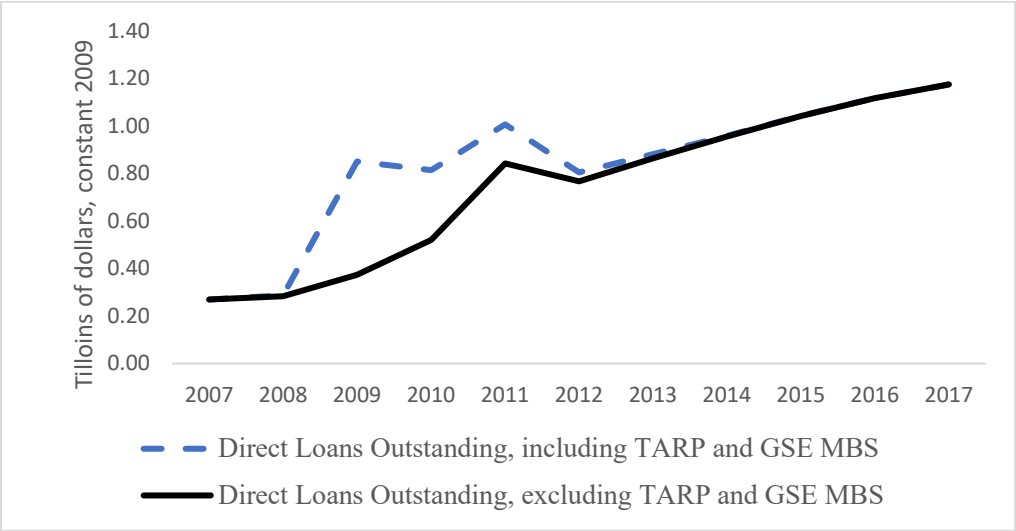
The significant increase in direct loans coincided with two significant policy events: (1) the response to the nation's fiscal crisis and (2) the elimination of the student loan guarantee program and expansion of the student direct loan program. Because it was thought these policy events had such a large impact on the trends, I removed them from the previously constructed data to better understand what was happening with the rest of direct loans and loan guarantees. I first compiled data on the face value of direct loans and loan guarantees outstanding for Treasury's TARP and Government Sponsored

Enterprise Mortgage-backed Securities (GSE MBS) Purchase Program.[192] [193] These data were drawn from *Analytical Perspectives*[194] and adjusted for inflation as discussed above. While the Treasury's TARP program had outstanding loan guarantees for fiscal year 2009, the bulk of the program was direct loans.[195]

Figure 5.7 compares the face value of direct loans outstanding for fiscal years 2008 -2017 with and without Treasury's TARP and the GSE MBS program. Figure 5.8 shows direct obligations with and without TARP and GSE MBS. Figure 5.9 shows loan guarantee commitments with and with these programs. While these programs result in higher levels for the period from 2008 to 2012, they do not explain the continued growth over the period.

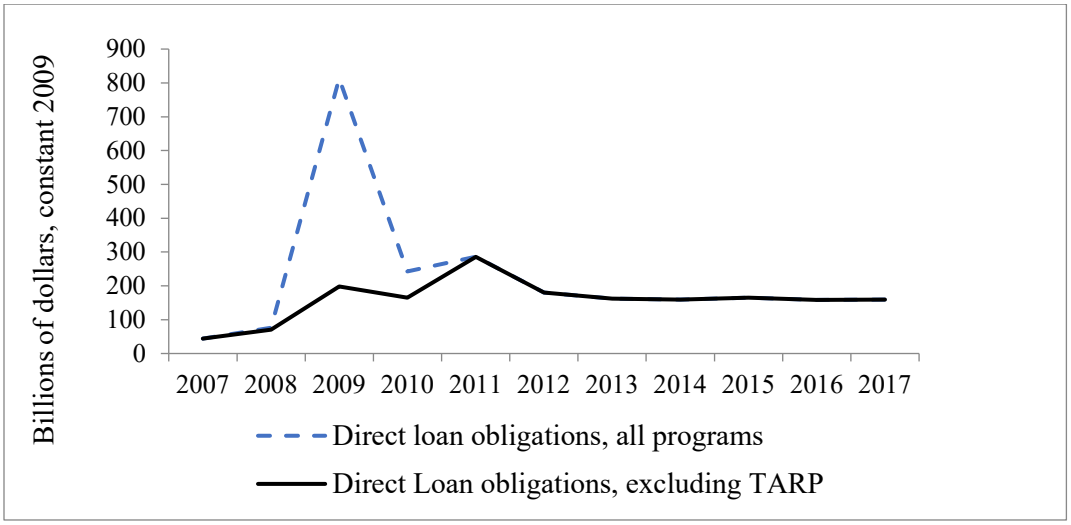
[192] To help provide stability to the mortgage market the Treasury purchased GSE mortgage-based securities in the open market. Congress granted Treasury authority to purchase in the Housing and Economic Recovery Act of 2008. Authority expired in December 31, 2009.
[193] While this analysis includes these two major direct loans and loan guarantee programs established during the financial crisis, it does not capture increased activity in existing loan programs related to the financial crisis.
[194] Data was drawn from Table "Loan Guarantee Subsidy Rates, Budget Authority, and Loan Levels" included in the Analytical Perspectives, various years
[195] The fiscal year 2011 Analytical Perspectives listed loan guarantees for the Troubled Asset Relief Program for fiscal year 2009 of $301 billion (OMB 2010, p. 370)

Figure 5.7 Impact of TARP and GSE MBS program on Direct Loans Face Value Outstanding



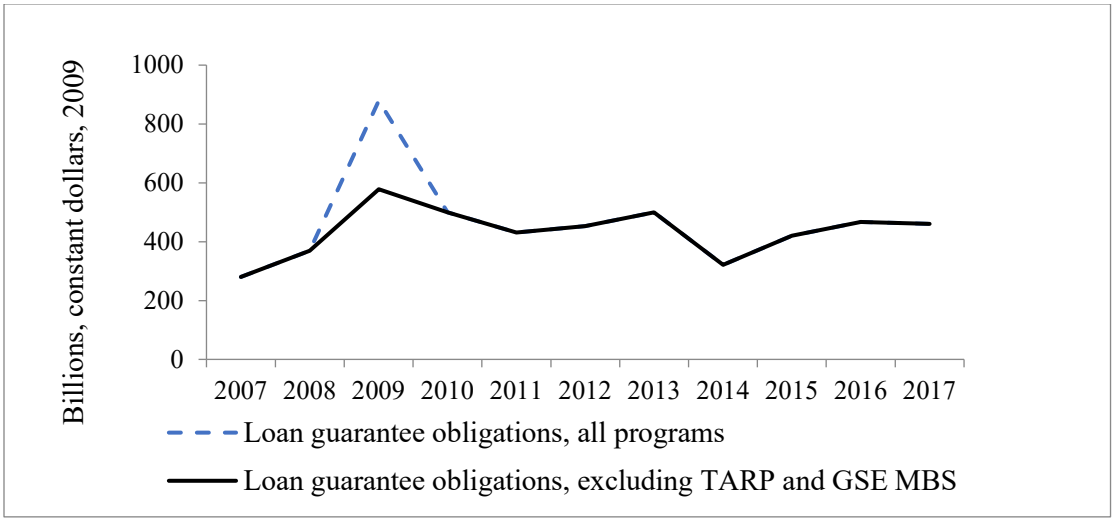
Graph created by author based on OMB data.

Figure 5.8 Direct Loan Obligations, Impact of TARP and GSE MBS



Graph created by author based on OMB data.

Figure 5.9 Loan Guarantee Commitments, Impact of TARP and GSE MBS

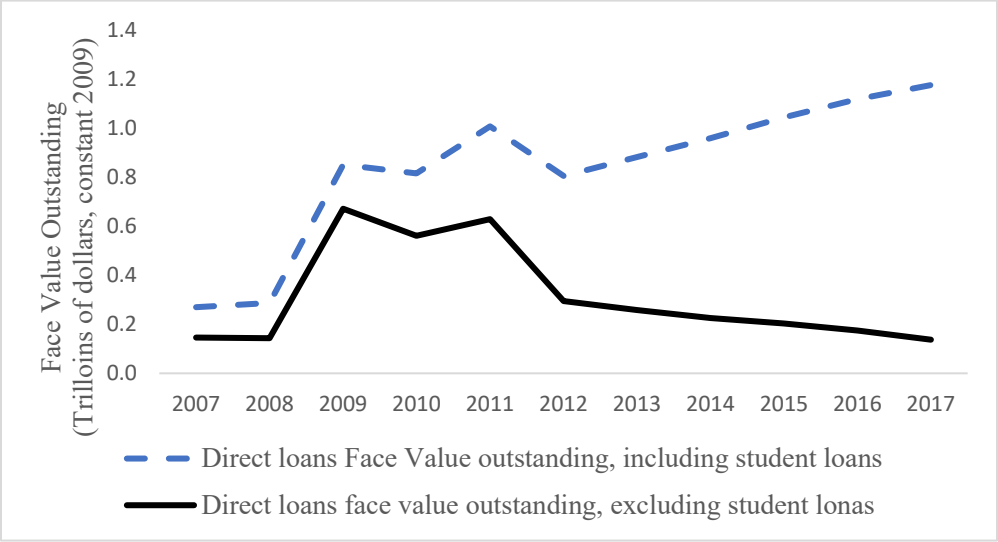


Graph created by author based on OMB data.

I then compiled data on face value outstanding of student direct loans from the *Analytical Perspectives* (fiscal years 1995-2019) and the *Budget of United States Government* (fiscal years 1993-1994). These data were adjusted for inflation. A significant increase in direct loans was expected because beginning in fiscal year 2010 federal student loans have been provided only through direct lending. However, because the changes to the student loan program blurs what has happened across other direct loan programs I removed them from the trend. Figure 5.10 compares the face level outstanding of direct loans for fiscal 2007 to 2017 with and without student direct loans. With student loans removed from the trend, for direct loans outstanding decreased and returns to pre-crisis levels over the period. Figure 5.11 compares direct obligations for fiscal year 2007 to fiscal year 2017 with and without student direct loans. With student loans removed from the trend the level of direct loan obligations decreases to below pre-crisis levels. Including student loans direct loan obligations are 260 percent higher in

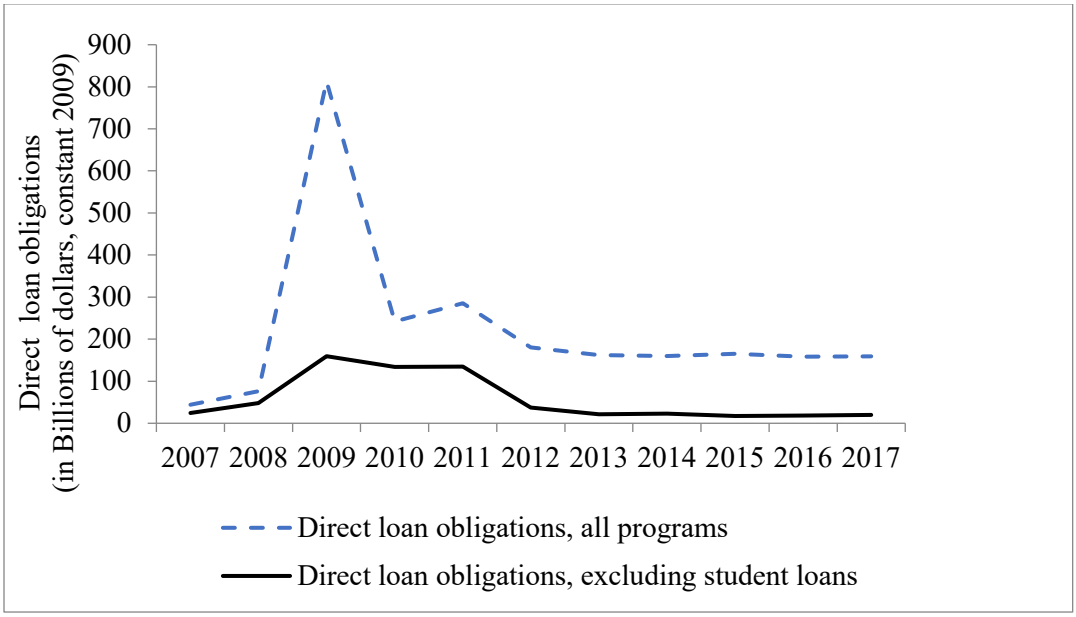
fiscal year 2017 than in fiscal year 2007. Excluding student loans, direct loan obligations are 20 percent lower in fiscal 2017 than in fiscal year 2007.

Figure 5.10 Direct Loans Outstanding, Impact of Student Loans, Fiscal Years 2007-2017



Source: Graph created by author based on OMB data.

Figure 5.11 Direct Loan Obligation, Impact of Direct Student Loans

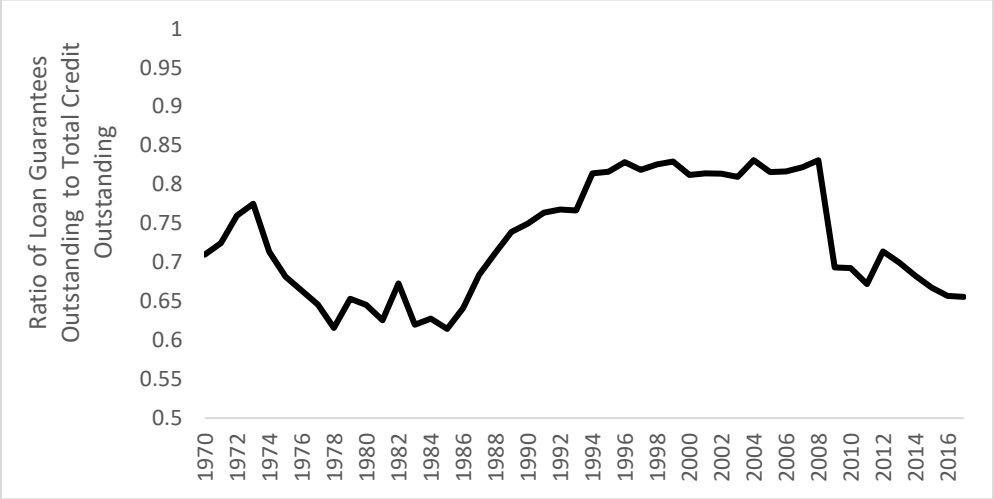


Source: Graph created by author based on OMB data.

While the examination of trends and percentage changes between fiscal years provides insights into the changes in the level and mix of direct loans and loan guarantees the ratio of loan guarantees to total credit provides additional perspective on the policymakers' choices. A key premise before FCRA was that cash-based budgeting created a preference to use loan guarantees over direct loans. If this was the case, one would expect loan guarantees to grow faster relative to direct loans before FCRA and for some moderation of this trend to occur after FCRA's enactment (Hedley, 1994). In theory, FCRA was to neutralize the budget treatment of direct loans and loan guarantees so neither credit instrument has a budget advantage. However, as discussed earlier, some policy participants have recently raised concerns that FCRA may be creating a budget bias to use direct loans over loan guarantees. The ratio of loan guarantees to total credit is useful for examining both claims.

Figure 5.12 shows the ratio of loan guarantees outstanding to total credit outstanding. The ratio of loan guarantees to total credit ranged from .61 in 1985 to .83 in several years (1996, 1998, 2004, and 2008). The average over the period was .73. While the minimum occurs in the mid-1980s, there is a sharp increase in the years immediately preceding FCRA with a ratio .75 in fiscal year 1990. The ratio continues to increase after FCRA's enactment before leveling off in the 2000s. The ratio then drops sharply at the onset of the fiscal crisis. For fiscal year 2017 the ratio was .66.

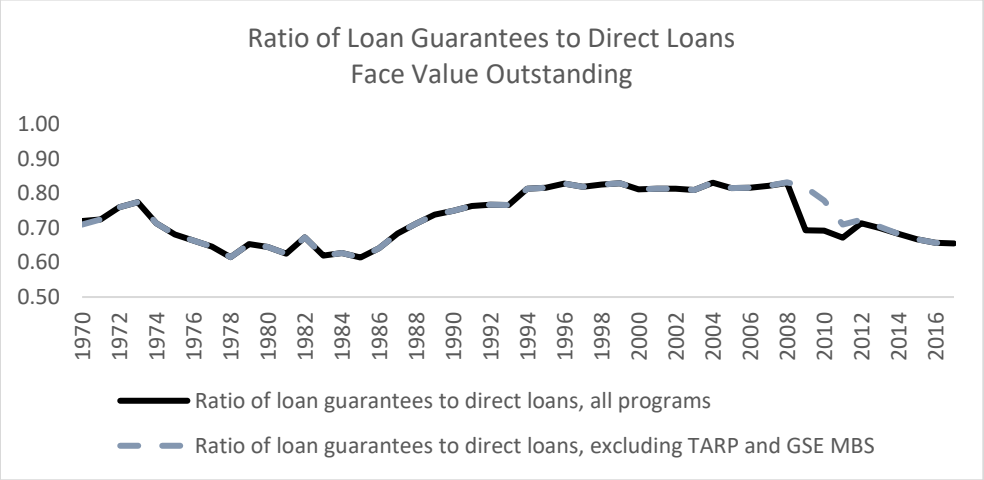
Figure 5.12 Ratio of Loan Guarantees Outstanding to Total Credit Outstanding Fiscal Years 1970-2017



Source: Graph created by author based on OMB data.

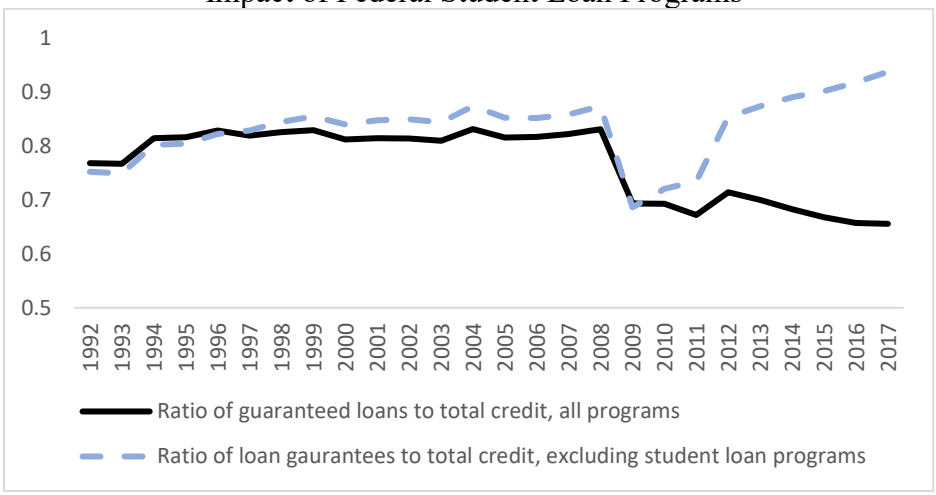
Figure 5.13 shows the ratio with TARP and GSE MBS removed. With TARP removed the decrease in the ratio after 2008 occurs but at a delayed and slower rate. Figure 5.14 shows the ratio with student loans and guarantees removed. When student loan programs are removed the ratio of loan guarantees to total credit is much higher. For fiscal year 2017 the ratio is .66 with student loan programs included but .94 when student loan programs are removed. This difference is ratios displays the large role played by student direct loans and challenges the premise that there has been a significant shift across the other credit programs from guaranteed loans to direct loans.

Figure 5.13 Ratio of Loan Guarantees Outstanding to Total Credit Outstanding, Impact of TARP and GSE MBS



Source: Graphed created by author based on OMB data.

Figure 5.14 Ratio of Loan Guarantees Outstanding to Total Credit Outstanding Impact of Federal Student Loan Programs

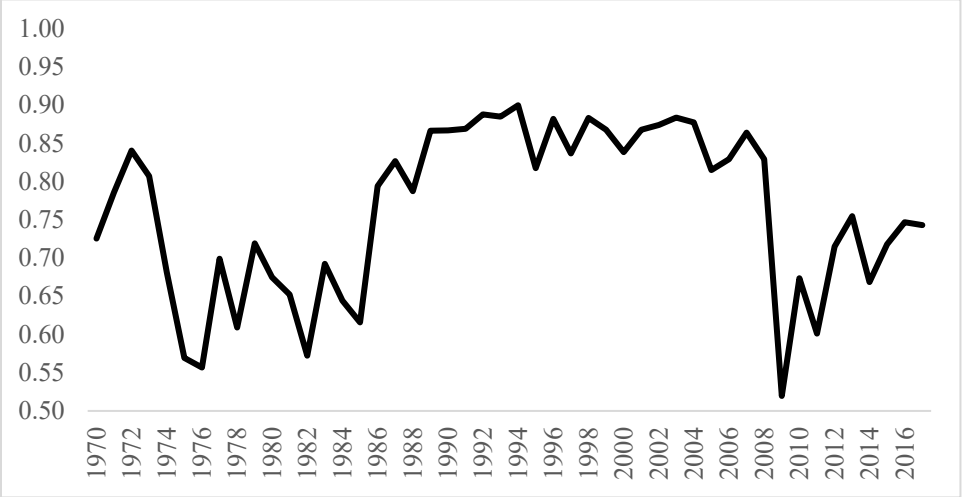


Source: Author by author based on OMB data.

Figure 5.15 shows the ratio of guarantee loan commitments to total credit. This trend follows a somewhat similar, but more extreme path, than for credit outstanding. The ratio ranges from minimum of .52 in 2009 during the financial crisis and to a maximum of .90 in 1994. The average over the entire period was .76. This range is slightly wider with a higher average than for credit outstanding. When the impact of

TARP and GSE MBS programs are removed the minimum .57 occurs in 1975 and 1982 before FCRA's enactment and the maximum is the same, .90 in 1994 (Figure not included).

Figure 5.15 Ratio of Loan Guarantee Commitments to Total Credit



Source: Graph created by author based on OMB data.

Some of the findings from this comparison of pre-FCRA and post-FCRA trends are consistent with the pre-FCRA concern that credit programs' unequal budget treatment created a budget bias for the use of loan guarantees over direct loans. From the beginning to end of the pre-FCRA period, direct loans decreased while loan guarantees increased. Over the post-FCRA period, both direct loans and loan guarantees increased, but the pattern shifted with direct loans increasing more than loan guarantees.

However, other findings raise some questions about what other factors were involved. In the pre-FCRA period, the ratio of loan guarantees to total credit was high in the early- and mid- 1970s, but then declined sharply in the late 1970s and early 1980s despite the unequal budget treatment at the time. In the post-FCRA era, both direct loans

and loan guarantees increased in the decade immediately after FCRA's enactment despite FCRA's neutralizing of credit's budget advantage over direct expenditures. Furthermore, the ratio of loan guarantees to total credit remained constantly high before declining sharply in 2009, coinciding with the nation's fiscal crisis. For loan obligations and loan commitments, the ratio remained between .82 and .90 during the period from 1990 to 2008.[196] For both data sets, the maximum ratio occurred after FCRA's enactment and the average ratio was higher in the post-FCRA period. For loan obligations and loan commitments, the pre-FCRA average ratio was .72 and post-FCRA ratio was .80. For face value outstanding, the pre-FCRA ratio was .68 and post-FCRA ratio was .77. These findings suggest that while budget rules create incentives, additional factors such as market conditions, political preferences, program path dependency, and the entitlement nature of some loan programs, may also be important in shaping policymakers' decisions and budget outcomes.

Trends in Subsidy Costs, Post-FCRA

To examine the trends in federal credit spending during the post-FCRA period, I compiled and examined data on subsidy costs (data not reported as a budget outlay prior to FCRA). The data used was "*new subsidy budget authority"* reported in the *Analytical Perspectives* volume of the President's budget (various years)[197,] The objective was to better understand: (1) the trend in the government's aggregate cost for federal loan

[196] For face value outstanding, the ratio remained between .75 and .82 from 1990 to 2008.
[197] Data used was reported in table labeled *"Summary of Federal Direct Loans and Loan Guarantees"* included in (1) *Analytical Perspectives*, Fiscal Year 2002, Table 8-6, 167; (2) *Analytical Perspectives* Fiscal Year 2008, Table 7-5, p. 93; (3) *Analytical Perspectives*, Fiscal Year 2016, Table 20-5; and (4) *Analytical Perspectives*, Fiscal Year 2019, Table 19-4, p. 261.

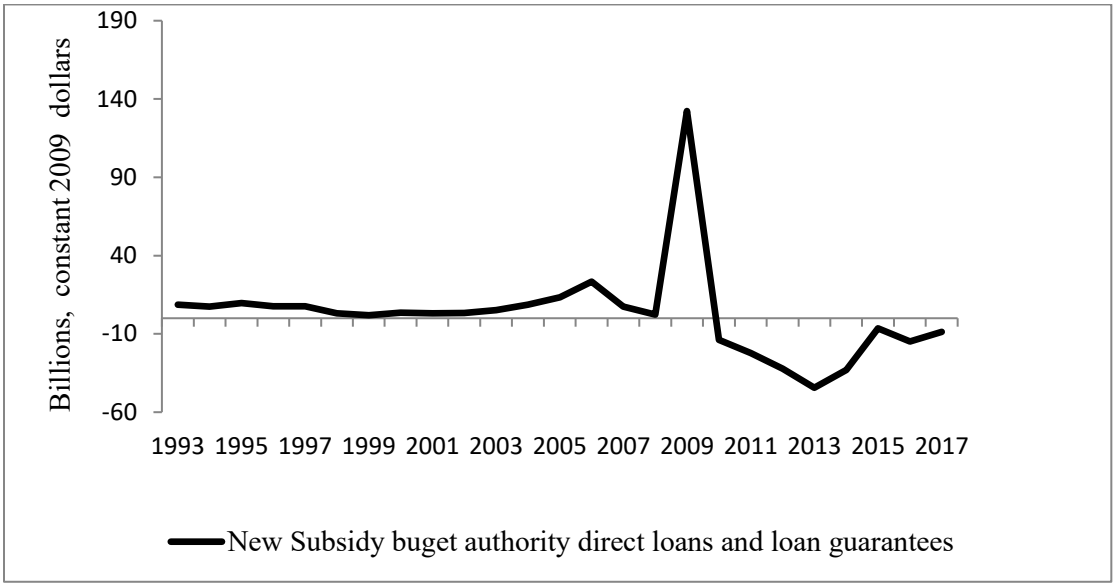
programs since FCRA's enactment and (2) how these costs might affect the budget totals and thus the incentives provided to policy participants.

Figure 5.16 shows the trend in the government's annual cost for direct loans and loan guarantees as measured by new subsidy budget authority for fiscal years 1993-2017. For more than a decade after FCRA's enactment, credit programs had an aggregated budget cost (positive subsidy) each fiscal year and these amounts were small relative to the total budget. However, in recent years, credit programs have resulted in aggregated budget savings (negative subsidy) each fiscal year. This general trend is similar for both direct loans and loan guarantees, as shown in Figure 5.17. Loan guarantees have had negative subsidies consistently since fiscal year 2007. Direct loans had negative subsidies each year since fiscal year 2007, except for fiscal year 2015. Table 5.5 looks more closely at the underlying data in the context of total budget authority. Both new and total subsidy authority were 1 percent or less of total budget authority each fiscal year 1998 to 2004. In more recent years (with some exceptions) the amount of subsidy budget authority, expressed as a percentage of total budget authority has been larger and these subsidies have been negative.

The emergence of larger negative subsidies supports concern that the FCRA's recognition of upfront gains from federal direct loan and loan guarantee may create incentives to overuse federal credit programs to offset the costs of other federal programs. As discussed earlier, FCRA's net present value approach may result in upfront gains for credit programs that charge interest rates above the government's borrowing costs or collects fees in excess of expected costs. While upfront recognition and control of budget costs is a long-standing federal budget principle, the recording of upfront gains (which

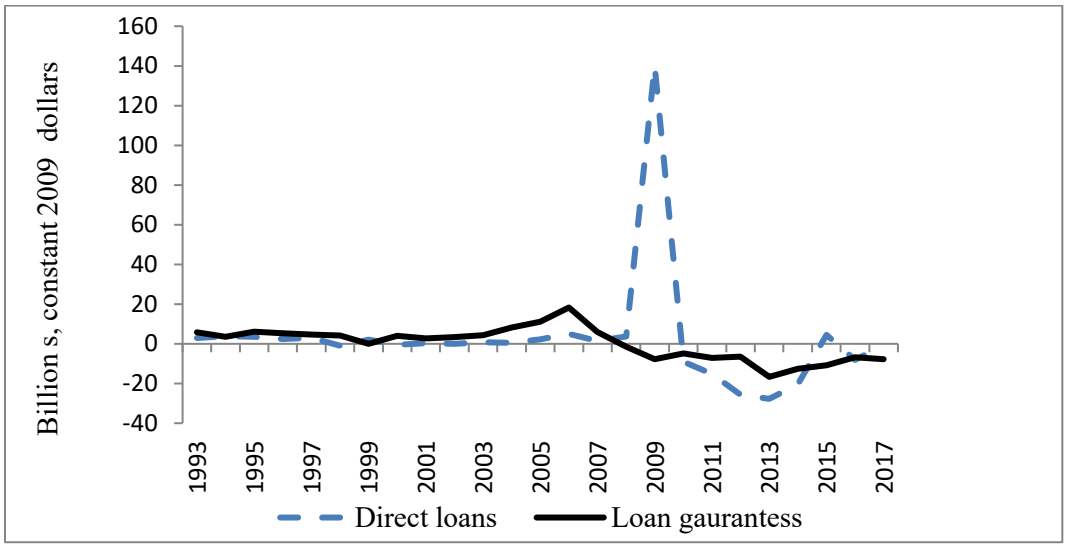
involve some level of uncertainty) create a challenge to: (1) prevent the use of uncertain *"savings"* to offset current budget costs and (2) reduce incentives to use credit programs as income generators.

Figure 5.16 New Subsidy Budget Authority for direct loans and loan guarantees



Source: Graph created by author based on OMB data.

Figure 5.17 New Subsidy Budget Authority, Fiscal Years 1994-2017



Source: Graph created by author based on OMB data.

Table 5.5 New and Total Subsidy Budget Authority

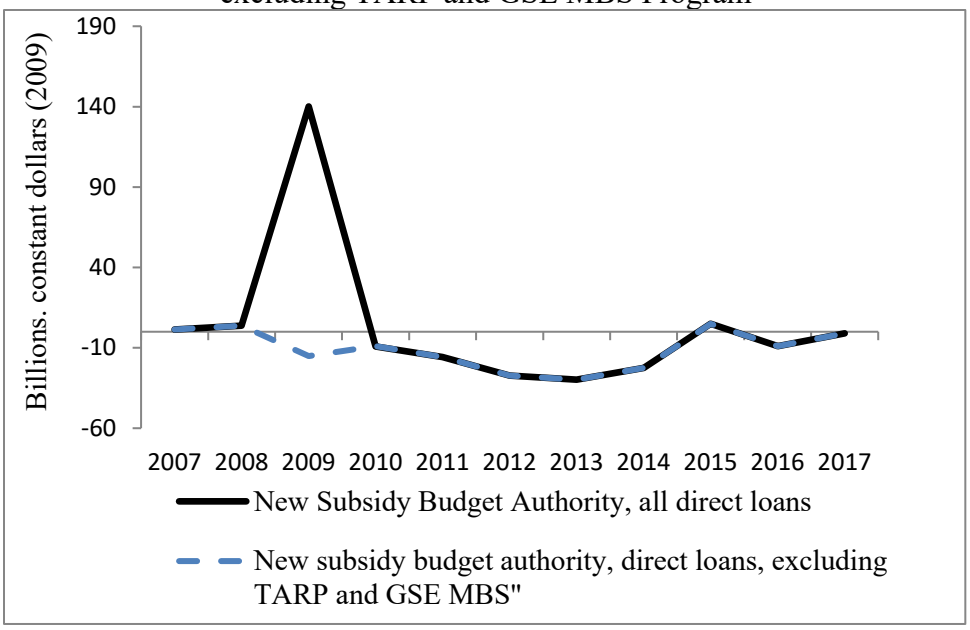
Fiscal Year	Billions, Constant Dollars (2009)			
	New subsidy budget authority	New subsidy budget authority as percent of total budget authority	Total subsidy budget authority	Total subsidy budget authority as percent of total budget authority
1998	3.2	0.2%	11.6	0.8%
1999	2.0	0.1%	8.6	0.6%
200	3.6	0.2%	(1.5)	(0.1%)
2001	3.1	0.2%	(7.6)	(0.5%)
2002	3.4	0.2%	1.2	0.1%
2003	5.2	0.4%	4.5	0.3%
2004	8.7	0.7%	13.9	1.0%
2005	13.4	1.0%	21.4	1.6%
2006	23.3	1.8%	34.0	2.6%
2007	7.4	0.6%	3.8	0.3%
2008	2.3	0.2%	5.1	0.4%
2009	1.3	11%	132.7	11.0%
2010	(13.8)	(1.2%)	(129.6)	(10.9%)
2011	(22.3)	(1.9%)	(90.5)	(7.8%)
2012	(32.2)	(2.8%)	(20.1)	(1.8%)
2013	(44.4)	(4.0%)	(43.4)	(3.8%)
2014	(33.1)	(3.0%)	(32.7)	(3.0%)
2015	(6.4)	(.5%)	1.8	0.2%
2016	(14.9)	(1.4%)	(20.0)	(1.8%)
2017	8.7	0.8%	28.8	2.6%

Source: Table compiled by author based on OMB data. Calculations done by author.

As discussed above, significant policies can make it difficult to decipher what is happening across federal credit programs. To help isolate the impact of some large policy changes, I removed some programs from the previously discussed trend for subsidy costs. Data on subsidy costs for selected programs was drawn from the *Analytical Perspectives*. Figure 5.18 compares new budget subsidy cost trends with and

without TARP and GSE MBS programs. With these programs excluded, negative subsidies begin a year earlier, with a negative subsidy of $15.1 billion in fiscal year 2009.

Figure 5.18 New Subsidy Budget Authority, Direct Loans, Fiscal Years 1994-2017, excluding TARP and GSE MBS Program



Source: Graph created by author based on OMB data.

Most of the Agencies Reviewed Did Not Have a Significant Shift in the Composition of Their Loan Programs

I also constructed and examined trends of direct loan obligations and loan guarantee commitments for each of eight credit agencies that account for the vast majority of federal direct loans and loan guarantees. The Export-Import Bank was later removed due to unresolved inconsistencies in data. Due to changes in reporting formats, trend data by agency was compiled from two sources. For fiscal year 2000 to fiscal year 2014, data was collected from the *Analytical Perspectives*. Data for earlier fiscal years (1995 to 1999) was drawn from *Federal Credit Supplement*. Data reporting

inconsistencies were observed, but these do not appear material to the overall findings of the trend analysis.[198] All data were adjusted to constant dollars (2009) using the federal budget composite, nondefense deflator.

I calculated the percent change, annual growth rate, ratio of guarantees to total credit for each agency's reported direct loan obligations and loan commitments. Table 5.6 provides a summary of these findings. As discussed below, findings did not show a consistent shift in the composition of federal loan programs across the agencies reviewed.

[198] The trend data was started with fiscal year 1995 because data on actual or enacted levels of loan obligations and commitments was not consistently reported by agency for earlier years. Neither *Analytical Perspectives* nor the *Federal Credit Supplement* had data to construct the full trend. The credit supplement data could not be used for the full trend because for several years there were continuing resolutions in place at the time the Supplement was published. The *Analytical Perspectives* only reported loan obligations and commitments by agency and programs in the fiscal year 2002 volume forward. The data used from the Analytical Perspectives is "actual" data from the prior budget year. The data used from the Supplement was baseline data for the "current" budget year. Although this may result in some inconsistencies and inaccuracies it is believed, given the data limitations, that this provides a reasonable approach to building the trend data and that these issues will not have a material effect on the overall message.

Table 5.6 Summary Information, Direct Loans Obligations and Loan Commitments

Direct Loan Obligations and Loan Commitments				
Department or Agency	Percent change (FY 1995-FY 2017)	Annual growth rate	Ratio Guarantees/total credit (FY 1995)	Ratio Guarantees to total credit (FY 2014)
Agriculture	12%	.5%	84%	69%
Education	256%	5.9%	52%	0.0%
Housing and Urban Development[199]	79%	2.7%	100%	99.7%
Veterans Affairs	250%	5.9%	95%	100.0%[200]
Small Business Administration	88%	2.9%	92%	96%
Energy[201]	*	*	*	*
Treasury[202]	*	*	*	*

Source: Table compiled by author based on OMB data. Calculation done by author.

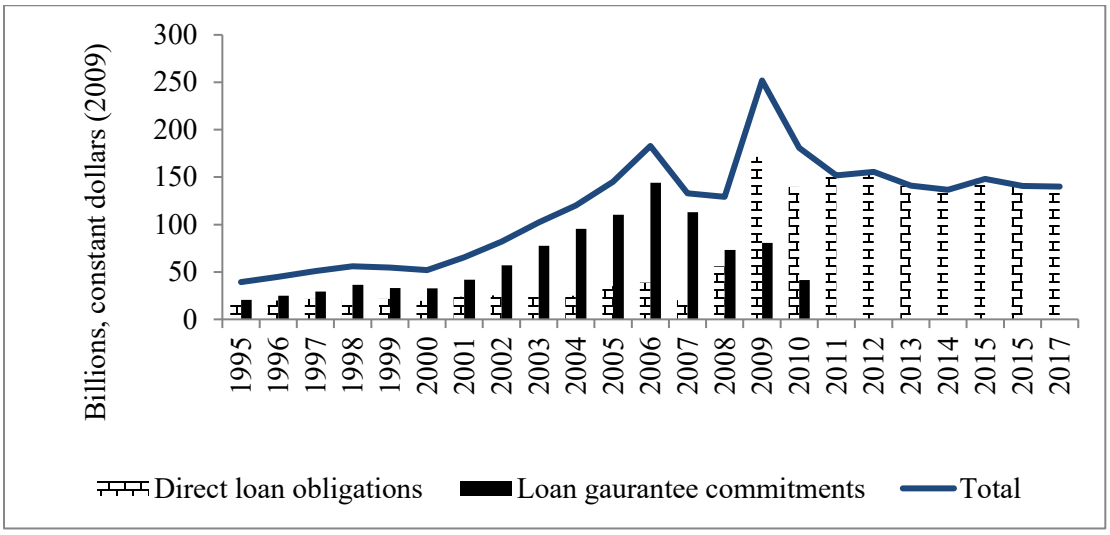
The Department of Education stands out with a significant increase in total credit assistance and a dramatic shift from loan guarantees to direct loans. Interestingly, however, given the debate about FCRA's role in the establishment of student direct loan program and the more general concern that FCRA creates an incentive to use of direct loans over loan guarantees, the ratio of guarantee commitments to total credit continued to increase after FCRA's enactment through the 1990s and early 2000s. See Figure 5.19 and Figure 5.20 below. After the establishment of the direct loan programs, there was

[199] HUD has relatively small amount of direct loans that do not appear due to rounding.
[200] VA has a relatively small direct amount of direct loans that do not appear due to rounding.
[201] DOE established new credit programs in the mid-2000s. Given the short period of time and small number of loans issued the calculations were not meaningful. The ratio of guarantees to total credit varied significantly as follows: 2009 (0%); 2010 (86%); 2011 (35%) and 2012 (100%).
[202] The largest Treasury programs were established in response to the fiscal crisis. Given the short period of time, the calculations are not applicable or meaningful.

political resistance to its expansion from the Republican-controlled Congress. Instead of a shift to direct loans in the years after FDLP establishment, there was an increase in loan guarantees. The ratio of guarantee loan commitments to total credit was .52 in fiscal year 1995 and the ratio increased to .85 in fiscal year 2007.

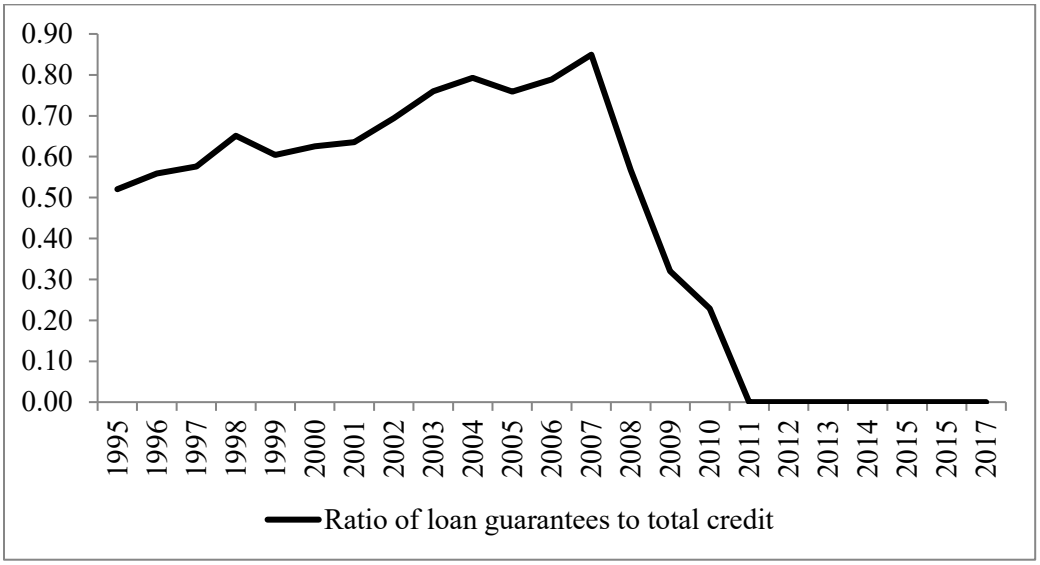
During the nation's financial crisis there was a significant shift from student loan guarantees to direct loans. Faced with sharp increases in funding costs and increasing concerns about the quality of borrowers, many private lenders in the student loan market suspended or discontinued their student loan programs. Schools shifted to the direct loan programs due to concerns about the future availability of guaranteed loans and uncertainty about the FFEL program. The ratio of guaranteed commitments to total credit dropped to .52 and .32 for fiscal years 2008 and 2009, respectively. This opened the door for President Obama's proposed elimination the guarantee loan programs. These trends suggest that in addition to the incentive created by budget rules, other factors, such as political preferences and private credit market conditions, also play important roles in shaping policymakers' choices.

Figure 5.19 Department of Education, Direct Loan Obligations and Loan Guarantee Commitments, Fiscal Years 1995 to 2017



Source: Graph created by author based on OMB data.

Figure 5.20 Department of Education, Ratio of Guarantee Commitments to Total Credit

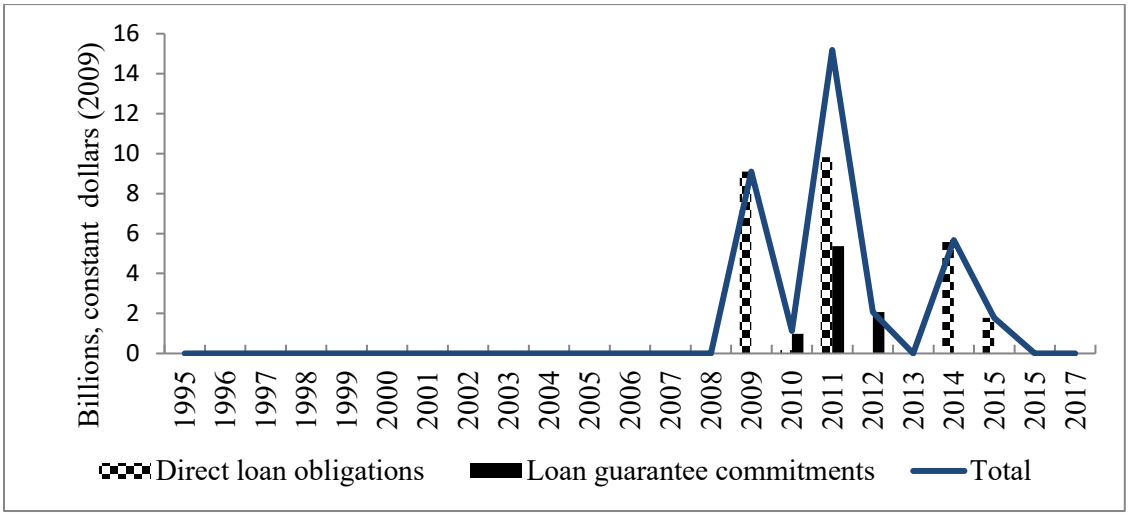


Source: Graph created by author based on OMB data. Ratio calculated by author.

