Harvard Law School Federal Budget Policy Seminar

Briefing Paper No. 6

Accrual Accounting for Federal Credit Programs:

THE FEDERAL CREDIT REFORM ACT OF 1990

Neill Perry Puja Seam

DRAFT Last updated: 4/20/2005

PART I. FACTUAL BACKGROUND

A. The Role of FCRA in Federal Budget Policy

The federal government is one of the world's largest lending institutions. By the end of fiscal year 2004, the federal government had made or guaranteed \$1.4 trillion in outstanding loans through numerous federal programs managed by Cabinet departments, independent agencies, and government corporations. Federal credit, in the form of direct loans or loan guarantees, is extended as a means of achieving certain policy objectives such as assistance to housing, education, small businesses, agriculture, and foreign governments. Examples of some of the largest credit programs include the Federal Housing Administration, Veterans Affairs Housing, Federal Family Education Loans and Ford Student Loans. Because the magnitude of federal credit makes it is an important component of federal spending, its treatment in the federal budget is a necessary topic to consider in budget policy discussions.

1. History and Purpose of the FCRA

In the decades prior to 1990, the federal government's use of credit increased nearly tenfold from less than \$50 billion in 1964 to more than \$500 billion in 1990.⁵ This dramatic increase focused attention on federal credit accounting raising concerns about the need for greater accuracy in assessing the costs of such programs and whether the proper incentives existed to control credit

¹ See Center on Federal Financial Institutions, Budgeting for Credit Programs: A Primer 1, 3 (2004) available at http://www.coffi.org/pubs/Budgeting%20Primer.pdf (last visited March 16, 2005) [hereinafter COFFI].
² These are the two types of loan transactions in which the federal government participates. See Allen Schick, The

These are the two types of loan transactions in which the federal government participates. See ALLEN SCHICK, THE FEDERAL BUDGET 42 (rev. ed. 2000). For an overview of how direct lending and loan guarantees work and why the government might choose one rather than the other, see COFFI, supra note 1, at 3-4. See also Michael Pompeo, Accrual Accounting for Federal Credit Programs: An Evaluation of the Federal Credit Reform Act of 1990 1-6 (discussing the unique use of credit as means of distributing benefits relative to other distributions of government benefits) (on file with Professor Howell Jackson) available at LEXIS 95 TNT 2-89 (1995).

³ See ACCOUNTING & INFO. MGMT. SUBDIV., GEN. ACCOUNTING OFF., CREDIT REFORM: GREAT EFFORT NEEDED TO OVERCOME PERSISTENT COST ESTIMATION PROBLEMS 36 (1998) (discussing the purposes of credit programs) [hereinafter 1998 GAO CREDIT REFORM].

⁴ See generally Cong. Budget Off., Estimating the Value of Subsidies for Federal Loans and Loan Guarantees, appendix A (2004) [hereinafter CBO Estimating Subsidies].

⁵ EXEC. OFF. OF THE PRESIDENT, OFF. OF MGMT. AND BUDGET, Special Analysis F. Budget of the United States Government: FY1990 F-2 (1989).

costs.⁶ Prior to 1990, federal credit was treated under cash-flow accounting along with the rest of the federal budget. Under cash-flow accounting, disbursements made to borrowers were recorded as outlays. For direct loans this meant that the full loan was disbursed immediately and recorded as an outlay while the borrower's repayments on the loan were made over time in a series of incoming cash flows. Immediate disbursement of a full loan has the effect of overstating the costs of such loan in the year it is made since the government's cost for the loan is not the full value of the loan but instead something less.

In contrast, loan guarantees under cash-flow accounting may have no cash outflows in the year the guarantee is made by the government but at a future time may represent a significant liability should the guarantee be triggered. Because cash-flow accounting has the effect of making loan guarantees look costless in the year the guarantee is made, loan guarantees were favored in the budgetary process over direct loans even when direct loans were a better choice for meeting a program's goals. These problems made it difficult to fit credit programs within the federal budget's cash-based system since "the disbursal of funds for the contingent liabilities created by credit programs [did] not coincide with the commitment of the resources. For these reasons, cash-flow accounting failed to accurately capture the costs of credit programs. This increased the difficulty of comparing credit programs and non-credit programs and distorted fiscal decision-making.