The Department of Treasury and Department of Energy also showed increased use of direct loans. Both agencies had new federal credit activity in recent years that included some loan guarantees but consisted primarily of direct loans. Treasury had a

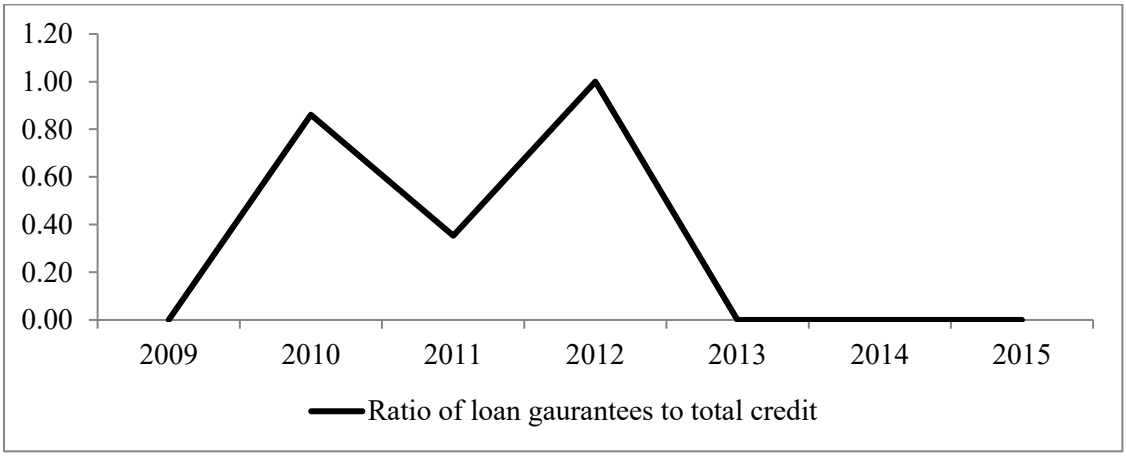
sharp increase in (primarily) direct loans during the financial crisis, but most of these programs have expired (no figures shown). The Department of Energy introduced several new loan programs which consisted largely of direct loans. See Figures 5.21 and 5.22. Congress recently rescinded funds due to lack of interest.

Figure 5.21 Department of Energy, Direct Loan Obligations and Loan Guarantee Commitments, Fiscal Years 1995 to 2017



Source: Graph created by author based on OMB data.

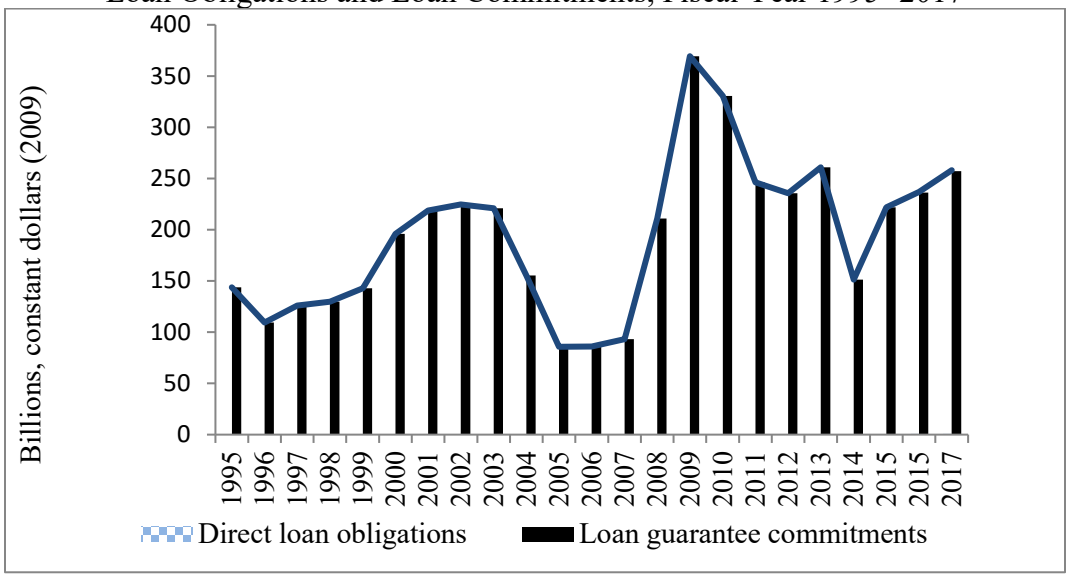
Figure 5.22 Department of Energy, Ratio of Guarantee Commitments to Total Credit



Source: Graph created by author based on OMB data. Ratio calculated by author.

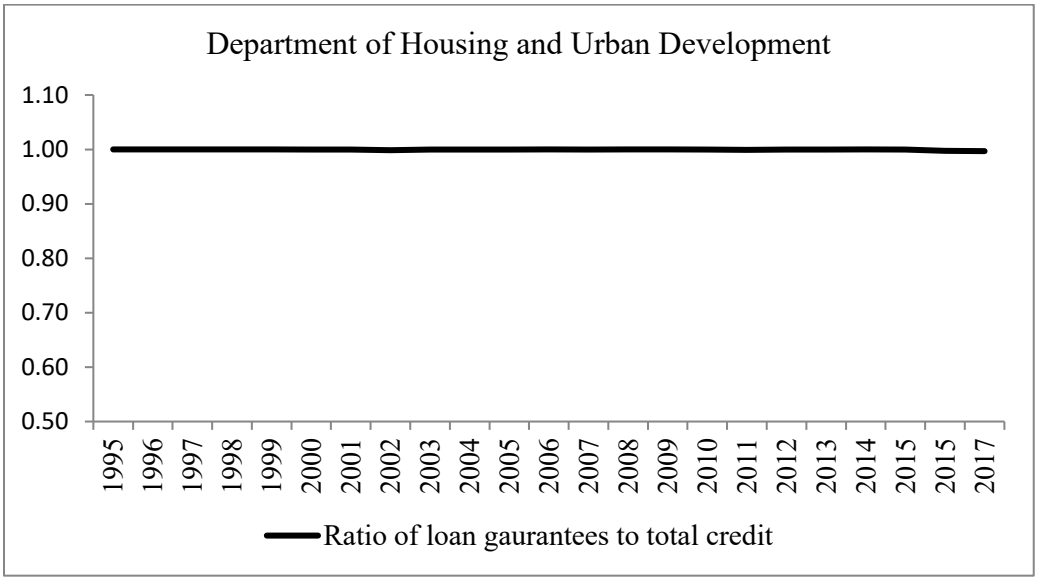
However, other agencies' credit programs, including HUD, SBA, and VA, did not have significant shifts in the composition of their credit programs. These agencies' credit programs remained mostly loan guarantees throughout the entire period (see Figures 5.24, 5.26 and 5.28). Some of these loan guarantee programs were established before FCRA and are entitlements so growth has been driven by factors unrelated to policy changes.

Figure 5.23 Department of Housing and Urban Development, Loan Obligations and Loan Commitments, Fiscal Year 1995 -2017



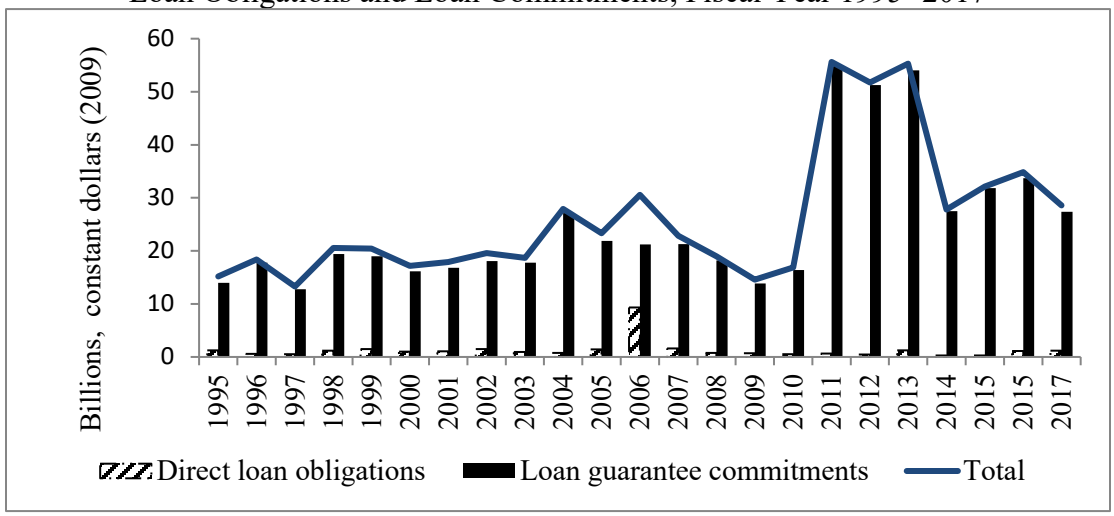
Source: Graph created by author based on OMB data.

Figure 5.24 Department of Housing and Development,
Ratio of Loan Guarantees to Total Credit



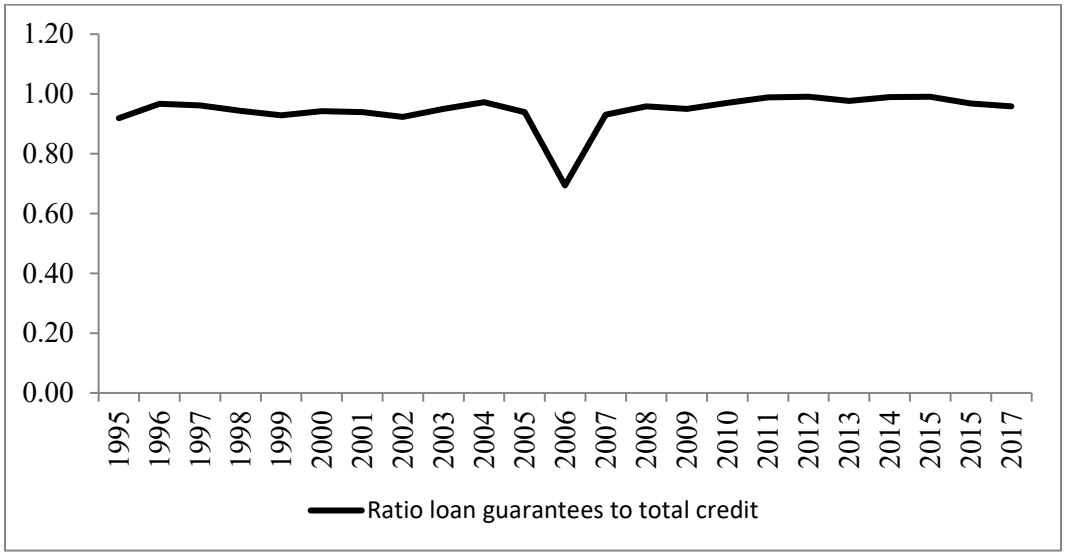
Source: Graph created by author based on OMB data. Ratio calculated by author.

Figure 5.25 Small Business Administration
Loan Obligations and Loan Commitments, Fiscal Year 1995 -2017



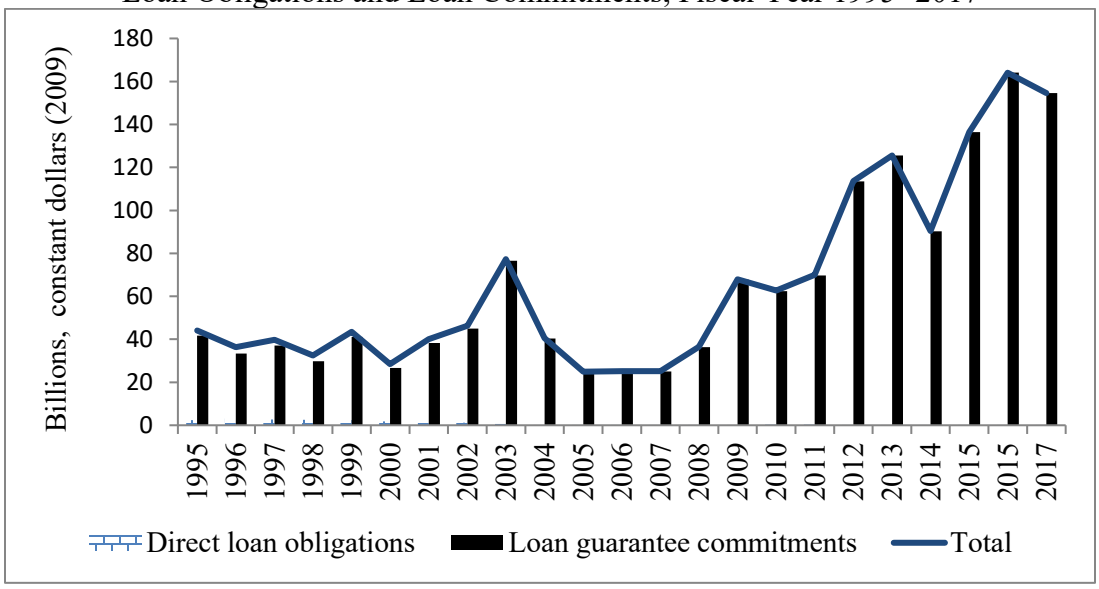
Source: Graph created by author based on OMB data.

Figure 5.26 Small Business Administration
Ratio of Loan Guarantees to Total Credit



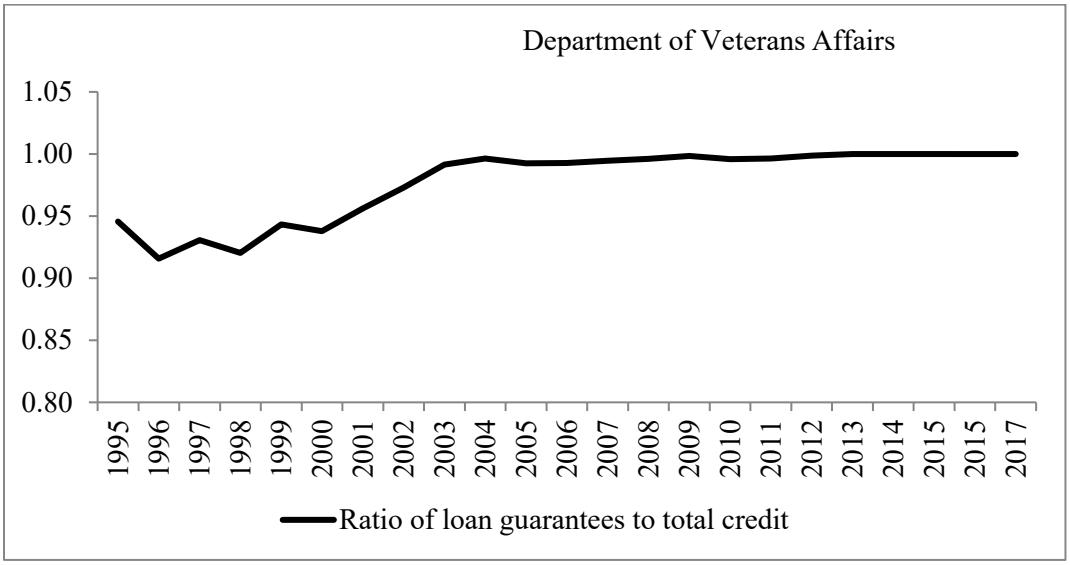
Source: Graph created by author based on OMB data. Ratio calculated by author.

Figure 5.27 Department of Veterans Affairs
Loan Obligations and Loan Commitments, Fiscal Year 1995 -2017



Source: Graph created by author based on OMB data.

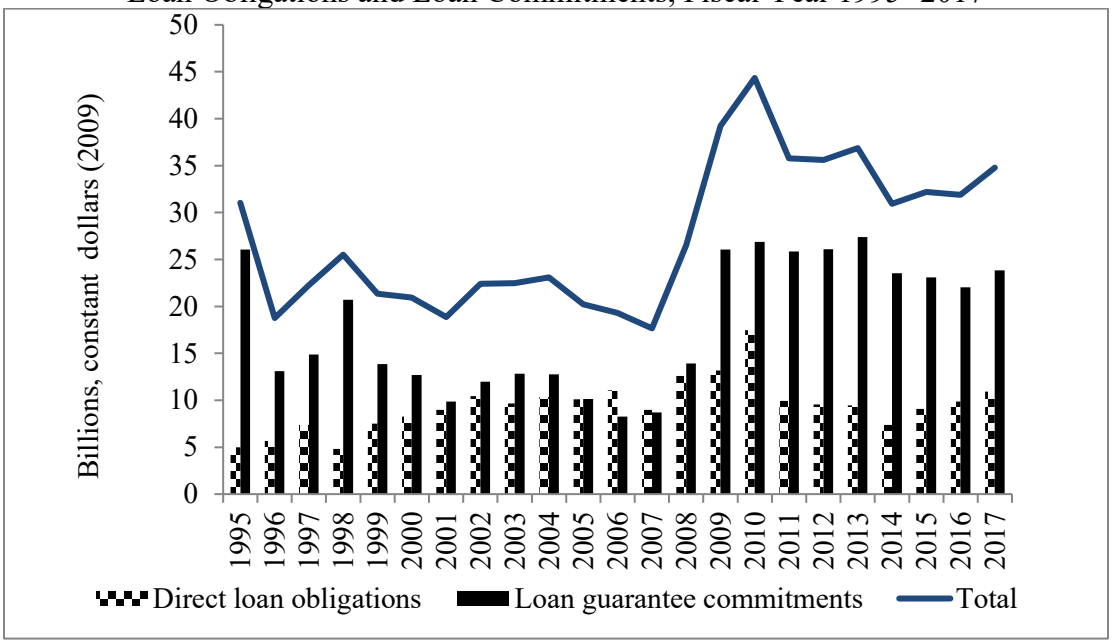
Figure 5.28 Department of Veterans Affairs,
Ratio of Loan Guarantees to Total Credit



Source: Graph created by author based on OMB data.

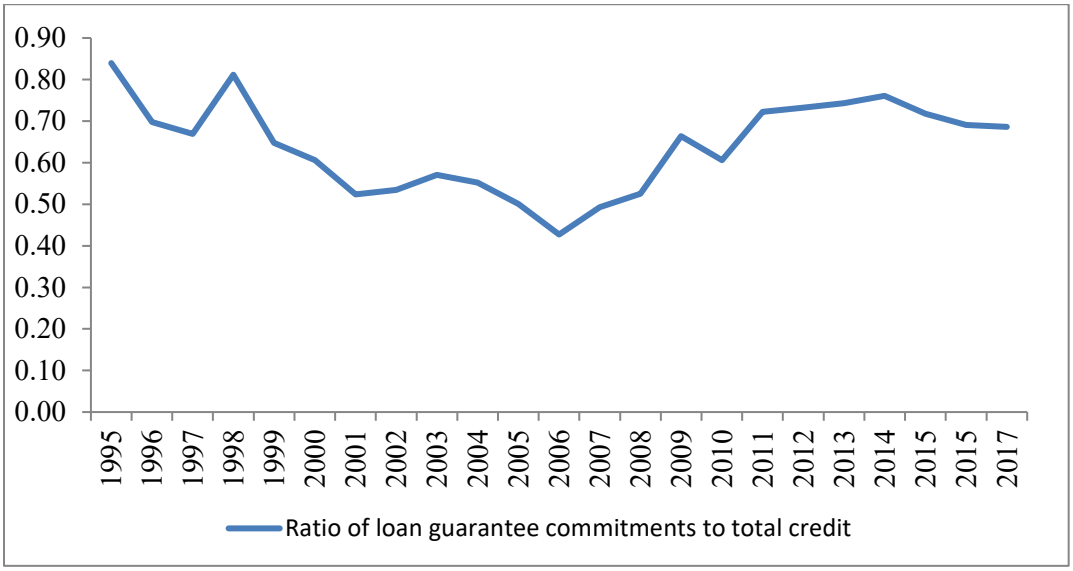
The Department of Agriculture presents a more mixed picture, with some shift in the composition of its credit assistance. In the mid-1990s to the mid-2000s there was shift towards direct loans, in more recent years, there has been shift back in guarantees (see Figure 5.29 and Figure 5.30).

Figure 5.29 Department of Agriculture
Loan Obligations and Loan Commitments, Fiscal Year 1995 -2017



Source: Graph created by author based on OMB data.

Figure 5.30 Department of Agriculture, Ratio of Loan Guarantee Commitments to Total Credit,
Fiscal Years 1995-2017



Source: Graph created by author based on OMB data.

Summary Observations

While it is impossible to know FCRA's impact without a counterfactual, the review of trends of federal loan programs provides some support for FCRA's role in shaping budget outcomes with respect to the level and composition of federal credit programs, but also indicates the importance of other factors. A key premise before FCRA was that cash-based budgeting created a policymaking preference for credit programs over direct expenditures and a preference for loan guarantees over direct loans. If this was the case, one would expect loan guarantees to grow faster than direct loans before FCRA, and one would expect some moderation of this trend after FCRA's enactment (Hedley, 1994).

Some of the findings from this comparison of pre-FCRA and post-FCRA trends are consistent with the pre-FCRA concern that credit programs' unequal budget treatment created a budget bias for the use of loan guarantees over direct loans. From the beginning to end of the pre-FCRA period, direct loans decreased while loan guarantees increased. Over the post-FCRA period, both direct loans and loan guarantees increased, but direct loans increased more than loan guarantees.

However, other findings raise some questions about what other factors were involved. In the pre-FCRA period, the ratio of loan guarantees to total credit was relatively high in the early- and mid- 1970s, but then declined sharply in the late 1970s and early 1980s despite the unequal budget treatment at the time. In the post-FCRA era, both direct loans and loan guarantees increased in the decade immediately after FCRA's enactment, despite FCRA's neutralization of credit's budget advantage over direct

expenditures. Furthermore, the ratio of loan guarantees to total credit remained high before declining sharply in 2009, coincident with the nation's fiscal crisis.

For loan obligations and loan commitments, the ratio remained between .82 and .90 during the period from 1990 to 2008.[203] For both data sets, the maximum ratio occurred after FCRA's enactment, and the average ratio was higher in the post-FCRA period. For loan obligations and loan commitments, the pre-FCRA average ratio was .72 and post-FCRA average ratio was .80. For face value outstanding, the pre-FCRA average ratio was .68 and post-FCRA average ratio was .77. These findings suggest that while budget rules create incentives, additional factors such as market conditions, political preferences, program path dependency, and the entitlement nature of some loan programs, may also be important in shaping policymakers' decisions and budget outcomes.

The post-FCRA trends also provide insights. Declining subsidy costs and the emergence of large negative subsidies provide some indication that FCRA has influenced the design of loan programs. The trend is consistent with the recent concern that FCRA's upfront recognition of gains from federal loan programs may create incentives to use federal credit programs to offset the costs of other federal programs. Another recent concern is that FCRA may be creating incentives to use direct loans over loan guarantees. However, while the large federal student loan program shifted completely to direct loans, the review did not find a consistent shift in the composition of federal loans programs in the agencies reviewed.

[203] For face value outstanding, the ratio remained between .75 and .82 from 1990 to 2008.

Together these findings suggest that while budget rules create incentives, additional factors, such as market conditions, political preferences, and path dependency and the entitlement nature of existing credit programs, are also important in shaping policymakers' choices.

Chapter Six:
Federal Credit Reform, Summary Observations and Thoughts

FCRA's design and evolution provides signals as to why it was enacted and has been sustained for more than two decades. FCRA grew out of a solid consensus among key policy participants and budget experts that a problem existed. Long-standing concerns about the rapid growth and changing composition of federal loan programs preceded FCRA's enactment. Key policy participants (including congressional lawmakers, budget committees, CBO, GAO, and OMB) agreed that the rapid growth and changing composition of federal loan programs was problematic and needed to be addressed.

Solid consensus also existed that shortcomings of the cash-based budget were an important (if not primary) factor driving these changes. Among key policy participants, there was general (but not universal) acceptance of the logic behind FCRA – that the way policies and programs are recorded, funded, and controlled in the budget matters. While some like Rep. Gradison (R-Ohio) expressed some skepticism about FCRA' potential effectiveness, there was a general willingness to support credit reform. In short, there was an elite consensus on the problem and the logic behind revising budget rules as a means of address it.

FCRA's design was shaped by decades of information expansion, expert analysis, debate, and consensus building. CBO was an influential source of analysis on complicated conceptual and technical issues. CBO, GAO and OMB actively analyzed the issues, provided extensive staff comments on legislative proposals, and worked to improve understanding. Expansions and experiments with analytical tools over the years informed reform efforts. While early approaches, such as the credit budget, focused on

controlling the volume of federal credit, over time, increasing attention was given to the development of a spending-equivalent for federal credit programs. By the late 1980s, key players in budget reform, including the Budget Committees, CBO, GAO, the Federal Reserve, and OMB had reached substantial agreement on FCRA's basic conceptual framework and essential elements,[204]

FCRA's design is aligned with long-standing and accepted norms of federal budgeting. The use of net present value to measure the government's cost at the time decisions are made is consistent with the long-standing federal budget principle of the upfront recognition of budget costs. FCRA's reestimation process to reconcile subsidy estimates with the government's cash transactions over the life of loan is consistent with the government's long-standing use of cash as a tangible, trackable measure of budget costs.

Although there was significant disagreement on specific design details, by the late 1980s, there were signs of an increasing willingness to compromise in order to move legislation forward. Momentum towards compromise was spurred by Savings and Loan and housing crises of the 1980s. At an April 11, 1990 hearing, congressional lawmakers and officials from CBO, GAO, and OMB all expressed the view that moving forward was more important than disagreements about specific and long-debated design elements, including the choice of discount rates.

Arguably, FCRA's limited objectives, scope, and budget impact eased its enactment and supported its sustainability. While FCRA was a meaningful advance in

[204] As discussed in detail in the case study, this framework included: (1) the use of subsidy costs - measured by the net present value of expected cash flows - as the budget measure for federal direct loans and loan guarantees; (2) the isolation of subsidy costs from incidental, non-subsidized cash flows; and (3) the appropriation of funds for subsidy costs before federal credit is extended

budgeting for federal loan programs, its success has been due in part to what it did not try to accomplish. In the aftermath of the Savings and Loan Crisis, concerns about the government's credit activities were widespread, extending beyond direct loans and loan guarantees to federal insurance programs and GSEs. Reformers, however, kept the law relatively narrow both in scope and objective. In the end, lawmakers avoided tackling the larger, more technically complicated and more politically charged programs. They applied FCRA's requirement for subsidy budgeting only to federal direct loans and loan guarantees and included a provision requiring OMB and CBO directors to study budgeting for deposit insurance and provide recommendations to the President and the Congress (Sec. 505). Almost three decades later, the significant costs and lack of budget oversight of federal insurance and GSEs remain a serious concern with continuing calls for, but no action on, reform of their budget rules despite their similarities to loans and guarantees.

FCRA's objective was limited because it is a process rule rather than an outcome rule. While early proposals and some key policy participants, including OMB Director, Richard Darman, argued for hard limits on the level of loan exposure, FCRA stops short of prescribing specific policy outcomes or limits. FCRA now requires policymakers to include and fund the subsidy costs for direct loans and loan guarantees in the budget, but it does not directly limit decisions with respect to the level and composition of these programs. The continued growth in federal credit programs after FCRA's enactment and the variation in the composition of credit programs across policy areas suggest policy preferences that FCRA does not constrain. FCRA did not require political compromise upfront to reach agreement on pre-determined levels before its enactment. After

enactment, it did not attempt to *"force"* policymakers to restrain their preferences for federal credit. FCRA arguably would have met with significantly more resistance if it had set pre-determined limits on federal direct loans and loan guarantees. Comments by Rep. Schumer (D-NY) that passing limits on credit would be *"problematic"* support this view (C-SPAN, 1990).

FCRA's limited scope and objective also meant that its initial budget impact was not daunting. At the time of its enactment, FCRA's impact on the overall budget was relatively low. During congressional hearings preceding FCRA's enactment, CBO Director Robert Reischauer explained there would be a "*slight increase in the measured deficit"* in the range of $3 billion to $6 billion for the next several years (C-SPAN 1990). As discussed in the case, estimates of FCRA's impact on the deficit provided before its enactment as well as its subsidy costs after enactment were relatively small compared to the total budget. It seems reasonable that FCRA's relatively small budget impact eased its enactment and that a larger, more costly reform would have attracted more attention and resistance. As discussed in the case, larger, negative subsidies in recent years have increased attention and prompted calls for reform of FCRA's subsidy estimation procedures.

After enactment, FCRA's implementation occurred within and benefited from a previously established institutional framework and its alignment with concurrent reforms. OMB has a long-established role in federal financial management and the budget processes. As such, a structure already existed for providing instructions, guidance, and technical support to operationalize and implement FCRA. Further, the establishment of

the FASAB[205] provided a deliberative forum and authoritative structure to debate and address FCRA's implementation challenges. CBO, GAO and the Offices of Inspector General had existing institutional responsibilities aligned with needed oversight of FCRA's implementation.

FCRA also benefited from its alignment with concurrent reform efforts. OBRA 1990 not only included FCRA but the CFO Act which enacted widespread financial management reform. FCRA's objective and design was consistent with and supported by efforts to improve financial management across the Federal Government. CFO Act requirements, including the establishment of integrated financial systems and the preparation and audit of financial statements, provided additional impetus for credit agencies to address underlying conditions, such as a lack of historical data and weak financial systems. These improvements were necessary to understand credit program costs and to generate reasonably accurate subsidy cost estimates. FCRA also supported, and was supported, by BEA reforms. BEA increased the importance of enacting FCRA because, if loan guarantees had remained on a cash basis, they would have provided a "*loophole*" to avoid BEA's spending constraints. BEA also strengthened FCRA by providing "*teeth*" because credit subsidy costs for discretionary credit programs must compete with other spending priorities under the discretionary spending caps.

Overall, FCRA's evolution provides a mixed picture, with examples of both FCRA's contributions and challenges. However, despite implementation challenges and the significant, on-going debate about its subsidy cost estimation procedures, FCRA's budget rule has been sustained for almost three decades. Most budget experts, even those

[205] FASAB built on the established roles of OMB, CBO, and GAO.

critical of FCRA's subsidy cost estimation procedures, continue to agree that FCRA's net present value approach is superior to the previous cash-based budget. The strength of this agreement about FCRA's conceptual framework and, importantly, its superiority over the previous cash-based budget treatment helps explain FCRA's enactment and sustainability. As Elliott (2004) notes "[e]c*onomists, policymakers, and financial market participants may argue about the implementation details, but there is a strong consensus on the general principle of discounting all cash flows relating to a year's lending."* [206]

In examining FCRA's history, I found numerous recent statements of continuing support for FCRA's conceptual framework. With only one, early exception, I have not found proposals calling for a return to cash-based budgeting for federal credit programs. Marron (2014) recently proposed an expected value approach as an alternative to FCRA, but he does not call for a return to the cash-based system. The primary focus of the recent estimation debate has remained on whether and how to revise FCRA's subsidy estimation methodology to incorporate market risk, as opposed to eliminating and completely overhauling its budget rule. The strong consensus behind FCRA's conceptual framework along with the compromises which limited its objective, scope, and budget impact, helped make it politically acceptable and technically feasible. Together, these issues help explain its enactment and sustainability.

[206] Recently, Marron (2014) challenged FCRA's basic conceptual design.

Chapter Seven:
Tax Expenditures, Analytical Tool, but No Direct Budget Decision Rule

For more than half a century, there has been concern about the budget oversight of federal tax expenditures – special tax provisions that provide preferential tax treatment for select taxpayers or for select activities. While the federal income tax code has included preferential provisions since its 1913 enactment, concern grew as reliance on income tax revenues and the use of special tax provisions increased over time (Hungerford, 2011). [207, 208] Along with tax policy concerns related to efficiency, equity, and fairness, significant concerns emerged about the transparency and budget control of these special tax provisions.

Although the term "tax expenditures" is now widely-used in the budget and policy nomenclature, this was not always the case. This case study examines the evolution of the tax expenditure concept and its application in the federal budget process.[209] After providing a brief overview of tax expenditures, this chapter explores why and how the tax expenditure concept emerged, including its codification as an analytical tool and early proposals to establish budget rules based on it. More recent concerns and proposals are then discussed. The next several chapters consider factors and conditions influencing the

[207] Tax rates and revenues were increased to help finance World War I and again to help finance World war II. Federal receipts were 4.1% of GDP in 1930 before increasing sharply to about 20% of GDP during World War II. Since the war receipts have been around 17% of GDP, with a low of 14.1% and high of 20%. Data from *Historical Tables of the United States Government*, Table 1.2- *Summary of Receipts, Outlays, and Surpluses or Deficits as Percentages of GDP: 1930-2022* (OMB, 2017).

[208] The 1913 income tax law allowed deductions for homeowners' mortgage interest payments and some state and local tax payments. After the World Wars, the Congress was slow to lower tax rates, but instead added more special tax provisions, with the number of tax expenditures increasing significantly over time (Elliott, 2011).

[209] While a few insights are included from international and state experiences, the primary focus is on the U.S. federal level.

political acceptability and technical feasibility of a tax expenditure specific budget decision rule. Chapter Eight examines the significant conceptual, definitional, and estimation issues associated with the tax expenditure concept. Chapter Nine examines the trend and composition of the tax expenditures and explores the implications of politics and institutional issues on the establishment of budget decision rules for tax expenditures. Chapter Ten provides summary observations and thoughts on the tax expenditure experience.

Attention to budget rules for tax expenditures is not surprising given the significant and controversial role these tax provisions play in the budget, policy, and political processes. As shown in Figure 7.1 and Figure 7.2, tax expenditures have grown significantly over time in both number [210] [211] and value (as measured by foregone revenue).[212,] Since 1974 the number of tax expenditures has more than doubled and the

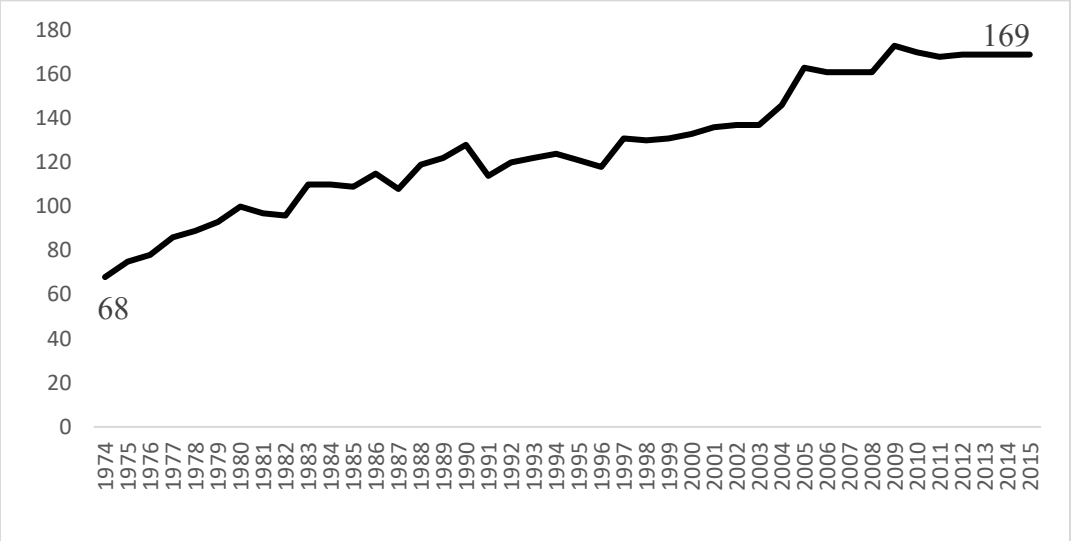
[210] While counts of tax expenditures fluctuate due to changes in the methods used to measure and categorize tax expenditures, rather than policy changes, the Joint Committee on Taxation (JCT), GAO, and other researchers agree that these counts nevertheless provide a useful gauge of the general trend in federal tax expenditures.

[211] Author's calculation based on tax expenditure listing federal budget documents. Budgets includes information for the upcoming fiscal year (commonly referred to as the budget year); the current fiscal year (commonly referred to as the current year); and the immediately prior fiscal year (commonly referred to as the prior year). To best capture enacted laws, counts were done using prior year information. For example, the fiscal year 2004 is based the listing for fiscal year 2004 as shown in the fiscal year 2006 budget. Counts include tax expenditures enacted, but with amounts only for future years.

[212] Foregone revenues provide an estimate of the difference between the tax liability without the tax expenditure and the tax liability under current law. Aggregations of foregone revenue estimates are imprecise, and they should be considered with some caution. Importantly, an estimate of foregone revenue for a tax expenditure does not account for the interaction effects with other tax provisions. As a result, the foregone revenues from the elimination of several tax expenditures may different from than the sum of the foregone revenues for each tax expenditure. However, CRS, GAO, and other prominent researchers have stated that foregone revenue totals provide a useful gauge of trends in federal tax expenditures (Hungerford, 2008, GAO, 2005e, and Marron, 2012). As noted by CRS (2008), "*the sum of tax expenditure revenue over time probably provides a good approximation of the general trend in the effect of tax expenditures on income tax revenue… it is unlikely that the bias from simply summing tax expenditures estimates change much from year to year."*

sum of foregone revenues has increased about four-fold. The first statutorily-required list published as part of the federal budget recognized 68 tax expenditures in fiscal year 1974.[213] [214] The President's fiscal year 2017 budget included 169 tax expenditures with projected foregone revenues totaling $1.2 trillion for fiscal year 2015 and $17 trillion over the fiscal year 2016-2025 budget horizon (OMB, 2016). Further, as shown in Table 7.1, aggregated tax expenditures are significant and have grown relative to federal receipts, other federal spending, and the economy (GAO, 2005e and Burman and Phaup, 2012).

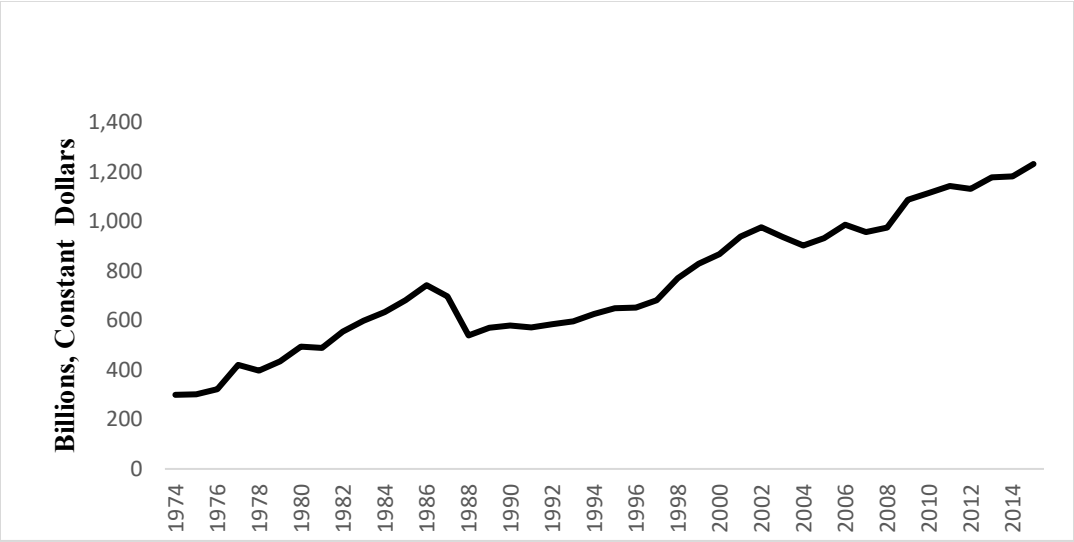
Figure 7.1 Tax Expenditures, Number Reported in President's Budget



Source: Graph prepared based on author's count of tax expenditures listed in President's budget documents, including: (1) Special Analyses for Fiscal Years 1976-1990; (2) *Budget of the United States Government* for Fiscal Years 1991-1994 and (3) *Analytical Perspectives* for Fiscal Years 1995 -2017.

[213] Published as a supplemental *Special Analysis* to the President's Fiscal Year 1976 budget.
[214] The first official list of tax expenditures, published as part of a 1968 Treasury Report, included 51 tax expenditures.

Figure 7.2 Total Foregone Revenues, Fiscal Years 1974-2015



Source: Graphed prepared based on author's summation of fiscal year data included in *Analytical Perspectives, Budget of the U.S. Government*, Fiscal Years 1974 - 2016

Table 7.1 Federal Tax Expenditures as Percent of Federal Revenues, Federal Spending and GDP

	1974	2015
Tax expenditures (billions, current dollars)	$74	$1,232
As percent of GDP	5%	7%
As percent of federal outlays	25%	33%
As percent of federal receipts	28%	38%
As percent of total "spending" (direct outlays plus tax expenditures)	22%	25%

Source: Table compiled by author. Calculations by author based on data included in *Budget of the U.S. Government Fiscal Year 2016, Historical Tables, Analytical Perspectives,* and *Annual Report of the Secretary of the Treasury on the State of the Finances, Fiscal Year 1968*

Tax expenditures support a wide range of policy objectives and take a variety of forms, including: exclusions,[215] exemptions, [216]deductions,[217] deferrals,[218] credits,[219] and preferential rates[220] (GAO, 2016d). Tax expenditures include: exclusions for employer-sponsored health insurance; exemptions for dependents; deductions for home mortgage interest; credits for child care; deferrals for foreign earnings; and reduced rates on long-term capital gains. In some policy areas, tax expenditures account for a significant portion (even the majority) of the government's role. For example, tax expenditures account for most federal assistance for housing; OMB reported tax expenditures of $246 billion and direct expenditures of $12 billion in fiscal year 2015.[221, 222]

However, the use of tax expenditures varies significantly across budget functions.[223] While tax expenditures exist in most budget functions, their use is concentrated in a few.[224] They provide the majority of federal assistance in 3 of the 18

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[215] Exclusions leave income from a specified source(s) out of the income tax base.
[216] Exemptions reduce the income tax base for taxpayers because of their status or circumstance.
[217] Deductions allow taxpayers to subtract specified payments from taxable income.
[218] Deferrals allow taxpayers to delay recognition of current income to a future year.
[219] Credits directly lower a taxpayer's liability by the amount of the credit.
[220] Special rates reduce the tax rates on income from specific sources below those that generally apply.
[221] Author's analysis based on tax expenditures listing included in *Analytical Perspectives, Budget of the U.S. Government, Fiscal Year 2017* Table1.1 *"Estimates of Total Income Tax Expenditures Fiscal Years 2015-2026*" under the heading *"Housing Programs."*
[222] Author's calculation for direct expenditures on housing includes: (1) budget subfunction 371 - mortgage credit ($-84.3 billion) and budget subfunction 604 -Housing Assistance ($47.6 billion) from Table 3.2 *Historical Tables, Budget of U.S. Government FY 2017*. Tax expenditures include the sum of provisions included under "housing" heading in Table1.1: *"Estimates of Total Income Tax Expenditures Fiscal Years 2105-2016* in the Fiscal Year 2017 *Analytical Perspectives.* For Commerce and Housing budget function (370), which includes housing activities as well as other activities, tax expenditures also account for more of the government assistance provided than direct outlays.
[223] Budget function refers to a classification of budgetary resource in terms of the principal purposes they serve. A budget function may be divided into two or more subfunctions (Schick, 2000).
[224] Author's calculation based on information included in the Table 14-1, *Analytical Perspectives, Budget of the U.S. Government, Fiscal Year 2016*.

budget functions – commerce and housing; general government; and international affairs. Tax expenditures provide a significant portion (over 30 percent), but not the majority, of federal assistance in five budget functions [225] and only a small portion of federal assistance in 8 budget functions. They are not used in two budget functions – administration of justice and Medicare. While tax expenditures are found in most budget functions over 85 percent of foregone revenues is concentrated in a few budget functions, including: (1) commerce and housing; (2) health; (3) income security; and (4) education, training, employment, and social services.