-

⁶ See F. Stevens Redburn, How Should the Government Measure Spending? The Uses of Accrual Accounting, 53 PUBLIC ADMINISTRATION REVIEW 228, 228 (May/June 1993).

⁷ See COFFI, supra note 1, at 5.

⁸ See Pompeo, supra note 2, at 5-6.

There has been extensive discussion of the problems presented by treating credit programs under cash-flow accounting. *See id.* at 258-59 (explaining the problems with cash-flow accounting of credit programs); COFFI, *supra* note 1, at 5 (discussing the deficiencies of accounting for credit programs on a cash basis including disincentive to expand direct loan programs, incentives to destroy economic value and the favoring of loan guarantees); 1998 GAO CREDIT REFORM 36-37 (explaining the difficulties caused by cash treatment and the benefits of credit reform).

The misleading costs of credit programs under cash-flow accounting was the primary motivation behind Congress's passage of the Federal Credit Reform Act of 1990¹⁰ (FCRA), part of a larger budget compromise passed that year. Congress intended for credit reform to make certain the full cost of a credit program, although distributed over several years, would be reflected in the year in which the loans or guarantees were made thereby improving budgetary decisionmaking. Listed in the first section of the FCRA are the purposes animating its enactment:

(1) measure more accurately the costs of Federal credit programs; (2) place the cost of credit programs on a budgetary basis equivalent to other Federal spending; (3) encourage the delivery of benefits in the form most appropriate to the needs of the beneficiaries; and (4) improve the allocation of resources among credit programs and between credit and other spending programs.¹³

To achieve these goals the FCRA changed the budgetary treatment of credit programs from cashflow accounting to accrual accounting for certain credit activities.¹⁴ Accrual accounting requires direct loans and loan guarantees in the budget to reflect the estimated subsidy cost of these loans

10

process. See Redburn, supra note 6, at 230.

¹⁰ 2 U.S.C. §661c (2000).

¹¹ See Section 13201(a) of the Budget Enforcement Act of 1990, Pub. L. No. 101-508, tit. XIII, 104 Stat. 1388 (1990), created Title V of the Congressional Budget and Impoundment Control Act of 1974. Title V, the Federal Credit Reform Act of 1990 is codified at 2 U.S.C. § 661-661f (2000).

¹² One of the political implications of credit reform is that it ended unmerited favoritism towards loan guarantees, which looked costless under the old system and so were favored politically. Since pre-FCRA the entire amount of a direct loan was budgeted as an outlay and no outlay was made for a loan guarantee until a default, legislators viewed loan guarantees as costless in the short-term in comparison to direct loans, which were outlayed in full. *See* SCHICK, *supra* note 1, at 44. Credit reform standardized the way direct loans and loan guarantees are treated by requiring the subsidy cost of each to be outlayed in the year Congress appropriates funding for a credit program. In this way, the FCRA permits a more direct comparison of the costs of each type of credit program—one of the primary goals of credit reform—since it takes into consideration only the subsidy cost of each type of credit in the year in which the money is appropriated rather than accounting differently for direct loans and loan guarantees.

¹³ 2 U.S.C. § 661. *See also* Stanton, *infra* note 26, at 17-19 (explaining how FCRA is more than an accounting change as it also contributed to improvements in credit management and performance within agencies).

¹⁴ *See* 2 U.S.C. §§ 661a(5), 661c(a). The FCRA was not the first time transitioning to accrual accounting was recommended or proposed. The use of accrual accounting for certain aspects of the federal budget including direct loans was recommended by President Johnson's 1967 presidential commission on budgets. *See* PRESIDENT'S COMM'N ON BUDGET CONCEPTS, REPORT OF THE PRESIDENT'S COMMISSION ON BUDGET CONCEPTS ch. 4-5 (Oct. 1967). Credit reform for both direct loans and loan guarantees was first proposed formally during the 1987 budget

and treats these subsidies as outlays.¹⁵ Funds are then budgeted and appropriated to finance these subsidy costs of the credit programs.¹⁶

While most commentators agree credit reform was much needed, and has improved the accuracy of the costs of credit programs, ¹⁷ the move from cash to accrual accounting has had its own challenges. Before discussing these critiques and suggested reforms, it is important to understand when and how the FCRA operates and which federal entities are responsible for implementing its provisions.¹⁸