For decades, policymakers and academics have raised concerns about the budget treatment of tax expenditures. [226] The central premise is that preferential tax provisions represent government spending that is less transparent and less controlled than other budget expenditures. Vickery (1947) discussed the idea that a reduction in taxable income constitutes a government subsidy (cited in Wolfman, 1985). Blum (1955) argued that tax preferences are "…*hidden in technicalities of the tax law; they do not show up in the budget; their costs frequently is difficult to calculate; and their accomplishments are even more difficult to assess"* (cited in Hungerford, 2011, p.8). Heller (1955) argued that tax preferences provide *"backdoor"* government subsidies and that *"[r]ather than run the gauntlet of the Budget Bureau and the congressional Appropriations Committees,*

[225] These budget functions include: (1) Community and regional Development; (2) Income Security; (3) General Science, Space and Technology; (4) Health and (5) Energy.
[226] Similar interests and concerns developed in Germany. In his comparative analysis of tax expenditure reporting in the United States and Germany, Shannon (1986) outlines Germany's recognition and reporting of tax expenditures. By the mid-1950s, Germany had recognized the equivalence between special tax provisions and direct government subsidies (Shannon, 1986, and Shaviro, 2007). By the late 1960s, the government was required to provide parliament a biennial survey of all government subsidies, including tax subsidies with foregone revenue estimates (Shannon, 1986).

groups seeking subsidies turn to the tax committees of Congress for Government support without Government interference" (cited in Bittker, 1969, p. 1). Wolfman (1965) described the concept of tax preference as *"…a deviation from a relatively neutral net income base or the application of rates which are tailored according to the source from which income is derived or the purpose for which it is spent"* (p. 174). He suggested the need for new budget rules, arguing that "*sums federally allocated by tax preferences and special tax relief provisions should be reflected in the federal budget and accounts"* (p. 186).

The dominant force in developing and strongly promoting the tax expenditure concept, however, was Stanley Surrey, Assistant Secretary of the Treasury for Tax Policy during the Kennedy and Johnson Administrations. Surrey coined the phrase "*tax expenditures"* to reflect the functional equivalence of preferential tax provisions with direct expenditures. In a widely-cited 1967 speech, he described tax expenditures as departures from a *generally accepted tax code [emphasis added]* and equated these items to a *form of government spending [emphasis added]*.

> *"Through deliberate departures from accepted concepts of net income and through various special exemptions, deductions, and credits, our tax system does operate to affect the private economy in ways that are usually accomplished by expenditures – in effect to produce an expenditure system described in tax language"* (Surrey, 1967, p. 323; and 1973, p. 3).

At the time, analytical information and tools (e.g. comprehensive lists or analyses) did not exist for federal assistance provided through the tax system (Surrey, 1967). Surrey (1970) argued that *"[n]o one really knew what was being spent through the tax system or for what purposes"* (p. 730). He argued:

> "*When congressional talk and public opinion turns to reduction and control of Federal expenditures, these tax expenditures are never mentioned. Yet, it is clear that if these tax amounts were treated as line items on the expenditure side of the Budget, they would automatically come under the close scrutiny of the Congress and the Budget Bureau. But the tax expenditures are not so listed, and they are thus automatically excluded from that scrutiny. Instead since they are phrased in tax language and placed in the Internal Revenue Code any examination to be given to them must fall in the classification of "tax reform" and not "expenditure control." There is a vast difference between the two classifications"* (Surrey, 1967, p. 333 and 1973, p.4).

Surrey stressed the need for a *"full accounting"* of tax expenditures, including an approach that would "… *explore the possibility of describing in the Federal Budget the expenditure equivalents of tax benefit provisions"* (Surrey, 1967, p.4-5, as cited in Bittker, 1969, p.245).

The analytical tools for tax expenditures increased significantly in the years following Surrey's first articulation of the concept. While at the Treasury Surrey oversaw the publication of the first ever U.S. *"tax expenditure budget,"* published in the *Annual Report of Secretary of the Treasury on the State of the Finances for Fiscal Year 1968* (U.S. Treasury, 1969). This report included a discussion of the tax expenditure concept and a list of tax expenditures organized by budget function. The report stated that "…. *it would be appropriate and instructive to juxtapose the tax provisions and the revenue cost they involve with the expenditures in the same functional category in order to understand better the purposes to which public resources are allocated"* [227] (U.S. Treasury, p. 329).

[227] Foreman (1986) notes that while Surrey sought to include the tax expenditure budget directly in the President's budget, these efforts proved unsuccessful.

After he left the Treasury, Surrey more fully developed and promoted the tax expenditure concept in a series of academic papers and in the book *Pathways to Tax Reform: The Concept of Tax Expenditures* (Surrey, 1970(a),1970(b),1973,1976; and Surrey and McDaniel, 1979; and McDaniel and Surrey, 1982). In these works, Surrey reiterated his argument that tax provisions with nontax purposes are functionally equivalent to direct expenditures and that having different budget rules for these two policy instruments is problematic. He argued that tax expenditures and their costs should be identified in the budget, but he also stated that even with better information difficulties would remain. To further strengthen budget oversight, he suggested that *"[t]he President could be given authority to treat tax incentive funds as direct expenditures for budgetary control purposes"* and that tax expenditures could be *"reviewed in the same way as direct expenditures under the appropriation and budgetary procedures"* (Surrey, 1970b, 731). In other words, Surry called for going beyond analytical tools to establish budget rules that would more directly control tax expenditures.

During the early 1970s, tax expenditure information made its way into the policy and budget processes. In 1970, the Treasury published a *"tax expenditure budget"* for fiscal year 1969, using the term *"tax aids"* rather than tax expenditures (Surrey, 1973, p. 3). Several unsuccessful legislative proposals sought to establish a statutory requirement for a tax expenditure budget (Foreman, 1986).[228] While no legislation was enacted, starting in 1972, the Committee on Ways and Means and the Joint Committee of Internal Revenue published reports on tax expenditures in compliance with a conferees request

[228] Foreman (1986) outlines several legislative proposals aimed at establishing a statutory requirement for a tax expenditure budget.

included in the Revenue Act of 1971 that tax expenditure data be regularly submitted to Congress[229] (Surrey, 1973, pp. 4-5).

Building on these early efforts, the Congressional Budget and Impoundment Control Act of 1974 (P.L. 93-344), hereafter referred to as CBA, institutionalized the identification and reporting of tax expenditures. The CBA formally defines tax expenditures as "*those revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability"* (P.L. No. 93-344). The CBA states the term tax expenditures budget means "*…an enumeration of such tax expenditures"* (P.L. No. 93-344**,** section 3(a)). Section 601 requires the President's budget list existing and proposed tax expenditures along with cost estimates.[230]Section 602 requires the CBO to annually compile and report a list of tax expenditures along with cost estimates. [231]

Importantly, however, the "*tax expenditure budget"* required by CBA is only informational. Thus, the CBA codified the tax expenditures concept as an analytical tool, but not as a budget rule. As such, the term tax expenditure *"budget"* is a misnomer – it is not voted on and it is not used to allocate or control funds. While deliberations surrounding the CBA considered more direct control of tax expenditures, the final legislation stopped short of establishing budget rules to directly control these provisions

[229] These reports were developed by Treasury staff
[230] The Office of Tax Analysis (OTA) in the Department of Treasury prepares the tax expenditure list that OMB publishes in the federal budget.
[231] While the CBA technically required the CBO to prepare estimates, subsequent provisions require CBO to rely on the JCT estimates because of the JCT's expertise on tax matters.

(GAO, 1981). Schick (1981) notes that "… *[i]n the give and take that preceded enactment… Congress substituted information for control"* (p. 164).[232]

The CBA does not require Congress to set specific budget function targets for tax expenditures in its budget resolution as is required for direct expenditures or to allocate targets for tax expenditures to the tax committees (Rivlin, 1981 and Havens, 1981). [233] CBA provides only limited and indirect control of tax expenditures through a floor on aggregate revenues set in the budget resolutions (Rivlin, 1981 and Havens, 1981).[234] Any legislation that brings revenues below the revenue floor established in the budget resolution is subject to a point of order.[235]As noted by CBO and others, while the revenue floor may exert some pressure on policymakers to control tax expenditures, no budget decision rule directly limits or requires reductions in tax expenditures (CBO, 1982 and GAO, 1994c).

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[232] Schick (1981) notes that whether tax expenditures should be included on only an informational basis was a source of debate. He explains that the while the bill from the Senate Government Operations Committee would have required a tax expenditure budget be included in each concurrent budget resolution, the Rules and Administration Committee proposed that tax expenditure information be moved from the budget resolution to the Budget committee report.

[233] Direct expenditures are controlled by both an aggregate ceiling on budget authority and outlays and a process that establishes targets for various categories of outlays. The aggregate ceiling on outlays is divided by budget functions. These amounts are then allocated to the authorization and appropriation committees with jurisdiction over spending programs. Although both the budget function breakouts and the committee allocations are targets (non-binding), they enable *"the Congress as a whole to indicate its broad priorities with respect to the allocation of federal spending"* (CBO, 1982).

[234] The budget resolutions specify revenues and the amount, if any, by which revenues must increase or decrease.

[235] A point of order is an objection raised on the House or Senate floor or in committees to a motion or procedure that violates the body's rules. Usually a point of order may be waived by a simple majority vote. However, in the Senate, waiver of some points of order requires a three-fifth vote (GAO/AFMD 2.1.1).

However, while the CBA did not establish budget rules to directly control tax expenditures it significantly advanced tax expenditure analysis as an analytical tool. As noted by Schick (1980):

> *"[b]y defining tax expenditures, the Budget Act converted these "preferences" into actionable features of the legislative process, not merely loopholes against which critics of the tax system could rail. The term itself conveyed the message tax preferences ought to be treated in the same manner as direct expenditures of the federal governments"* (p. 502).

Further, in addition to formally defining tax expenditures and establishing annual reporting requirements, the CBA required the budget committees

> '[t]*o request and evaluate continuing studies of tax expenditures, to devise methods of coordinating tax expenditures, policies, and programs with direct budget outlays, and to report the results of such studies to the Senate (House) on a recurring basis* (Surrey, 1976 and P.L. 93-44, sections 101 and 102).

As required by the CBA, the President's FY 1976 budget submission included information on tax expenditures published as *Special Analysis F*. This analysis included a discussion of the tax expenditure concept, a list of tax expenditures organized by budget function, and a summary of proposed changes to tax expenditures. No attempt, however, was made to integrate this information in the main budget document (Surrey and McDaniel, 1985). Annexes to the President's main budget document have continued to list and discuss tax expenditures.[236] The JCT also publishes annual reports on tax expenditures, as required by CBA. In addition, since 1976, CRS has prepared a report on

[236] A section on tax expenditures was included in the *Special Analyses* volumes, which were provided as annexes to the President's budget until the early 1990s. Beginning in fiscal year 1995, these special issue annexes have been known as the *Analytical Perspectives* volumes. In the interim years, special topics, including tax expenditures, were discussed directly in the main budget document.

tax expenditures every two years for the Senate Budget Committee.[237] In addition, CBO and GAO have issued numerous ad hoc reports on tax expenditures (GAO, 1994c, 2005e, 2016d and CBO, 1982, 2013). Together, the CBA requirements and these analytical tools converted tax expenditures from *"hidden benefits into published details of the federal budget"* (Schick, 1980, p. 502).

Surrey and other proponents of the tax expenditure concept argued that identifying tax expenditures and recognizing them as government spending would lead to closer scrutiny and, in turn, reduce their use (Aaron, 1969; GAO, 2005e; JCT, 2008; and Surrey and McDaniel, 1985). As GAO (1979c) explains, "*...reformers hoped and most of their opponents feared that highlighting tax expenditures would lead to the repeal of existing ones and an increasing reluctance to enact new ones*" (p.19).

However, calls for stronger budget rules for tax expenditures reemerged almost immediately after the CBA's enactment. In 1981, CBO Director Alice Rivlin testified that the budget treatment of tax expenditures *"... is one of the most important unresolved issues in the budget process"* and that *"[t]ax expenditures are too important to be left free from direct control of the budget process"* (Rivlin, 1981a, p.1, p.15). *The Conference Report on the First Concurrent Resolution on the Budget for Fiscal Year 1983* included language urging

"...the budget committees and the other appropriate committees of Congress to study ways in which tax expenditures and off-budget spending can be addressed more fully in the budget resolutions and incorporated into the procedures of the Congressional budget process" (CBO, 1982 and H. Con. Res. 91).

[237] The CRS reports provide both a general overview of tax expenditures and information on specific tax expenditures. The following is provided for each tax expenditure: (1) an estimate of foregone revenue, (2) the legal authorization, (3) a brief description, (4) a brief impact analysis, (5) the rationale for the provision at time of adoption, (6) an assessment, and (7) bibliographic references.

In 1985, Surrey and McDaniel emphasized that tax expenditures remained *"largely uncontrolled"* and argued that *"…[it]seems inescapable that the current Budget Act procedures do not enable Congress to control tax expenditures effectively or to coordinate them with direct expenditures"* (Surrey and McDaniel, 1985, p. 65). Thuronyi (1988) argued that the tax expenditure concept *"…has largely failed to attain its goals"* (p.1155). Leonard (1986) described the treatment of tax expenditures as "*an archetypal example of an information-based accountability program"* and concluded that *"if tax expenditures are any guide, information alone is not an adequate surrogate for the appropriations process"* (p. 129).

Concerns expressed in numerous reports and congressional testimonies echoed those when the tax expenditure concept was first introduced – e.g., a lack of transparency, insufficient budgetary control, and incentives to use tax expenditures as *"backdoor spending"* for activities that may not have sufficient support if presented as direct expenditure programs (Rivlin, 1981a, 19891c, 1982; GAO, 1994c; and Surrey and McDaniel, 1985). Representative Bonior (D-Mich.) argued *"[w]e have a fiscal tool of formidable effect and increasing use, of imprecise dimensions, of imprecise costs, under negligible control"* (as cited in Tax Notes, 1983). Senator Bradley also echoed earlier concerns:

> *I am simply trying draw the Senate's attention to the very targeted spending we do through the Tax Code, spending that is not subject to the annual appropriations process; spending that is not subject to the Executive order capping the growth of mandatory spending; spending that is rarely ever debated on the floor of the Senate once it becomes part of the Tax Code…. many of them make sense… Many, however, probably could not stand the light of day if we had to vote on them as direct expenditure programs* (141 Cong. Rec S 681).

As concerns about deficits increased, proponents of new budget rules for tax expenditures emphasized that these tax provisions increase the deficit like direct expenditures and that the failure to include them under deficit control measures creates perverse incentives (Rivlin, 1981a, 1981c and Surrey and McDaniels, 1985). Policy participants also argued that CBA failed to provide for the systematic review of tax expenditures or for explicit tradeoffs among tax expenditures and direct expenditure programs (CBO, 1982; GAO 1979; McDaniel and Surrey, 1982; and Surrey, 1970). In addition, some experts expressed concern that CBA budget rules did not: (1) make sufficient distinctions between changes in tax rates and changes in tax expenditures or (2) provide for coordinated review and control of foregone revenues from these different tracks of revenue policy (Rivlin, 1981c and Schick, 1981).

During the late 1970s and 1980s, legislative proposals to improve the budget recognition and control of tax expenditures emerged. As shown in Table 7.2, these proposals ranged from enhancing the review of tax expenditures to directly controlling tax expenditure spending. *"The Tax Expenditure Review Act" (*introduced in 1976 and 1979) directed a comprehensive review of tax expenditures and sought to establish procedures for additional congressional oversight. At the other end of the spectrum, H.R. 6021 (introduced in 1979) called for a budget decision rule limiting total tax expenditures to a percentage of GDP.[238] H.R. 4882 (introduced in 1981)[239] called for limits on tax expenditures by requiring each budget resolution to establish a level of tax expenditures

[238] H.R. 6021 sought to amend the CBA to prohibit the adoption of any concurrent resolution on the budget which sets forth a level of total budget outlays and total tax expenditures in excess of 28.5 percent of the GNP in year 1981; 28 percent of GNP in fiscal year 1982; or 27.5 percent of GNP in any fiscal year thereafter.

[239] Legislation was reintroduce in 1983 as H.R. 1879

in addition to the level of aggregated revenues. The bill's point of order made out of order any legislation that causes the recommended level of tax expenditures to be exceeded. Numerous other legislative proposals also sought to establish new budget decision rules requiring the inclusion of tax expenditures in the budget resolution.[240] In the end, no legislation was enacted.

[240] The *"Tax Expenditure Limitation and Control Act of 1981"* (S. 193 and H.R. 2025) also sought to establish: (1) a point of order if the level of revenue loss from tax expenditures contained in the resolution exceeds 30 percent of the recommended level for net revenues set forth in the resolution and (2) a requirement that any new tax expenditures or modifications to existing tax expenditures must be approved by the committees of jurisdiction and the Budget committees in addition to the tax committees. S. 2454 "*Federal Credit and Tax Expenditure Control Act of 1982"* sought to impose binding ceilings on tax expenditures in the budget resolution. Similarly, H.R. 1879 (introduced in 1983) sought to amend CBA to limit tax expenditures in budget resolutions. The *"Tax Expenditure Control Act of 1995"* (H.R. 1387 and S. 98) sought several controls over tax expenditures, including setting limits for tax expenditures in the concurrent budget resolutions and requiring that reconciliation directives include changes in tax expenditures.

Table 7.2 Selected Legislative Proposals to Reform Budgeting of Tax Expenditures, 1976-1984

Proposal	**Year**	**Focus and Objective**			
		Enhance review of tax expenditures	More fully include tax expenditures in budget process	Establish specific limits for tax expenditure	Improve budget parity
S. 3588: *Tax Expenditure Review Act*	1976	X			
S. 921 *Tax Expenditure Review Act*	1979	X		[241]	
H.R. 6021[242]	1979	X	X	X	
S. 686 Tax Expenditure Control Act	1979	X	X	X	
HR 4882 and S. 2069[243]	1981 1982	X	X		
H.R. 5858: *Sunset Review Act of 1980*[244]	1980. 1981 1983	X			
S.193 and H.R. 2025: *Tax Expenditure and Limitation and Control Act 0f 1981*	1981 1983	X		X	
S. 2454 Federal Credit and Tax Expenditure Control Act of 1982	1982	X	X		
S. 2554 *"Federal Credit and Tax Expenditure Control Act of 1982"*	1982	X	X		
H.R. 1879[245]	1983	X	X		
S. 2286: *Tax Expenditure Control Act of 1984*	1984	X	X		

Source: Author based on legislative search of Library of Congress (Congress.gov) and examination of bills and comments, including related congressional testimonies.

[241] Bill proposed amendments to Senate and House rules to prohibit the consideration of any bill or amendment providing tax expenditures which would not expire within four years.

[242] Official title as introduced was "*A bill to amend the Congressional Budget Act of 1974 to limit the levels of total budget outlays and tax expenditures contained in concurrent resolutions on the budget and to establish procedures for making loans and loan guarantees under Federal credit programs subject to the congressional budget process."*

[243] Ibid

[244] Similar bills H.R. 58 *Sunset Review Act of 1981 and* H.R. *Sunset Review Act of 1983* also were introduced in subsequent years.

[245] Official title as introduced was *"A bill to amend the Congressional Budget Act of 1974 to require that each congressional budget resolution fix the level of tax expenditures for the fiscal year involved as well as the recommended aggregate level of Federal revenues."*

As shown in Table 7.3, academics, CBO, and GAO also outlined options for budgeting for tax expenditures. As with the legislative proposals, some of these proposals called for the inclusion of tax expenditures in the budget resolution. Surrey and McDaniel (1985) proposed that the CBA be amended to: (1) require that the President's budget include a more comprehensive total, including both tax expenditures and direct expenditures, for each budget function and (2) enable Budget Committees to set spending ceilings for tax expenditures in the budget resolutions. CBO outlined a proposal to allocate tax expenditures by budget function and tie a spending committees' spending allocation to the actions it takes on tax expenditures (CBO, 1982 and Rivlin, 1981a and 1981c). GAO suggested the establishment of integrated oversight procedures and budget reviews to compare tax expenditures more directly with spending programs (GAO, 1979 and Havens, 1981).

Table 7.3 Selected Non-Legislative Proposals to Reform Budgeting of Tax Expenditures, 1981-1985

Proposal	**Year**	**Focus and Objective**			
		Enhanced review	More fully include in existing budget process	Establish specific limits	Improve budgetary parity
Allocate tax expenditures by budget function and tie committee spending allocation to its actions on tax expenditures (CBO, 1981)	1981	X	X		
Set overall spending limits at the department/agency level that include both direct and tax expenditure programs (Surrey and McDaniel, 1985)	1985	X	X	X	
Unified Budget included imputed revenue and spending for tax expenditures (Surrey and McDaniel, 1985)	1985	X	X		X
Integrated budget review of tax expenditures and direct expenditures (GAO, 1981)	1981	X			
Establish non-binding targets (GAO, 1981)	1981	X	X		

Source: Author based on examination of government and academic literature related to reform of budgetary treatment of tax expenditures.

Surrey and McDaniel (1985) suggested the development of a unified budget showing imputed revenues and outlays for tax expenditures along with actual tax revenues and direct expenditure outlays. Such a budget rule would require tax expenditure *"spending"* be included directly in budget totals along with imputed revenues. This type of process rule would improve the budget parity of tax expenditures and direct expenditures but would not establish direct limits on tax expenditures. Surrey and McDaniel (1985) argued that this unified presentation *"...by showing all program*

receipts and outlays, actual or imputed, in single place, would produce a rational and comprehensive document for use by policymakers"[246] (p.44).

Not surprisingly, an examination of these proposals reveals differing views on the value and feasibility of establishing a tax expenditure specific budget rule. Some opponents suggested that new budget decision rules are unnecessary because tax expenditures are already (or could be) sufficiently controlled within the current budget process. Reflecting this view, Congressmen Rostenkowski and Conable, Jr, argued at a 1981 congressional hearing that *"[w]e are confident that we can control tax expenditures without radically new budget procedures"* (Rostenkowski and Conable, 1981, cited in McDaniel and Surrey, 1982, p. 614). Others raised general concerns about the feasibility and effectiveness of budget rules, especially given the challenges identifying and measuring tax expenditures (CBO, 1982; Havens, 1981; McDaniel and Surrey, 1982; Rivlin, 1981a, 1981c; and Schick, 1981). In considering H.R. 4882, GAO concluded because of the inherent difficulties estimating revenue losses a ceiling on total tax expenditures should not be adopted at that time (Havens, 1981). In speaking about proposed budget rules, Chairman Jones (1981) cautioned

> *"[t]he tax expenditures estimates have yet to be tested in the heat of policy differences. It would be prudent to examine them closely before placing undue weight upon them"* (as cited in McDaniel and Surrey, 1982, p.621).

[246] Budget parity refers to making the budgetary treatment of policy instruments equivalent to ensure that budget rules do not advantage one policy instrument over another. This type of approach focuses on improving budget parity between tax expenditures and direct expenditures but stops short of setting limits on tax expenditures. Surrey and McDaniel offered alternatives how this information could be included in the budget process. On one end the spectrum, they suggested this type of presentation could be used to expand and refine the information provided in the Special Analysis on tax expenditures. In terms of a direct budget rule, they suggested that OMB set an overall spending limit for each department that includes both tax expenditures and direct expenditures. (Surrey and McDaniel. 1985).

Given these definitional and estimation challenges, some proponents, including CBO Director Rivlin, suggested an incremental approach (Rivlin, 1981 and Havens, 1981). Both CBO and GAO testified in favor of an evolutionary approach, starting with improvements to the information base and followed by non-binding targets before moving to binding targets (Rivlin, 1981 and Havens, 1981).

While acknowledging these concerns, proponents of new budget decision rules for tax expenditures stressed the importance of moving beyond analytical information to establish budget decision rules (Havens, 1981; Rivlin, 1981; and Surrey and McDaniel, 1985). A former OMB budget director argued "*it as a matter of some urgency an effort to extend budget control to tax expenditures."*. Surrey and McDaniel (1985) argued that *"the past and projected growth in tax expenditures is simply too great to permit continued reliance on ad hoc measures. Amendments to the Budget Act are needed to bring tax expenditures and the tax-writing committees under control..."* (p.65). Chairman of the House Budget Committee Jones urged "[f]*urther consideration and development of control over tax expenditures should be an important part of Congress' agenda"* (as cited in McDaniel and Surrey, 1982, p. 609). But, in the end, the Congress chose not to establish new budget decision rules for tax expenditures.

PAYGO Provides Some Constraint, but Does Not Establish A Tax Expenditure Specific Budget Rule

While policymakers chose to not establish budget rules for tax expenditures during the deficit control efforts of the mid-1980s[247] a few years later the Budget

[247] As discussed in Chapter One, the Gramm-Rudman-Hollings Act (GRH) of 1985 made significant changes to budget rules aimed at eliminating the deficit by 1991. However, GRH,

Enforcement Act of 1990 (BEA)[248]included budget rules that indirectly influence policymakers' decisions about tax expenditures.[249] Specifically, BEA's Pay-As-You-Go (PAYGO) offset provisions require that revenue loss from legislation establishing or expanding a tax expenditure be offset by legislation reducing entitlement spending or increasing revenues so that the net deficit is not increased. BEA does not make a distinction between revenue changes resulting from changes in tax rates and changes in tax expenditures. The offset requirement is enforced by sequestration[250] (Hungerford, 2011).

Because PAYGO's offset rules require tradeoffs between tax expenditures and other budget items, they arguably influence policymakers' choices about tax policy and provide some constraint on creating or expanding tax expenditures. [251] As explained by Garrett (1998), under PAYGO rules, proponents of new or expanded tax expenditures must find ways to offset their costs by either: (1) raising taxes, (2) reducing current tax

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which established fixed deficit reduction targets, primarily focused on controlling annual appropriations and did not directly address tax expenditures (Garrett, 1998).

[248] Unlike GRH, BEA did not establish predetermined deficit targets. Rather BEA placed limits on discretionary spending (i.e. appropriations) and established the PAYGO process for direct spending and revenue legislation. BEA's PAYGO's provisions were not designed to directly decrease or control growth in existing direct entitlements or tax expenditures. Rather, the focus of PAYGO is ensuring that actions under the control of legislators' (i.e. the establishment of new tax expenditures or direct spending programs) are deficit neutral.

[249] As discussed in Chapter 1, in contrast to GRH's fixed targets, BEA focused on controlling spending under policymakers' control.

[250] Sequestration is a process of automatic and generally across the board spending reductions to enforce certain budget policy goals. These reductions permanently cancel budgetary resources. Sequestration was first authorized by the Balanced Budget and Emergency Deficit Control Act of 1985 (Hungerford, 2011).

[251] While there is little empirical research on the role of PAYO on tax expenditures, some researchers, such as Garrett (1998), argue that the PAYGO offsets have led to enhanced scrutiny of tax expenditures by harnessing interest group competition in ways that increase the political challenge of enacting or expanding tax expenditures.

expenditures, or (3) reducing spending for existing direct expenditure entitlements.[252] Block (2005) describes the pressure created by PAYGO offset rules as follows:

> *"In this budget world, lobbyists advocating tax benefits for their clients can no longer simply argue the merits of their particular programs. They must be prepared to look at all of the proposed revenue raisers and losers. They must fend off competing predators seeking the same scarce revenue resources allocated the tax-writing committees and /or find weak groups with existing benefits that can be eliminated"* (p.12).

PAYGO, however, does not directly control tax expenditures or treat them as spending in the budget. Importantly, PAYGO rules, by design, do not control cost growth in existing tax expenditures. Like the treatment of direct expenditure entitlements, PAYGO rules allow existing tax expenditure to grow in response factors outside of lawmakers control, such as changes in population, the economy, or taxpayer behavior. Further, tax expenditures are exempt from PAYGO's sequestration mechanism, which does not apply to receipts. Even if new or expanded tax expenditures trigger a sequester, tax expenditures would not be sequestered (GAO, 1994c). Thus, while PAYGO rules may influence policymakers' decisions about creating new or expanding existing tax expenditures, Congress chose not to establish tax expenditure specific budget rules.

The establishment of an indirect budget constraint for tax expenditures, such as PAYGO, is not surprising. Many tax expenditures have characteristics of entitlement programs– for which controlling spending has been notoriously difficult. [253] Like direct

[252] Garrett (1998), however, notes that in practical terms the committee structure and other budget rules eliminate the possibility of offsets with direct expenditure entitlements and discretionary spending.

[253] The entitlement characteristics of tax expenditures have been noted by others, including but not limited to the CBO, JCT and GAO. Former Federal Reserve Chairman referred to tax

expenditure entitlements, many tax expenditures are permanent unless changed by law and are available to all qualified beneficiaries. Under current budget rules, (with some exceptions) funding is automatic for existing tax expenditures with spending levels driven by eligibility rules and other factors (such as participation levels and economic conditions) that are largely out of lawmakers' direct control (Hungerford, 2011 and GAO, 2005d).[254] [255] Under current rules, controlling spending for tax expenditures requires Congress to make substantive program or policy changes through tax legislation or reconciliation. By providing a partial solution the establishment of PAYGO's offset rules arguably lessened the pressure for a tax expenditure specific budget rule while not fully addressing tax expenditure growth. By allowing growth in the cost of existing tax expenditures and constraining the enactment of new large tax expenditures, PAYGO helped shape the trend and composition of tax expenditures in recent decades. These issues are examined more closely in Chapter Nine.

Analytical Information and Tools Expanded and Revised

Over time, analytical information and tools for tax expenditures have been revised and enhanced. While specific measurement and estimation issues are discussed in detail

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expenditure as *"tax entitlements."* Schick (2000) concluded that *"tax expenditures are a form of entitlement*" (p. 149).

[254] Under current budget rules, the year-to-year growth for existing tax expenditures is included in the budget's baseline projections without legislative action (Burman and Phaup, 2011: Hungerford, 2011; and Toder, 2011).

[255] In some cases, spending on specific tax expenditures has been capped. Two widely cited examples include the low-income housing tax credit and the new markets tax credit (Halperin, 2011 and GAO, 2005e). Under the low-income housing tax credit, state housing agencies distribute a fixed allotment of tax credits to developers of affordable housing projects. Under the new markets tax credit, Treasury allocates a capped level of tax credits to designated community development entities and then those entities allocate the credits to investors in low-income communities. Other limited tax expenditures include: Credits for coal facilities, the advanced energy project tax and the credit for production from advanced nuclear power facilities.

in Chapter Eight, Table 7.4 and the brief discussion below illustrate the various steps taken to revise and enhanced the way tax expenditures are measured, estimated and presented in the budget. By providing additional perspectives, these changes were intended to better inform policy participants, but in doing so they indicate limitations of the original tax expenditure concept and existing analytical tools. The wide range of efforts to refine the tax expenditure concept and analytical tools based on it reflect on-going concerns about the budget oversight of tax expenditures and competing visions of the primary purpose of the tax expenditure concept.

Table 7.4 Selected Revisions and Enhancements to Tax Expenditure Information Included in the Federal Budget

Fiscal Year Budgets	Type of Change	Description of change
1981-Present	Presentation	Special Analyses (now Analytical Perspectives) section on federal credit programs includes discussion of tax expenditures programs that affect credit markets
1982	Presentation	Direct expenditures and tax expenditures jointly displayed for housing and energy programs
1983,1984	Baseline	Tax expenditures presented relative to a "reference tax" baseline exclusively (See Chapter 8 for discussion of tax structure baselines)
1983 - 2006	Cost estimate	Outlay-equivalent estimates reported (See text for description)
1985 - Present	Baseline	Tax expenditures reported relative to both the normal income baseline and reference tax baseline (See Chapter 8 for discussion of tax structure baselines)
1985 - Present	Presentation	Addendum listing tax expenditures providing aid to state and local governments
1988 - 2003	Baseline	Tax Expenditures reported relative to the gift and estate tax as supplemental information
1995 - Present	Presentation	Tax expenditure reported over the full five-year budget window Present value estimates for certain tax expenditures reported as supplemental information
1998 - 2002	Presentation	For each budget function, tax expenditures reported alongside outlays and credit activities (See Figure 7.3)
2004 - 2010	Baseline	Tax expenditures reported relative to comprehensive income tax and consumption tax as supplemental information (See Chapter 8 for discussion of tax structure baselines)
2004 - Present	Definition	Negative tax expenditures defined and reported
2006 - Present	Specific item	Tax expenditure reported for imputed rent for owner-occupied housing
2004 - Present	Specific item	Treatment of accelerated depreciation changed
2004 - Present	Specific Item	Negative tax expenditures reported for multiple taxation at the corporate level
2011 - Present	Presentation	Section on tax expenditure includes a discussion of the need for framework to evaluate performance of tax expenditures

Source: Author compiled table based on *Budget U.S. Government*, various years

The choice of tax structure is a key factor in determining which tax provisions are identified as tax expenditures. Since the mid-1980s the budget has presented tax

expenditures relative to two baselines. In addition, for several years, the budget included supplemental presentations that identified and discussed tax expenditures relative to alternative baselines. As discussed in Chapter Eight, the use of alternative baselines reflects complexities and disagreements about the methods used to identify and measure tax expenditures. In introducing the alternative baselines for identifying tax expenditures, OMB (2002) argued that

> "*[d]ue it part to the arbitrariness in the tax expenditure baseline, the Administration believes the meaningfulness of tax expenditure estimates is uncertain and that the "tax expenditure" presentation can be improved by consideration of alternative and additional tax bases"* (p.95)

Administrations also have included additional cost measures in the budget to provide additional perspective on tax expenditures. Since FY 1995, the budget has included supplemental information on the present value of tax expenditures that involve the deferral of income or have other long-term effects. JCT has never provided present value estimates for tax expenditures. As described by OMB (2016), present-value estimates for a given year represent the revenue effects (net of future tax payments) that follow from activities undertaken during the year which cause deferrals or other long-term effects (p. 26). The FY 2017 *Analytical Perspectives* provided present value estimates were provided for 26 of the 169 tax expenditures (p.247). While the choice between cash or present value estimates affects a relatively few items (15% of reported tax expenditures) a few involve significant cost differences. For example, the tax expenditure for defined benefit employer plans is $66.6 billion on a cash basis, but $25 billion on a present value basis (p. 243, 247). Including both cash and present value estimates is feasible, even beneficial, when the tax expenditure list is used as an

analytical tool, but for a budget rule a determination would have to made as to which estimates will be used as the basis of the rule.

While one objective of the tax expenditure concept was to facilitate comparisons and tradeoffs between tax expenditures and direct tax expenditures, developing comparable cost measures has proven difficult. The standard measure for tax expenditures – foregone revenues – is not directly comparable to direct expenditures. To help address this issue, the budget included outlay-equivalent estimates in addition to estimates of foregone revenues. An outlay-equivalent estimate is an estimate of the direct subsidy (cash outlays) that would be required to provide the taxpayer the same after-tax income (benefit) as would be received through the tax provision (OMB, 2004). OMB discontinued outlay-equivalent estimates in 2006 and the JCT has never provided outlay-equivalent estimates.

Administrations also have periodically revised the budget's tax expenditure presentation to help facilitate comparisons between policy tools i.e., direct expenditures, tax expenditures, and credit activities. In fiscal year 1982, the Administration jointly displayed direct and tax expenditures for housing and energy programs to illustrate how a tax expenditure budget might be used in the budget process to provide a more complete picture of government resources used for those purposes. This presentation was not continued in subsequent budgets. For fiscal years 1998 to 2002, the budget included a presentation of tax expenditures alongside outlays and credit activities for each budget function. Figure 7.3 reproduces the presentation from the fiscal year 1998 budget. OMB discontinued this presentation, but GAO has recommended that a similar joint

presentations of tax expenditures and direct expenditures be resumed. OMB, however, disagrees and no executive action has been taken (GAO, 2005e and GAO, 2017, n.d.).

Figure 7.3
Presentation of Direct Expenditures, Credit, and Tax Expenditures, Fiscal Year 1998

Table 18–1. FEDERAL RESOURCES IN SUPPORT OF COMMERCE AND HOUSING CREDIT
(In millions of dollars)

Function 370	1996 Actual	Estimate					
		1997	1998	1999	2000	2001	2002
Spending:							
Discretionary Budget Authority	3,721	2,362	3,308	3,770	5,242	3,221	3,230
Mandatory Outlays:							
Existing law	–13,793	–11,418	710	2,512	6,925	5,708	6,778
Proposed legislation			–714	56	271	–1,683	–1,909
Credit Activity:							
Direct loan disbursements	1,570	8,824	4,973	1,682	1,928	2,258	2,405
Guaranteed loans	181,277	168,959	161,613	161,534	163,350	166,218	169,216
Tax Expenditures:							
Existing law	182,415	188,935	195,875	204,780	213,495	222,030	229,670
Proposed legislation		69	243	228	202	174	144

Source: Reproduced from *Budget of United States Government*, Fiscal Year 1998, p. 163

Both OMB and JCT now integrate negative tax expenditures in their tax expenditure presentations. Negative tax expenditures refer to tax provisions which result in a penalty from inclusion of more income than relative to the tax baseline. Negative tax expenditures increase, rather than decrease, tax liability. While this information is not necessary for decisions relative to expenditure control and decisions about whether to replace tax provisions with direct expenditure programs it does provide information relevant to tax policy (Burman, 2003 and OMB, 2005).

In addition, performance management initiatives have recognized the need to include tax expenditures. The GPRA Modernization Act of 2010 (GPRAMA) requires OMB and agencies to identify the relevant tax expenditures that contribute to each crosscutting priority goal. In response, OMB issued guidance requiring agencies to

identify tax expenditures that contribute to their agency priority goals and strategic objectives. However, there still are concerns about the need to better incorporate tax expenditures into the government's performance processes (GAO, 2005e, 2016d; Harris et al., 2018; and Redburn, Posner, and Breul, 2014).

Tax expenditures continued to grow despite analytical tools and PAYGO Rules.

While without a counterfactual it is impossible to know with precision the influence of reporting requirements and budget rules on tax expenditure growth, both the number[256] and value of tax expenditures (as measured by foregone revenues)[257] increased over time. Figures 7.4 and 7.5 show the number and value of tax expenditures at several key points in time.[258]After the establishment of tax expenditure reporting in the mid-

[256] Author's calculation based on information included in *Special Analyses, Budget of the United States Government,* fiscal years 1976 and 1988*; Budget of the U.S. Government, Fiscal Year 1992* and *Analytical Perspectives, Budget of the U.S. Government,* fiscal years 2004, 2012, and 2017. While the number of tax expenditures is somewhat imprecise, and fluctuations occur due to changes in reporting methodology and categorization, prominent researchers state that these counts are a useful gauge of the trend in federal tax expenditures.

[257] Author's calculation of sum of foregone revenues based on disaggregated information included in *Special Analyses, Budget of the United States Government*, fiscal years 1976 and 1988; *Budget of the U.S. Government, Fiscal Year 1992* and *Analytical Perspectives, Budget of the U.S. Government,* fiscal years 2004, 2012, and 2017. Sums of foregone revenues were adjusted for inflation using the composite budget deflator (constant 2009 dollars) as published in the *Historical Tables, Budget of U.S. Government, Fiscal Year 2018*. Sums of foregone revenues provide a general indicator of the growth in tax expenditures, but these amounts are imprecise and need to be considered with some caveats. Foregone revenue estimates for tax expenditures do not include the interaction effects with other provisions in the tax code. As a result, the foregone revenue resulting from the elimination of several tax expenditures may be greater than or less than the sum of the foregone revenues for each tax expenditure measured alone. However, CRS, GAO and other prominent researchers have stated that sums of foregone revenues provide a useful gauge of the general trend in federal tax expenditures (Hungerford, 2008, GAO, 2005e, and Marron, 2012).

[258] The milestones years include: (1) 1974, which is the earliest fiscal year for which tax expenditures were reported in the first statutorily-required tax expenditure budget; (2) 1986, which was the year of major tax reform and the peak for the number of tax expenditures before these reforms; (3) 1990, which was the year statutory PAYGO was enacted; (4) 2002, which is the year the statutory PAYGO rule expired; (5) 2010, which is the year the statutory PAYGO rule

1970s, both the number and value of tax expenditures grew significantly until the Tax Reform Act of 1986 (TRA 1986). Between 1974 and 1986, the number of tax expenditures reported in the President's budget increased by 70 percent and total foregone revenues, adjusted for inflation, more than doubled.

TRA 1986 broadened the tax base[259] and significantly reduced the value of the remaining tax expenditures. TRA 1986 repealed some tax expenditures and curtailed others.[260] It also indirectly reduced the value of tax expenditures by lowering marginal tax rates and raising the standard deduction and personal exemption which reduce the value of tax expenditures (Neubig and Joulfanian, 1988). According to a Treasury Department study, while TRA 1986 repealed or scaled back some significant tax expenditures,[261] much of the reduction in the value of tax expenditures resulted from the lower tax rates (Neubig and Joulfanian, 1988).[262]

After TRA 1986, tax expenditure growth resumed, including during periods when PAYGO rules were in effect. The number of tax expenditures increased about 32%

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was reestablished; and (6) fiscal year 2015, which was the most recent fiscal year for which prior year budget data reported at the time of this analysis.

[259] Tax base broadening generally refers to increasing the amount of income subject to taxation i.e. the repealing or scaling back of existing tax expenditures. The TRA broadened the tax base in exchange for lower tax rates.

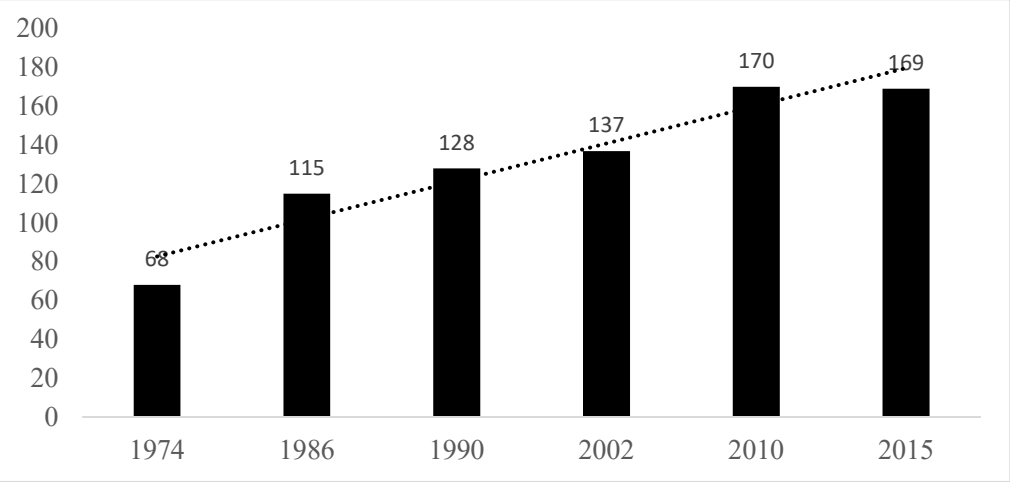
[260] Specific counts of repeal and revisions of tax expenditures vary based on reporting used. Analysis by Witte (1991) reports TRA 1986 tightened 72 tax expenditures, including the compete repeal of 14.

[261] Some significant tax expenditures repealed included: the investment tax credit, the special treatment for capital gains income; the deduction for nonmortgage interest, deduction of state and local sales tax, and the deduction for two-earner couples (CBO, 1988, p. 20). Another significant reduction in tax expenditures included new limits on the deductions for IRA contributions and other deferrals (CBO, 1988, p. 20).

[262] The value of most tax expenditures is directly related to the taxpayers' marginal tax rates. As a result, lower tax rates enacted in the 1986 Act reduced the value of tax expenditures. Neubig and Joulfanian (1988), found that about 40 percent of the reduction in the value of tax expenditures resulting from the 1986 Act could be attributed to base broadening (i.e., the repeal or scaling back of existing tax expenditures) while the remaining 60 percent could be attributed to lower tax rates.

between 1990 and 2015 and the sum of foregone revenues, adjusted for inflation, more than doubled. The President's fiscal year 2017 budget included 169 tax expenditures with projected revenues totaling $1.2 trillion for fiscal year 2015 and just over $17 trillion over the fiscal year 2016-2025 budget window (OMB, 2016).[263] [264]

Figure 7.4 Number of Tax Expenditures as Reported by Treasury

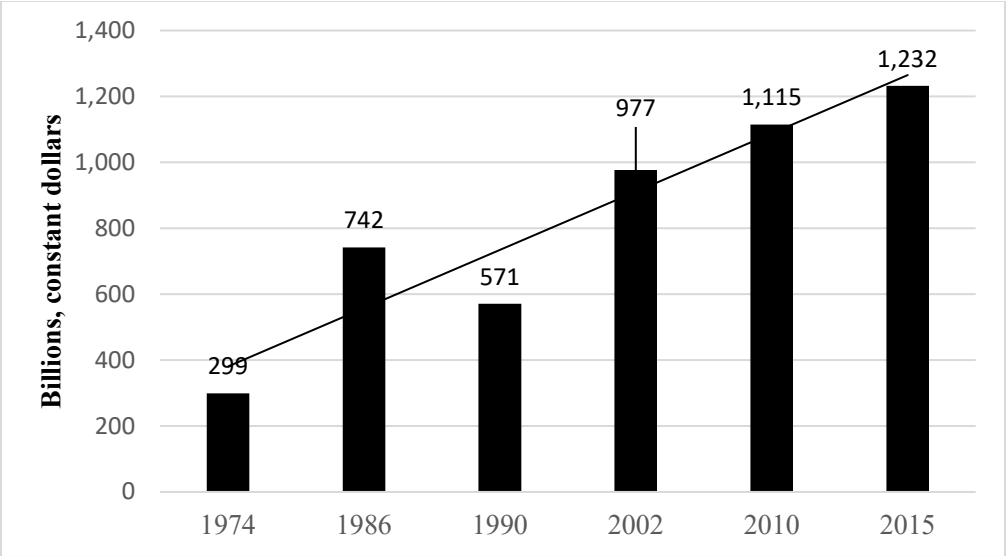


Source: Graph created by author. Author counted tax expenditures based on data included in included in *Special Analyses, Budget of the United States Government*, fiscal years 1976 and 1988; *Budget of the U.S. Government, Fiscal Year 1992* and *Analytical Perspectives, Budget of the U.S. Government*, fiscal years, 2004, 2012, and 2017.

[263] Author's calculation based on data from *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2017.*

[264] JCT also shows a significant increase in number of reported tax expenditures since its first published list in 1972. A significant increase in the number of tax expenditures since 1972 was followed a modest decrease in recent years primarily attributable to the expiration of temporary provisions associated with fiscal stimulus (JCT, 2015) JCT's first tax expenditure list in 1972 included 60 items (Russco, 2012). Its fiscal year 2007 report included 170 tax expenditures (JCT, 2008). While some of this increase reflected changes JCT's presentation, JCT (2008) notes that its methodology remained largely the same over time and atU.S.tributes growth to changes in law and increased scrutiny of the tax code (Burman and Phaup, 2011 and Buckley, 2011). As explained in JCT (2015), due to methodology modifications made in 2008, more recent counts of tax expenditures are not *"strictly comparable"* to counts prior to 2008. For fiscal year 2009, the JCT reported approximately 298 tax expenditures. The JCT publication for FY 2012- FY 2017 shows a decline, reporting 260 tax expenditures. JCT (2015) notes that the recent decline is mostly due to the expiration of temporary provisions associated with the fiscal stimulus.

Figure 7.5 Tax Expenditures, Total Forgone Revenues



Author's calculation of sum of foregone revenues based on disaggregated information included in Special Analyses, Budget of the United States Government, Fiscal Year 1976; Budget of the U.S. Government, Fiscal Year 1992 and Analytical Perspectives, Budget of the U.S. Government, Fiscal Year 2017.

Despite More Analytical Tools and PAYGO Rule, Continuing Concerns and Calls for Reforms

Tax expenditures are now more visible and receive more attention. However, despite more information and PAYGO's budget rule, continuing concerns about tax expenditures have renewed calls for improved budgetary oversight.[265] Many current concerns are the same as those raised decades ago when the tax expenditure concept was first introduced. Echoing voices of the past, some policy participants stress that current analytical tools and PAYGO rules may influence policymakers' choices, but their effectiveness is limited because they do not require explicit consideration or control of

[265] I reviewed various proposals, including: Burman, 2003; Burman and Phaup, 2011, 2012; Marples, 2015; Kleinbard, 2010; GAO, 2005e, 2016d; Harris et al; Howard, 1997, 2002; JCT, 2008; Marron and Toder, 2011; Redburn, Posner, and Breul, 2014; and Westmoreland, 2007.

tax expenditures in the budget process.[266] Not only are tax expenditures not readily identifiable in the budget, they are less transparent than direct expenditure entitlements because they often do not require reauthorization (CBO, 2012e and GAO, 2016d). Redburn, Posner and Breul (2014), for example, argued that *"while new tax subsidies are subject to PAYGO like entitlements, their invisibility and institutional isolation makes them less subject to review and competition than other forms of spending"* (p. 2). As in the past, some federal budget experts and policymakers argue a lack of budget recognition and control create a bias to use of tax expenditures over other policy tools, regardless of their relative effectiveness, thus distorting the size and efficiency of government [267]

These continuing concerns, at least in part, reflect skepticism about the effectiveness of the analytical tools established over the past several decades. As noted earlier, despite their name, tax expenditure "budgets" are analytical tools, not budget rules. Kleinbard (2010a) emphasized that the tax expenditure "budget" is *"a separate and easily-ignored appendix"* (p. 28). Howard (2002) argued that the original hope that

[266] As examples: example (1), Burman (2011) outlines multiple aspects of the current budget process where tax expenditures are excluded, including: (a) total outlays and revenues; (b) functional displays of budget authority and outlays; (c) allocations to spending to committees; (d) reconciliation; (e) program budget accounts; and (f) explanations of the deficits; and example (2), GAO (2016) argues that the federal budget formulation processes include fewer controls and reviews, and provide less information on tax expenditures than for discretionary or mandatory spending.

[267] Burman (2011) finds that the exclusion of tax expenditures as spending underestimates the size of government by 7% of GDP. Burman and Phaup (2011) stress that the characterization of tax expenditures as tax reductions rather than spending is *"...more than simply a matter of presentation"* and *"... has motivated and facilitated a shift in spending away from traditional forms and into the tax code."* Similarly, Kleinbard (2010b) argues that the current budget treatment *".... privileges tax expenditures over explicit spending."* GAO (2010) notes that *"tax expenditures do not compete overtly with other priorities in the annual budget, and spending embedded in the tax code is effectively funded before discretionary spending is considered."* Marron and Toder, 2012; Burman and Phaup, 2011; Kleinbard, 2010; and Westmorland, 2007).

reporting would help control tax expenditures by improving budget transparency has not been realized. GAO (2005d) reported that *"[l}ittle progress has been made in the Executive Branch to increase the transparency and accountability of tax expenditures."* JCT (2008) concluded that there is "*... scant evidence that tax expenditure analysis has succeeded in its first mission of 'expenditure control'"* (p. 5). Dean (2013) concludes *"...dragging tax expenditures into the budgetary daylight has eliminated neither policymakers opportunities nor incentives to exploit the fiscal advantage they provide"* (p. 283). Zelinsky (2013) argues *"...the procedural victory of tax expenditure analysis has not proved as substantively productive as Surrey and his supporters had hoped"* (p. 3). Further, Zelinsky (2013) suggests that more than just being ineffective the tax expenditure budgets have contributed tax expenditure growth by publicizing and legitimizing them.

Just as the recent concerns echo past concerns, some recent proposals echo past proposals. Similar to the unified budget approach proposed by Surrey and McDaniel in the mid-1980s, several recent proposals recommend that tax expenditures be included in the budget as increases in spending, rather than as reductions of revenues (Burman, 2013; Burman and Phaup, 2011; Kleinbard, 2010, 2013; and Redburn et al., 2014). These proposals would include tax expenditures as budget outlays along with imputed revenues. Tax expenditures would be added to both revenues and outlays so the net impact on the deficit would be the same, but, proponents argue, transparency would be improved. Other proposals call for tax expenditures to be further integrated into the budget resolutions. Burman and Phaup (2011) suggest that tax expenditures could be treated like mandatory spending by adopting what they described as a comprehensive and integrated

approach that would change budget decision rules to integrate tax expenditures into multiple aspects of the budget process.[268] Redburn et al (2014) and GAO (2016d) [269] outlined options to report tax expenditure along with program spending in the budget function allocations in the budget resolution.

Another proposal is to establish a separate tax expenditure PAYGO regime that would require any new tax expenditures be paid for by reductions in other tax expenditures (Committee for a Responsible Federal Budget, 2010, and Rivlin and Domenici, 2011). Some proposals include savings targets for tax expenditures or include tax expenditures in broader savings target (GAO, 1994c). One option is for the budget resolution to provide a savings target to revenue committees requiring reduction of selected tax expenditures. The Committee for a Responsible Federal Budget suggests that after tax expenditures have been reviewed and reformed a hard cap should be placed on this area of the budget to limit future growth in tax expenditures (Committee for a Responsible Federal Budget, 2010).Other proposals suggests that tax committees should not enact tax expenditures without the direct involvement of authorization and appropriation committees with subject matter expertise (Kleinbard, 2010).

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[268] According to Burman and Phaup (2011) such an approach would include: (1) scoring the cost of new tax expenditures as spending; (2) including tax expenditures explicitly in the budget resolution cap on total budget authority and outlays and in allocations by budget functions and to the committees of jurisdiction; (3) including tax expenditures in reconciliation instructions and omnibus legislation and subject them to points of order and (4) requiring the President to revise budget accounts and functional allocation tables to include tax expenditures.

[269] Responding to continuing congressional concerns about tax expenditures, GAO released a 2016 report that, among other things, outlines the board benefits and limitations of options to further incorporate tax expenditures into federal budget processes (GAO, 2016d). GAO discussed the following options aimed at increasing the review and control of tax expenditures: (1) including tax expenditures in the total spending levels and spending by function levels in the budget resolution; (2) directly involving authorizing committees in the development of tax expenditures related to their areas of expertise and (3) requiring all or some subset of tax expenditures to expire after a finite period (GAO, 2016d).

Other recent proposals focus primarily on improving analytical information and tools, rather than establishing budget decision rules to more directly control tax expenditures. GAO and others continue to recommend a combined presentation of the direct expenditures and tax expenditures in the federal budget be resumed (GAO, 2005e and Redburn et al, 2014). In its 2005 report, GAO recommended that the Director of OMB in consultation with the Secretary of Treasury should present tax expenditures in the budget together with related outlay programs. In its 2016 report, GAO reiterates its view that *"presenting tax expenditures estimates alongside discretionary and mandatory spending levels could increase transparency and better communicate to the public the levels of spending being allocated to national priorities"* (p. 33). The Administration, citing conceptual and methodological issues, strongly disagreed with this approach and no executive action has been taken (Foster, 2005 and GAO, n.d.).

With some exceptions, recent legislative proposals have focused on expanding analytical tools and information, rather than establishing new budget decision rules. The "*Budget Process Improvement Act of 2013,"*[270]among other things, would have required the Secretary of the Treasury to conduct performance reviews of JCT-identified tax expenditures on an ongoing basis. The *"Transparent and Sustainable Budget Act of 2011"*[271] called for more oversight of tax expenditures, including requiring performance reviews of tax expenditures. The bill also included the establishment of a point of order for legislation creating a tax expenditure which do not terminate within 10 years or if legislation did not the meet new requirements outlined in the bill. The "*Tax Information*

[270] H.R 1654
[271] H.R. 5752

for New Fiscal Oversight Act of 2010"[272] would have required the JCT to analyze each tax expenditure identified in its annual tax expenditure report for equity, efficiency, and ease of administration.

The wide range of reform proposals and various revisions to the analytical tools for tax expenditure suggest competing objectives and a lack of clarity and agreement about the primary purpose of the tax expenditure concept. From its inception, the tax expenditure concept has served dual purposes of supporting both tax and budget policy (Surrey, 1973; JCT, 2008, and Toder, 2005, 2009). In introducing the concept, Surrey argued that it both would encourage "*expenditure control"* and *"facilitate tax reform"* (JCT, 2008 and Surrey, 1973).[273]

Early critics noted tension between these objectives and this tension remains apparent in the current debate. Bittker (1969) argued that sometimes the emphasis was identification of deviations relative to a normative or *"ideal"* tax system and at other times the emphasis was on identifying tax provisions that could be substituted by direct expenditures. Thuronyi (1988) argued that *"[b]y defining tax expenditures as departures from a normative tax Surrey tried to cover all tax reform questions under the tax expenditure umbrella"* (p. 1180). More recently, Toder (2005) noted that *"[t]ax experts in the United States and overseas have divergent views on whether the tax expenditure lists should be narrowly defined to focus on backdoor spending through the tax law or broadly defined to display the costs of departures from an ideal tax base"* (p. 2). While

[272] H.R. 5291

[273] Surrey and Daniels (1985) reemphasized that "… *those concerned with the growth in federal spending must also take into account the trend in tax spending"* (p. 6). Surrey's writing on the tax expenditure concept also indicates his desire to draw attention to preferential tax provisions as a means of building support for tax reform aimed at simplifying the tax code (Burman and Phaup, 2011).

tax expenditure lists include provisions that might otherwise be accomplished with direct expenditures these lists also include provisions that depart from an income tax baseline, but do not have a clear spending program substitute.

Debate continues about the primary purpose of the tax expenditure concept and whether it is best used as basis of a budget decision rule or an analytical tool. The tension about the primary objective can be seen in the differing focus of the proposals seeking to redefine the tax expenditure concept. Some proposals emphasized clarifying tax expenditures as a form of spending with the primary purpose being the identification of tax provisions substitutable by direct expenditures.[274]Conversely, other proposals focused on improving tax expenditure concept and analysis for purpose of supporting tax policy.[275] Still other academic writings suggest "*wholly different theories of tax expenditure analysis"* which don't fit neatly into either the tax policy or expenditure control objectives.[276]

Other reform proposals do not seek to redefine the tax expenditure concept, but rather focus on ways to better use it in the budget and policy process. To help illustrate the varied approaches Table 7.5 sorts examples of recent proposals by the type of reform

[274] McIntyre (1980), for example, argues that the tax expenditure concept should focus only on spending policy and not deal with the suitability of tax provisions for promoting tax policy goals. Similarly, Fiekowsky (1980) focused on the preparation and analysis of the federal budget. He argues that tax expenditure analysis was not an appropriate context in which to make tax policy choices with respect economic efficiency or distributive issues. Thuronyi (1988) also viewed the key purposes of tax expenditure analysis as: (1) facilitating the replacement of tax expenditures with non-tax-based programs and (2) guiding budgetary choices between tax-based and non-tax-based assistance.

[275] OMB (2003) emphasized improving "... understanding the effects of Federal income tax on the economy." JCT (2008) emphasized the value of the tax expenditure concept as an analytical tool.

[276] Shaviro (2004) attempts to redefine tax expenditures within the allocative and distributive framework developed by Musgrave (1959). Weisbach and Nussim (2004) argue that the tax expenditure decision is "solely a matter of institutional design" and has little or nothing to do with tax policy. Dean (2013) argues the primary issue is not a leveling of the budget playing field, but the boarder mission of "measuring tax expenditure abuse."

(e.g. enhance analytical tools vs. establish decision rules). Among proposals for decision rules, some suggest budget decision rules, which are the focus of this dissertation, but others call for decision rules outside the budget process. While these types of non-budget decision rules are outside the scope of this dissertation they are included here to help illustrate the variation and scope of proposals to address tax expenditures.

Table 7.5 Selected Proposals to Improve Oversight of Tax Expenditures

Proposal	**Type of Reform**	**Source**
Enhanced coverage of tax expenditure in performance management and review Systematically evaluate some or all tax expenditures e.g. effectiveness, distributional equity, and efficiency	Analytical tool	GAO, 2016d
Present tax expenditures in the President's budget together with direct expenditures	Analytical tool	GAO, 1994c, 2005e
Direct the JCT, the CBO, or a bipartisan commission to develop rules for identifying which tax provision are clearly spending programs	Analytical Tool	Batchelder and Toder, 2010
Present, for informational purposes, tax expenditures alongside direct expenditures in the budget resolution	Analytical Tool	GAO, 2016d
Include tax expenditures in "portfolio reviews"[277] of federal policy area	Analytical tool unless tied to enforcement mechanism	GAO (2016d) and Redburn et al, 2014
Include tax expenditures in budget as budget outlays along with imputed revenues	Budget decision rule	Burman, 2011, 2013; Burman and Phaup, 2011; Kleinbard, 2010; and Redburn et al. 2014
Establish separate PAYGO regime for tax Expenditures Include tax expenditure under PAYGO sequestration	Budget decision rule	Committee for a Responsible Federal Budget, 2010; Gandhi, 2010 and GAO, 1994c
Establish hard cap on total allowable foregone revenues from tax expenditures Establish spending cap for tax expenditure in budget resolution	Budget decision rule	Committee for a Responsible Federal Budget, 2010 and GAO, 1994c
Require direct involvement of authorization committee(s) in enactment of new or expanded tax expenditures	Budget decision rule	Batchelder and Toder (2010); GAO, 2016d; Kleinbard, 2010; and Redburn et al (2014)
Establish spending cap for specific tax expenditures or groups of tax expenditures	Budget decision rule	Halperin, 2012

[277] Portfolio reviews would identify and review together all policy instruments e.g. grants, credit, tax expenditures used in policy area such as education together (Redburn et. al, 2014).

Proposal	Type of Reform	Source
Enhanced coverage of tax expenditure in performance management and review Systematically evaluate some or all tax expenditures e.g. effectiveness, distributional equity, and efficiency	Analytical tool	GAO, 2016d
Establish separate cap on tax expenditures or included tax expenditures as spending under the BCA caps	Budget decision rule	Harris et al., 2018
Include in budget reconciliation a savings target for revenue committees requiring reduction in tax expenditures	Budget decision rule	GAO, 1994c
Include tax expenditures in total spending levels and spending for allocation for each budget function in budget resolution	Budget decision rule	GAO, 2016d
Establish "saving target" for tax expenditures in budget resolution and reconciliation instructions	Budget decision rule	GAO, 1994c
Apply reconciliation explicitly to tax expenditures and subject them to points of order	Budget decision rule	Burman and Phaup, 2011
Establish multi- year ceiling on tax expenditures or some subset of tax expenditures expressed as a percentage of projected GDP	Budget decision rule	Kleinbard, 2010
"Sunset" program growth in the absence of new legislative authority through formulas, such as caps, to keep cost in line with predetermined targets	Budget decision rule	Harris et. al, 2018
Limits on taxpayer use of individual tax expenditures	Decision rule	Penner and Steuerle (2016)
Global cap on taxpayer use of tax expenditures as percent AGI	Decision rule	Feldstein, Feenberg, and MacGuineas (2011)
Establish sunset rules to for tax expenditures i.e. make tax expenditures temporary and subject to periodic reauthorization	Decision rule	GAO, 2016d; Harris et. al (2018); and Yin 2009).
Establish requirement for periodic evaluations of tax expenditures	Decision rule	Harris et. al (2018)
Convert all tax expenditures to refundable tax credits	Decision rule	Batchelder, Goldberg, and Orzag (2006)

Source: Table created by author based on review of reform proposals as cited in table.

The differing focus and objectives of proposals supports the premise that challenges for establishing budget rules for tax expenditures begins at the most fundamental level of problem definition and conceptual rule design. The debate about whether tax expenditure concepts is best used as analytical tool for tax policy as the basis of decision rules for expenditure control is far from settled. While some experts emphasize the tax expenditure concept's usefulness as a budget concept and measure, others strongly disagree and argue that its primary value is as an analytical tool for tax policy. Aaron (1977) argued that "[t]*he impossibly of constructing unambiguous budget should not divert attention from the immense value of program analysis that includes both direct and tax expenditures.."* (as cited in Surrey and McDaniel, 1979, p. 239). JCT (2008) stated that the tax expenditure concept's "... *principal utility appears to have been as a tool of tax policy and tax distributional analysis"* (p.6). Emphasizing its *"analytical power,"* JCT (2008) concluded "*[w]e believe it's appropriate to proceed on the basis that tax expenditure analysis today is most usefully described as primarily a tool of tax policy"* (p.6). Fleming and Peroni (2010) also emphasized the value of tax expenditure analysis as an analytical tool (p.174).

The debate the primary purpose of tax expenditure concept illustrates the tension between the desire to enhance analytical information and the need to narrow and clarify definitional issues to support a budget decision rule. Proposals geared to informing tax policy, assessing efficiency and effectiveness, or broader institutional concerns tend to call for more and varied information. Serving a multiplicity of objectives and incorporating a variety of perspectives may enhance tax expenditure analysis as analytical tool, but, in terms of budget decision rule development, additional information,

approaches, and caveats may result in confusion and controversy. As discussed in the next chapter, the tax expenditure concept involves significant conceptual, definitional and measurement challenges that increase the difficulty of gaining consensus on the information to be used as basis of a budget decision rule.

Chapter Eight:
Tax Expenditures, Conceptual, Definitional, and Estimation issues

Identifying tax expenditures involves issues that are both technically complex and politically-charged, such as what constitutes government spending, what is a "*proper"* tax system, and what determines taxable income. The debate about budget rules for tax expenditures is intertwined with unresolved, deeply-rooted ideological and political disagreements about fiscal policy issues and the role of government. Persistent controversies and disagreements signal continuing and formidable barriers to the establishment and implementation of tax expenditure specific budget decision rules. This chapter examines the scope and extent of disagreement on conceptual, definitional, and estimation issues and the role of these disagreements in explaining why the tax expenditure concept has not been formulated into a budget decision rule.

Disagreement about budget rules for tax expenditures begins with problem definition and conceptual design.

While the tax expenditure concept is officially recognized and widely-used in the policy process[278] its evolution reveals strong and persistent disagreement at the most fundamental levels of decision rule development, including:

1. The "trigger" or problem definition: i.e. whether there is an identifiable and agreed-upon policy problem that warrants new rules

[278] Burman, Toder and Geisser (2008) stated "[m]*ost public finance economists believe that measuring tax expenditures is important for good budget management ..."* (p.2). Zelinsky (2012) argued that proponents of the tax expenditure concept have had procedural success, noting that tax expenditure budgets are "*ubiquitous."* The tax expenditure concept and its analytical merits have been recognized by other countries and international organization such as the World Bank, IMF, and OECD.

2. Conceptual framework i.e. the logic linking the problem to the solution provided by the proposed rule.

Surrey and other proponents of the tax expenditure concept and its use in budget rules advance several central premises, including that:

- tax expenditures are functionally-equivalent to direct expenditures
- tax expenditure growth is a policy concern warranting more oversight, and
- insufficient budget recognition and control is a key factor in policymakers' choice of tax expenditures over other policy tools.

Varying levels of disagreement, however, exist on each of these premises. Conflicting views on these issues help explain why the tax expenditure concept has not evolved from an analytical tool to a budget rule.

Some critics strongly attack the most basic conceptual underpinning of the tax expenditure concept – the functional equivalence of tax expenditures and direct expenditures. Two aspects of this criticism are particularly relevant to the establishment of workable, sustainable budget rules. First, a lack of political and public acceptance of tax expenditures as spending creates barriers to achieving support for tax expenditure specific budget rules. In addition, substantive policy and implementation differences between tax expenditures and direct expenditures raise questions of whether equivalent budget treatment is appropriate and if so, how budget rules might be designed to sufficiently address these differences.

The tax expenditure concept and its use in budget rules is grounded on the basic argument that money not collected by the government due to preferential tax provisions is no different from money collected from taxes and then outlayed by the government (Surrey, 1967, 1973). In promoting the concept, Surrey (1973) stressed *"it must be recognized that a tax incentive does involve the expenditure of government funds."* He explained:

> *The tax expenditure concept in essence considers these special provisions as composed of two elements: the imputed tax payment that would have been made in the absence of the special provision (all else remaining the same) and the simultaneous expenditure of that payment as a direct grant to the person benefited by the special provision…. seen as a combined process of assumed payment of proper tax by the taxpayer involved and an appropriation by the government of an expenditure made to that taxpayer in the amount of the reduction in his actual tax payment from the assumed payment –that is the tax reduction provided by the special provision* (Surrey, 1973, pp. 6-7).

Building on Surrey's concept, the late economist David Bradford (2003) illustrated how a spending program could be redesigned as a preferential tax subsidy. In Bradford's widely-cited example, rather than appropriating procurement funds, Congress would implement a *"Weapons Supply Tax Credit (WSTC)."* Weapons suppliers would deliver weapons meeting certain specifications to the government in exchange for certificates they could redeem against income taxes. Under such a plan, the defense budget and tax revenues would be reduced. The government would look smaller, but it would be supporting the same activities.

Critics of the tax expenditure concept, particularly conservatives, strongly disagree with the fundamental premise that preferential tax provisions are government spending (Bartlett, 2001: Dubay, 2013; Fried, 1995: JEC, 1999; Ture, 1981: and Witte, 1985). One widely-cited critique – often referred to as the *"last penny"* argument -- is that tax expenditure concept implies that all income belongs to the government (JCT,

2008). Fried (1995) claims *"lurking behind the concept of the tax expenditure is a more sinister premise….to think of all income as virtual state property, and forbearance to tax away every last penny of it as itself a tax expenditure"* (Fried, p.1 and cited in JCT, 2008, p. 35). A 1999 Joint Economic Committee report argued:

> *"The tax expenditure concept relies heavily on a normative notion that shielding certain taxpayer income from taxation deprives government of its rightful revenues. This view is inconsistent with the proposition that income belongs to the taxpayers and that tax liability is determined through the democratic process, not through arbitrary, bureaucratic assumptions"* (JEC, 1999, p.1).

More recently, Chris Dubay, from the conservative-leaning Heritage Foundation, argued "*if tax preferences are akin to spending, then it follows that all the income Americans earn is actually the government's to begin with and that which it does not tax away and munificently lets citizens keep is really a cost to it"* (Dubay, 2013. P.1).

Proponents of the tax expenditure concept counter that these "*last penny"* arguments misconstrue the concept and its purpose (JCT, 2008; Fleming and Peroni, 2010; Surrey, 1973; and Surrey and McDaniel, 1985). JCT (2008) states "*JCT staff believes the "last penny" argument is without merit"* (p. 38). Surrey and McDaniel (1985) argue that *"[t]he view that all income belongs to the government confuses the issues of what is to be included in the tax base and what is the proper level of tax rates"* (p. 60). Fleming and Peroni (2008) explain that tax expenditure analysis (TEA):

> *"… cannot be interpreted as implying that this taxing power makes the federal government the owner of all income earned by U.S. residents unless TEA can be fairly understood as asserting that Congress has a normative obligation to adopt a generally applicable income tax and that 100% is the normatively correct rate for such a tax. TEA does not, however, require the enactment of an income tax and it does not, in fact prescribe any particular level of general applicable income taxation as normatively correct"* (p.492).

Strong resistance to the idea that tax expenditures equate to government spending, however, has persisted for decades.[279] In unpublished 1981 testimony, Undersecretary of the Treasury, Ture, argued "[t]*he very term tax expenditure implies that the foregone revenue is essentially the same as a direct outlay by the government. But this is basically incorrect."* Dr. Allen Schick testified that *"[m}ost people and most congressman regard tax expenditures as the retained income of taxpayers, not as a grant from the government."* (H.R. 4882, 1981. p. 170), More than three decades later, Michael Cannon, from the Cato Institute argued *"[i}t is incorrect and dangerous to equate tax loopholes with government spending"* (Cannon, 2010, p.1).

More than a theoretical debate, the strongly divergent views on whether tax expenditures are spending have been on display in recent policy and budget reform debates. In a 2011 floor speech on tax reform, Senator Hatch (R-UT) stated "[o]*ne crucial myth that I would like to dispel is that tax expenditures are spending"* (Hatch, 2011, p.5). At a May 2011 congressional hearing, former Senator Gramm (R-TX) argued that taxes should not be included under a budget control mechanism, noting that that public views lower deductions as a tax increase, not a spending cut. At a May 2013 Senate Budget Committee hearing, Ranking Member Jeff Sessions (R-AL) argued *[w]hen you allow a person to keep money that they earn because of a certain deduction…. I don't believe that is spending by the federal government"* (as cited in

[279] Numerous scholars note that a large segment of the public, lawmakers, and other policy participants view the enactment of tax expenditures as tax cuts, rather than government spending (Clarke and Fox, 2015; Garret, 1998; Tahk, 2013; Schick, 1981 and Zelinsky 2005). Zelinsky (2005) argues that *"[f]or a critical segment of the public, public subsidy framed as tax relief is different from, and less objectionable than, equivalent cash payment."* Clarke and Fox (2015) stated *"… that the public strongly prefers tax expenditures even when the economic substance of the proposed policies is identical"* (p. 1).

Chokshi, 2013 and U.S. Senate Budget Committee, 2013). Conversely, other witnesses stated that in their opinion budget enforcement mechanisms should include revenues (Irving, 2011 and Van De Water, 2011). Van De Water argued that placing a cap on total spending (without including tax expenditures) would *"…essentially absolve revenues – including tax expenditures – from playing any part of the effort to bring long-term deficits under control"* (Van De Water (2011, p.2).

Discussions about a controversy surrounding the ethanol tax credit highlights the high tension and conflicting views on whether tax expenditures are spending (Henchman, 2011, Marron, 2011 and Bolton 2011) In the spring of 2011, Senator Tom Conburn (R-OK) proposed an amendment to end the ethanol tax credit that was strongly opposed by the conservative group Americans for Tax Reform (ATR). ATR's opposition was not in reaction to the repeal of the ethanol tax credit (it supported the repeal), but to the amendment's failure to provide an offsetting tax cut. ATR condemned Coburn's contention that the tax credit amounted to government spending and threatened that unless there was an offsetting tax cut, the amendment would violate the ATR Taxpayer Protection Pledge[280] [281](Bolton, 2011 and Henchman, 2011). In his response to ATR, Senator Coburn argued:

> *By opposing my amendment, you are defending wasteful spending and a de facto tax increase on every American. Ethanol subsidies are a spending program placed in the tax code…."* (as cited in Schor, p. 1 and Bolton, 2011, p. 2))

[280] The ATR pledge asks candidates for public office to (1) oppose tax rate increases and (2) oppose the elimination of deductions and credits unless offset by other revenue reductions.
[281] In a 2009 web post, ATR stated its position that "*Repealing the ethanol credit IS A CORPORATE INCOME TAX INCREASE and is therefore a PLEDGE VIOLATION unless the increase is offset completely with other income tax cuts"* (Johnson, 2009, p. 1)

In a letter to the Senator, ATR's director of tax policy, Ryan Ellis, countered that *"the ethanol tax credit is not a spending program, despite your repeated attempts to claim that it is* (Ellis, 2011, p. 1). He argued:

> *Spending programs and tax relief are not the same thing. If the government lets Tom Coburn keep a dollar of his own money, that is not the same thing as the government stealing a dollar from Ryan Ellis and giving it to Tom Coburn. The difference between tax relief and spending are unambiguous"* (Ellis, 2011, p. 1).

Clarity on the matter is not found in judicial reviews of tax expenditures. Without going into details of case law, the courts do not appear to provide clear direction to help inform the policy debate about the equivalence of direct expenditures and tax expenditures. The Supreme Court has at times accepted the economic equivalence of the two policy instruments and treated tax expenditures as it would direct expenditures. However, in other cases, the Court has rejected their equivalence. In *Arizona Christian School Tuition Organization v. Winn* (decided in 2011), the Court ruled that the challenged tax credit was not government spending.[282] Based on their review of case law, Hinz and Spivak (2016) conclude that *"[t]hough recent cases have tended to distinguish more sharply between direct expenditures and tax expenditures, the proper legal standard is far from clear and appears to depend on the facts and circumstances of each particular case"* (pp. 27-28).

Substantive policy and administrative differences between tax expenditures and direct expenditures also raise concerns about whether budget rules can be developed to adequately address these differences. Schick argued "... it *is important to note that tax*

[282] In the 5-4 decision, the Court ruled that an Arizona tax credit differed enough from a comparable direct spending program to deny taxpayers the right to sue on the basis that the credit represented an unconstitutional activity (Williams, 2011, p.2).

and direct expenditures are not pure substitutes" (Government printing office, 1981a, p. 165). He cautioned *"[o]ne should be very wary of pushing the tax expenditure concept to the point where no distinction is made between direct spending and revenues foregone" (*Government printing office, 1981a p. 173*).* OMB argued "[a]*lthough tax expenditures can often be thought of as tax subsidies, they are frequently unlike any of the subsidies found on the spending side of the budget."*

Some opponents to new budget decision rules argue that tax expenditures have policy features and advantages which explain and justify their use and have nothing to do with their budget treatment (Bartlett, 2001; Tahk, 2013; Wiesbach and Nussim, 2004 and Zelinsky, 1993). Rather than a problem stemming from slack budgetary oversight, tax expenditure growth is seen as sound decisions. Harris (1997) argued that tax expenditures provide a "*unique function rather than merely substituting for direct expenditures."* [283] (p. 390). King (1984) argued that continuing growth in tax expenditures in the presence of enhanced analytical tools suggest that many tax expenditures are "*intrinsic to American tax policy"* which helps explain *"their endurance and resistance to reform"* (p. 15).

In this view, the tax expenditure concept is potentially harmful because it implies that all tax provisions with non-tax purposes are not good policy. Tahk (2013) argued there are policy advantages associated with using the tax code for social policy that mitigate concerns over tax expenditure growth. She noted that *"[s]ince Surrey's view first took hold in the 1960s, several tax scholars have begun to notice the positive features of tax expenditures that Surrey's wholesale critique neglected"* (p. 68).

[283] Harris (1997) notes the work of King (1984), Steinmo (1985) and Schick (1986).

Specifically, she argued that Surrey assumptions and arguments with respect to distributional fairness are outdated and no longer apply given changes in tax expenditures. [284] Zelinsky (2012) also argued that characteristics of tax expenditures justify their use, including lower transaction costs and the potential to reduce capture by special interests.[285]

A closely related argument is that the focus on tax expenditure specific budget rules is misguided because the primary reasons driving tax expenditure growth are outside the budget process (Dean, 2013; Tahk, 2013; and Zelinsky, 2005). In this view, factors (e.g. psychological, policy, political, institutional, or economic) other than lax budget rules explain the use of tax expenditures (Buckley, 2011; Dean, 2013; Tahk, 2013; Schick, 1981; and Zelinsky 2005). Dean argued that there are *"...an array of pressures – from parliamentary to psychological – that encourage policymakers to use tax expenditures..."* [286] (Dean, 2013, p. 280). Schick argued that there are significant differences in the distribution of costs and benefits between tax expenditures and direct

[284] Tahk (2103) pointed to normative and administrative benefits of tax expenditures that counter distributive justice concerns. She argued that: (1) people who need benefits are more likely to apply for them through the tax code; (2) tax-embedded programs provide more resources to intended beneficiaries because they are not taxed and (3) tax-embedded programs fosters inclusion of potentially marginalized groups. In addition, she argued that: (1) introducing the IRS into a substantive policy area helps laws in that area achieve their goals and (2) tax-embedded policies distribute power more equitably between federal and state governments.

[285] Widely discussed in the literature, the term capture refers special interest and other groups ability to have influence and control over policymakers or institutions. Zelinsky (2013) argued that it more difficult for special interest to capture tax-writing committee than the specialized committees which handle direct expenditure programs.

[286] Dean (2013) describes three resistances – budgetary, cognitive, and procedural – that dissipate when tax expenditures are substituted for direct expenditures. Dean use the budgetary term to refer to the current tax expenditure budget. However, this dissertation views the current tax expenditure budget as an analytical tool, noting that the term "tax expenditure budget" is a misnomer because it is not voted on and subject to budget controls. Dean discusses some changes to budget process within his procedural category; these types of changes are similar to what the dissertation refers to as a decision rule.

expenditures that "[t]*hese differences, more than the evasion of budget controls, account for the widespread use of tax expenditures* (H.R. 4882, 1981, p. 165). Dean argued that *"[i]n the case of the tax expenditure budget, conceiving of tax expenditure abuse as mere accounting deficiency – to be addressed by fine-tuning the budget process – guaranteed the project's failure"* (Dean, 2013, p. 278). Tahk (2013) argued that tax expenditures benefit from legislative advantages (beyond budgetary advantage), including, for example, the strength of Ways and Means Committee and formal procedural protections.[287] For these reasons, some policy participants argue that budget rules for tax expenditures may not prove to be useful or effective.

The issues raised above suggest that the challenges faced in establishing budget rules for tax expenditures extend beyond the widely-cited definitional and estimation issues discussed in the next subsections. Disagreement about the tax expenditure concept begins at the most fundamental levels of problem definition and conceptual design. These disagreements about the fundamental logic of the tax expenditure concept have significant implications for key aspects of rule establishment, including: consensus building; the choice between analytical tool or decision rule; and budget rule design.

The lack of conceptual and political agreement about whether tax expenditures are government spending is central to the fight about using the concept in budget rules. If it is accepted that tax expenditures are government spending, then a budget process that does not directly recognize and control these tax provisions would be deemed incomplete. However, for those who do not accept the premise that tax expenditures are

[287] Tahk (2013) uses the example that bills from Ways and Means go to the floor under a closed rule, which prevents other members of Congress from slowing the bill by trying to amend them on the floor.

spending, proposals to subject these tax provisions to "spending" controls are illogical. Significant disagreement about whether a problem warranting new budget decision rules exists helps explain the unresolved path of the tax expenditure concept from analytical tool to a workable and sustainable budget rule.

Definitional and estimation issues emerged immediately and remain controversial.

Even when the conceptual logic and merits of the tax expenditure concept are accepted, significant definitional and estimation issues remain. As posed by Surrey, the tax expenditure concept rests on the notion of a normative or *"generally accepted"* tax structure that serves as a baseline from which deviations or *"special"* provisions can be identified (Surrey, 1969 and Surrey and McDaniel, 1985). However, there has been persistent debate about which tax provisions are *"special"* and which tax provisions make up the basic tax structure (baseline) (GAO, 1994c; Surrey, 1973: and Surry and Hellmuth, 1969).

The definitional and estimation difficulties associated with tax expenditures have long been recognized, even among supporters the concept. In his 1967 speech introducing the tax expenditure concept, Surrey acknowledged *"[w}e should not, of course, overlook, the difficulties of interpretation or measurement involved here"*[288] (Surrey, 1967, p.323). The first official tax expenditure budget[289] did not attempt to provide a complete list[290] and acknowledged that *"[i]t must be recognized that exclusions*

[288] In later works, Surrey modified his views about the extent of difficulties associated with identifying and measuring tax expenditures.
[289] Included in the 1968 Annual Report of the Secretary of the Treasury (U.S. Treasury, 1968).
[290] The Report notes *"[v]arious items that would have been added have been excluded for one or more of several reasons: (a) Some items were excluded where there is no available indication of the precise magnitude of the implicit subsidy; (b) Some items were excluded where the case for*

from the listing are to some extent arbitrary and some may prefer to add items that we have omitted or to omit items that we have included" (p. 329). The report's stated intention was to provide a "*minimum list rather than including highly complicated or controversial items that would becloud the utility of this special analysis"* (U.S. Treasury, 1968, p. 330).

Based on my review of the voluminous government, academic, and stakeholder reports and literature, the following subsections examine issues and debates surrounding the identification and measurement of tax expenditures, including:

1. whether it is possible to objectively define a normative tax baseline;

2. which tax structure should be used as the baseline (e.g. income or consumption);

3. how to define a chosen baseline (e.g. if an income tax baseline is chosen, then what constitutes income) and

4. whether the tax expenditure concept could be redefined to decouple it from a normative tax baseline, and

5. how to measure the cost of tax expenditures once they are identified.

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their inclusion in the income base stands on relatively technical or theoretical tax arguments; and (c) Some items were omitted because of their relatively small quantitative importance" (U.S. Treasury, 1968 and Surrey, 1973).

In addition, to better understand the practical implications for budget rules, I examined, where feasible, the following:

1. congruence of Treasury and JCT methodologies and resulting tax expenditure lists, and

2. consistency in tax expenditure reporting over time.

While examination of agreement between the Treasury and JCT tax expenditure lists provides some insights on the extent of consensus achieved among the two government entities likely to be charged with implementing new budget decision rules for tax expenditures, it does not fully capture the definitional and estimation challenges associated with the establishment and implementation of tax expenditure specific budget rules. As noted by GAO, the tax expenditure lists as complied by Treasury and JCT generally are *"...constructed by partisans of the concept, not by those who spurn it"* (GAO, 1979, p. 8). While Treasury and JCT reporting has reflected some definitional controversies and alternative methodologies over time, the scope of changes made by these entities has been influenced by their mission and the requirements and guidelines of the CBA and its legislative history. As such, these list and discussions do not fully reflect controversies that would arise with the establishment of tax expenditure specific budget rules.

Disagreement over whether tax baseline can be objectively defined and whether the tax expenditure concept depends on it.

Surrey described tax expenditures as deviations from a baseline tax structure; however, significant debate surrounds whether such a normative or *"generally accepted"* tax structure can be defined. One widely-cited criticism of the tax expenditure concept is that it presupposes an objective standard or conceptual model for a tax structure which does not exists (Bartlett, 2001; Bittker, 1969a; Blum, 1955; Carroll et al. 2011; Feld, 1975; Kahn and Lehman, 1992; Shaviro, 2003; Shoup, 1975; Thuronyi, 1988; and Weisbach and Nussim, 2004). In this view, the tax expenditure concept and thus any budget rule based on it would simply reflect the arbitrary nature of and political bias inherent in subjective judgments about the tax system.

Bittker (1969a, 1969b) provided one of the first and widely-cited critiques along these lines. Emphasizing that it is essential to have some normative or accepted standard against which to determine what is (and is not) a tax expenditure, Bittker (1969a) argued that

> ".. a *systematic compilation of revenue losses requires an agreed starting point, departures from which can be identified. What is needed is not an ad hoc list of tax provisions, but a generally acceptable model or set of principles, enabling us to decide with reasonable assurance which income tax provisions are departures from the model, or set of principles, whose costs are to be reported as "tax expenditures"* (p. 247).

Bittker (1969a) concluded that a lack of *"a conceptual model makes it impossible to say whether a large number of structural features of the existing federal income tax are, or are not, 'tax expenditures'"* (p. 258).