2. The Mechanics of the FCRA

a. The Estimation Process

The FCRA mandated accrual accounting for credit programs by establishing that the President's budget should show the "costs" of direct loan and loan guarantee programs as well as the planned level of new loan obligations or guarantee commitments associated with each appropriations request. Recognizing the true cost of loans and loan guarantees as the net value of cash flows over the life of a loan, the FRCA defines "cost" as "the estimated long-term cost to the government of a direct loan or loan guarantee or modification thereof, calculated on a net present value basis, excluding administrative costs..." This is also often termed the subsidy cost. The net present value of the subsidy or cost of the program is calculated by discounted estimated cash flows

¹⁵ See 2 U.S.C. §§ 661c(a)-(d); SCHICK, supra note 1, at 43.

See SCHICK, supra note 1, at 43.

¹⁷ See 1998 GAO CREDIT REFORM, supra note 3, at 5; supra note 9. While critiques and reform proposals exist to improve the accuracy of accounting for credit programs, which are discussed later in this paper, we found no commentators who suggest a return to cash accounting.

Although beyond the scope of this paper, for an introduction to the constitutional dimensions of credit appropriations in federal budgeting, see Pompeo, *supra* note 2, at 6 n.16 *citing* Kate Stith, *Congress Power of the Purse*, 97 YALE L.J. 1343, 1379-82 (1988) (presenting an argument that some credit programs may violate constitutional norms).

¹⁹ 2 U.S.C. § 661c(a). Direct loan, direct loan obligation, loan guarantee, and loan guarantee commitment are all defined terms under the FCRA. *Id.* §§ 661(a)(1)-(4) For an example of how this information is presented in the President's Budget including subsidy rates, obligations, and average loan size for individual credit programs in FY2005 and FY2006, see OFF. OF MGMT. & BUDGET, FEDERAL CREDIT SUPP. FOR FY 2006, FEDERAL BORROWING AND DEBT 246, 248 (2005) *available at* http://www.whitehouse.gov/omb/budget/fy2006/pdf/cr_supp.pdf (last visited March 17, 2005).

²⁰ *Id.* § 661a(5)(A) (defining "cost")

or payments by the government "to cover defaults and delinquencies, interest subsidies, or other payments" minus payments to the government "including origination and other fees, penalties and recoveries." In these calculations, agencies must include the government's cost of borrowing funds, usually the indirect proceeds of government securities sold to the public, 23 it will use to finance the loans or guarantees in the credit programs beyond the funding appropriated for the subsidy costs. How public borrowing via government securities relates to the funding of portions of credit programs is addressed below and later in this section.

Because the discount rate used is critical to a net present value calculation of future cash flows, the FCRA selects the government's cost of funds as the relevant discount rate based on "the average interest rate on marketable Treasury securities of similar maturity to the cash flows"²⁴ of the loan or guarantee for which the estimate is being calculated. Under the cost of funds approach, all discount rates for loans and guarantees are based upon the government's borrowing rate instead of the subsidy's benefit to the borrower. ²⁵ For example, a program that lends at the Treasury rate and

_

²¹ *Id.* §§ 661a(5)(B), (C)(i) (defining the costs of direct loans and loan guarantees).

²² *Id.* §§ 661a(5)(B), (C)(ii).

²³ See 1998 GAO CREDIT REFORM, supra note 3, at 38.

²⁴ 2 U.S.C. § 661a(5)(E).