Similar arguments have persisted in the critical literature for decades. Feld (1975) argued that "*it is not meaningful to speak of objective principles of taxation, but only of a*

series of changing accommodations" (p. 1052). Bittker (1969b) argued that "…*every tax structure, whether on the books or projected is an assemblage of value judgments on scores of issues that could plausibly have been decided differently. To bestow the label "correct" on any of these human creations is to misuse the term"* (p. 542). In 1981 unreleased testimony, Ture (1981), Treasury Undersecretary for Tax Economic Affairs, argued

> *"Suffice it to say that classification of any provision or feature of the tax code as a tax expenditure depends critically on one's views concerning what is the appropriate criteria for delineating the "right" tax base, the "right" rate or rates of tax, the "right" timing of liability and payment of tax, the designation of the "right" tax paying unit, etc. There are in short, no unqualifiedly correct, unambiguously defined tax expenditures"* (p. 1538).

Kahn and Lehman (1992) stressed that the choice among different tax structures is a "*contestable, contingent, political decision"* (p. 1661). Bartlett (2001) argued that the "*most fundamental problem is the implicit assumption that there is some ideal tax system against which to judge tax preferences."* Weisbach and Nussim (2004) argued that *[t]here is no such thing as a normative tax base"* (p. 976). Shaviro (2003) argued against "…*a supposedly canonical yet in practice under-theorized and rightly controversial official definition of the normative income tax base"* (p. 22). JCT (2008) argued that controversy over the composition of the normal tax base had significantly reduced the value of tax expenditure analysis.

Controversy continues about the choice of baseline tax structure.

Even among those who accept that tax expenditures might be defined relative to some normative baseline tax structure, controversy surrounds what is the appropriate

baseline e.g. income vs. consumption.[291]This controversy is important because the choice of baseline tax structure influences which tax provisions are classified as tax expenditures. As OMB (2008) noted, the choice of baseline tax is *"...perhaps the most important in determining what is included as a tax expenditure"* (p. 287).

In the United States, the tax expenditure concept has relied on the comprehensive income tax as the starting point for developing the baseline tax structure.[292] Under the comprehensive income tax, both amounts saved and consumed are treated as income. To some researchers and policy participants, including McDaniel and Surrey, the choice is obvious given the Federal Government's significant reliance on the income tax.[293] Critics, however, argued that the use of an income tax baseline does not sufficiently reflect the current U.S. tax system (Bartlett, 2001; Shaviro, 2003; Fleming and Peroni, 2008). Bankman, Shaviro, and Shark noted that "*it is often said that our system is as much a consumption tax as an income tax, or more precisely some sort of impure hybrid of the two"* (as cited in Kahn, 2013, p. 150). OMB (2002) argued *"...the growing presence of tax-deferred savings vehicles in the tax code suggest that these may today be part of the 'normal' income tax circa"* (p. 96).

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[291] A broad-based consumption tax can be viewed as an income tax plus a deduction for savings (Carroll et al, 2011).

[292] Although, from the beginning, the tax expenditure concept was seen as relevant to other tax structures, the primary focus has remained on defining tax expenditures relative to the income tax (Surrey, 1973).

[293]McDaniel and Surrey (1982) pointed out that a distinction needs to be made between the selection of a particular tax and the determination of the normal base for the selected tax. They argued that the Congress and public believe the United States has an income tax and thus it follows that tax expenditures would be defined against an income tax baseline. Fleming and Peroni (2008) provided a similar view noting that *"... that consumption with a general exclusion for savings has not been adopted as the baseline for the federal income tax and is unlikely to be adopted within the foreseeable future"* (p. 511).

The controversy over the baseline taPeronix structure is not surprising given that the choice is not simply an accounting matter, but rather can lead to significant differences in the way policy choices are framed. Critics argue that using the income tax baseline to identify tax expenditures creates biases against and barriers to the adoption of a consumption tax (Bartlett, 2001; Fleming and Peroni, 2010; U.S. Joint Economic Committee, 1999; and Sullivan, 2001). CBO (2013c) acknowledges that if a comprehensive consumption tax (rather than an income tax) was used as the baseline, some major tax expenditures would not be considered tax expenditures, with implications for its distributional analyses.

Specifically, if a consumption tax was used as the baseline, tax provisions that eliminate savings from the tax base or reduce the tax on investments would not be considered tax expenditures (Burman and Phaup, 2011; CBO 2013; Fleming and Peroni, 2008; Burman, 2003; and Toder, 2005). Table 8.1 provides examples of significant tax provisions that are considered tax expenditures relative to an income tax baseline but would be excluded relative to a consumption tax baseline (CBO, 2013c; OMB 2016; Sunley 2004; Burman, 2003; and Toder, 2009). As can be seen, some involve significant budget amounts.

Table 8.1 Select Tax Provisions Classified as Tax Expenditures Relative to Normal Tax but Excluded Relative to Consumption Tax

Tax Expenditure (Normal Tax)	**Foregone Revenues FY 2016-2025 (billions of dollars)**
Exclusion for capital gains[294]	$2,403.7
Net exclusion of pension contributions and earnings from tax-deferred retirement plans[295]	$1,741.4
Exclusion of interest on public purpose states and local bonds	$501.2
Exclusion of interest on life insurance savings	$370.8

Source: Author based on data included *Table 14-3 in Analytical Perspectives, Budget of United States, Fiscal Year 2017* and analysis included in Analytical Perspectives, Budget of United States, Fiscal Year 2009. Burman (2003) included a similar analysis.

Further, the differences extend beyond the few examples shown in Table 8.1. From fiscal year 2004 to fiscal year 2009, OMB discussed tax expenditures relative to the consumption baseline in an appendix to its official tax expenditure presentation (pp. 318-321).[296] In the fiscal year 2009 budget, OMB considered how the top 30 tax provisions would be treated relative to a comprehensive consumption tax baseline. According to OMB, only one – the exclusion of workers' compensation benefits - would clearly continue to be a tax expenditure relative to a comprehensive consumption tax baseline. OMB concluded that while another 14 might remain tax expenditures under a

[294] Author's calculation based on *Analytical Perspectives, Budget of United States, Fiscal Year 2017, Table 14-3*. Amount includes foregone revenue for net exclusions for (1) capital gains exclusion on home sales ($563.8 billion); (2) capital gains (except agricultural, timber, iron ore, and coal ($1,057.8 billion); and (3) capital gain exclusion from small corporation stock ($5.5 billion) and Step up basis of capital gains at death ($776.6 billion)

[295] Author's calculation based on *Analytical Perspectives, Budget of United States, Fiscal Year 2017, Table 14-3*. Amount includes foregone revenue for net exclusions for (1) Defined Benefit employer plans ($622.5 billion); (2) Defined contribution employer plans ($921.5 billion) and (3) Individual Retirement Accounts ($197.4 billion).

[296] Other researchers have also used the OMB's appendix on alternative baselines to consider the implications of the choice of tax baseline in determining tax expenditures (see Bartlett, 2001 and Burman, 2003).

comprehensive consumption baseline their treatment was uncertain (OMB, 2008).[297] The remaining 15 provisions would not be included as tax expenditures under a comprehensive consumption tax baseline, according to OMB. Most of the excluded provisions involve savings and investment. The OMB analysis also noted that the use of the consumption tax baseline may result in new tax expenditures. Possible, additional tax expenditures cited by OMB include the exclusions for: (1) benefits paid by insurance policies, (2) in-kind benefits from government programs (e.g. food-stamps, Medicaid, and public housing), and (3) benefits received from charities (OMB, 2008, p. 321).

Given the policy areas and budget amounts involved, the treatment of these provisions under new budget rules is likely to be controversial. While existing reporting practices could be used, the increased stakes associated with tax expenditure specific budget rules would likely heighten debate about the choice of tax baselines. Debates over the tax baseline exemplify how a lack of consensus on tax policy issues spills over into debate about the legitimacy of the tax expenditure concept and complicates its use in budget rules.

Disagreement on how to define "normal" income.

The current practice is to use the income tax as the basis for identifying federal tax expenditures, but persistent and significant debate surrounds just how to define taxable income and whether normative principles or standards exist for doing so.[298]As

[297] Of the remaining 14 that might be included as tax expenditures, 6 provisions were listed as probably being classified as tax expenditures relative to a consumption tax baseline. The other 8 provisions were listed as uncertain with respect to their treatment relative to the consumption tax baseline.

[298] The definitional issues ambiguities discussed in this chapter are not limited to using the income tax baseline; regardless of the baseline chosen similar issues will arise. Carroll et al. (2011) explained that a consumption tax baseline also is not a fully specified concept and thus adopting it would result in many of the same issues as under an income tax baseline.

discussed above, a central premise of the tax expenditure concept (as described by Surrey) is that the income tax consists of two parts: (1) structural provisions necessary to implement an income tax system and (2) a system of tax expenditures that provide financial assistance through the tax code (Surrey, 1967; Surrey, 1973; and Surrey and McDaniel, 1985). The CBA codified this concept by formally defining tax expenditures:

> "*those revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability"*[299]

While the theory behind the tax expenditure concept is relatively straightforward, distinguishing between structural provisions and programmatic provisions is not (Halperin, 2012, Schick, 1981; Maslow, 1991 and OMB, 1987). It requires a workable agreement on what a "pure" tax system (i.e. one that only exists to raise revenue) would look like. Schick cautions about the difficulties associated with this task:

> *"It turns out, however, that the structural and programmatic features are not separate from one another. First, they are not separate because we would not tolerate the particular tax structure we had if we didn't also have the tax expenditures…."*
>
> *"…[i]f we were to abolish all tax expenditures we would be changing the structural system. Conversely, if you change the basic tax structure you automatically change its value, that is the estimate of the expenditures as well"* (H.R. 4882, 1981, p. 161).

Critics of the tax expenditure concept are quick to point out that the meaning of *"special"* in the CBA definition is ambiguous and does not provide sufficient guidance for determining which provisions are part of the tax structure and which are deviations from it (Thuronyi, 1988). CBA's legislative history provides some additional guidance by indicating that Congress assumed tax expenditures represent deviations from the

[299] P.L. No. 93-344, sect. 3(a)(3)

normal tax structure for individuals and corporations[300] (Altshuler and Dietz, 2011; JCT, 2008; Hungerford, 2008, 2011; Surrey 1973; and McDaniel and Surrey, 1982). The legislative history also refers to previously published compilations of tax expenditures prepared by the Treasury and Joint Committee on Internal Revenue Taxation, stating that "*the term 'tax expenditure budget' means the enumeration of tax expenditures as published by the House Ways and Means in 'Estimates of Federal Tax Expenditures'"* (McDaniel and Surrey, 1982 and Senate Report No. 93-579). This legislative history resolves the issue for some, but for others the reference to the normal tax structure does little to resolve the debate. Because the normal tax structure is not specifically defined, what is normal income remains controversial. And, some argue that an attempt to define it is simply a subjective and elusive exercise (Altshuler and Dietz, 2011 and JCT, 2008).

In the first tax expenditure budget, the Treasury Department explained that the tax expenditure list contains "*the major respects"* in which the current income tax base deviates from: (1) "w*idely accepted definition of income;" (2)* "*standards of business accounting,"* and (3) "*the generally accepted structure of an income tax"* (p. 327). The report, however, did not discuss these criteria in detail. As noted by JCT (2008), the only features that the report explicitly included in the generally accepted structure of the income tax were: (1) personal exemptions; (2) graduated rates for individuals and (3) the separate corporate tax.

[300] As noted JCT (2008), the original Senate provision (S.1541) defined tax expenditures using the words *"... a deviation from the normal tax structure..."* but the final statutory language dropped the reference to normal tax. JCT, however, notes that the accompanying Conference Report stated that this shortening of the definition was a simplification with no intended change in meaning. Senate Conference Report No. 93-924 to accompany H.R. 7139 Congressional Budget and Impoundment Control Act of 1974, June 12, 1974, p. 50.

*S*urrey and the 1968 Treasury report relied on the comprehensive Haig-Simon (H-S) definition of income as the starting point for defining normal income. [301] While Surrey points to the "*general acceptance"* of the H-S approach in justifying its use, a voluminous literature reveals significant debate about its appropriateness as the starting point for defining tax expenditures (Bittker, 1969a, 1969b; Fleming and Peroni, 2010; JCT, 2008; OMB, 2003; Surrey, 1973; Surrey and McDaniel, 1985). Further, while comprehensive income is often held out an ideal, it is an economic concept that is not well defined for real world application (Bittker, 1969b; GAO, 1979; JCT, 2008; and OMB, 2009). As expressed in Bittker's widely-cited quote "*many ambiguities…become apparent as soon as one attempts to apply the Haig-Simons definition to the protean stream of economic life"* (Bittker, 1969a, p. 260). According to GAO (1979),

> *"[t]he Haig-Simon definition of income is recognized as being too comprehensive to be a practical basis for taxation; it is intended as a tool for analyzing or a standard for judging other concepts of income" (p. 10).*

Surrey rebutted critics by arguing that the comprehensive H-S income definition served only as a guide and has never been the sole criterion used in identifying tax expenditures (Surrey and McDaniel, 1985). According to Surrey, to arrive at the normal income tax, refinements are made based on the historical treatment of provisions within the federal tax system as well as an understanding of the "*general consensus"* among economists and other tax experts about what constitutes "*a politically and*

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[301] Haig-Simon definition of income is the *"the algebraic sum of the (1) market value of rights exercised in consumption and (2) the change in the value of the store of property rights between beginning and end of the period in question."* More simply, comprehensive income is the real, inflation-adjusted accretion to one's economic power between two points in time (OMB, 2009). There, however, is no discussion of the source of income. As noted by OMB (2014), it includes *"[a]ll accretions to wealth, whether realized or not, whether or not related to market transactions, and whether returns to capital or labor.*" The concept of comprehensive income has been the subject of prolonged debate (For example, see Peachman, 1977)

administratively realistic tax base" (Surrey, 1973: Surrey and McDaniel, 1985: and Thuronyi, 1988).

While refinements to the comprehensive income tax are necessary for its practical application, these refinements open the door to controversy. In the end, under the normal tax, the determination of what is a tax expenditure is based on a concept of income that is larger in scope than what is defined by the federal income tax system, but narrower than a pure economic definition of income i.e. comprehensive H-S income (JCT, 2008). Table 8.2 provides examples of differences between tax expenditures using the comprehensive income baseline versus the normal income tax baseline. The bottom line is that while the H-S income definition is not the sole basis for defining normal income, its limitations as a definitional starting point and the necessary refinements made to address these limitations blurs definitional lines and disagreement remains about how income is determined.

Table 8.2 Selected Differences of Tax Expenditures Based on Comprehensive Income Baseline Compared to Normal Income Tax Baseline

Item	Tax expenditure relative to H-S income baseline	Tax expenditure relative to normal income baseline
Corporate Income tax	Unresolved [a]	No
Unrealized capital gains	Yes	No
Imputed income such as imputed rent from housing	Yes	Treasury – yes JCT- no
Imputed income such as imputed services from consumer durable goods	Yes	No
Value of all goods and services (e.g. free lunch)	Yes	No
Value of (many) services received from state and local governments	Yes	No
Social Security benefits to disabled	Yes	Yes
Gifts	Yes	No
Foreign income	Unresolved [b]	No
Standard deductions	Unresolved [c]	No
Personal exemptions	Unresolved [c]	No

[a] Treatment corporate income is an area of debate. Under a comprehensive income tax structure, income is to be taxed only once, suggesting that the H-S definition might call for an integration of individual and corporate tax structures. Thus, separate corporate tax might be defined as negative tax expenditure. Under the normal tax, the separate tax corporate structure is included in the tax structure because it is "accepted" as part of U.S. tax system. However, some researchers and policy participants argue that neither economic theory nor common international practices justifies a separate corporate income tax (JCT, 2008 and OMB, 1987).
[b] OMB (2009) notes that the foreign tax credit might be included as a tax expenditure under comprehensive income baseline.
[c] Personal exemption and standard deduction might be included under some theories of comprehensive income.

Source: Table compiled by author based on information and discussion included in GAO, 1979, 2005c and OMB 2009.

Surrey's claims to "*consensus opinion"* on the appropriate parameters of an accepted tax structure have done little to satisfy critics. My review of federal tax expenditure reporting over the past 50 years as well as the extensive academic and government literature on the subject reveals persistent and on-going debate about both the choice of H-S comprehensive income as a starting point and the adjustments made to it to

construct the normal income baseline. Several key areas highlighted in the literature include:

(1) the comprehensive income definition does not address some key structural issues necessary to define a tax system;

(2) the comprehensive income definition is ambiguous about the treatment of certain tax items or its application is not practical; and

(3) the deviations made from comprehensive income tax are subjective and there are inconsistencies in the treatment of similar items (Bittker, 1969a, 1969b, and Thuronyi, 1988).

To define a baseline income tax system, many structural issues,[302] many of which are not fully addressed by the comprehensive income definition, must be decided. Bittker again provided one of the first and most critical attacks along these lines, arguing that while the H-S definition might be a plausible starting point *"... any system of income taxation is an aggregation of decisions about a host of structural issues that the Haig-Simon's definition does not even purport to settle"* (Bittker, 1969a, p. 260). Similarly, Thuronyi (1988) argues that H-S definition is *"ambiguous or silent"* about some of a tax system's basic features.

[302] Examples of structural issues that a tax system must address include: the tax rate structure, the taxable unit, the basis for accounting, and the accounting period. It must also determine how to define and tax certain legal entities, such as corporations and how to deal with transactions across international boundaries. The H-S income definition does not provide guidance on most of these issues.

In the absence of normative principles to guide decisions on structural issues, critics point to inconsistencies in the treatment of similar items. As an example, the personal exemption[303] and special rates applicable to married couples and heads of households are accepted as part of the normal income tax structure, based on the concept of ability to pay. However, Bittker (1969a) and others pointed out that similar provisions are not treated in a similar manner. Bittker (1969a) argued that the extra exemption for taxpayers who are blind or over 65 (which is classified as a tax expenditure) might arguably also be classified as structural provisions based on the ability to pay concept (Andrews, 1972 and Bittker, 1969a, 1969b). Buckley (2011) pointed out that the foreign tax credit is not considered a tax expenditure because it is a structural feature of the tax system aimed at preventing double taxation, but the deduction for state and local income taxes is classified as a tax expenditure even though its legislative history indicates its policy rationale also is to avoid double taxation. Toder (2003) pointed to the inconsistent treatment two provisions that deal with the time value of money -- accelerated depreciation of investments and the treatment of capital gains. Accelerated depreciation is not included in the normal tax structure and is reported as a tax expenditure while the exclusion of unrealized capital gains is included in the normal tax structure and is not reported as a tax expenditure (Burman, 2003).

For other tax provisions, the H-S income definition is fairly clear about whether the provisions should be considered income, but adjustments must be made to deal with practical, administrative, or political considerations. One widely-cited example is the

[303] Personal exemptions provide that only a person's income above some defined basic level is subject to tax. The personal exemption has been part of the federal income tax system since its enactment in 1913 (Tax Policy Center, 2012).

value of the use of owner-occupied homes. Under a comprehensive definition of income, the amount of rent one would have had to pay or the *"imputed rental value"* would be considered income and the exclusion of this income would be a tax expenditure (GAO, 1979 and OMB, 1987). Prior to the fiscal year 2006, the budget did not include the exclusion of net implicit rental income on owner-occupied housing as a tax expenditure citing conceptual and estimation difficulties. However, beginning with the fiscal year 2006 budget, the Treasury added a tax expenditure for the net imputed rental income from owner-occupied housing (OMB, 2004, 2005). [304,305] JCT has never included a tax expenditure for the exclusion of imputed income from owner-occupied home and other durable goods citing administrative difficulty in measuring income (JCT 2008). The estimate of foregone revenue for the exclusion of imputed rental income is significant, estimated at $101 billion for fiscal year 2016 and $1.2 trillion for 2016-2025. If a budget decision rule were established treatment of this provision as a tax expenditure would likely be controversial given its abstract nature and significant budget impact.

[304] The treatment of the imputed income for owner-occupied housing is a technical and controversial issue. Prior to the fiscal year 2006, the President's budget did not include the exclusion of net implicit rental income on owner-occupied housing as a tax expenditure citing conceptual and estimation difficulties. It did include the deductions for mortgage interest and property taxes on owner occupied housing as tax expenditures (OMB, 2005). In the fiscal year 2006 budget, the Administration argued that while the tax expenditures for the deductions for mortgage interest and property taxes were legitimate given the current law's failure to impute rental income, they were *"…highly flawed as estimates of the total tax advantage to housing…"* (p. 356). Beginning with the fiscal year 2006 budget and continuing today, the tax expenditure list included in the President's budget has reported as tax expenditures for both the exclusion of net imputed rental income of homeowners and the deductions for mortgage interest and property taxes (OMB, 2005).

[305] This estimate combines the positive tax expenditure for the failure to impute rental income with the negative tax expenditure for the failure to allow a deduction for deprecation and other costs (OMB, 2005).

Treatment of the realization of capital gains also differs under normal income versus comprehensive income. Under a comprehensive income definition, increases in the value of assets (such as real estate and stocks) are considered income when the increase in value occurs, even if gain is not realized thought a market transaction. Thus, under the comprehensive income structure, the exclusion of these unrealized gains would be classified as a tax expenditure. Conversely, under the normal income structure, the exclusion of unrealized gains is not classified as a tax expenditure. This adjustment was made due to the political and practical constraints of taxing income which has yet to be realized.

The treatment of gifts and similar transactions is another area where there are differences in treatment. Under the comprehensive income definition, gifts between individuals would be included in taxable income and their exclusion would be classified as a tax expenditure. In contrast, under the normal income structure, gifts are not considered taxable income and their exclusion is not classified as a tax expenditure.[306]

The ambiguities and complexities associated with the treatment of certain provisions under the comprehensive income definition carryover to the normal income definition. The treatment of deductions for charitable contributions provides an example. Under a comprehensive income baseline, if charitable donations are considered consumption they would be included in the income base and considered a tax

[306] This matter is further complicated by inconsistencies in the treatment of other tax provisions that are similar to gifts (GAO, 1979). For example, under the normal tax, fellowships and scholarships as well as some social security payments are considered income and thus their exclusions from taxable income are considered tax expenditures. As further indication of judgment involved, Treasury did not include the exclusion of fellowships and scholarships from income as a tax expenditure in fiscal years 1982 and 1983, but then resumed reporting it as tax expenditures in 1984.

expenditure. However, if charitable donations are considered a transfer of purchasing power they would represent a reduction in the giver's wealth. As such, they would not be considered a tax expenditure. While the treatment of the deduction of charitable donations under a comprehensive income baseline, is unclear, both Treasury and JCT include it as a tax expenditure based on normal income.

Over time, the Treasury has revised its treatment of some significant and controversial tax expenditure provisions. Prior to the fiscal year 2004 budget, the tax expenditure for accelerated depreciation under the normal tax approach was calculated based on an historical cost using a straight-line methodology with relatively long-recovery periods (OMB, 2003). Beginning with the fiscal year 2004 budget, the tax expenditures for accelerated depreciation has used a revised baseline depreciation rates and replacement cost indexes drawn from the National Income and Product Accounts. The new revised estimates differ significantly and are generally lower than under the old methodology (OMB, 2003).

In terms of understanding budget rule development, an important consideration is the practical implications of these theoretical debates on identification of tax expenditures to be included under a budget decision rule. The obstacles created these definitional debates to the establishment of a workable and sustainable budget rule depends in part on the tax provisions affected i.e. the budget amounts and stakeholders involved. The larger the budget or political costs associated with provisions under question, the more likely for controversy about the design and implementation of the budget decision rule.

As noted by other researchers, previous OMB reporting provides some useful insights (Bartlett, 2001 and Burman, 2003). From fiscal year 2004 to fiscal year 2009,

OMB included discussions of tax expenditures relative to the comprehensive income baseline in appendices to its official tax expenditure presentations.[307]Under a comprehensive income baseline, many large tax expenditures would continue to be tax expenditures, but some would not. OMB considered the treatment of 30 large tax expenditures for fiscal year 2009 and found 15 of the 30 provisions would continue to be classified as tax expenditures under a comprehensive income tax baseline (OMB, 2008, pp. 315-318). OMB describes the classification of the other 15 provisions as possibly not being classified as tax expenditures. Of these, OMB describes only one – the exception for passive loss rules for $25, 000 of rental loss – as probably not be a tax expenditure relative to a comprehensive income baseline. OMB classified 8 of the remaining 14 provisions as "*possibly"* tax expenditures relative to the comprehensive income tax baseline but noted that they raise difficult conceptual issues or inconsistencies (OMB 2009). OMB described the classification of the remaining 6 provisions relative to comprehensive income tax baseline as "*even less certain*." In addition, OMB notes some significant provisions currently not included as tax expenditures would be included as tax expenditures relative to the comprehensive income tax baseline.[308] Further illustrating the judgment involved, my comparison between the presentation in the fiscal year 2009 and the fiscal year 2004 budgets found that two significant provisions were reclassified from

[307] Other researchers have used these OMB appendices on alternative baselines to consider the implications associated with the choice tax baseline used to determine tax expenditures (see Bartlett, 2001 and Burman, 2003).

[308] These included imputed return on certain consumer durables; unrealized capital gains (losses); private gifts and inheritance; in-kind government benefits; and the value of benefits received by private charities.

the *"probably not included"* to the *"probably included"* categories[309] (OMB, 2008 and OMB, 2003).

Despite all the controversy about the appropriate baseline for identifying tax expenditures both the JCT and Treasury, with limited exceptions, have consistently reported tax expenditures relative to a normal income tax baseline. As discussed below, the President's budget now the reports tax expenditures relative to two baselines, one of which is the normal tax baseline. [310] The JCT – except for a short-lived 2008 revision[311] -- has used a fairly consistent definition of normal tax (JCT, 2008).

Because the normal tax baseline used in identifying tax expenditures is not defined in law or based on a bright-line standard, JCT and Treasury staff must rely on professional judgment to determine it (JCT, 2008). While both organizations present tax expenditures relative to a normal tax baseline, there are some differences in the way they define the normal tax baseline. In general, the JCT's methodology involves a broader definition of normal income than that used by Treasury includes some provisions that are not on the Treasury's list (JCT, 2013). There are also some items included on Treasury's list but included not on the JCT's list. The fiscal year 2016 budget listed 169 tax expenditures while the JCT's tax expenditure report issued in February 2015 included about 260 tax expenditures.[312]

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[309] These include (1) deductibility of mortgage interest on owner-occupied homes and (2) deductibility of state and local property tax on owner-occupied homes, with foregone revenue estimates for fiscal year 2012 of $81.9 billion and $15.4 billion, respectively.

[310] As discussed below, for fiscal years 1983 and 1984, the President's budget reported tax expenditures based on an alternative baseline, referred to as the reference tax. Since 1985, the President 's budget has reported tax expenditures relative to two baselines, one of which is the normal tax baseline.

[311]The JCT significant revised its baseline in 2008, but then reversed itself and returned to its traditional methodology in 2010.

[312] Author's count.

Understanding the differences between the JCT and Treasury lists is complicated, however, because they combine some tax expenditure items differently; use different thresholds for determining de minimis items; and describe some tax expenditures differently. For example, Treasury displays tax expenditure estimates for capital gains and dividends for different activities and taxpayers separately while JCT combines them. With these caveats in mind, a comparison of the reported lists provides some insights into the degree of consensus achieved and the extent and the magnitude of disputed items.

For several years, the JCT tax expenditure publications included a list of tax provisions that did not overlap between the Treasury list and the JCT list.[313] An examination of JCT's list of non-overlapping items published in 2006 (the last available) shows significant overlap (greater than 80%) between the JCT and Treasury lists (JCT, 2008). [314] JCT identifies 28 items that are on its list, but not the Treasury list and 14 items that are included on the Treasury list that are not on the JCT list. Of the 14 items on the Treasury list, but not included on the JCT list 9 are de minimis by JCT's higher threshold.

While most of non-over-lapping provisions are fairly-narrow, a few involve significant foregone revenues or politically sensitive items. Further, the differences between the lists as well and changes in reporting indicate the level of judgment involved in defining tax expenditures. Until recently, the JCT included tax expenditures for the exclusions of untaxed Medicare benefits for hospital insurance, supplemental medical insurance, and prescription insurance. Treasury does not include these provisions as tax

[313] JCT's listing of the specific non-overlapping provisions was discontinued in its 2007 report.
[314] A similar analysis is included in Fleming and Peroni (2008) with similar, but with similar but not exact results and somewhat different conclusion due to different focus of research.

expenditures. The last time JCT included these exclusions, they had a combined foregone revenue estimate of $350 billion for fiscal years 2014-2018 (Altshuler and Dietz, 2011; JCT, 2006, 2014; and OMB, 2015a).[315] Beginning with its 2015 report, the JCT opted not to include the Medicare provisions as tax expenditures.[316] As discussed above, the exclusion of net imputed income for owner-occupied homes appears in the President's budget, but in JCT's report.[317] For years, the deferral of gains on like-kind exchanges, a provision which has received significant political attention, was reported by JCT, but not by Treasury. Treasury recently began reporting this tax expenditure with estimated foregone revenues for this provision as $92.2 billion over the fiscal year 2016-2025 budget window (OMB, 2016, p. 243).

The considerable overlap between the two lists suggest that sufficient consensus has been achieved on defining normal income to be make the tax expenditure lists useful as an analytical tool, especially when areas of conceptual and definitional differences are discussed. As argued by Fleming and Peroni (2008):

> "*This large area of common ground demonstrates that such definitional disputes are largely at the margins and that TEA has a settled core that make it a useful*

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[315] $181 billion for Medicare Hospital Insurance, $128 billion for Medicare Supplemental Insurance, and $41 billion for Medicare Prescription Drug Insurance.

[316] JCT (2015) explained that it had historically include tax expenditures for some items for which no provision in federal tax law specifically allowing an exclusion. However, beginning with its 2015 publication the JCT adhered closer to the Budget act which defines tax expenditures as *"revenue losses attributable to* ***provisions of the federal tax law (emphasis added)*** *which provide a special exclusion, exemption, deduction from grow income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability."* There is no provision for the exclusion of Medicare benefits from income so JCT determine it would no longer include them as tax expenditures. JCT also stopped reporting other tax expenditures citing the same issue, including the exclusion of: (1) investment income on life insurance and annuity contracts and (2) cash public assistance.

[317] This exclusion is not shown on JCT's 2006 list of non-overlapping items but is currently included Treasury's tax expenditure list and not JCT's list. Treasury's estimate of foregone revenues for this exclusion for fiscal years 2016-2025 are $1.2 trillion

analytical tool, notwithstanding the intense criticism that is has endured" (p. 519).

While reporting of different tax expenditures by JCT and OMB[318] is workable, perhaps, even beneficial, as an analytical tool, the establishment of tax expenditure specific budget rules requires a choice about whether to include provisions that are not included on both lists and how to settle definitional differences. Although the differences in the classification as tax expenditures involve a relatively small number of provisions and, in most cases, involve relatively small amounts, some of the affected provisions involve significant budgetary amounts or politically sensitive issues. These larger and more controversial provisions increase the potential for controversy, especially if they were used as the basis for budget allocation and control purposes.

The combination of lack of clear definitional parameters and the high stakes of the budget process increase the challenge of establishing a workable and sustainable budget rule. JCT (2008) noted that "... *the "normal" tax is largely a commonsense extension (and cleansing) of current tax policies, not a rigorous framework developed from first principles"* (p. 7). Thuronyi (1988) argues that the compromises made to apply the H-S income definition to the real world *"... have made the idea of a normative income tax so inherently subjective that it deprives the tax expenditure concept of its persuasive force*." (p. 1155). OMB (2003) notes that deviations from comprehensive income to construct the normal tax "*inject a degree of subjectivity that can limit the value of the underlying analysis"* (p. 96). These areas of conceptual and definitional ambiguity and controversy about the income baseline used to identify tax expenditures are barriers to the establishment and implementation of workable and sustained budget decision rule.

[318] Based on Treasury estimates

Attempts to decouple the tax expenditure concept from the normal tax structure.

In response to persistent controversies about the baseline tax structure, some have suggested that the tax expenditure concept be redefined without reference to a normative tax structure. While reformulations aim to clarify the tax expenditure concept, none fully address the subjectivity argument leveled against Surrey's original formulation of the concept.

Alternative formulations of the tax expenditure concept began to emerge shortly after the enactment of the CBA. Blum argued that some tax provisions are *"...clearly designed to accomplish a social or economic goal that is not related to the tax system"* and a provision in this category "*is correctly viewed as a tax expenditure ... not because of any normative judgments about the proper contours of the income tax, but because it is universally conceded to be an incentive measure that has no tax justification* (as cited in Thuronyi, 1988, p. 168). Arguing that the tax expenditure budget rests on a *"shaky foundation"* Goode (1977) suggested *"... a narrower tabulation including only those provisions for which there is evidence in the legislative history that the dominant motivation was to encourage or reward certain behavior or to compensate for a particular hardship by reducing income tax liability"* (p.28). McIntyre (1980) argued that the focus should be on whether the tax provisions were enacted to serve nontax purposes. Under his approach, "*...the bare assertion that the tax rule under examination promotes a spending goal"* would trigger a tax expenditure (p. 100). Thuronyi (1988) argued that the focus should be on what he termed "*substitutable tax provisions"* -- those

tax provisions that could be achieved as effectively by a nontax federal program (JCT, 2008 and Thuronyi, 1988, p. 1156). While these approaches have stimulated significant academic debate, none has resulted in legislative proposals.

The 1980's work of Seymour Fiekowsky, Assistant Director of the U.S. Treasury Department's Office of Tax Analysis, laid the foundation for a significant change in Treasury's tax expenditure reporting. Fiekowsky argued that the primary focus should be on whether a tax provision could be substituted by a direct expenditure (Fiekowsky, 1980; Fleming and Peroni, 2010; JCT, 2008; and Thuronyi, 1988). Under Fiekowsky's approach, tax expenditures, or *"tax subsidies"* as he referred to them, would be limited to those provisions that satisfy both of the following criteria:

1. Absent the particular provisions, does the existing tax law provide a general rule by which the results of the transaction would determine the transactor's liability?

2. If the answer to question one is affirmative, is it possible to formulate an expenditure program administrable by a cognizant government agency that would achieve the same objective at equal, higher, or lower budgetary costs? (Fiekowsky, 1980, as cited in JCT, 2008, p. 30, and Thuronyi, 1988, pp. 1182-1183)[319]

[319] Using this approach, the tax expenditure list would have been narrower than those published at the time by either Treasury or JCT. For example, Fiekowsky's approach would have excluded accelerated depreciation as a tax expenditure, arguing that there is no general depreciation rule in its absence. It also would have excluded capital gains as a tax expenditure, arguing that because it applies to a broad class of taxpayers and activities it could not practically be replaced with direct expenditure programs (JCT, 2008 and Thuronyi, 1988, p. 1183).

In addition to the "*tax subsidies*" (tax expenditures) category, Fiekowsky's approach included another category "*tax policy*" or "*tax-structural issues.*" This category would have included provisions with important tax policy consequences which are not *"tax subsidies"* [320] (Fiekowsky, 1980, as cited in JCT, 2008, p. 30).

Beginning with the fiscal year 1983 budget and continuing today, the Treasury has used an approach somewhat similar to Fiekowky's, referring to the approach as the "*reference tax"* baseline.[321] Under this baseline, tax expenditures are *"...limited to exceptions from a generally provided tax rule that serve programmatic functions in a way that is analogous to spending programs"* (OMB, 2016, p. 226). The reference tax baseline is based on two criteria: (1) the provision must be special in that it applies to a narrow class of transactions or taxpayers and (2) there must be a general provision to which the special provision is a clear exception (OMB, 1983). OMB argued that if these two conditions are satisfied, the tax provision clearly has the characteristics of a direct expenditure program, including: (1) a program objective and (2) a method of reimbursing program costs (OMB, 1982, p. 5).

Again, in terms of budget rule development, it is important to consider the differences in reported tax expenditures. For the most part, tax expenditures are similar under the two baselines. OMB notes that provisions considered tax expenditures under

[320] Either because: (1) there is no clear general rule to which they are an exception or (2) because it was not considered feasible to formulate a direct expenditure program to replace the tax provision (Fiekowsky, 1980 and JCT, 2008).

[321] For fiscal year 1983 and fiscal year 1984, the President's budgets presented tax expenditure list only relative to the reference tax baseline, increasing the differences between its list and the JCT list. Beginning in fiscal year 1985 and continuing today, the President's budget has reported tax expenditures relative to both the normal tax and the reference tax baselines. With the exception of the limited period involving the 2008 revision, the JCT has reported tax expenditures relative to only the normal income tax baseline.

the reference tax baseline are generally included as tax expenditures under the normal tax baseline, but the reverse is not always true (OMB, 2015a). The tax expenditure listing in the Fiscal Year 2017 *Analytical Perspectives*, shows only 9 of the 169 tax expenditures are included based on the normal tax method, but excluded relative to the reference tax baseline (OMB, 2016).

While only a small number of provisions are affected, some involve significant budget amounts, as shown in Table 8.3. The most significant in terms of estimated foregone revenue over the fiscal year 2016-2025 budget window are: (1) the deferral of income from controlled foreign corporations ($853 billion) and (2) accelerated depreciation on machinery and equipment ($353 billion) (OMB, 2016, pp. 228-229). When ranked by projected revenue effects, these are among the largest tax expenditures. As with other differences in reporting, both baselines can be used as analytical tools, but the establishment of a budget decision rule would require determining which baseline to use to identify tax expenditures for inclusion under a budget decision rule.

Table 8.3 Tax Expenditures Included Relative to the Normal Tax Baseline, but Excluded Relative to the Reference Tax

Tax Provision	Estimate FY 2016-2025 (in Billions)
Deferral of tax on income from controlled foreign corporations (CFCs)[322]	$852.6
Accelerated depreciation on machinery and equipment[323]	$353.3
Accelerated depreciation on rental housing	$51.7
Accelerated depreciation on buildings other than rental housing	$-116.8
Expensing of research and development expenditures[324]	$73.4
Graduated corporate income rate[325]	$37.1
Exclusion of scholarship and fellowship income	$37.5
Expensing of certain small investments	$8.7
Exclusion of public assistance benefits [326]	$6.5

Source: Author compiled table from information included in *Analytical Perspectives, Budget of United States, Fiscal Year 2017, Table 14-1 (pp. 228-232).*

[322] While both baselines allow a tax credit for foreign income taxes paid, under the normal tax baseline, CFCs are not regarded as entities separate from their controlling U.S. shareholders. As a result, the deferral of tax on income received from CFCs is a tax expenditure relative to the normal tax method. Under the reference tax baseline, CFCs are considered separate entities whose income is not subject to U.S. tax until it is realized (distributed to U.S. taxpayers). As a result, the deferral of tax on income received by CFCs is not a tax expenditure relative to the reference tax baseline (OMB, 2015a and Shepperd, 1984).

[323] Under the normal tax baseline, depreciation in excess of straight-line deprecation is treated as a tax expenditure. Under the reference tax baseline, no tax expenditure arises from accelerated depreciation based on the argument that absence the ACRS (Accelerated Cost Recovery System) provisions there is no general rule to which ACRS is an exception (OMB, 1982).

[324] Relative to the normal income baseline, the expensing of research and development (R&D) expenditures is included as a tax expenditure following the comprehensive income principle that these types of expenses should be capitalized and amortized. However, the reference tax baseline includes R&D expenses citing a lack of clarity about the appropriate amortization period and the expensing of these items under general accounting principles. As result, relative to the reference tax baseline, the expensing of R&D expenditures is not included as a tax expenditure.

[325] Separate tax rate schedules for various taxpaying units are included in the both the normal tax and reference tax baselines. However, by convention, the normal tax baseline specifies the current maximum rates as the baseline for the corporate income tax and thus includes corporate tax rates below the maximum as a tax expenditure. Under the reference tax baseline, corporate tax rates below the maximum rate do not give rise to a tax expenditure.

[326] Under the reference tax baseline, government transfers to private individuals (with the exception of Social Security) are not included as income and thus their exemptions are not included as tax expenditures.

In 2008, responding to criticism about the tax expenditure concept, the JCT revised its methodology for identifying tax expenditures. The revised approach sought to decouple the identification of tax expenditures from the normal income baseline. CT acknowledged that it revised approach built loosely on Fiekowsky's work and resembled Treasury's reference tax approach.[327,328] At the time, JCT emphasized that while the revised approach covered many of the same provisions as its traditional approach it does so *"without relying on the hypothetical "normal" tax to determine what constitutes a tax expenditure and without holding up that "normal" tax as implicit criticism of present law"* (JCT, 2008). The JCT, however, reversed its decision in 2010 and returned to its traditional analysis based on the normal tax. It explained "…[g]*iven the similarity of the two approaches, the generally more expansive list of provisions identified relative to the normal income tax baseline, and continuity with the historical approach of the Joint Committee staff since 1972, this pamphlet resumes implementation of the tax expenditure concept under a normal income…"* (JCT, 2010, p. 10).

Although the various reformulations of the tax expenditure concept are not dependent on defining a normative tax baseline, they still require interpretations and judgments in determining what constitutes a tax expenditure. Depending on the

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[327] The approach divided tax expenditures into two categories: (1) *"tax subsidies"* and (2*) "tax-induced structural distortions."* A tax subsidy was described as *"a specific tax provision that is deliberately inconsistent with an identifiable general rule of the present tax law (not a hypothetical "normal" tax) and that collects less revenue than does the general rule"* (JCT, 2008). "*Tax-induced structural distortions"* were described as "*structural elements of the Internal Revenue Code (not deviations from any clearly identifiable general tax rule and thus not Tax Subsidies) that materially affect economic decisions in a manner that imposes substantial economic efficiency effects"* (JCT, 2008).

[328] In addition, the revised JCT approach identified *"negative tax subsidies,"* described as provisions that increase the tax burden above what a general rule would impose (JCT, 2008). Negative tax expenditures refer to tax provisions which result in a penalty from inclusion of more income than required relative to the tax baseline.

approach, judgments are required to determine whether a tax provision is, for example: *"substitutable;"* "*...clearly designed to accomplish a social or economic goal that is not related to the tax system;"* or "*promotes spending goals"* (Fleming and Peroni, 2010 and Thuronyi, 1988).[329] Thus, these alternative formulations of the tax expenditure concept do not fully avoid the criticisms about the subjective nature of the tax expenditure concept based on the normal tax.

The above debates foreshadow the potential for conflict on which tax provisions would be identified as tax expenditures under tax expenditure specific budget rules. The controversy surrounding OMB's adoption of the reference tax baseline provides an example. In introducing the reference tax baseline, OMB (1982) took the position that the tax expenditure concept was flawed, arguing, that *"[t]he very term tax expenditure is misleading in several respects and there are formidable difficulties in trying to define the underlying concept"* (p. 1). Critics of OMB's adoption of the reference tax baseline, however, viewed it as politically motivated and resulting in a subjective, inconsistent approach that failed to comply with CBA requirements. Specifically, in discussing the treatment of the ACRS, McDaniel and Surrey (1982) argue *"one can only conclude that with respect to the ACRS political pressure simply overwhelmed the technicians"* (p. 603). This type of controversy illustrates how debate about baseline tax structure reflects and becomes intertwined with the tax politics and policy.

[329] Another example of the definitional challenges is the differing opinions on what might be included in a reference tax structure. For example, the Treasury's tax expenditure list relative to a reference tax baseline includes the preferential treatment of capital gains as a tax expenditure while Fiekowsky's approach did not (OMB, 1983/2013 and Sheppard, 1984).

Estimation of foregone revenues also presents challenge for budget rules.

The challenges do not stop once tax expenditures are identified. Measuring their costs raises significant complexities and uncertainty. The primary cost measure for tax expenditures, as required by the CBA, is a measure of revenue loss commonly referred to as foregone revenues (also referred to as revenue loss or revenue effects). Foregone revenues provide an estimate of how much higher tax liabilities would be if a tax expenditure did not exist. It is calculated for each tax expenditure separately as the difference between: (1) the tax liability without the single tax expenditure and (2) the tax liability under current law.

In considering the use of foregone revenue estimates for budget rules, it is important to recognize that they differ from revenue and outlay estimates. An estimate of foregone revenue is measured separately for each tax expenditure, assuming the rest of the tax code remains unchanged (GAO, 2005e). Because possible interaction effects among tax provisions are not accounted for totaling these estimates may be misleading – the sum of revenue losses for tax expenditures measured separately may differ from the revenue loss from eliminating tax expenditures simultaneously. [330]

The magnitude of the difference is not known, but existing research provides some insights. Research indicates: (1) tax expenditure estimates for multiple exclusions could be more than the sum of those tax expenditures for a given progressive rate structure and (2) tax expenditure estimates for multiple itemized deductions could be less than the sum of those deductions given the standard deduction (Burman, Toder, and

[330] As noted earlier, even with these caveats CRS, GAO, and other researchers state the belief that revenue loss totals provide a useful gauge of the general trend in tax expenditures.

Geissler, 2008 and Russo, 2012) [331] GAO (2005e) notes that eliminating several itemized deduction at the same time could cause a significant number of taxpayers to take the standard deduction which would reduce the revenue loss below what the sum of the estimated foregone revenues for each itemized deduction.[332]

The imprecision associated with totaling foregone revenue estimates create challenges for budget decision rules aimed at controlling or limiting aggregated tax expenditures. During congressional testimony on budget rules for tax expenditures, CBO Director, Rivlin cautioned that *"...any limit on the total amount of tax expenditures must confront the fact the total itself is a somewhat artificial number"* (Rivlin, 1981a, p. 9). She explained:

> *"... Interactions can be taken into account if a limited number of tax expenditures are considered, but the calculation becomes increasingly more artificial as more items are included. Including all tax expenditures and taking into account all of the interactions would require constructing a wholly new tax system without tax expenditures. While it could be done, it would require making a large number of probably controversial assumptions. In the end, it would still be no more than an idealized abstraction. It would never have the reality that total budget outlays and revenues do [emphasis added]"* (Rivlin, 1981a, p. 7).

Similarly, the 1968 Treasury report notes *"an effort to take this interaction into account in the estimates of separate items would require arbitrary decisions as to which provision were taken into account before other provisions"* (Treasury, 1968, p. 338).

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[331] The difference between the sum of the individual estimates and the estimate for all tax expenditure calculated simultaneously is not known, but some researchers, including Burman, Toder, and Geissler (2008), have tried to provide an idea of the magnitude.

[332] GAO (2005e) reported that analysis by the Treasury of five itemized deductions found about a 25 percent difference between the sum of individual estimates ($175 billion) and the estimate of revenue loss assuming simultaneous repeal and interaction ($131 billion). According to GAO, the Treasury stated that this example cannot be generalized given that groups of tax provisions have various levels of interactions. See GAO (2005e) for more detail.

However, Rivlin also noted the potential for careful budget rule design to help mitigate these problems. Rivlin (1981c) testified that if a budget rule was based on incremental changes in aggregate tax expenditures many of the problems associated with summing tax expenditures could be reduced (Rivlin, 1981 and H.R. 4882, 1981).

Budget rules focused on recognizing and controlling tax expenditures separately, rather than by aggregated totals, also face cost estimation issues. Foregone revenue estimates focus only on tax form behavior (Russco, 2012). Unlike revenue estimates, they do not incorporate behavioral responses that are anticipated from the change.[333] As a result, foregone revenue estimates provide information on the "*general magnitude"* of federal "*spending"* occurring from tax expenditures, but do not represent the amount of revenue that would be gained if a tax expenditure was repealed because the repeal would probably trigger behavioral responses that affect other federal spending or revenue (GAO, 2005e and OMB, 2002).[334]

Further, although both the Treasury and JCT estimate foregone revenues they use somewhat different methodologies. JCT measures each tax expenditure as the difference between the tax liability under present law and the tax liability that would result if the tax expenditure provision was repealed, assuming that taxpayers were allowed to take advantage of any of the remaining tax expenditure provisions that apply to the income or the expense associated with the repealed tax expenditure (JCT, 2017). Conversely, under

[333] Revenue estimates fully reflect anticipated behavioral effects of the proposal under consideration, except that they usually do not include any macroeconomic growth effects from the proposal (JCT, 2008).

[334] Sunley (2004) pointed out the foregone revenue estimates do not equate to potential revenue increase from repeal because repeal of a tax expenditure may be prospective only thus reducing the taxpayers affected by the repeal and lowering the amount of associated increase in federal revenues.

the Treasury's methodology, each tax expenditure is measured by the difference between tax liability under present law and the tax liability that would result if the tax expenditure provision was repealed, assuming taxpayers were prohibited from taking advantage of any of the remaining tax expenditures provisions that apply to the income or expenses associated with the repealed tax expenditure (JCT, 2017). Treasury and JCT estimates also differ due to difference in data sources, baseline projections, and presentation (JCT, 2017).[335] Table 8.4 compares the fiscal year 2015 foregone revenue estimates for several tax expenditures included in both the President's budget (normal tax baseline) and the JCT lists.

[335] For example, the macroeconomic assumptions used differ. JCT uses CBO assumptions which constructs it baseline projections using methods specified in the Balanced Budget and Emergency Deficit Control Act of 1985. Treasury bases it assumption on OMB and Council of Economic Advisors.

Table 8.4 Treasury and JCT Estimates, Examples of Differences

Treasury (OTA) Fiscal Year 2017 Budget (in billions)		**JCT December 2015 (in billions)**		**Difference (in billions)**
Exclusion of employer contributions for medical insurance premiums and medical care	$201.5	Exclusion of employer contributions for health care, health insurance premiums, and long-term care insurance	$145.5	$56
Accelerated depreciation of machinery and equipment (normal tax method)	-$7.5	Depreciation of equipment in excess of the alternative depreciation system	-$28.2	$21
Deductibility of mortgage interest on owner-occupied homes	$58.8	Deduction of mortgage interest on owner-occupied residences	$71.0	-12.2
Step up basis of capital gains at death	$54.9	Exclusion of capital gains at death	$32.4	$22.5
Deduction for charitable contributions, other than education and health	$40.9	Deduction for charitable contributions, other than for education and health	$35.8	$5.1

Source: Author based on data included in *Table 16-1 in Analytical Perspectives, Budget of the United States, Fiscal Year 2017* (published in February 2016) and *Table 1 in Estimates of Federal Tax Expenditures for Fiscal Years 2015-2019* (Published December 2015)

The difficulties inherent in estimating the cost of tax expenditures impede efforts to establish and implement budget rules for tax expenditures. Policy participants express a wide range of views with respect to how significant these estimation issues are to the legitimacy and usefulness of the tax expenditure concept and its use in budget decision rules. Experts disagree about both the magnitude of issue as well as feasibility of improving estimates.

Some policy participants acknowledge the measurement challenges, but do not view them as insurmountable for the tax expenditure concept or its use as the basis of budget decision rules. Davenport (1977), argued:

> *"…not one factor bears on the integrity of the estimates. The estimates do tell us what is being spent through the tax system. Obviously, they do not tell us what would be spent if several items including other provisions of the tax law were changed at the same time. Spending as well as revenue estimates suffer from this law"* (p. 35).

Even more strongly, Surrey proclaims that concerns about estimation issues are *"wrong and irrelevant."* He noted that budget resolutions, which some propose could be used to increase control of tax expenditures, are based on estimates of revenues and outlays. Burman (2011) and Roin (2003) argued that budget spending estimates also are limited by issues of baseline disputes, the use of static measures, and limited interaction effects among policies.

However, while many of the estimation issues for tax expenditures are similar to those faced for other revenue and spending estimates, there are some important differences, especially for budgeting purposes. Direct expenditures (cash outlay estimates) involve estimation uncertainties, but these cost estimates eventually result in cash outlays that are tangible and measurable. There is a tangible measure of actual costs that can be used to retroactively evaluate and improve estimates. Estimates for tax expenditures are different in that the actual costs are never really known. Unlike direct expenditures, tax expenditures not only must be estimated, using a *"somewhat artificial set of assumptions and estimating conventions"* but the results are never actually observed (Rivlin, 1981). Aaron (1977), a supporter of the tax expenditure concept and its use in analysis argued:

> *"… It is futile to dream of a "grand budget" that sums direct expenditures – a set of affirmative actions actually taken – and tax expenditures – a set of actions not taken or revenues not collected"* (p. 31).

Chairman Jones argued:

> *First, and foremost, is the problem that tax expenditures are never observable; they are always an estimate of what "might have been," of the revenues that would have been collected in the absence of the special tax provision in question. In this, they differ fundamentally from spending. Outlays are also estimates before the fact, and these spending estimates, as has been pointed out, suffer many of the same uncertainties as estimates of tax expenditures. But after the fact, when the books on spending are closed, the bean counters at OMB and CBO can count the beans...With tax expenditures we can never count the beans – only the might-have-been beans. As a result, one cannot readily evaluate and improve the estimates. Since the estimates therefore have to be accepted more upon faith than experience, it subjects the process to an extra burden of credibility* (as cited in McDaniel and Surrey, 1982, p. 612).

More recently, GAO (2005e) states, *"projections of the future costs of tax expenditures are more uncertain than projections for future tax receipts or outlays because it is not known with certainty, even after the fact, how much was spent for any given tax expenditure" (p. 21).*

While a stated objective of tax expenditure reporting is to allow for better comparisons between tax expenditures and direct expenditures, determining the appropriate cost measure and presentational format is a challenge. The traditional cost measure for tax expenditures – foregone revenues -- does not provide a precise estimate of revenue gains from repealing a tax expenditure and these estimates are not directly comparable to the budget's cash outlays for direct expenditures. To try to better support comparisons, the President's budget, from fiscal year 1983 to fiscal year 2006, included outlay-equivalent estimates in addition to estimates of foregone revenues.[336] An outlay-equivalent estimate is an estimate of the direct subsidy (cash outlays) that would be required to provide the taxpayer the same after-tax income (benefit) as would be received

[336] The JCT has never provided outlay-equivalent estimates.

through the tax provision (OMB, 2004). Outlay-equivalent estimates are estimated in a similar manner to foregone revenues, but they are "grossed up" to include the extra amount that would be paid in income tax from the beneficiary under a direct expenditure program (CBO, 1982b, and GAO, 2005e).[337]

While it is unclear whether outlay-equivalent estimates helped improve cost comparisons, it is clear they added another layer of complexity and subjectivity. Some observers argue that outlay-equivalent estimates increased confusion about tax expenditures and their costs (Mackie, 2012; McDaniel and Surrey, 1982 and Sunley, 2004). McDaniel and Surrey (1982) argued that outlay-equivalent estimates are *"crucially dependent on the proper income tax treatment of the comparable direct subsidy."* Again, the issue of the how to define taxable income comes into play. As explained by McDaniel and Surrey (1982), if the funds received under a program are included in taxable income then gross up is necessary. However, if the program is not included in taxable income, the gross up is not included and the outlay-equivalent estimate and the foregone revenue estimate would be the same. Thus, disagreement about what items are included in taxable income carryover to the outlay-equivalent estimates.

Mackie (2012) noted that outlays equivalent raised difficult questions, such as how equivalent spending would be designed, and which would be taxed? Sunley explained that *"[e]xcept for specialized economists, most observers, have trouble understanding the counterfactuals assumed for each direct spending program and why*

[337] Tax subsidies provide by tax expenditures generally are not taxable. However, direct benefit programs often provide benefits that are taxable. Outlay equivalent estimates are used to make tax expenditures (which are not taxable) more comparable to taxable direct expenditure programs (Mackie, 2012).

for certain tax expenditures the outlay equivalent and revenue foregone estimates are the same and for others they are not" (Sunley, 2004, p.164). GAO (2005e) noted that *"... tax experts do not always agree on whether specific tax expenditures should be grossed up or not"* (p. 97). In discontinuing the reporting of outlay equivalent cost estimates, OMB (2007) explained "…*they were often the same as the normal tax expenditure estimates and the criteria for applying the concepts and when they should differ were often judgmental and hard to apply with consistency across time and across tax expenditure items"* (p. 286, note 1). There is currently no measure that allows for direct comparison of direct expenditures and tax expenditures

Summary Observations and Thoughts

Persistent controversies and disagreements in conceptual and definitional ambiguity create obstacles to the establishment and implementation of tax expenditure specific budget decision rules. A lack of agreement about whether tax expenditures are government spending is central to the fight over using the concept in budget rules. If it is accepted that tax expenditures are government spending, then a budget process that does not directly recognize and control these tax provisions would be deemed incomplete. However, for those who do not accept the premise that tax expenditures are spending, proposals to subject these tax provisions to "spending" controls are illogical.

However, even when the conceptual logic and merits of the tax expenditure concept are accepted, significant definitional and estimation issues remain. Identifying tax expenditures involves issues that are both technically complex and politically-charged, such as what is a "*proper"* tax system, and what determines taxable income.

The bottom line is that the normal tax structure is largely a "*hypothetical construct," or "abstraction"* rather than a clear standard for assessing what is and is not a tax expenditure (GAO, 2005e). Further, addressing areas of conceptual ambiguity and a lack of definitional parameters is made more difficult because these issues are intertwined with unresolved, deeply-rooted ideological and political disagreements about fiscal policy issues and the role of government. Debates over the tax baseline exemplify how a lack of consensus on broader policy and political issues may spill over into debate about the legitimacy and design of a budget decision rule.

Cost estimation challenges and uncertainty also has implications for the establishment, design, and implementation of budget decision rules for tax expenditures. Tax expenditure estimates of foregone revenue are never observable. In this way, foregone revenue estimates differ from cash outlay estimates, which while also fraught with estimation uncertainty, can be retroactively tracked and reviewed for accuracy. In the contentious world of budgeting, the lack of hindsight and accountability creates the opportunities for misunderstanding, manipulation, and conflict.

Chapter Nine:
Tax Expenditure, Trends, Policy, Politics, and Institutions

The level and composition of tax expenditures sets the stage for considering the development of budget decision rules. The objective and design of budget decision rules for tax expenditures needs to be considered in the context of: (1) significant built-in, automatic growth; (2) large, long-standing, and politically popular tax expenditures; (3) a proliferation of smaller, niched tax expenditures; and (4) increased use of refundable tax credits. The relationship between tax rates and the value of tax expenditures also is another complicating factor. This chapter examines trends in the level and composition of tax expenditures and then considers the implications of the politics and institutional structures on efforts to establish budget decision rules for tax expenditures.

Tax Expenditure Costs Are Concentrated in a Relatively Few Provisions

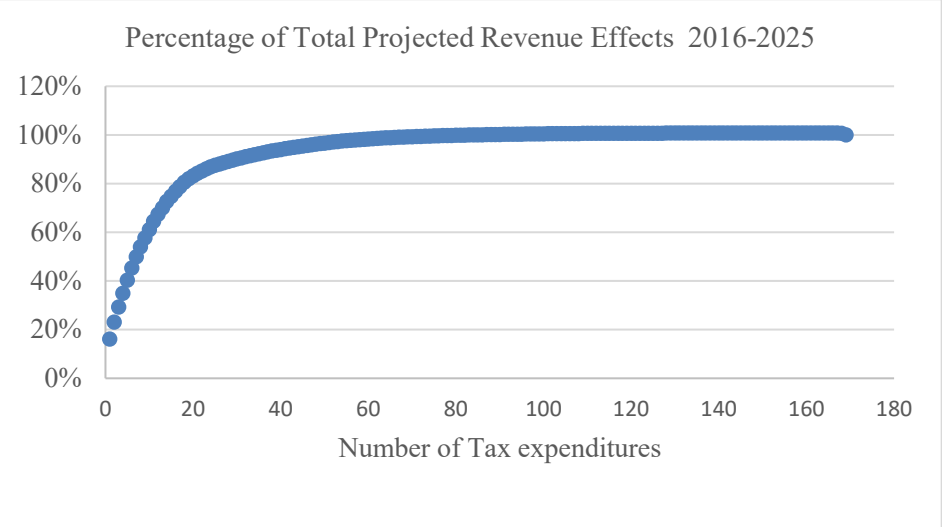
The project revenue effects of tax expenditures are concentrated in a relatively few provisions. Of the 169 tax expenditures listed in the President's fiscal year 2017 budget the 7 largest account for 50% of the total for fiscal year 2015; the 15 largest account for 75% of the total; and the 30 largest account for about 90% of the total.[338] Thus, for fiscal year 2015, less than 20% of tax expenditures reported in the President's budget accounts for over 90% of the sum of projected revenue effects.

The distribution of the projected revenue effects of tax expenditures over the fiscal year 2016-2025 budget horizon further illustrates this concentration (See Figures

[338] The concentration of tax expenditure spending is also evident, but not as quite as strong in earlier years. For fiscal year 1974, the top quartile and top half accounts for 78% and 94% of foregone revenues, respectively. For fiscal year 1995, the top quartile accounts for 90% of foregone revenues.

9.1 and 9.2). Ranked by projected revenue effect, the top quartile of reported tax expenditures (42 of 169 tax expenditures) account of about 95% of the sum of projected revenue effects. The top half (84 of 169 tax expenditures) account for virtually all (99.9%) of the total projected revenue effect. Each of the tax expenditures in the bottom half (85 of 169 tax expenditures) has a minimal affect (.03 percent or less of the total projected revenue effect) or a negative revenue effect.[339]

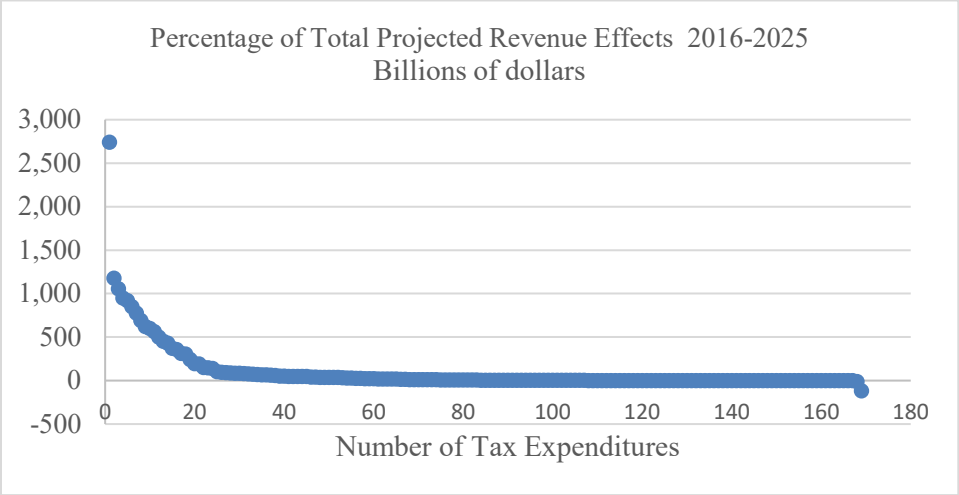
Figure 9.1 Distribution of Tax Expenditures, Projected Revenue Effect, 2016-2025



Source: Graph created by author based on analysis of OMB data included in *Analytical Perspectives, Budget of U.S. Government, Fiscal Year 2017*.

[339] Negative tax expenditures are provisions that result in an increase, rather than a decrease, in tax liability.

Figure 9.2 Distribution of Tax Expenditures, Projected Revenue Effects, 2016-2026



Source: Graph created by author based on analysis of OMB data including in *Analytical Perspectives, Budget of U.S. Government, Fiscal Year 2017*.

The largest tax expenditure -- the exclusion of employer contributions for medical insurance premiums and medical care – dominates with projected revenue effects of $2.7 trillion, accounting for 16.2% of the total projected revenue effects.[340] Each of the other tax expenditures in the top ten has projected revenue effects of more than $600 billion over the 10-year budget window. In contrast, half of the tax expenditures each has projected revenue effects of less than $6 billion over the 10-year budget window. Each tax expenditure in the bottom fifty has projected revenue effects of less than $1 billion or negative revenue effects over the ten-year budget horizon.

[340] When the controversial tax expenditure for the exclusion of imputed rental income of owner-occupied homes is dropped from the analyses, the exclusion of employer contributions for medical insurance premiums and medical care accounts for 17.3% of the total projected revenues. Treasury's recent inclusion of a tax expenditure for imputed rental income of owner-occupied homes is based on a definitional change (not a tax policy) and this treatment remains controversial. The overall outcome and message of the analyses is the same regardless of whether this provision is included.

Table 9.1 list the top 30 tax expenditures, ranked by projected revenue effect, fiscal years 2016-2025. These 30 tax expenditures account for 90% of the projected revenue effects for fiscal years 2016-2025. As indicated in the table, I traced each tax expenditure to the first statutorily-required tax listing to determine if it was included in that listing.[341] I compiled additional information on each tax expenditure's originating provision(s) by examining JCT's report prepared for the Senate Budget Committee, *Tax Expenditures: Compendium of Background Material on Individual Provisions* and related legislative histories (CRS, 2014).

About two-thirds of the 30 largest tax expenditures are long-standing provisions that have survived CBA reporting requirements, the TRA 1986, and the enactment of PAYGO rules (Buckley, 2011; Neubig and Joulfanain, 1998; and Witte, 2017). Seven can be traced to provisions included in the income tax code as established in 1913. Another 13 were traced to originating provisions enacted before the 1974 statutory requirement for tax expenditure reporting.

The largest tax expenditure - the exclusion of employer contributions for medical insurance premiums and medical care – can be traced to the early-to-mid 1900s. The exclusion of compensation from employer-provided accident and health plans originated in the Revenue Act of 1918, but the issue was not fully settled until a 1956 IRS ruling (CRS, 2014). Since then, employer contributions to accident and health plans have been considered deductible expenses for employers and non-taxable compensation for employees (CRS, 2014). The special treatment for capital gains from the sale of assets, such as securities or real assets was enacted in 1921. The exclusion for employers'

[341] *Special Analysis of the Budget of United States Fiscal Year 1976*, Table F-1.

contributions to pension funds was enacted in 1926. The exclusion of capital gains on home sales (marked as partial in the table) has its origins in a limited deferral of capital gains from sale of principle residence beginning in the early 1950s. However, this provision has been significantly revised and expanded over time[342] While legislative changes and expansions certainly have been made to the largest tax expenditures, their origins can be traced to long-standing tax policy and their growth has been driven in part by exogenous factors, not legislative changes (such as economic conditions and population changes), as discussed below.

[342] The tax expenditures related to home ownership have been significantly revised and expanded. The Revenue Act of 1951 introduced the concept of deferring the tax on capital gains from the sale of a primary residence if the proceeds of the sale were used to purchase another residence of equal or greater value. In 1964, elderly homeowners were provided a one-time exclusion for some of their capital gains from the sale of their primary residence. Over time, the exclusion was expanded to allow all taxpayers aged 55 years and older a one-time exclusion for up to $125,00 gain from the sale of their primary residence (CRS, 2014). In 1997, the tax treatment of capital gains on primary home sales was expanded significantly (Hanlon, 2011). The tax code, with some exemptions and restrictions, now allows homeowners to exclude capital gains on home sales from gross income up to $250,000 for an individual or $500,000 for married couples filing a joint return (OMB, 2016).

Table 9.1 Top 30 Tax Expenditures, Ranked by Project Revenue Effect, FY 2016-2025

Rank	Tax Expenditure	Reported in President's Fiscal Year 1976 Budget	Originating Provision Enacted	Fiscal Years 2016-2025 Project Revenue Effect, Billions of dollars	Percent of total	Cumulative Percentage of total
1	Exclusion of employer contributions for medical insurance premiums and medical care	Yes	1918, 1954	2,742	16.1%	16.1%
2	Exclusion of net imputed rental income	First reported in the fiscal year 2004 budget Definitional change, rather than a policy change (see text)	N/A	1,179	6.9%	23%
3	Capital gains (except agriculture, timber, iron ore, and coal)	Yes	1921	1,058	6.2%	29.2%
4	Deductibility of mortgage interest on owner-occupied homes	Yes	1913	949	5.6%	34.9%
5	Defined contribution employer plans	First reported as separate tax expenditure in the fiscal year 2001 budget	1978	922	5.4%	40.3%
6	Deferral of income from controlled foreign corporations (normal tax method)	First reported in fiscal year 1979 budget for fiscal year 1977	See discussion in text	853	5.0%	45.3%
7	Step-up basis of capital gains at death	First reported in the fiscal year 1979 budget for fiscal year 1977	See discussion in text	777	4.6%	49.8%

Rank	Tax Expenditure	Reported in President's Fiscal Year 1976 Budget	Originating Provision Enacted	Fiscal Years 2016-2025 Project Revenue Effect, Billions of dollars	Percent of total	Cumulative Percentage of total
8	Deductibility of nonbusiness State and local taxes other than on owner-occupied homes	Yes	1913	693	4.1%	53.9%
9	Defined benefit employer plans	Yes	1926	623	3.7%	57.6%
10	Deductibility of charitable contributions, other than education and health	Yes	1917	601	3.5%	61.1%
11	Capital gains exclusion on home sales	Partial, see discussion in text	1951	564	3.3%	64.4%
12	Exclusion of interest on public purpose state and local bonds	Yes	1913	501	3.0%	67.4%
13	Deductibility of State and local property tax on owner-occupied homes	Yes	1913	453	2.7%	70.0%
14	Self-Employed plans	Yes	1962	432	2.5%	72.6%
15	Exclusion of interest on life insurance savings	Yes	1913	371	2.2%	74.8%
16	Accelerated depreciation of machinery and equipment (normal tax method)	1977	1954	356	2.09%	76.9%
17	Social Security benefits for retired workers	Yes	1938; 1941	315	1.85%	78.7%
18	Treatment of qualified dividends	2003	2004	307	1.81%	80.5%
19	Child credit	1997	1997	243	1.43%	82.0%
20	Individual Retirement Accounts	Yes		197	1.16%	83.1%
21	Deduction for US production activities	2004	2004	193	1.13%	84.2%
22	Exclusion of benefits and allowances to armed forces personnel	Yes	1925 (courting ruling)	151	0.89%	85.1%
23	Deductibility of medical expenses	Yes	1942	149	0.88%	86.0%

Rank	Tax Expenditure	Reported in President's Fiscal Year 1976 Budget	Originating Provision Enacted	Fiscal Years 2016-2025 Project Revenue Effect, Billions of dollars	Percent of total	Cumulative Percentage of total
24	Medical Savings Accounts / Health Savings Accounts	1996	2003	140	0.83%	86.8%
25	Exclusion of workers' compensation benefits	Yes	1918	103	0.60%	87.4%
26	Social Security benefits for disabled workers	Yes	1938; 1941	94	0.56%	88.0%
27	Deferral of gains from like-kind exchanges	First reported in fiscal year 2015 budget Definitional change; not a tax policy change	1921	92	0.54%	88.5%
28	Credit for low-income housing investments	1986	1986	88	0.51%	89.0%
29	Self-employed medical insurance premiums	1998	1986;1996	87	0.51%	89.6%
30	Exception from passive loss rules for $25,000 of rental loss	1987	1986	87	0.51%	90.1%
						90.1%

Source: Table compiled by author. Data on tax expenditures and foregone revenues drawn from *Analytical Perspectives, Budget of U.S. Government, Fiscal Year 2017, Table 3, p. 253*. Additional information drawn from *Special Analysis of the Budget of United States Fiscal Year 1976,* Table F-1; *Tax Expenditures: Compendium of Background Material on Individual Provisions* CRS, 2014); and legislative histories. Analysis and calculations by author.

Further, some of largest provisions not reported in the first statutorily-required tax expenditure listing were determined to be grounded in long-standing tax policy or the result of definitional, rather than policy changes. The largest tax expenditure not included in fiscal year 1976 budget - the exclusion of imputed rental income[343]does not represent a change in tax policy. It is now included because of a definitional change to how Treasury identifies tax expenditures. The reporting of this provision as a tax expenditure is controversial. While the Treasury began reporting imputed rental income as a tax expenditure in 2004, the JCT has never included it as a tax expenditure. In addition, the recent inclusion of a tax expenditure for the deferral of gain from like-kind exchange[344] - is also the result of a reporting change, rather than a change in tax policy.[345] As discussed in Chapter Eight, these issues provide examples of the definitional issues that would have to be addressed in determining which tax provisions are included under new budget decision rules for tax expenditures. For purpose of this analysis, however, excluding the tax expenditure of imputed rental income does not significantly change the overall picture or conclusion.[346]

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[343] Imputed rental income refers to the implicit value of gross rental income on housing services earned on the investment in owner-occupied housing (OMB, 2016)

[344] The like-kind exchange tax expenditure occurs because no gain or loss is recognized (and no tax is collected) when a business or investment property is exchanged for a like-kind property.

[345] The Revenue Act of 1921 included a provision allowing tax-free exchanges of like-kind property as part of the first statutory rules for capital (CRS, 2014). This tax treatment has been continued in some form ever since. However, Treasury did not report a tax expenditure for the deferral of like-kind exchanges until the fiscal year 2015 budget. JCT first reported it as a tax expenditure in 2008.

[346] When the tax expenditure for imputed rental income is removed, the top 15 largest tax expenditures still account for 75% of total projected revenue effects. Accelerated depreciation for machinery, which is grounded long-standing tax provisions, becomes the 15th largest tax expenditure. This tax expenditure can be traced to provisions first reported as a tax expenditure in the president's fiscal year 1977 budget.

The stepped-up basis, which allows heirs to inherit property that has appreciated in value without paying taxes on the gains, was a long-standing provision that was not in effect for a brief period coinciding with the first tax expenditure budget. [347] Its reporting the next year in the fiscal year 1977 budget represented the restatement of long-standing policy rather than "new" tax policy.

The tax expenditure for the deferral of income from controlled foreign corporations (CFCs) arises because the United States generally taxes the worldwide income of U.S. persons and business entities, but certain active income of foreign corporations controlled by U.S. shareholders is not subject to U.S. taxation when it is earned. The income becomes taxable only when it is repatriated to the U.S. parent firms as dividends or other income (CRS, 2014 and OMB, 2016). While the President's budget did not report this as a separate tax expenditure until the fiscal year 1979 budget, the deferral has been part of the U.S. tax system since the origin of the corporate income tax in 1909 (CRS, 2014).[348] [349]

The other provision not listed in the first tax expenditure budget – the net exclusion of pension contributions and earnings for defined contribution plans - stems

[347] Prior to the Tax Reform Act of 1976, the Internal Revenue Code (IRC) provided that property acquired from a decedent received a basis equal to the property's fair market value on the date of the decedent's death. Section 1023 of the Tax Reform Act of 1976 revised this treatment by providing that certain types of property acquired from a decedent would have the same the basis as the property had in the hands of the decedents. By using this *"carryover"* basis, the unrealized appreciation of inherited assets would no longer permanently avoid federal taxation. In 1980, the Congress retroactively repealed section 1023, which had been found to be complicated and highly unpopular (Hanlon, 2011, Hightower, 2014 McElroy, 2015 and Md.L. Rev, 1977, and Zelenak, 1993).

[348] The general policy trend until recently had been towards restricting, rather than expanding, this deferral.

[349] The JCT reported a tax expenditure for this deferral in its first official tax expenditure budget in 1976.

from the Revenue Act of 1978.[350] Its application to pension plans grew rapidly in the 1980s and there have been several significant legislative expansions. The Treasury, however, did not include a separate tax expenditure for defined contribution plans until fiscal year 2001, coinciding with legislation that, among other things, increased contribution limits and created the Roth 401(k).[351] The JCT began reporting a separate tax expenditure for defined contribution plans in 2008.

Of the remaining seven tax expenditures, four were enacted before PAYGO[352] and three were enacted after PAYGO. The three tax expenditures traced to originating provisions enacted after PAYGO include: (1) treatment of qualified dividends (ranked 18th); (2) deduction of US production activities (ranked 21st) and (3) medical savings accounts/health savings accounts (ranked 24th).

My review of all tax expenditures reported in the fiscal year 2017 budget provides further insights into the concentration and longevity of tax expenditures (Table not included). Just over 75% of the total projected revenue effects over the fiscal years 2016-2025 can be traced to tax expenditures first reported in the president's budget in the 1970s and early 1980s. About 80% of total projected revenue effect can be traced to tax expenditures were first reported before PAYGO.

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[350] The Revenue Act of 1978 included a provision that became Internal Revenue Code (IRC) Sec. 401(k) under which employees are not taxed on the portion of income they elect to receive as deferred compensation, rather than as direct cash payments. The law went into effect on January 1, 1980

[351] Contributions to the Roth 401(k) are taxed, but qualified distributions are not taxed.

[352] Accelerated depreciation of machinery and equipment can be traced to IRS rulings and legislation in the late 1940s and 1950s (CRS, 2014). The credit for low-income housing was created by TRA 1986 to provide an incentive for the development or rehabilitation of affordable rental housing. The exception from passive lose rules for $25,00 of rental loss also was part of TRA 1986. The Child Care Credit, discussed below, was enacted in 1997.

While the cost of tax expenditures is concentrated in a relatively few tax expenditures, many of which stem from long-standing tax policy, there have been some notable expansions and compositional shifts that have important implications for tax reform and the establishment of budget decision rules for tax expenditures. Overall, tax expenditures for individuals have increased more than corporate tax expenditures.[353]Collectively, corporate tax expenditures are significantly smaller than tax expenditures for individuals. The largest tax expenditure for individuals – the exclusion of employer contributions for medical insurance premiums and medical care -- with forgone revenues of $211 billion for fiscal year 2015 is larger than the sum of forgone revenues for all corporate tax expenditures of $143 billion.[354] In comparison, the largest tax corporate tax expenditure - the deferral of income of foreign controlled corporation - has foregone revenues of $64.5 billion for fiscal year 2015.[355]

In contrast to the tax expenditure growth leading up to TRA 1986, which was largely related to business activities, some of the significant, newly created or expanded tax expenditures since TRA 1986 have been in social policy areas, such as income

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[353] Existing studies discuss this trend. Rogers and Toder (2011) found that the share of tax expenditures claimed on individual returns increased after the 1986 reforms and has continued to rise, while the corporate share has declined. McBride (2013) notes that growth in tax expenditures since TRA 1986 has been in tax expenditures for individuals while corporate tax expenditures declined. Steuerle (2008) shows a decline of business tax expenditures and an increase of social tax expenditures from 1980 to 2006.

[354] Foregone revenues for health exclusion are drawn from information in *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2017 Table 3. Income Tax Expenditures Ranked by Total Fiscal Year 2016-2025 Projected Revenue Effect*. The sum of foregone revenues is author's calculation based on information in *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2017 Table 2a. Estimates of Total Corporate Income Tax Expenditures for Fiscal Year 2015-2025*.

[355] The next largest corporate tax expenditures based on foregone revenues for fiscal year 2015 include: (1) deduction for U.S. production ($11.5 billion); (2) exclusion of interest on state and local public purpose bonds ($8.4); and (3) expensing of research and development ($7.1). Only one of these the deduction for U.S. production, enacted in 2004, is a recent tax expenditure.

security, housing, education, retirement, and health. The Child Tax Credit, which benefits middle-income families with children, was enacted in 1997.[356] It is now one of the largest tax expenditures (ranked 19th). Several tax credits have been enacted for post-secondary education.[357] The preferential tax treatment for medical health savings accounts was enacted in 2003. The Affordable Care Act included refundable tax credits.

There also have been notable legislative expansions in existing tax expenditures in social policy areas. The Earned Income Tax Credit (ETIC), enacted in 1975, has been expanded significantly over time.[358] The Child Tax Credit was expanded in 2001.[359] However, the refundable portion of these credits is included in budget outlays. As discussed earlier, what began as a limited deferral capital gain from the sale of principal residence has been expanded over time to provide a broad exclusion of these gains. There also have been significant legislative expansions to the preferential treatment for Individual Retirement Accounts (IRAs) and other retirement accounts.

Despite these notable new and expanded tax expenditures, most of the increase in the number of tax expenditures stems from relatively small, niche tax provisions. Of the

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[356] The child tax credit focuses tax relief on middle income families. Taxpayers with income above a specified threshold cannot take the credit. Many low-income families do not qualify for the credit because they don't pay taxes and the credit is only refundable in special circumstances (CBO, 2000).

[357] The Hope Scholarship credit and Lifetime Learning Credit were enacted in 1997. The Lifetime learning tax credit had foregone revenues of $2.3 billion for fiscal year 2015. The American Opportunity tax credit, enacted in 2008, replaced and expanded upon the Hope tax credit. The American Opportunity (AWOT) credit allows certain taxpayers to claim a refundable tax credit for qualifying higher education expenses. The AWOT had foregone revenues of $13.5 billion and outlays of $4.1 billion for fiscal year 2015.

[358] The EITC provides a refundable tax credit to assist working families and individuals. While EITC was relatively small when enacted it been expanded on several occasions. The EITC is now the largest federal aid program targeted to the working poor.

[359] The Economic Growth and Tax Relief Act of 2001 (P.L. 107-16) increase the child credit from $500 to $1000. The Jobs and Growth Tax Relief Act of 2003 (P.L. 108-27) accelerated the 2001 increase in the child credit.

169 tax expenditures reported in the fiscal year 2015 budget, 87 were first reported by Treasury after TRA 1986. Almost all of these have projected revenues effects that are less than 1% of the total projected revenue effect over 2016-2025 period. Further, some of the policy areas with the largest increase in number of tax expenditures were not large contributors to the net increase in the sum of foregone revenues between fiscal year 1986 and fiscal year 2015.

Growth in some of the largest, longest-standing, and politically popular tax expenditures results at least in part from built-in factors outside the direct control of lawmakers. Many of these provisions began as small provisions and grew significantly due to factors other direct legislative actions (Howard, 1997). One of the largest and fastest growing tax expenditures – the exclusion of employer health insurance – has been driven by expanding use of health insurance as a form of compensation and rising health care costs (CBO, 2013 and McBride, 2013).[360] Howard (1997) found that the growth in the mortgage interest deduction stemmed not from deliberate legislative changes but rather from factors such as inflation in housing prices, demographic changes, and from the "*ripple effects*" of interest rates. Penner and Steuerle (2016) discussed that when the mortgage interest deduction was established home mortgages were much less prevalent, but as homeownership and housing prices increased the deduction grew automatically. The costs for defined benefit plans also were affected by factors, such as performance of pension fund assets and inflation. While there have been legislated expansions to the preferential treatment of defined contribution plans, growth also has occurred from

[360] CBO (2013) reported that the exclusion has grown by more than two-thirds as a share of GDP, driven primarily by increases in health care spending.

increases in 401(k) contributions due to employers' shift towards these plans and improving economic conditions.

Finally, a complete picture of tax expenditures needs to include another trend – the use of refundable tax credits. Refundable tax credits reduce a taxpayer's tax liability dollar for dollar, but the taxpayer also receives a cash payment for the amount of the credit in excess of their tax liability, The President's tax expenditure budget includes only the foregone revenues associated with these credits with a footnote that they also involve cash outlays.[361] In contrast, the JCT reports a combined amount which includes both foregone revenues and outlays.[362]

In recent decades, refundable tax credits, have become an important part of the tax expenditure story. When their "full" cost (foregone revenues and outlays) is considered, a few refundable tax credits are among the largest and rapidly growing tax

[361] The outlay amounts are shown in separate Department of Treasury budget accounts include in the budget appendix.

[362] Determining how to deal with refundable tax credits when examining tax expenditure trends involved several considerations. Analysis including refundable tax credits is complicated because estimates of foregone revenues and outlays are not fully equivalent. Therefore, adding the two components of costs does not provide fully comparable cost measure. Further, in thinking about this dissertation's focus on budget rules, refundable tax credits the outlay portion of these programs is already included as spending in the budget. In effort to best understand and highlight the issues involved, the above analysis first focused on the information (foregone revenues) as reported president's tax expenditure. Refundable tax credits are discussed to highlight these credits and the potential implications for thinking about tax expenditure specific budget rules.

expenditures.[363] Table 9.2 shows both the foregone revenue and outlays portion of the largest, permanent refundable tax credits.[364]

Table 9.2 Largest Refundable Tax Credits, Fiscal Year 2015 (billions of dollars)

Tax expenditure	**Year Enacted**	**Foregone Revenues**	**Outlays**	**Total**
Earn Income Tax Credit (EITC)	1975	$2.1	$60.1	$62.1
Child Care Tax Credit	1997	$24.0	$20.6	$44.6
Refundable premium assistance tax credit	2010	$2.0	$30.8	$32.8
Small Business Health Credit	2010	$.03	.04	$.07
American Opportunity Tax Credit	2009	$13.5	$4.2	$17.6

Source: Table created by author based on OMB data included in *Budget Appendix, Budget of the U.S. Government, Fiscal Year 2017*

By providing an indirect rule, PAYGO arguably lessened pressure for stronger, more direct budget decision rules for tax expenditures and influenced the trend of tax expenditure growth. PAYGO allowed for automatic growth in the cost of existing tax expenditures. Some large tax expenditures have been enacted and significant legislative expansions made to some existing ones, but the increase in the number of tax expenditures stems from small, niche provisions. This complex picture of: (1) automatic growth outside direct control of lawmakers; (2) large, long-standing and politically popular tax expenditures; (3) numerous smaller, niched tax expenditures; and (4)

[363] The EITC was first enacted in 1975 and has been expanded several times since its enactment. Its "full" cost of $62.5 billion for fiscal year 2015 put it among the largest tax expenditures. The Child care credit has also been expanded, including increases to the extent that it is refundable. Its foregone revenues of $24 billion are already significant and among the largest tax expenditures, but its "full" cost including outlays is nearly double at $44.6 billion. The Affordable Care Act (ACA) established refundable tax credits. The premium assistance tax credit's total cost of $21.5 billion puts it among the largest tax expenditures for fiscal year 2015, with projected future growth if the ACA continues. The qualified small businesses tax credit is much smaller with foregone revenues of $1.9 billion and outlays of $38 million for fiscal year 2015 (OMB, 2016).

[364] Several refundable tax credits were enacted in response to the nation's fiscal crisis, but these have expired and not included in this discussion.

increased use of refundable tax credits sets the stage for assessing efforts to establish budget decision rules for tax expenditures.

The lack of success controlling the costs of major direct expenditure entitlements foreshadows challenges in designing budget rules to directly control tax expenditures. While steep growth in direct entitlement programs, particularly Social Security, Medicare and Medicaid, has attracted much concern, there has been a lack of political will and no consensus on budget rules to address these trends. Thus, rather than having a model of an effective budget decision rule to follow, efforts to establish new budget rules for tax expenditures face many of the same unresolved obstacles which have confounded efforts to control entitlement spending.[365] As with direct entitlements, new budget decision rules for tax expenditures would have to address built-in cost growth resulting from non-legislative factors.

The design and implementation of budget decision rules for tax expenditures also involves the complexity associated with the interrelationship between tax rates and the value of tax expenditures. The interaction between tax rates and tax expenditures complicates understanding of tax expenditure growth and the costs of these provisions. The cost of tax expenditures changes with changes in the tax rate. Reforms that change tax rates automatically change the cost of tax expenditures. As discussed above, much of the reduction in tax expenditures from the 1986 tax reform came about because of lower tax rates. Similarly, higher rates increase the cost of existing tax expenditures without

[365] There is, however, limited experience with the capping tax expenditures. As noted by CBO (2013) some smaller tax expenditures enacted in 2009, including the low-income housing tax credit and some energy tax credits have budget ceilings and procedures to allocate funding among qualified beneficiaries who apply for the credits.

legislative changes to those tax expenditures. Much of the increase in tax expenditures in the early 1990s stemmed from tax rate increases.

The interaction between tax expenditures and tax rates complicates tax policy and budget rule design. When tax rates increase, existing tax expenditures become more valuable to taxpayers and when tax expenditures become more valuable taxpayers are more likely to use them. For refundable tax credits, a decrease in tax rates results in a taxpayer having a smaller tax liability before the credit is applied and a greater refundable portion (CBO, 2013). While the overall cost of the tax credit to the government is the same, the budget account would show increased cash outlays. As CBO (2013) pointed out, this may provide misleading signals because the budget only directly identifies the increase in outlays, which could lead to erroneous impression that cost of a refundable credit has grown, even when its total cost is the same.

The significant variation in the scope and targeting of tax expenditures is another consideration. As discussed above, tax expenditures are not monolithic; they vary greatly across factors, such as size, growth rate, purpose, and beneficiary. This variation complicates tax policy reforms causing some researchers argue against a one-size fits all approach (CRS, 2014, GAO, 2012 and Marples, 2015). Similarly, the varied nature of the tax expenditures complicates budget decision rule design and raises questions about the potential effectiveness of a one-size fit all approach and certain enforcement mechanisms. The objective and design of budget decision rules for tax expenditures would to considered in the context of the challenges of controlling automatic growth in large, broad-based tax expenditures and the proliferation of smaller, more niched tax

expenditures. These issues complicate tax reform which in turn complicate forming consensus on whether and how to establish tax expenditure specific budget rules.

Lack of Consensus on Budget Rules for Tax Expenditures Reflects Lack of Consensus on Tax Policy

From the start, the tax expenditure concept has been intertwined with tax policy and politics. Surrey's passionate advocacy for the concept created a double edge sword; both serving to advance it, but also entangling it with his strong tax policy positions.[366] Surrey was known as an outspoken critic of tax breaks and Congressional concerns over his policy agenda proceeded the official reporting of tax expenditures. Birnbaum and Murray (1988) note that "[c]*ongressional opposition to Surrey's appointment was intense*" (p.14). During his 1961 confirmation hearing, Surrey faced accusations that he did not believe Congress was doing its job on tax matters and contentious questioning about his positions on various tax expenditures (Birnbaum and Murray, 1988; Committee on Finance, 1961; and West, 1961). One journalist described the tone of the hearing as follows:

> *"They took Surrey line by line over his published opinions and demanded to know whether he still felt that way. The professor, who probably was wishing he had never seen a typewriter, assured the senators that he would keep an "open mind." But that may not have been the right thing to say. Some senators seem to think that an open mind means the same thing as a hole in the head"* (West, 1961, p.1).

The connection between Surrey's tax policy agenda and the tax expenditure concept cast a shadow of political bias over the exercise. While Surrey insisted that the tax expenditure designation is not intended to be negative, his works were generally

[366] The tax expenditure concept come to fruition during Surrey's tenure at Treasury during the Kennedy and Johnson Administrations, which supported comprehensive and progressive taxation.

critical of their use (Surrey, 1970a, 1970b, 1976; McDaniel & Surrey, 1982; Surrey & McDaniel, 1985). Consistent with his preference for progressive and comprehensive taxation, he repeatedly condemned tax expenditures as inefficient, inequitable, difficult to administer, and generally inferior to direct expenditures in achieving societal goals. In various academic works and speeches, he argued that "… *the case is very strong against the use of the tax device."* He outlined his position as follows:

> *"In any particular situation – certainly any new situation – the first approach should be to explore the various direct expenditure alternatives. Once the most desirable of these alternatives is determined, if one still wishes to consider the tax incentive method for the same substantive program, the question must be what clear advantages can be obtained by using the tax method. Again, as a generalization, I think it unlikely that clear advantages in tax incentive method will be found. Moreover, I stress strongly that the advantages must be clear and compelling to overcome the losses that accompany the use of the tax incentive, even the well-structured incentives. The problem of achieving a well-structured incentive are in themselves formidable* (Surrey, 1970b, p. 734).

Importantly, Surrey aligned the task of tax reform with the task of eliminating tax expenditures and, when deemed appropriate, replacing them with direct expenditures. Surrey (1970a) describes this recasting of tax reform as budget reform as follows:

> *"For tax expenditure analysis conceives of the special provisions – the preferences and loopholes – as government financing assistance comparable to that contained directly in the Budget. So viewed this aspect of tax reform becomes a review of budgetary programs"* (p. 361).
>
> *"Those urging reform must go on to say: The financial assistance will be continued efficiently and effectively by a direct expenditure program, the specifics of which are described, and therefore the tax expenditure can be dropped -- i.e. a tax reform can be accomplished"* (p. 362).

Surrey's strong policy preferences led to suggestions that his primary motivation was to establish a tool to support a specific tax policy agenda, rather than to create a neutral, objective tool to support expenditure control. Bittker (1960) argued "… *it is not insignificant that Mr. Surrey doubts the efficiency of these provisions and their ability to*

withstand public scrutiny if viewed as expenditures" (p. 248). Burkhead (1974) argued that "[a]*t least Surrey does not leave … doubt where he stands; almost every conceivable exclusion and deduction with the exception of normal depreciation and one personal exception person is included as a tax expenditure"* and "*direct expenditure is preferable to tax credits in almost every case"* (p. 1346). Feld argued that "…*the tax expenditure budget appears to rest on a particular social-political view of the tax law"* (Feld (1975, p.1051).

Similar concerns have continued for decades. King (1984) noted an *"implicit political premise"* behind Surrey's development of the tax expenditure concept – that tax expenditures have *"no inherent place within the revenue system"* (p. 14). Thuronyi (1988) argued that "[b]*y incorporating "generally accepted" concepts though Surrey endeavored to shield this subjective vision behind the authority of a consensus of experts"* (p. 1166). Karson (1985) discussed Surrey's dual and competing roles as *"tax technician"* and a *"tax moralist"* (p. 1411). Bartlett (2001), argued that "*Surrey clearly intended the term "tax expenditure" to be pejorative, undermining political support for tax preferences"* (p.2). Wiesbach and Nussim (2004) noted that

> "*Surrey's arguments … generally condemn tax expenditures so such labeling becomes extremely important. Being put on the tax expenditures list indicates that a provision is a subsidy or government largesse while staying of that list indicate that a provision have the patinas of good tax policy."* (p. 976).

As noted by Burman (2013), Surrey clearly saw the tax expenditure concept as the "*pathway to tax reform"* as indicated by the title of his 1973 book. Surrey anticipated that identifying and presenting tax expenditures as substitutes for government spending would reveal them as *"poorly targeted or inefficient"* (Surrey and McDaniel, 1985). In

this way, the tax expenditure concept was as much a device for advancing a desired policy path as an objective method for addressing budget reporting deficiencies.

The controversy over the expenditure concept and its use in budget rules continues to reflect (at least in part) deep political and ideological divides with respect to tax and spending policy.[367] Some view the tax expenditure concept's implicit assumption that there is some ideal baseline tax structure as institutionalizing a specific type of tax policy, and thus creating barriers to comprehensive tax reform (Bartlett, 2001 and Shaviro, 2003, 2011). JCT (2008) noted that "*the "normal" tax operates, at least in the view of some, as an implicit reproach to the current tax system, through being held up as an aspirational, but achievable superior tax system"* (p.7).

Specifically, some critics argue that current tax expenditure analysis interferes with the establishment of a consumption tax. Barlett (2001) argues that using the income tax base for tax expenditure analysis *"reinforces the supposed superiority of an income base and is a barrier to adoption of a consumption-based system"* (p. 12). In considering the Bush Administration's 2003 revisions to its budget's tax expenditure presentation, Burman (2003) argues that one might suspect *"… that the Administration's preference to shift the focus of analysis from an income tax baseline to a consumption tax baseline is part of larger strategy to sneak a consumption tax in through the back door"* (p.11).

Both parties clearly have something to lose in the establishment of effective budget rules to control tax expenditures. While one theory is that decision rules can be help "force" policy participants towards agreement, when the 2017 tax cuts resulted in

[367] Other researchers have noted that there is a clear ideological aspect to the tax expenditure debate and the choice of the tax baseline used to identify them (Burman, 2003, Harris, 1997 and JCT, 2008).

large increases in the deficit, lawmakers waived PAYGO to avoid sequestration. The tax expenditure experience suggests that a lack of agreement on broad policy may serve as a major obstacle to the establishment of workable, sustainable budget rules. Conflict over the tax expenditure concept and its use in budget rules reflects (and is seemingly inseparable from) the deeply-divided and highly charged tax policy and politics. Burman (2013) notes reducing individual income tax expenditures *"creates a daunting challenge."* Likewise, the establishment budget rules for tax expenditures, particularly those which attempt to explicitly treat tax expenditure as "spending" appears a similarly *"daunting challenge."*

Lack of Alignment with Existing Institutional Creates Obstacles to Budget Rules

A lack of alignment with existing institutional structures creates obstacles for some budget decision rules which seek to facilitate tradeoffs between direct expenditures and tax expenditures. Tax expenditures and direct expenditures follow different tracks through the budget and policy processes. In the executive branch, tax expenditures are generally handled by the Treasury while direct expenditures are handled by other executive agencies. In Congress, authorizing and appropriation committees handle direct expenditure programs within their jurisdiction while the two tax-writing committees – Ways and Means in House and Finance Committee in the Senate – handle revenues, including tax expenditures, and direct expenditure entitlement programs. Hungerford (2006) describes the how these different tracks limit the prospects for trading off direct expenditures and tax expenditures as follows:

> *"Appropriation committees can trade off one direct expenditure program for another, but no committee can trade off a tax expenditure for a direct expenditure*

> *in a particular category. The two tax writing committees could, however, replace a tax expenditure with mandatory spending programs with in their jurisdiction. But, typically replacing a tax expenditure with a direct expenditure would involve moving a bill through multiple committees"* (Hungerford, 2006, p. 9)

Existing research provides examples of how the *"institutional isolation"* of tax expenditures and fragmented congressional and executive responsibilities have limited effectiveness of tax expenditure analysis as analytical tool (CBO, 1982b, 2012e; Hungerford, 2006; GAO, 1994c, and Redburn et al, 2014). These issues foreshadow difficulties in establishing and implementing new budget decision rules designed to encourage (or force) policymakers to make explicit tradeoffs between tax expenditures and other policy tools (e.g. direct expenditures or credit).

GAO (1994c) found that some tax expenditures, such as accelerated depreciation or the special treatment of capital gains, do not fit clearly within budget functions or within the clear jurisdiction of particular spending committees or agencies (GAO, 1994c).[368] While theoretically tax expenditures could be compared with and traded-off with direct expenditures institutional barriers make it difficult to do (GAO, 1994c, 2016; JCT, 2008; Marples, 2015; and Surrey and McDaniel, 1985). Thuronyi (1988) cited Birnbuam and Murray's description of the impact of these institutional constraints during the 1986 TRA debate:

> *In scrutinizing tax expenditures in areas where they considered some continued federal support appropriate the committees faced a Hobson's choice: either retain the tax expenditure, perhaps in a restricted or more complicated form, thus failing to simplify the tax system or repeal it and withdraw government support from a worthy activity. The best alternative – replacing the tax expenditure with a direct spending program, perhaps funded at a lower level – was, as a practical matter, unavailable because the President had not proposed it, and because it*

[368] GAO (2005e) and GAO (2016) also found that a lack of clarity about agencies' roles with respect to tax expenditures is a key impediment to agencies identifying and including them in performance reviews.

> *would involve the jurisdiction of other committees* (Birnbuam and Murray, 1987 as cited in Thuronyi (1988).

In discussing the barriers created by the congressional committee structure, Sunley (2004) noted:

> "*I can recall only one time when Congress traded off a tax expenditure for direct spending program, and that trade-off was possible only because the tax-writing committees also have jurisdiction over welfare and income support"* (p. 166).

New budget decision rules, especially far-reaching reforms that attempt to address institutional constraints, would threaten the existing power structure among congressional committees. In arguing for stronger budget rules for tax expenditures, some proponents point to the considerable power to the tax committees under current rules. One argument is that tax writing committees, in effect, serve as both authorizing and appropriations committees because a vote for a tax expenditure simultaneously authorizes it and funds it (Kleinbard, 2010 and Surrey and McDaniel, 1985). McDaniel and Surrey (1982) described tax writing committees "po*aching on the jurisdiction"* of committees as follows:

> *"When the Tax Committees decide to consider expending funds on education through tuition tax credits, what has happened to the jurisdiction of the Committees responsible for outlays for education; when energy tax credits are voted by the Tax Committees, the jurisdiction of the committees responsible for outlays on energy are swept aside; when the Tax Committees decide they must rescue the savings and loans associations through the "all-Savers" interest exclusion, the jurisdiction of the committees charged with overseeing financial institutions is usurped* (McDaniel and Surrey, 1982, p. 613).

Not surprisingly, an examination of the evolution of the tax expenditure concept reveals resistance by the tax writing committees to stronger budget rules for tax

expenditures. In their statement during hearings on H.R. 4882 before the House Rules Committee, Congressman Rostenkowski and Congressman Conable, Jr included the following:

> *We want to express our strong opposition to H.R. 4882. This bill would subject tax expenditures to the same congressional budget procedures that now apply to the aggregate level of budget receipts. This could be an unwarranted extension of the budget process into an area which, until now, has been the exclusive province of the tax-writing committees* (emphasis added) (Hearings on H.R. 4882, and McDaniel and Surrey, 1982, p. 612).

Some recent reform proposals call for more directly involving authorizing committees in the development tax expenditures related to their areas of expertise (GAO, 2016d). These types of reforms would change congressional committee powers, such increases in the power of authorizing and appropriations committees and reductions to the power of tax-writing committees (GAO, 2016d). Because these more far-reaching proposals threaten existing power structures and institutional norms they are likely to create complex political dynamics and resistance. GAO (2016d) notes that one expert[369] raised possibility of untended consequences such as the potential of spreading responsibility for tax expenditures across multiple committees impeding fundamental tax reform.

While these institutional issues amplify the need for reform they also create barriers to establishing workable and sustainable budget rules. This is a conundrum for rule development. Failure to recognize and address institutional issues threatens, at least to some extent, the potential effectiveness of new budget rules for tax expenditures, but more extensive rules that confront institutional issues are less likely to be enacted.

[369] As part of its work for it 2016 report on tax expenditures, GAO conducted a one-day roundtable discussion with eleven experts to discuss the broad benefits and challenges of further incorporating tax expenditures into the federal budget.

Chapter 10:
Tax Expenditures, Summary Observations and Thoughts

For more than half a century, there have been concerns about the budget oversight and control of tax expenditures. While establishment of the tax expenditure concept as an analytical tool occurred relatively quickly, efforts to further integrate it into budget rules stalled. There is now significantly more information on and attention given to tax expenditures. Yet, contrary to proponents' predictions that increased information on tax expenditures would curtail their use, today there is both vastly more information and high levels of tax expenditures. After decades of debate, both concerns about the budget oversight of tax expenditures and the proposed solutions are eerily reminiscent of the past. The same issues have been churned and debated for decades with little resolution or advancement towards establishing tax expenditure specific budget rules to more directly control these provisions or treat them as spending in the budget.

The characteristics and composition of tax expenditures themselves compound these issues in establishing workable, sustainable budget rules. The partial solution provided by PAYGO created an indirect incentive for policymakers to curtail enactment of large, new tax expenditures, but allowed significant, automatic growth in some existing tax expenditures. There has also been a proliferation of smaller, more niched tax expenditures. Those seeking to establish budget decision rules for tax expenditures are faced with deciding if and how to address various aspects of tax expenditures: (1) automatic growth in long-standing, politically popular tax expenditures; (2) legislative expansions to existing tax expenditures; (3) increasing number of smaller, targeted tax expenditures; and (4) growth in refundable tax credits.

While the growth and changing composition of tax expenditures support the need for improved budget oversight and better coordination of direct expenditures and tax policy, those seeking to establish budget rules for tax expenditures face a complex combination of difficult definitional, estimation, and institutional challenges combined with the deeply-held political and policy differences on tax policy. The lack of progress on budget rules for tax expenditures reflects a lack of consensus on tax policy. However, even if the significant conceptual and political disagreements are overcome to garner support budget decision rules for tax expenditures numerous technical and implementation issues must be addressed. This conceptual and definitional complexity and ambiguity arguably makes consensus on the relevance and objective of budget rules for tax expenditures even more important, but as shown in the case this agreement has not existed to date. Together these issues help explain the stalled path of the tax expenditure concept from analytical tool to budget rule.

Chapter 11:
Comparing the Cases: The Fragile Role of Budget Decision Rules

In this concluding chapter, I examine the case study findings about the factors and conditions that influence whether analytical information is formulated into a sustained and workable budget decision rule. I also identify crosscutting themes that provide insights into the relationship between analytical tools and decision rules. The first section compares the emergence and evolution of FCRA and budget rules for tax expenditures, and provides summary observations for each case. The second section discusses crosscutting themes based on case study findings. The third section outlines key considerations and indicators that provide a preliminary framework for assessing the establishment of budget decision rules based on analytical information. The fourth section provides closing thoughts and observations.

Comparison of Reform Efforts

In this section, I compare the factors and conditions influencing the evolution of FCRA and budget rules for tax expenditures. Because of the significance of the debate about a fair-value approach for estimating the subsidy costs of credit programs, I treat this issue as a case within the FCRA study. The dimensions and elements outlined in Chapter Two provided a starting point, but additional factors that became apparent during the case study research were also considered. Table 11.1 provides an overview of my assessment of how some factors and conditions compare across the cases. In discussing these issues, I refer to, but do not extensively repeat relevant supporting details and summary observations included in the case study chapters.

The first dimension is the *"trigger"* i.e., the policy issue or event prompting the proposed rule, including the extent to which there was political and expert consensus that a problem warranting new decision rules existed. FCRA grew out of long-standing concerns and elite consensus[370] about the problem (the rapid growth and changing composition of federal loans) and a primary cause (the shortcomings of cash-based budgeting). In sum, key policy participants, including members of the budget committees and budget experts, generally agreed on the problem they were trying to address and the logic of revising budget rules. No such consensus exists for tax expenditures or for a fair-value approach.

After decades of debate, there is no workable agreement that tax expenditures are a *"problem"* or that new budget decision rules for tax expenditures are needed. While reformers, including many prominent tax policy and federal budget experts, argue strongly that tax expenditures are federal spending in need of improved budget oversight and control, the issue has been highly controversial from the start. Some policy participants view the use of tax expenditures not as the result of slack budget oversight, but as sound policy decisions. Others argue that the primary factors driving tax expenditure growth lay outside the budget process. For the fair-value approach, some disagreement surrounds the basic assertation that market risk is relevant to the Federal Government and significant disagreement surrounds the assertions that market risk is a

[370] In this dissertation, elite consensus is used to refer to consensus among key political players associated with the rule's establishment and implementation (such as Chairs and ranking members of relevant committees, such as the appropriations, budget or tax writing committees) and prominent experts and technicians (from government, e.g. CBO, OMB, and GAO; academia; and non-governmental entities, such as think tanks).

budget cost and that its exclusion from the subsidy costs of federal loan programs creates policy problems e.g. the overuse of credit programs, especially direct loans.

Another trigger in the FCRA case was the presence of a related and more politically-engaging policy event that helped clarify the rule's relevance and create a sense urgency. Budgeting for credit programs had been debated for years, but the Savings and Loan and housing crises of the 1980s increased pressure on lawmakers to limit the government's risk exposure. This sense of urgency, which was evident during a 1990 congressional hearing on credit reform, helped create momentum to pass legislation later that year. Similarly, while research on applying a fair-value approach to federal credit programs had been underway for years, the nation's fiscal crisis in the mid-2000s directed increased attention to the issue and provided an opportunity to apply the approach to select credit programs. Proponents now point to these applications to argue for the extension of a fair-value approach to other credit programs. While tax issues tend to be high profile and some recent budget process reform proposals have included tax expenditures, no key event has triggered momentum for action on new budget rules for tax expenditures. To the contrary, the 2017 tax legislation resulted in lawmakers waiving existing PAYGO rules to avoid sequestration.

Table 11.1 Comparison of Reforms

Dimension	FCRA (Current rule)	FCRA (Fair value)	Tax Expenditures
Trigger: *Analytical information preceded decision rule*	✓	✓	✓
***Trigger*:** Considerable consensus *that a "problem" warranting new budget decision rules exists*	✓	✗	✗
Trigger*:* Considerable consensus on underlying causes *i.e. existing budget rules are primary cause*	✓	✗	✗
Trigger*: Impetus provided by concurrent policy event*	✓	✓	✗
Conceptual framework and design: *Considerable elite consensus on the rule's conceptual framework and logic*	✓	✗	✗
Conceptual framework and design: *Considerable elite consensus on specific reform details (i.e. how the rule's basis defined and measured)*	✓ (at enactment)	✗	✗
Conceptual framework and design: *Rule is consistent with federal budgeting norms (Cash-based transactions)*	✓	✗	✗
Conceptual framework and design: *Rule is consistent with federal budgeting norms (Upfront cost recognition)*	✓	✓	✓
Conceptual framework and design: *Considerable elite consensus on rules' scope and objective*	✓	✗	✗
Implementation: *Analytical information for the rule is available and reasonably accurate*	All case studies involved estimation challenges to vary degrees (see discussion in text)		
Implementation: *Rule aligned with (supported by) concurrent reforms*	✓	✓	✗
Implementation: *Rule consistent with existing institutional and administrative frameworks*	✓	✓	✗

✓ = factor or condition clearly present
✓ = factor or condition generally present
✗ = factor or condition generally not present
✗ = factor or condition clearly not present

Source: Table created by author.

The next dimension is the rule's basic conceptual framework and logic, including whether a considerable consensus exists on whether and how the proposed rule would address the identified problem. The case studies varied significantly in terms of the level of consensus on the proposed rule's conceptual framework and design, including its theoretical arguments and logic. Seemingly technical debates often revealed deep differences in opinions about what information is most important to policy decision making and about the role, scope, and limits of the federal budget.

In FCRA's case, considerable elite consensus emerged around the superiority of subsidy costs over net cash flows as the appropriate budget measure for federal credit programs. In the years preceding FCRA's enactment, key players including the Budget Committees, CBO, GAO, OMB, and the Federal Reserve had reached substantial agreement about FCRA's conceptual framework and essential design elements. This consensus was useful in articulating and promoting the rule's relevance, especially given the technical complexity involved. The solid consensus on the superiority of subsidy budgeting over the existing cash-based system provided motivation to move legislation, rather than getting mired in endless debate about design details.

In the cases of tax expenditures and fair-value, key policy participants, including lawmakers, economists, and budget experts, are divided on the merits of proposed changes to budget decision rules. For decades, there has been serious, fundamental disagreement on the assertion that tax expenditures are equivalent to federal spending. The lack of political and expert consensus on this core premise creates a fundamental disconnect between proposals to revise budget decision rules for tax expenditures and the policy and political environment in which those rules would have to be enacted and

sustained. For those who do not accept the premise that tax expenditures are spending, proposals to subject them to spending controls are illogical.

In the fair-value debate, policy participants, including budget experts, disagree about whether market risk is a budget cost. The most contentious issue is not whether assessment of market risk for federal credit programs is of analytical value, but rather whether market risk is a budget cost. While there has been vigorous debate in recent years, this is not a new issue. It was a key point of disagreement before FCRA's enactment. Years of study and discussion have clarified some technical issues but have done little to resolve fundamental disagreements about whether subsidy costs should include market risk.

A closely related matter is the extent to which a proposed budget decision rule is aligned (or perceived to be aligned) with existing federal budget norms. One long-standing federal budgeting principle is upfront recognition of budget costs, i.e., budget costs should be recognized and controlled at the time decisions committing government resources are made. All the case study reforms support the concept of upfront budget cost recognition. In FCRA's case, there was (and still is) widespread agreement that discounted cash flows for federal loan programs is consistent with upfront cost recognition. However, FCRA creates another issue – how to most appropriately deal with upfront budget gains (i.e. negative subsides). In the cases of tax expenditures and fair-value, the proposed rules also are consistent with upfront cost recognition, but as discussed above, there is not agreement on what constitutes a budget cost.

Another long-standing federal budget norm is the use of cash as a tangible, trackable measure of budget costs. The federal budget primarily recognizes fiscal effects

as measured by cash flows to and from the Treasury (GAO, 2016a and Marron, 2014). FCRA is a significant change because it requires budget costs to be measured on a net present value basis; however, over the course of the loan, these costs are reconciled in the financing account to the government's actual cash transactions through an annual reestimation process. Thus, the difference FCRA creates between the reported annual deficit and the government's means of financing is one of timing. FCRA does not add new, permanent, non-cash items to the budget.

Both tax expenditures and fair-value move further beyond traditional cash measures. For tax expenditures, foregone revenues are measures of *"actions not taken or revenues not collected"* (Aaron, 1977, p.31). As such, actual costs are never known. They cannot be observed or traced back to actual cash flows. Some lawmakers and federal budget experts raise concerns that using these estimates as a measure for spending recognition and control would create significant transparency and implementation issues. The fair-value approach also would include a non-cash, non-observable risk premium for the cost of bearing market risk. The inclusion of this risk premium would create additional, non-cash differences between the reported deficit and government's financing needs. The actual cost of the risk premium is never known with certainty. Under fair-value budgeting even if a credit program's estimated cash flows turn out to be completely accurate, an adjustment would be required to get to the loan's actual cash costs (Phaup 2008). Policy participants, including key federal budget experts, have divergent views about the implications of adding such non-cash costs to the federal budget.

The FCRA experience supports the importance of defining a rule's objective and scope in ways that are (or perceived to be) politically acceptable and technically feasible.

A series of compromises limited FCRA's objective, scope, and budget impact in ways that eased its enactment and have supported its sustainability. FCRA's scope was limited to federal direct loans and loan guarantees and thus avoided addressing larger, more technically complicated and politically-charged programs, such as federal insurance and GSEs. In addition, FCRA is a process rule. It requires lawmakers to recognize and fund subsidy costs of loans, but it does not set pre-determined limits on the level or composition of federal loans. During the pre-FCRA debate, some policy participants, including the OMB director, argued for limits on federal loan exposure, but it was not considered politically feasible. FCRA's resulting budget impact was relatively small at enactment and in the early years of implementation. However, in recent years, FCRA's recognition of large negative subsidies or *"profits"* has increased attention and controversy.

The tax expenditure case reveals the challenges associated with a lack of clarity and consensus on reform objectives, conceptual framework, and scope. There are long-standing, differing views about the primary purpose of the tax expenditure concept i.e., whether the main concern is spending control, tax policy, or some combination. Some reformers call for incorporating the tax expenditure concept into spending rules to improve incentives for the oversight and control of tax expenditures. Others, including the JCT (2008) emphasized its primary purpose as an analytical tool to inform and guide tax policy. As discussed in the case, a wide range of reform proposals have differing focuses and objectives, and no consensus has formed around any reform approach. The wide range of reform proposals and various expansions to analytical tools over the years indicate that competing objectives and lack of clarity and agreement on the primary

purpose of the tax expenditure concept continue to complicate the establishment of new budget decision rules for tax expenditures.

Using analytical information, such as subsidy costs or foregone revenues, as the basis of budget rules inevitably introduces additional estimation complexity and uncertainty. Each case study involved varying degrees of definitional and estimation challenges. In FCRA's case, there was general agreement on FCRA's use of discounted cash flows, but there were significant data limitations and steep learning curves. My examination and other recent studies of FCRA estimates found that in the aggregate subsidy cost estimates have been fairly accurate. However, some credit programs, including the largest direct loan and loan guarantee programs, have had significant reestimates. Although improvements in data and modelling are valuable and should be pursued, inherent estimation uncertainty and reestimation will remain due to the risks assumed by credit programs. More recently, the fair-value debate shifted the focus from the accuracy of agency estimates based on FCRA estimation procedures to the sufficiency and completeness of FCRA's procedures.

The tax expenditure case involves fundamental, significant, and controversial definitional and measurement issues, as discussed in the case. Various definitional and measurement issues have been the subject of decades of unresolved debate and disagreement. These fundamental disagreements create obstacles for establishment of new budget rules. Cost estimation issues also potentially limit or increase complexity of some budget decision rules. Proposed rules that seek to limit aggregate tax expenditures run into problems because estimates do not account for interaction effects, thus summing individual tax expenditures is misleading. A lack of comparable cost measures may

create a barrier for reforms which seek to facilitate comparison and tradeoffs between direct expenditures and tax expenditures. Overall, the conceptual, definitional, and estimation issues for tax expenditures appear less resolved and more complex than those faced for credit programs immediately prior to FCRA's enactment.

During implementation, FCRA benefited from a general alignment with administrative and institutional frameworks as well as alignment with concurrent reforms, FCRA was aligned with the CFO Act's emphasis on financial management and its requirement for the financial statement audits. In some cases, FCRA was designed to mitigate administrative and institutional conflicts. Administrative costs are excluded from FCRA's subsidy estimates, thereby avoiding issues of congressional control and administrative capacity (CBO, 1992). Some proposed budget rules for tax expenditures face potential conflicts with existing institutional and administrative structures. While an objective of some proposed rules is to improve coordination and tradeoffs between direct expenditures and tax expenditures, existing structures of congressional committees and federal agencies would make these tradeoffs difficult.

Summary Observations: Factors and Conditions Influencing FCRA's Establishment and Sustainability

Although significant debate occurred prior to its enactment, FCRA's approach was ultimately deemed sufficiently politically acceptable and technically feasible to be enacted. FCRA's approach grew out of years expanded information, expert analysis, experiment, debate, and compromise. FCRA's path was advanced by its alignment with interest of political actors who were impelled to act in the aftermath of the Saving and

loan crisis. Its drafters included (some opponents would say buried) this somewhat obscure, technical legislation in a large and controversial Omnibus bill. There were no specific roll call votes on the 1990 federal credit legislation. Importantly, however, considerable consensus had emerged among key players (both political and expert) at the most basic levels of problem definition and conceptual rule design. Over time this solid consensus about FCRA's superiority over the cash-based system provided: (1) momentum for compromise on technical details during the legislative stage; (2) reason to overcome estimation challenges during implementation stage; and (3) support during recent controversy about its estimation procedures. Arguably, FCRA's relatively small budget impact in initial years allowed time for the rule to become embedded in the routines of budgeting and financial management and reporting. In summary, FCRA's enactment and sustainability were supported by:

- Considerable elite consensus on problem to be addressed, its causes, and the proposed rule's conceptual framework
- The rule's limited objective, scope, and initial budget costs
- The impetus and political climate created by recent financial crises
- The rule's general alignment with existing budget norms
- The rule's general alignment with concurrent reforms and existing institutional and administrative structures
- The rule's integration into the routines of budgeting and financial management and reporting

However, in the areas where solid consensus did not (and still does not) exist – the treatment of market risk – FCRA has not been able to produce acceptance of its estimates. Although this issue was legally settled when FCRA was enacted, disagreements about the treatment of market risk have never been fully resolved. FCRA estimates, using the Treasury discount rate, are the official estimates, but these estimates have been increasingly challenged.

Summary Observations: Factors and Conditions Influencing Budget Decision Rules for Tax Expenditures

For tax expenditures, there is no clear path to new budget decision rules. The early history of the tax expenditure concept and its evolution as an analytical tool over almost half a century reveals persistent conflict at each level of rule development. Proposed budget decision rules for tax expenditures faces almost every obstacle a budget rule could face:

- Disagreements about whether a policy problem warranting new budget decision rules exists;
- Significant and long-standing disagreements about the tax expenditure concept's logic and basic premise
- Significant and long-standing conceptual and definitional disagreements about methods used to identify tax expenditures
- Inherent definitional and estimation ambiguity and uncertainty;
- Potential conflicts with existing institutional structures;

- Unclear and sometimes conflicting reform objectives; and
- Deeply-rooted policy and political differences about tax policy.

Conceptual and definitional ambiguity; the inherent measurement challenges; and deep political, ideological, and policy divides on tax policy all help explain why the tax expenditure has not been transformed from analytical tool to a budget decision rule, and create a difficult path for those seeking to treat tax expenditures as spending in the budget.

Crosscutting Themes Provide Insights on Analytical Tools and Decision Rules

Crosscutting themes and observations drawn from the case study findings provide insights on both: (1) how factors and conditions influence whether analytical information is reformulated into a sustained, workable decision rule, and (2) connections between analytical tools and budget decision rules, and their roles and limits. The crosscutting themes or working hypotheses outlined in Table 11.2 are discussed briefly in the text below.

Table 11.2 Crosscutting Themes

- Inherent tension exists between analytical information and decision rules.
    - Decision rules force choices about what information is deemed most *"important"* in the policy and political process.
- Budget decision rules are intertwined with broader political and policy debates.
    - Adoption of budget decision rules is advanced when expert consensus is coupled with rule's alignment with a focusing event.
    - Budget decision rules will not end and may heighten conflict.
    - Budget decision rules may become weapons in the political and policy process.
    - Budget decision rules affected by state of budget politics and existing fiscal and foundational budget rules.
- Expert input and consensus facilitate workable, sustained budget decision rules; lack of expert consensus impedes adoption and functioning of budget decision rules.
    - Complex conceptual and technical issues heightened the importance of elite consensus.
- Workable, sustained budget rules are *"imperfect compromises"* that mitigate technical issues and reduce political costs.
    - Process rules are more easily enacted and sustained than outcome-based rules, especially those that seek to constrain built-in cost increases.
- Rules create new biases and challenges; they are not static and require continuing oversight and modifications.
- Budget decision rules matter, but some benefits are indirect and other factors influence policymakers' decisions.
    - Budget decision rules are better at highlighting issues and supporting existing consensus than generating consensus.

Source: Table created by author.

Inherent tension exists between analytical information and decision rules.

The case studies illustrate how decision rules and analytical information are intertwined and interdependent. Rules are dependent on available, high-quality information, but absent a rule there may not be strong incentives to improve information. Additional information may provide more perspectives and address areas of uncertainty, but decision rules require a choice about what information will be used in the rule. Overall, the cases revealed an inherent tension between a desire for more analytical information to comprehensively measure costs and provide robust analysis versus the need to select one basis for use in a budget decision rule.

Over time, FCRA's budget rule was impeded, advanced, and challenged by the availability and quality of analytical information and tools. Despite FCRA's objective of providing complete budget costs, administrative costs were excluded at least in part because of limits in data and analytic processes. Prior to FCRA's enactment supplemental reporting allowed time to develop and experiment with subsidy cost estimates before these estimates were used for budget funding and control. However, in the absence of a budget rule, incentives were limited to significantly verify and improve the quality of these estimates. During early implementation, oversight agencies raised significant concerns about the accuracy of subsidy cost estimates and OMB modified accounting requirements due to a lack of detailed accounting data. In some cases, especially early in the implementation process, information was not sufficiently complete or accurate to fully support analysis or decision making.[371]

[371] A 1998 GAO report found discrepancies between the subsidy rates reported in the President's budget and those provided to GAO by agencies. CBO's early work analyzing subsidy cost reestimates revealed problems with the reliability of reported reestimates (CBO, 2000).

FCRA's budget rule, however, heightened the stakes associated with subsidy cost estimates, leading to more attention and resources being given to improving the quality of cost estimates. By calling attention to information deficiencies, FCRA's budget rule both encouraged and benefited from improvements in data collection, financial management systems, and estimation methods. FCRA's budget rule also shaped the financial reporting standards for federal loan programs and, in turn, the pressure of financial statement audits increased agencies' incentives to improve subsidy cost estimates. Further, over time, FRCA's budget rule prompted the inclusion of more detailed analytical information and tools (e.g. default rates, components of subsidy costs, and factors leading to reestimates) in both the budget and financial statements.

While some advancements in data and analytical techniques have supported FCRA's budget rule, others, such as fair-value costing, have challenged it. Advances in financial economics and the application of fair-value costing to federal credit programs have provided additional insights on the costs and risks of federal credit programs, but also raised questions about the adequacy of FCRA's budget rule. Competing subsidy cost estimates have led to debate about what costs should be included in the budget and what information is more appropriately left outside the budget rule to be used as a supplemental analytical tool.

The tax expenditure case provided insights into the different roles of and the potential tension between analytical tools and budget decision rules. From the beginning, there have been differing views on whether the primary purpose of the tax expenditure concept is to support tax policy, control tax expenditure spending, or some combination. The required list of tax expenditures (or the *"tax expenditure budget"*), which focuses

primarily on identifying tax expenditures and their associated costs, has limits as an analytical tool. It does not, for example, consistently provide comparative listings of tax expenditures relative to alternative tax structures; distributional analyses, or evaluations of efficiency and effectiveness. At the same time, the tax expenditure "*budget"* does not have the force of a true budget; it is not voted on and it is not recognized and controlled in the budget process. While reform proposals seek to address these concerns, different objectives – strengthening analytical tools to support tax policy or establishing a budget decision rule to directly control tax expenditure spending – pull reforms in somewhat different and potentially competing directions.

Decision rules force choices about what information is deemed most important in policy and political processes

Although multiple streams of information can be used simultaneously as analytical tools, decision rules generally require a narrowing of information to clearly define a rule's basis. For example, budget estimation uncertainty might be improved by providing more information, such as confidence intervals or a range of results based on varying assumptions. For decision rule purposes of funding or enforcement, a determination must be made about which estimate will be used (Crippen, Diamond and Orszag, 2004; Schick, 2007; and Yin, 2009).[372] Many measures (e.g. face values, cash flows, FCRA's subsidy cost estimates, fair-value estimates, or expected values) might

[372] As Yin states *"[i]f budget rules were amended to allow a more nuanced presentation of estimates it is unclear how such information would be understood and used in the legislative process and whether it would result in improvement in the quality of decisionmaking"* (p.210). Diamond and Orszag (2004) argue *"... the more sensitive a measure is to reasonable variations in assumed parameters the more important it is to provide a range of estimates rather than just a point estimate. And the budget process needs a point estimate to function."*

inform decisions about federal loan programs, but only one can serve as the primary basis for budget recognition, funding, and control.

Debate about FCRA's subsidy cost estimation procedures highlights the issues faced in defining a rule's parameters. Even after key policy participants reached consensus that subsidy cost was the appropriate budget cost measure for federal loan programs, significant definitional issues remained. During the pre-FCRA debate, the question of how to define subsidy costs was closely tied to debate about what was most important to improving the oversight of the federal credit programs. As noted by Gale (1989), how subsidy costs are defined and measured involves conceptual questions about the budget rule's objectives. If the primary concern is to better measure and control the impact of credit programs on borrower behavior, then defining subsidy costs in terms of benefits to borrower would be appropriate. However, if the objective is budget parity then developing a spending-equivalent measure reflecting the cost to the government would be appropriate. In the debate leading up to FCRA, the issue was furthered complicated because CBO did not make the distinction between these two methods that was common at the time. In CBO's opinion, these two approaches – market approach and cost-of-government -- are the same if a market rate is used to calculate the government's costs, as CBO thought should be done. As noted, this debate continues today.

The tax expenditure case also involved difficulties narrowing information and gaining consensus on what information should be used as the basis of a budget decision rule. As discussed in the case, the development of the tax expenditure concept and it proposed extension to budget rules set off decades of disagreement over various

conceptual, definitional, and measurement issues. Some policy participants and reform proposals suggest the answer is more information. Examples include the use of: multiple tax structure baselines or estimation methodologies to highlight different ways of framing the policy debate; detailed information on distributive costs and benefits; and footnotes explaining the implications of a chosen definitional or cost estimation approach. By expanding the scope of tax expenditure analysis and providing varied perspectives, these reforms acknowledge disagreements about definitional or estimation issues and seek to clarify areas of dispute or uncertainty. While the inclusion of various perspectives can result in more robust analytical tools, it also may increase confusion and controversy about what information is most relevant, which creates obstacles to the establishment of budget decision rules.

In an information-rich world, decision rules force choices on what information is deemed most "important" in the policy process. Using information as the basis of an authoritative budget decision rule elevates its status.[373] In this way, budget decision rules help policy participants sort through the increasingly vast amounts of available formation. However, because of the high stakes involved, budget decision rules may also serve to heighten conflict, as discussed below.

[373] Joyce (1994) notes that cost estimation and scorekeeping became much more important as their consequences became more real under GRH and BEA.

Budget decision rules are intertwined with broader political and policy debates

Decision rules are sometimes portrayed as based on an externally and objectively defined standard that floats above the political and policy fray; however, while budget decision rules are grounded in expert-opinion, they are endogenous to the policy and political processes in which they operate.

Adoption of budget decision rules is advanced when expert consensus is coupled with a rule's alignment with a focusing event[374]

In FCRA's case, considerable expert consensus on FCRA's objective and basic conceptual framework helped advance political consensus on the rule. Consensus among key experts and their involvement in communicating the relevance's and details helped cultivated lawmakers' interest in, understanding of, and support for what was, at least initially, perceived by some as a technical exercise. However, while expert consensus was important, it may not have been sufficient without the rule's alignment with lawmakers' immediate political interest. The political climate and urgency created by recent financial crises arguably provided impetus to resolve disagreements on *"second order"*[375] design details in order to enact legislation (C-SPAN, 1990). Similarly, as discussed, while research on using a fair-value approach for estimating federal credit subsidy costs had been underway for years, the financial crisis of the mid-2000s provided the opportunity and political incentives to apply the approach. Further, the financial

[374] This idea and word choice are similar to Kingdon (1984), who provided a well-known and comprehensive analysis of how focusing events and policy windows advance policy items.
[375] Term used by OMB Director, Richard Durman, during congressional hearing on crediting reform (C-SPAN, 1990).

crises and the selective use of the fair-value cost estimates has renewed debate about the budget treatment of certain GSEs.

Enactment of rules will not end, and may heighten, conflict

The case studies' decision rules (or proposed rules) increased attention to policy issues in beneficial ways but also increased conflict. From the start, the tax expenditure concept has been linked to policy and political debates. Surrey's development and promotion of the tax expenditure concept grew alongside (and perhaps more accurately out of) broader tax policy concerns. In the 1960s, Treasury's position was generally against the use of tax incentives for social policy objectives based on the argument that direct expenditures generally are a more efficient and appropriate policy tool (Surrey, 1985). Surrey's speeches and academic works were broadly critical of tax expenditures. Citing Surrey's role, critics of the tax expenditure concept have long argued policy and political bias. For these critics, the tax expenditure concept is no more than a thinly veiled tool to support a specific tax reform agenda (Bartlett 2003; Bittker, 1969; Feld, 1975; and JCT, 2008). While many policy participants point to benefits of the tax expenditure concept and analysis, for others, its connection to the tax policy agenda continues to cast a shadow of subjective bias over the exercise.

As discussed in the case, choices about the various definitional, conceptual and measurement issues have implications for which tax provisions would be recognized and controlled as tax expenditures under a budget decision rule. While many of the tax provisions affected by these definitional decisions are narrow and involve relatively small budget amounts, some are politically controversial and involve larger budget amounts.

Further, some policy participants view the choice of the tax structure baseline used for identifying tax expenditures as potentially biasing debate about fundamental, comprehensive tax reform. As the stakes associated with being classified as a tax expenditure increase with a new budget decision rule, controversy about the methods for identifying and measuring tax expenditures would likely increase too.

Budget decision rules increase conflict by calling attention to budget and policy choices. FCRA and the fair-value debate raised significant questions about whether some loan programs, especially student loans, provide government subsidies to borrowers and whether these loans cost or make money for the government. The tax expenditure concept and proposed budget rules based on it, reflect deep ideological divides on tax policy and the role and scope of government. The case studies found that arguments about the rule (or proposed rule), even seemingly technical disputes, often reflected broader policy and political disagreements. Policy participants fight over the decision rule (or proposed rule) because they are fighting over policy and programs.

Decision rules may become weapons in the political and policy process

Debate on FCRA's estimation procedures demonstrates how budget decision rules get pulled into the political process and how they may be used as a *"political weapon."*[376] While an objective of FCRA was to support and clarify decision making, it has become increasingly intertwined with the political and policy debates it was intended to clarify. The significant differences between FCRA and fair-value estimates make powerful sound bites. Dueling subsidy cost estimates and the resulting confusion, even

[376] Joyce (2008) discussed how information may provide policymakers with "*shinier ammunition*." Shaviro (2007) discussed how rules become political weapons.

when the result of a serious, professional technical debate, has created opportunities to use FCRA as a political weapon to support policy and political positions. As discussed in the case, some policy participants used strong rhetoric attacking FCRA's legitimacy and its estimates, especially in the debates about the student loan program and the Export-Import bank. With FCRA estimates showing *"profits"* and fair-value estimates showing costs, these competing estimates bolstered policymakers' different ideological and policy positions. Similarly, some policy participants described the tax expenditure budget as a *"hit-list"* or a *"weapon of political combat"* (Bartlett, 2003; Shaviro, 2007, and Thuronyi, 1988).

The FCRA estimation debate shows how increased political stakes increase conflict over a budget decision rule. While debate about the treatment of market risk is a long-standing and important issue, FCRA's recent recognition of large negative subsidy costs for political-charged loan programs sparked political attention. The current debate differs from the one immediately preceding FCRA's enactment in several respects. There have been advancements in the application of a fair-value approach to estimate subsidy costs. The debate has moved from theoretical to practical and political: (1) a fair-value approach has been adopted for several programs; (2) supplemental fair-value cost estimates are increasingly available for other programs; and (3) FCRA and fair-value approaches result is significantly different cost estimates for some large, politically-charged loan programs. Republicans currently control Congress and support amending FCRA to adopt a fair-value approach. Finally, while during the pre-FCRA debate, there was significant pressure to compromise to enact some form of subsidy budgeting, the debate is now focused on the treatment of market risk.

The case studies also found that budget decision rules can easily get mired in prolonged debate that (intentionally or not) delays action on the rule or more importantly on the underlying policy issue. A difficult issue in assessing budget decision rules based on analytical information is figuring out when technical, definitional and measurement issues reflect valid (perhaps insurmountable) concerns and when these issues have become an opportunity for delay.

Budget decision rules affected by the state of budget politics and existing fiscal and foundational budget rules.

The program- or policy- specific budget decision rules that are the focus of this dissertation are influenced by the state of the budget politics and existing fiscal and foundational budget rules. Process budget decision rules that require the inclusion of costs in the budget are based on the premise that there will be negative political consequences for higher spending and deficits, and that the threat of these consequences will change lawmakers' incentives. Consequences may stem from pressure of a fiscal rule or from voters' preferences for fiscal discipline. When these conditions are credible, the budget decision rule is made stronger; when these conditions are weak, the rule is weakened.

FCRA was enacted in the same legislation as BEA. BEA provides *"teeth"* for FCRA. With BEA discretionary spending caps in place, credit subsidy costs for discretionary loan programs must compete with other spending priorities. BEA also increased the importance of enacting FCRA because discretionary caps would have exacerbated the shortcomings of cash-based budgeting for loan programs. Cash-based

budgeting for guarantees would have provided a *"loophole"* to avoid discretionary spending caps. On the other hand, BEA caps would have made it more difficult absorb cash outlays for the face value of direct loans in the year loans were issued. By reducing budget outlays for direct loans, FCRA enabled more direct loan spending within the discretionary caps. While discretionary caps provide teeth to FCRA's budget rule, in recent years Congress has lifted the discretionary caps.[377]

PAYGO's offset rule indirectly influences lawmakers' choices about tax expenditures. PAYGO, however, can be waived by 60 senators and the majority of house of representative, as was done to prevent sequestration resulting from the 2017 tax bill. During the debate over the 2017 tax bill, the threat for PAYGO sequestration caused some political pressures, but assurances were made that it would be waived, and the Congress passed legislation to waive PAYGO requirements.

Some proposals call for new budget decision rules to incorporate tax expenditures into existing budget process as a means of increasing oversight and control. However, these proposed budget decision rules are premised on the budget process being followed and credibility enforced. A tax expenditure specific PAYGO rule will not be of much value if the Congress is not committed to the PAYGO process. Including tax expenditures in the budget resolution will not have much impact if Congress fails to pass one. In recent years, Congress has routinely failed to pass a budget resolution either on time or at all. Further inclusion of the tax expenditure costs in budget totals will not exert much pressure if the political climate is apathetic to larger government and increased deficits.

[377] Congress enacted legislation to lift caps in 2013, 2015 and 2018 (Peterson Foundation, 2018)

Expert input and consensus facilitate workable, sustained budget decision rules; lack of expert consensus impedes budget decision rules

The case studies found that experts played key roles identifying the problem and the analytical information used in the budget decision rule (or proposed rule). For FCRA, the fiscal agencies -CBO, GAO, and OMB- called attention to the issue of the rapid growth and changing composition of federal loan programs and the role of the cash-based budget. Experts from these agencies were active in communicating the problem, the rule's relevance, and the conceptual and technical issues involved. Experts also provided extensive input on technical details with respect to subsidy cost estimation, the rule's specific design elements, potential new biases, and other implementation issues. Some of the issues that experts identified and advised on included: the budget account structure; the choice of discount rate; whether financing accounts were included in the deficit; the reestimation process; and the entity responsible for subsidy cost estimates. Experts also helped anticipated potential biases and perverse incentives.

Academics have been central to the emergence and evolution of the tax expenditure concept and the application of a fair-value approach to estimating credit subsidy costs. After leaving the Treasury Department, Surrey refined and advocated for the tax expenditure concept in series of academic works. Much of the debate about the purpose of and possible refinements to the tax expenditure concept, including its use in budget decision rules, has occurred in academic or *"grey"* literature. Prominent academics, some with ties to CBO, wrote seminal papers and articles on the merits of and

methods for applying a fair-value approach to subsidy cost estimation for federal credit programs (Lucas, 2014; Lucas and Phaup, 2008, 2010; and Phaup, 2012).

The case studies also showed how a lack of expert consensus may impede the enactment and functioning of a budget decision rule. As discussed, divergent expert opinions on the value of a fair-value approach for estimating credit subsidies and competing subsidy cost estimates opened the door for confusion and controversy. The issue is intensified because the key fiscal agencies- CBO, OMB, and GAO – are divided on the issue. CBO – often considered the budget umpire -- has raised concerns about the official budget estimates based on FCRA procedures in favor of a fair-value approach. However, even further, confusing the matter, past and present CBO leaders and staff have expressed conflicting views. OMB's position has changed with administrations. The Obama administration strongly supported FCRA, but the Trump administration has indicated support for adopting a fair-value approach. Especially in the absence of considerable expert consensus, conceptual ambiguity and technical complexity may increase the vulnerability of a budget decision rule to misinterpretation, conflict, or manipulation.

Budget decision rules based on analytical information by necessity involve numerous assumptions and judgments. Complex and sophisticated information and budget structures increase reliance on experts and technicians to generate, verify, and explain the information. The case studies, however, also reveal divergent views and comfort levels with respect to the increased role (and potential power) of experts and technicians. Some policy participants expressed skepticism about this increased role in what they view as political and policy decisions. The debate over the normative baseline

revealed resistance by some to a shift of what they considered essential political and subjective decisions to technical experts. While Surrey often pointed to a *"general consensus"* of experts[378] other policy participants questioned why these expert agreements should override the political agreements as reflected in the existing tax code. Conversely, other policy participants questioned political inference in what they viewed as a technical enterprise. For example, one policy participant questioned FCRA's requirement to use the Treasury rate, arguing that non-partisan budget experts and technicians should determine which discount rate is most appropriate for a given loan program (Delisle, 2015).

Complex conceptual and technical issues heightened the importance of elite consensus.

The case studies show how complex, technical issues, including the presence of definitional or methodological ambiguity or uncertainty, make a budget decision rule venerable to conflict, misinterpretation, and manipulation. While a strong elite consensus about a rule's objective and basic conceptual framework may provide an opportunity to address and mitigate technical and implementation issues, a lack of such consensus not only increases the difficult addressing these issues but makes the rule venerable to being used as a weapon in the political process. Finally, the cases indicate that to the extent technical disputes reflect boarder policy, ideological, or political disagreements, achieving consensus on the rule is not likely be any easier than reaching consensus on the underlying policy and political debates.

[378] Surrey noted that when the 1968 tax expenditure list was prepared there were *"experts were in the room"* and they reached "*a very large measure of agreement."*

Workable, sustained budget rules are *"imperfect compromises"* that mitigate technical limitations and reduce political costs

The case studies illustrate that the path from enriched information to a workable and sustained decision rule is not straightforward. The case studies found budget decision rules (or proposed rules) involve numerous tradeoffs and compromises to accommodate an array of conceptual, technical, implementation, institutional, and political factors. In the end, budget decision rules are imperfect compromises, requiring on-going adjustment and oversight.

FCRA's experience illustrates how a sustained, workable budget decision rule may result from "*imperfect compromises"* designed to mitigate implementation limitations and reduce political costs. While these compromises limited FCRA's objective, scope, and ultimately its impact, they helped forge a workable budget decision rule that has been sustained for almost three decades. As discussed above, FCRA's design reduced political costs by: (1) not establishing hard limits on government lending and (2) not including larger, politically-charged programs, such as deposit insurance. Although FCRA's intention was to provide complete budget costs, administrative costs were excluded for a variety of reasons including, political and institutional concerns related to congressional oversight and practical constraints, such as data limitations (CBO, 1992). After enactment, several administrative and legislative adjustments were made to accommodate limitations in data or technical capacity, as discussed in the case.

A budget rule for tax expenditures also would require significant compromises to address technical and political issues. Discussions surrounding the tax expenditure

concept and its use in budget rules demonstrate the need for compromise between economic theory and the practical, political constraints of budgeting. While the comprehensive income baseline would classify imputed rental income from homeownership as a tax expenditure including this provision as government *"spending"* under a budget decision rule would conflict with public perception and political feasibility. Reforms attempting to cap or limit aggregate tax expenditures would require modifications to address estimation issues. Schick (1981) and Rivlin (1981), for example, testified that the estimation concerns associated with the aggregation of tax expenditures could be lessened if reforms were designed to control the incremental growth in the level of tax expenditures.

The conflict between some proposed budget rules for tax expenditures and existing institutional structures demonstrates another conundrum for rule development. Failure to recognize and address institutional issues, such as the isolation of the tax writing committees, reduces the potential effectiveness of some proposed budget decision rules, but more extensive rules that confront institutional issues are less likely to be enacted and sustained.

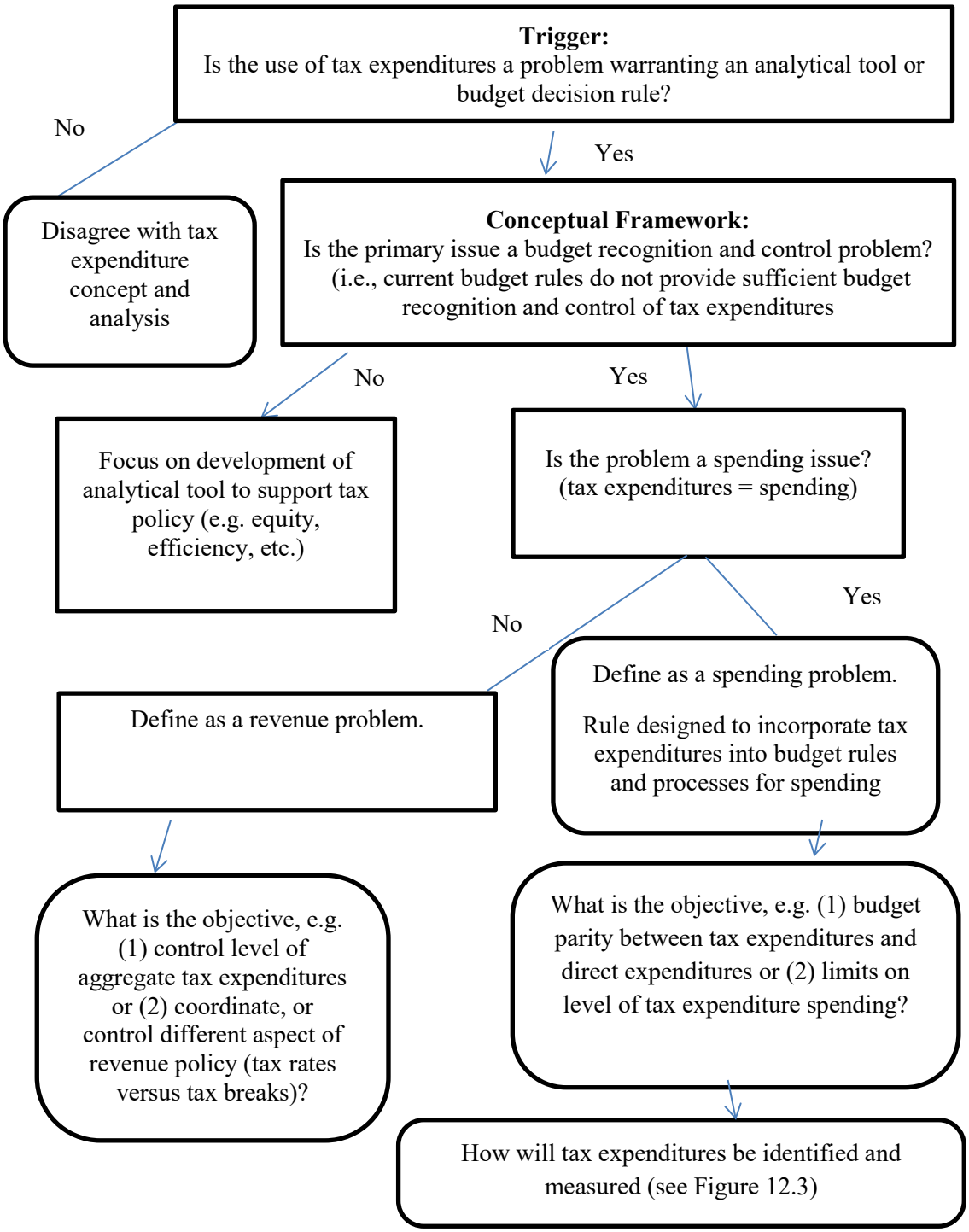
To help illustrate the number of decisions and the level of consensus needed to arrive at a budget decision rule for tax expenditures, Figures 11.1 and 11.2 revisit some of the factors outlined in Chapter Two. Each decision point in the figures represents an opportunity for political or expert disagreement. Such a framework may be useful in evaluating other proposed budget decision rules.

For tax expenditures, disagreement begins at the fundamental level of problem definition, i.e., the *"trigger" and "conceptual framework,"* as discussed above and in the

case. If consensus is achieved that problems exist, then decisions need to be made with respect to whether the reform should be: (1) an analytical tool or decision rule; (2) a spending or revenue rule; and (3) a process or outcome rule.

Some researchers, such as, Surrey, Burman, and Phaup emphasize tax expenditures as a form of spending and propose ways to better incorporate tax expenditures into spending rules and processes. Others, including Schick (1981) discuss the tax expenditure concept as potentially useful for informing, coordinating, and controlling different aspects of the revenue side of the budget (e.g. tax rates versus tax expenditures). Proposed budget decision rules that treat tax expenditures as spending vary based on objective. Some reforms propose outcome-based rules, such as hard limits on aggregated levels of tax expenditures. Other reforms propose process rules, such as requiring that both imputed revenues and outlays for tax expenditures be recorded in the budget. As shown in the figures, regardless of approach, establishing a budget decision rule for tax expenditures would require addressing and reaching workable agreement on conceptual, definitional, and measurement issues where there has been long-standing disagreement.

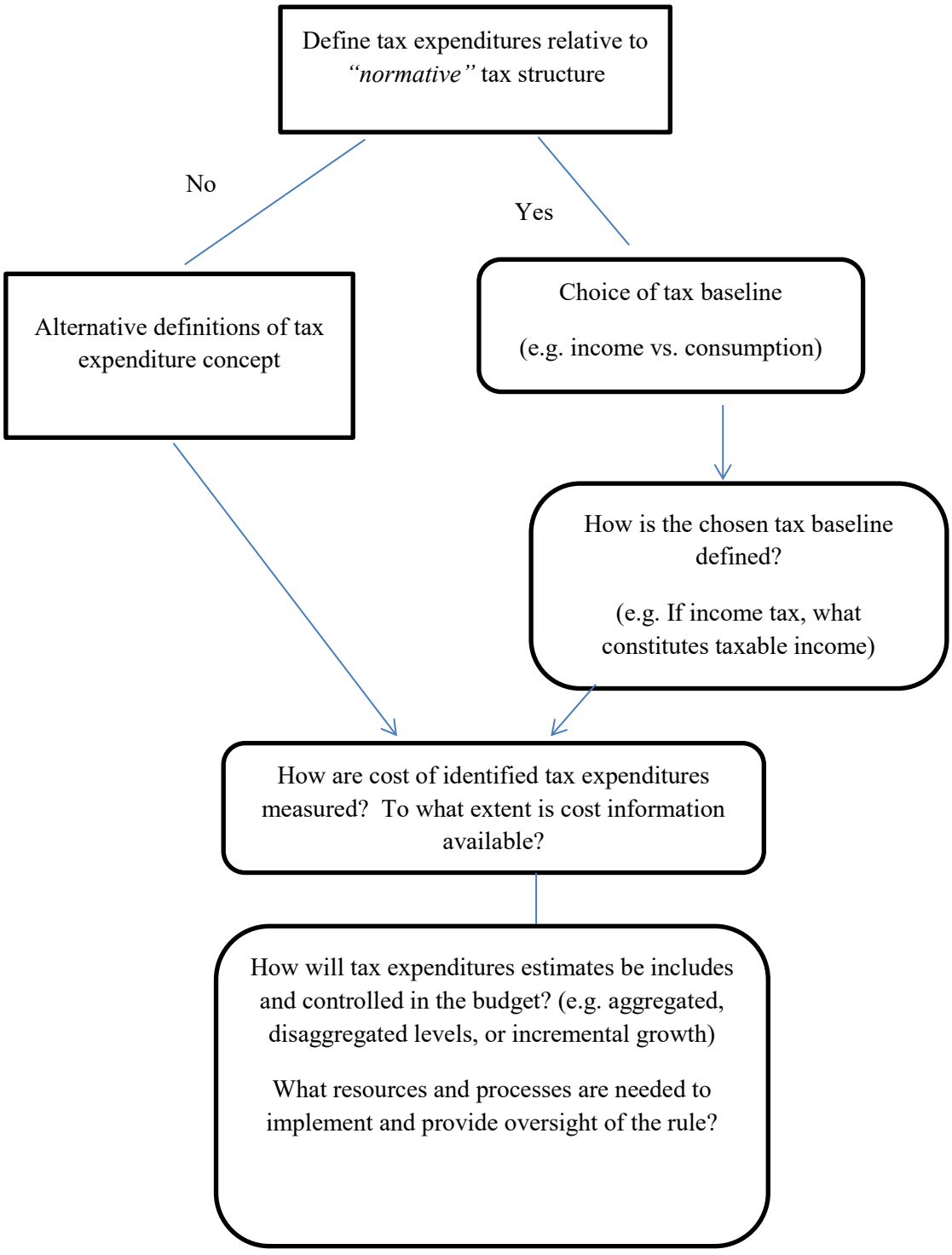
Figure 11.1
Decisions Associated with the Establishment of Budget Rule for Tax Expenditures[379]



Source: Figures 11.1 and 11.2 created by author.

[379] For decisions associated with definition and measurement of tax expenditures, see Figure 11.2.

Figure 11.2
Definitional and Estimation Issues Surrounding the Tax Expenditure Concept and Its Use in Budget Rules



Process rules are more easily enacted and sustained than outcome rules, especially those that seek to constrain built-in cost increases

An important decision (and potential area of compromise) is whether a budget decision rule is a process rule or an outcome rule. As discussed in Chapter One, the history of U.S. fiscal rules shows the difficulty sustaining an outcome-based rule like GRH. The case studies and illustrative budget decision rules outlined in Chapter One also indicate difficulties gaining and maintaining support for outcome-based rules. Before FCRA was enacted, some policy participants, including the OMB Director, argued for direct limits on the government's exposure from federal lending, but this type of outcome rule was not considered politically feasible. While some tax expenditure proposals call for limits on the level of tax expenditures many call for process reforms in part due to the political and implementation difficulties associated with placing limits on aggregated tax expenditures. Even with automatic cost increases built in, PAYGO rule has been waived when the policy and political costs of sequestration were deemed to be too high. Several outcome-based rules highlighted in Chapter One – the SGR, NCLB, and the Medicare Trigger -- faced difficulties achieving pre-determined targets and failed to be sustained as intended or abandoned.

Budget decision rules create new biases and challenges; they are not static and require continuing oversight and modifications

The FCRA experience shows that even with a strong and agreed-upon conceptual framework translating budget decision rules from theory to practice raises new issues and biases and requires continued oversight and refinement. Those responsible for

operationalizing and implementing FCRA had to deal with numerous issues that were not directly addressed in FCRA's legislation and its implementation has required on-going refinements and oversight. Further, FCRA's experience indicates that decision rules and the debates surrounding them are not static. Budget decision rules change, but do not eliminate, budget biases. In FCRA's case, there were early concerns that FCRA's provision of permanent indefinite budget authority to cover subsidy cost reestimates would create incentives for agencies to underestimate initial subsidy costs. Reformers sought to mitigate this concern by requiring annual reestimates as opposed to requiring a one-time aggregate reestimate at the end of the loan. The issue of negative subsidies was not directly addressed by FCRA and caused some early implementation issues (GAO, 1994c). In recent years, large negative subsidies have raised concerns about: (1) the use of uncertain *"savings"* to offset current budget costs and (2) the creation of incentives that encourage use of credit programs as income generators. Further, as discussed in the case, some policy participants argue that FCRA's exclusion of market risk and administrative costs create a new bias to use direct loans over loan guarantees.

Rules matter, but some benefits are indirect and other factors influence policymakers' decisions.

The FCRA experience provides a mixed picture of the benefits, challenges, and limitations of budget decision rules. On the positive side, FCRA's subsidy estimates and reestimates called attention to policy and oversight issues, including the risks inherent in the mission and design of some federal credit programs. In addition, FCRA provided an

impetus to improve the data, systems, and processes necessary to better identify and understand the costs and risks of federal credit programs.

The case provides a mixed picture of FCRA's role in shaping budget outcomes with respect to the level and composition of federal credit programs. While it is impossible to know FCRA's impact without a counterfactual, my review of credit programs trends provides some support for the premise that budget decision rules influence decision about federal loan programs. Declining subsidy costs and the emergence of large negative subsidies and *"self-financing"* loan programs indicate that FCRA has influenced the choices about the design of loan programs. However, while my review of trends across pre- and post- FCRA periods provides some support for the premise that FCRA influenced budget decisions, it also indicates that additional factors such as: (1) program dependency, (2) credit market conditions, and (3) political and policy preferences for particular policy instruments (beyond budget advantage) play roles in shaping policymakers' decisions.

Decision rules are better at calling attention to issues and supporting existing consensus than generating consensus.

The case studies support the view that decision rules are better at calling attention to and supporting existing consensus than at generating consensus. In FCRA's case, an area of strong (albeit not universal) elite consensus -- the superiority of a net present value approach over net cash flows as the budget cost measure for credit programs -- has been supported and sustained. However, in an area that was not fully resolved when FCRA was enacted – the treatment of market risk -- old disagreements reemerged.

Disagreement and debate about FCRA's exclusion of market risk intensified as FCRA's subsidy costs became more relevant in policy debates (i.e. *"profits"* for some politically-sensitive credit programs and creation of *"self-financing"* direct loan programs). While FCRA is the official budget decision rule and provides the official budget estimates, it has not resolved fundamental disagreements either about the rule or the affected programs.

Similarly, some of the illustrative case discussed in Chapter One suffered from a lack of consensus on the policy details necessary to meet the rule. Lawmakers routinely circumvented the SGR when they could not achieve consensus on policy details and cuts become too politically difficult. In the end, the SGR was repealed. The Medicare Trigger has largely been ignored. As argued by one policy participant, rules are not substitutes for policy consensus (Posner, personal communication, November 12, 2016).

Considerations and Indicators for the Establishment of Budget Decision Rules

Although policy participants remain divided on the role and value of both analytical tools and decision rules, proposals for new budget decision rules continue. Tables 11.3 to 11.5 outline considerations and indicators that provide a preliminary framework for assessing proposed budget decision rules. These considerations and indicators were developed based on the case study findings, the themes discussed in the previous section, and the extensive literature review and illustrative cases discussed in Chapter One. For consistency purposes, they are roughly organized by the dimensions outlined in the Chapter Two.

While these considerations and indictors reflect primarily a technician's focus on sound budget practices, the case studies demonstrate that a proposed budget decision rule cannot be fully assessed in isolation of the political and policy environment in which it would be enacted and operate. The case studies show how complex, technical issues, including the presence of definitional or methodological ambiguity or uncertainty, make a budget decision rule venerable to conflict, misinterpretation, and manipulation. While a strong elite consensus about a rule's objective and basic conceptual framework may provide an opportunity to address and mitigate technical and implementation issues, a lack of such consensus not only increases the difficult addressing these issues but makes the rule venerable to being used as a weapon in the political process. Finally, the cases indicate that to the extent technical disputes reflect boarder policy, ideological, or political disagreements, achieving consensus on the rule is not likely be any easier than reaching consensus on the underlying policy and political debates.

A first order principle is to avoid overburdening the federal budget. Budget decision rules based on analytical information add complexity and potential confusion to the budget. While complexity itself is not necessarily a reason to abandon reform efforts, it does suggest a reason for caution. The case studies indicate that enacted and sustained budget decision rules are facilitated by a *"trigger"* that is clearly understood, articulated, and supported by considerable elite consensus. The concern or "*trigger*" for the rule should be an identifiable shortcoming of existing budget rules (e.g. the budget provides misleading cost information or otherwise distorts incentives for sound budget decisions). The desire to make potentially useful analytical information more relevant and powerful does not on its own appear to justify a new budget decision rule.

An important assessment is the extent to which the problem is truly a budget problem and whether the issue might be more appropriately addressed by a supplemental analytical tool or a decision rule outside the fiscal budget. While information related to financial management, performance, and social costs may provide valuable insights, the desire to incorporate this information in the budget needs to be considered carefully against the primary objectives of the federal budget, and not just based on the desire to increase incentives for policy participants to use this information.

The issue of social costs helps illustrate. A regulatory budget has been proposed in various forms for decades. Some recent proposals call for the cost of regulations to be incorporated as spending and imputed revenues in the budget. However, including these non-cash, social costs in the budget would increase the complexity and reduce the transparency of the budget, and may fail to provide adequate understanding and oversight of these costs. Others have proposed that a regulatory *"budget"* be provide as a supplemental analytical tool or decision rule separate from the fiscal budget. As discussed, the inclusion of market risk raises similar issues about whether the cost of market risk is most appropriately addressed by an analytical tool, such as supplemental cost-benefit analysis, or by inclusion as a budget cost in FCRA's budget decision rule.

While there are valid concerns that supplemental analytical tools and decision rules not directly linked to resource allocation decisions may not be taken seriously, inclusion in the budget also does not guarantee that information will be valued and used, especially if it does not meet the needs of key budget users. For example, while performance information can provide valuable insights for many users of the budget, GAO (2005b) found that the administration's efforts to restructure congressional budget

justifications and appropriation accounts to better align budget resources to results did not meet certain needs of the congressional appropriation subcommittees (p. 92). The effort was abandoned.

Another consideration is how well existing budget rules and processes are currently functioning and how the proposed rule fits with existing fiscal and foundational budget rules. The current federal budget process is not functioning, and some would say is completely broken. Continuing to expand the scope and complexity of a budget process that is not functioning does not seem to provide a prudent path forward. Aligning new budget decision rules with existing budget rules and processes makes sense when existing rules and processes are functioning. However, integrating program- or policy-specific budget decision rules into fiscal and foundational rules that are not functioning may not only reduce the ineffectiveness of the new budget decision rule, but also may further impede the existing process. While new program- or policy – specific budget decision rules could be a useful part of comprehensive budget reform, careful consideration should be given to how they fit with other reforms aimed at strengthening the overarching budget process and fiscal rules.

Table 11.3 Considerations and Indicators for Assessing Proposed Budget Decision Rules (Trigger and Conceptual Framework)

	Select Considerations and Indicators
Trigger	The *"trigger"* or problem prompting the proposed budget rule is clearly understood, articulated, and supported by considerable elite consensus. o Is the issue clearly a budget issue e.g. is there an identifiable shortcoming of current budget rules? o Have analytical information and tools been available for "adequate" period? Is it clear that information alone is insufficient? o Would a decision rule outside the budget process be more appropriate? o Is there considerable expert consensus on the problem and the need for a new budget decision rule?
Conceptual Framework and Design	The rule's objective and conceptual framework is supported by considerable elite consensus. o Is the underlying logic, including how the rule, will address the problem clear? o Has the proposed rule's basic conceptual framework and design been well-vented? The rule is aligned with existing federal budget primary purposes, norms, and conventions. o Is rule consistent with federal budgeting principles? Or, is there elite consensus that change is necessary? o Have the tradeoffs among the purposes of the budget and various user needs been communicated and debated? The rule is aligned with existing foundational budget and fiscal rules. o How will the rule support (or be supported by) existing budget and fiscal rules? What are potential tensions or conflicts? o Is the budget decision rule dependent on certain aspects of the existing budget process? Are these processes functioning? o Is the budget decision rule credible and enforceable within the existing budget process? The rule is designed to mitigate misinterpretation and manipulation. o Has the potential for new biases been assessed? How might the rule be designed to address these concerns?

Source: Table created by author

A central issue is the availability and quality of analytical information needed to support the rule, but reformers may not adequately address the need for increased staff levels and technical skills. While resources to support the development of needed analytic information are likely to be significant, the information required by the rule may be needed to support effective management and oversight. In FCRA's case, experts testified that while the resources necessary to support credit budgeting, especially the generation of the subsidy cost estimates, would be significant, this information and the data and systems needed to generate it were necessary to improve the management and oversight of the federal loan programs, regardless of whether a budget decision rule was established (C-SPAN, 1990).

Another consideration is the extent to which rule design and supporting processes may mitigate the potential for misinterpretation and manipulation. An obvious, often recommended, and laudable criteria is that analytical information and budget rules are accurate, understandable and transparent. While it is easy to agree with the merits of these criteria, understanding and defining them in a way that fits with the realities of federal budgeting and the technical complexity involved is more nuanced. The use of more sophisticated and complex techniques (such discounted cash flows, foregone revenues, fair-value estimates, and options pricing) inevitably increase the complexity and reduce the transparency of the budget. Decision rules based on more sophisticated methods and models may not be fully understood by lawmakers, their staff, or the public, with the extent of understanding varying significantly across policy participants. CBO (2012) noted some policy participants expressed concerns that fair-value estimates are

less transparent than FCRA estimates and thus "*could be more difficult to communicate to policymakers and the public"* (p. 2).

A way of assessing this issue is the extent to which adequate structures and processes have (or will be) established to communicate, document, and oversee the rule and the information used in it. Careful consideration needs to be given to the structures and processes supporting the budget decision rule, including, for example: the level of expert input and consensus; how the rule will be tracked and documented; how the rule will be communicated and explained to various audiences; the responsibility for the generation of cost estimate; and the oversight process, including the credibility, independence, and the role(s) of nonpartisan oversight entities. One issue discussed in the debate prior to FCRA was whether the responsibility for subsidy estimates should be in the executive branch, the legislative branch or both as means of providing a cross-check. Another issue consideration of enforcement mechanisms to be used and how it will work with affected programs and policies. Previously used enforcement mechanism may have to be modify or may not work given the affected programs and policies. In discussing reform options, GAO (1994) found the characteristics and diversity of tax expenditures would create barriers to using a sequestration mechanism for tax expenditures (p. 69).

Table 11.4 Considerations and Indicators for Assessing Proposed Budget Decision Rules (Technical and Implementation)

	Select Considerations and Indicators
Technical and Implementation	Analytical information (cost estimates) necessary for the rule is (or will be) available and reasonably accurate. o Have cost estimates (or other information) to be used in the rule been previously reported? If so, to what extent have they been reviewed for accuracy? o If information is not currently available, is there expert consensus that needed information can be produced reasonably accurately? o Are the methodologies used to generate cost estimates (or other information) been well vented and supported by considerable expert consensus? Are methodologies considered generally accepted and credible? o Should an incremental approach be used to allow for more experience with the cost estimates (or other information)? o Can cost estimates (or other information) be generated within the time constraints of the budget process? Administrative and institutional infrastructure exist (or will be established) to support operationalization, implementation, and oversight of the rule. o What will the division of responsibility be for implementation of rule, including the generation, review, and oversight of cost estimates (or other information)? Will these responsibilities reside in one entity, or be shared to provide crosschecks? o What additional staffing levels and skills are necessary to support the rule? o What structures and processes will provide oversight of the rule? Do proposed processes appear sufficient to mitigate misinterpretation and manipulation? o Does the budget decision rule complement or compete with concurrent reforms? o Will information be subject to external review, e.g., financial audit? o To what extent will documentation and data be available for external review by interested parties, such as private market participants, academics, and nongovernmental researchers?

Source: Table created by author.

Table 11.5 Considerations and Criteria for Assessing Proposed Budget Decision Rules (Political and Institutional)

	Select Considerations and Indicators
Political and Institutional	Cost estimates (other information) are understandable to congressional members and staff and other policy participants. o How will the rule and its technical issues be communicated to Congressional members and staff? o How will key technical issues, including areas of conceptual and estimation ambiguity, be communicated and documented? Rule is credible and enforceable within the political process. o Under what conditions will lawmakers be able to waive the rule? o What aspects of the rule are most likely to be subject to gaming? What processes or checks have been established to mitigate political gaming? o What will be the enforcement mechanism? Has chosen method of enforcement be been used in past, did it prove to be effective and credible? Elite consensus on the rule's relevance, objective, and conceptual framework. o Is there elite consensus on the need for a new budget decision rule and its objective? o Has the rule been discussed with key users that will be affected by the budget decision rule? o Does the rule reflect and reinforce an existing agreement? Or, is it expected that the rule will generate consensus? Budget decision rule meets (or, at least, does not interfere with) the needs of lawmakers in carrying out their responsibility for budget oversight and control. o Has the rule and the information used it in be discussed with key congressional users? Rule is aligned with existing institutional structures (or there is considerable elite agreement that changing institutional structures is feasible and necessary)

Source: Table created by author.

Closing Thoughts, Key Challenges and Potential Pathways for FCRA and Budgeting for Tax Expenditures.

In the case of tax expenditures, significant concerns about budget oversight and control continue, but there does not appear to be a clear path toward a workable, sustained budget decision rule. While much debate surrounds the primary purpose of the tax expenditure concept and its underlying premise that tax expenditures are spending, it is clear is that these provisions reduce revenues and thus make addressing the nation's significant fiscal challenges more difficult. In this sense, and despite a lack of consensus, tax expenditures are a budget control issue. However, the need for a budget rule for tax expenditures does not make it (especially a spending rule) political acceptable or technically feasible. While some options for budget decision rules for tax expenditures have merit, they face substantial political, technical, and implementation hurdles. For the reasons discussed below, the most productive path forward at this time may be to use the tax expenditure concept to strengthen analytical tools and shape decision rules outside the budget process.

A new budget decision rule for tax expenditures must be designed and considered within the context of the conceptual, definitional, and estimation issues involved. An aggregate cap on tax expenditures appears both politically and technically infeasible. Other proposals call for process rules that would explicitly treat tax expenditures as spending by, for example, including tax expenditures as both imputed revenues and budget outlays (spending). While the objective is to increase the visibility of these tax provisions and expose their contribution to the overall size of government, this type of approach would face significant political resistance. In addition to the definitional and

measurement challenges associated with the identification and measurement of tax expenditures, the added complexities of this approach - use of the imputed revenues, the treatment of non-cash costs as budget outlays, and the disconnect between budget totals, government's financing needs -- all open the door to confusion and controversy.

An alternative approach would be to build on the existing identification of tax expenditures and the PAYGO system to establish a PAYGO rule specific to tax expenditures. The objective would be to heighten attention to tax expenditures, encourage tradeoffs among tax expenditures, and sharpen tradeoffs between tax rates and the value of tax expenditures. While still likely to meet political resistance, this approach treats tax expenditures as a revenue issue, and thus avoids conflict over explicitly treating them as spending. In addition, it would provide more direct control over tax expenditures than a process rule. However, this approach faces significant unresolved enforcement and implementation issues. While tax expenditures are currently listed for informational purposes, the establishment of a constraint would likely increase conflict over long-standing conceptual, definitional, and measurement disputes. In addition, as discussed in GAO (1994), there are significant difficulties associated with applying a sequestration enforcement mechanism to tax expenditures (p. 69).

Finally, one cannot avoid recognizing the lack of political support and commitment to the PAYGO process. The PAYGO rule has become increasingly politicized and lawmakers have periodically waived PAYGO to avoid sequestration. Most recently, lawmakers waived PAYGO to avoid sequestration triggered by the large deficit increases resulting from the 2017 tax cuts. Similar concerns surround proposals to

incorporate tax expenditures into the budget resolution, which the Congress has increasingly failed to pass either on time or at all.

While a tax expenditure specific PAYGO rule might be explored, it appears that, especially given the current political environment, the most valuable role for the tax expenditure concept lies in supporting stronger analysis of tax expenditures and tax policy. The tax expenditure listing alone is insufficient as an analytical tool, but it provides a foundation for stronger analytical tools. One option would be to establish a more systematic approach for evaluating the efficiency and effectiveness of tax expenditures (GAO, 1994c and Harris, et. al, 2018). These analyses would help identify and support design changes in tax expenditures, and perhaps assist in the establishment of decision rules outside the budget process, such as the conversion of some tax expenditures into refundable tax credits and requirements for periodic review and reauthorization. However, close examination of the merits and challenges of these specific approaches lies outside the dissertation's scope

FCRA has been a workable and sustained budget decision rule for almost three decades, but significant concerns are being raised about the sufficiency of its subsidy cost estimates. The central and most controversial issue is whether subsidy cost estimates for federal loan programs should include the cost of market risk. This long-standing debate concerning whether market risk is a budget cost is not merely a technical issue about discount rates but raises important questions about the purpose and scope of the federal budget.

The inclusion of market risk in the budget would add a non-cash measure of social cost to the budget and would expand the budget beyond its long-standing role in

measuring and controlling fiscal effects (as measured by cash flows to and from the Treasury) (GAO, 2016a and Marron, 2014). Opponents argue that the inclusion of market risk adds additional, non-budgetary costs to the budget, but proponents argue that market risk is a budget costs and its inclusion is necessary to comprehensively and correctly measure the cost of federal loan programs. This debate about what constitutes the government's cost of lending long preceded FCRA and has never been fully resolved.

There are reasons, however, for caution in amending FCRA to include these costs directly in the budget. There is no consensus on the existence of a problem warranting new budget rules. Proponents argue that FCRA's exclusion of market risk from subsidy costs understates the cost of loan programs, and thus creates a bias for the overuse of federal loans over other policy instruments and for the use of direct loans over loan guarantees. While there are some indicators that support this premise (declining subsidy costs; the emergence of negative subsidies, the creation of "self-sustaining" loan programs, and the creation of some new direct loan programs, most notably the replacement of the student loan guarantee program with the direct loan program), research on and understanding of FCRA's role in policy participants' choices about federal programs is only beginning. There is no elite consensus that a problem warranting new budget rules exists.

While assessment of the social costs (and benefits) can provide valuable insights on government policies and programs, including federal lending, these types of analyses have traditionally fallen outside the scope of the federal budget. The merging of the analysis with the budget's role as the measure of fiscal effects has the potential to overburden the budget and serve neither purpose well. The issue of social costs applies

to a range of federal program and policies beyond federal credit. Opening the door for the inclusion of social costs has the potential to greatly increase the scope and analytical complexity of the budget while fundamentally changing its role in the political and policy process.

Such fundamental and significant change warrants renewal of comprehensive study and debate, especially given the current lack of political and expert consensus. It seems reasonable to continue with the supplemental reporting of fair-value cost estimates as an analytical tool. Doing so would allow more time for a comprehensive debate while also allowing time to gain experience with and understanding of fair-value estimates and their role in the policy and political process. The debate about market risk is long-standing, but the application of fair-value to credit subsidy estimates and (especially) the more systematic reporting of fair-value estimates is relatively new.

While competing subsidy estimates have helped call attention to the costs and risks of federal credit programs, there still appears to be lack of understanding of the differences between FCRA and fair-value estimates, including how each measures the risks involved and the extent of subsidies provided. One point of confusion is how the government can *"profit"* while providing positive subsidies to borrowers. Further, a review of recent legislative proposals indicates confusion between CBO's application of the fair-value approach to federal credit programs and the use of GAAP fair-value in the private sector. In addition, the integration of fair-value subsidy estimates into the budget raises significant implementation issues that have not been fully assessed and addressed.

Continuing to provide fair-cost estimates as an analytical tool will not be without its own challenges and drawbacks. As discussed is the case the debate and competing

subsidy estimates caused controversy and confusion. One can hope that over time this attention may eventually lead to improved understanding of the issues, but there is the danger that competing estimates will be increasingly used as political weapons or will fall into the realm of a technical and ignored exercise. However, an incremental approach will provide time to assess the usefulness of these estimates to various users.

The supplemental approach also does not deal with an issue facing FCRA, i.e. whether and how to address the treatment of the large, negative subsidies in the budget. If FCRA's approach is continued, there is the danger that incentives created by negative subsidies will encourage the overuse of credit programs as *"income generators"* which offset current cost with uncertain gains. While a full examination of the issue is beyond the dissertation scope, the issue also warrants attention.

In closing, the combination of long-standing policy problems and the increasing availability of analytical information and tools increase the temptation to use information as the basis of budget decision rules. The history of reform and the case study experiences, however, suggest that both too much and too little is expected of budget decision rules. While budget decision rules influence incentives, they are not objective standards that rise above the political fray to make lawmakers to do what they otherwise would not. While budget decision rules may provide more comprehensive cost measures, they involve compromises that deviate from the theoretical ideals in order to address political and practical limitations. While budget decision rules are facilitated by expert opinion and consensus, they are shaped by and require political consensus. While budget decision rules can play a valuable role in calling attention to policy and management issues, they will not solve, and may heighten, conflict. While budget decision rules may

address some budget biases, they will raise new ones. While budget rules may better serve the needs of one set of budget users, they may also interfere with the needs of others.

These issues highlight the need for careful consideration of whether a new budget decision rule is necessary and if so how it will be designed and implemented. The logic behind proposed budget decision rules is often relatively straightforward making it easy underestimate the challenges associated with effectively translating a proposal from theory to practice. The case study experiences suggest a cautioned approach to the establishment of budget decision rules with a first principle of avoiding overloading the budget and budget processes, especially when the existing processes are not fully functioning.

While sound budget principles and technical expertise certainly help shape budget decision rules, their design and implementation cannot be assessed in a vacuum. To varying degrees, the dimension outlined in Chapter Two (trigger, conceptual, technical, and political) were factors in each case. The issue is not whether these factors matter, but rather how they interact to influence whether analytical information is transformed into a workable, sustainable decision rule. The quest for analytical improvement must be balanced with the institutional, political, and implementation realities in which the budget decision rules operate. While the case studies indicate that analytical information and budget decision rules matter and have role in the policy and political process, those seeking to establish new budget decision rules need to consider the fragile role they play and avoid overpromising benefits and underestimating the need for careful design and continued oversight and refinement.

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