²⁵ This approach to calculating the net present value of future cash flows, which uses the cost of funds to the government, remains controversial since it is different than the practice for discounting to present value in the private sector. The private sector approach to calculating the net present value of cash flows involves different discount rates for different borrowers as it is based on the interest rate a prudent lender would demand on a specific loan. See COFFI, supra note 1, at 7; CENTER ON FEDERAL FINANCIAL INSTITUTIONS, Budgeting for Credit Programs: Fundamental Questions (forthcoming 2005). A CBO study concluded using Treasury rates to discount expected cash flows "neglects the cost of market risk and results in the systematic understatement of costs for credit and other programs." CBO ESTIMATING SUBSIDIES, supra note 4, at 3 (exploring the use of commercial interest rates, which incorporate risk, rather than Treasury rates to measure the cost of federal credit programs). The CBO explains that market rates reflect that investors discount risky future cash-flows at risk-adjusted rates. Thus, the CBO points out that using the rates on certain Treasury securities to discount risky loans, where expected cash flows are uncertain, "systematically overestimates the market value of promised cash flows by discounting at too low a rate." Id. Likewise, this approach will "underestimate the cost of loan guarantees—that is, the value of cash shortfalls" that the government must pay out when the loan defaults. Id. Which discount rate to apply to future cash flows was debated by various government entities at the time of passage of the FCRA. Ultimately, the GAO and Senate Budget Committee's recommendation to adopt the cost-to-the-government approach was codified. See 2 U.S.C. § 661a(5)(E); ACCOUNTING & INFO. MGMT. SUBDIV., GEN. ACCOUNTING OFFICE, FEDERAL CREDIT PROGRAMS 3-4 (1989).

has no defaults would have a zero subsidy cost even if in the private credit market the borrower could only secure that credit at a higher cost.²⁶

In practice, the estimation process for determining a subsidy is very complex²⁷ and is calculated annually for each credit account within a credit program.²⁸ Since the subsidy costs measure the government's net loss (or gain) from credit activity, the actual cost of the subsidy cannot be known until the loan has matured; thus, the estimation process has a significant effect on how accurately credit reform tracks the costs of credit programs. The FCRA mandates that the Director of the Office of Management and Budget (OMB) "coordinate" subsidy estimates on behalf of the executive branch in consultation with the agencies that administer the loan or guarantee.²⁹ It also provides the authority to the Director of OMB to delegate power to the agencies to make these estimates based upon written guidelines, regulations and other criteria consistent with the FCRA, which the OMB has promulgated. ³⁰ Typically, credit agencies begin by making cash flow estimates and then discounting them to present value using a "credit subsidy calculator" created by OMB that incorporates forecasts for inflation, interest rates, and other economic factors.³¹

As part of the Balanced Budget Act of 1997, the FCRA was amended to require agencies to make subsidy estimations using technical assumptions such as default, recoveries, and fees included in the President's Budget for the year in which funds are obligated.³² Factors that might be

²⁶ See Thomas Stanton, Primer on Credit Reform 15 (1998) (produced for the Federal Credit Policy Working group, coordinated by OMB) *at* http://www.coffi.org/pubs.html. ²⁷ *See* Pompeo, *supra* note 1, at 10 (discussing how few legislators fully understood the complexities of the FCRA

and how some held the misguided view that the Act was merely a technical amendment).

²⁸ See SCHICK, supra note 1, at 43.

²⁹ 2 U.S.C. § 661b(a).

³⁰ See id. §661(b); see infra note 37.

³¹ See COFFI, supra note 1, at 11.

³² See Section 10117 of the Balanced Budget Act of 1997, Pub. L. No. 105-33, tit. X; 1998 GAO CREDIT REFORM, supra note 3, at 41. Protection against manipulation of subsidy estimates seems to be the one of the motivations behind linking technical assumptions in subsidy estimations to the technical assumptions made in the President's Budget. Congress recognized that credit estimation is primarily under the control of the Executive Branch and highly dependent on the accuracy of certain technical assumptions made in the calculation of estimates, such as interest rates and default risks. By requiring the Executive Branch to use the same technical assumptions in credit subsidy estimations as the President uses in whole budget seemed to be a way to control possible manipulation by

considered in estimating the cash flows include: the interest rate charged to borrowers; the term of the loan; how often payments are due; fees collected; grace periods or deferments of principal and/or interest; and other "borrower rights" related to repayment. 33 Factors that affect loan guarantees include fees charged to borrowers or lenders, the percent of the private loan covered by the federal guarantee in the event of default, and whether the government may seize collateral in the event of default.³⁴ All of these factors make significant differences in annual cash flows and subsidy estimates. In addition to specific technical criteria, agencies are guided by three general principles:

(1) using comprehensive information about the historical performance of classes of loans in estimating future cash flows; (2) clear documentation of how default rates and other inputs to the model were determined, including an explanation of the judgmental factors; and (3) a ranking of acceptable methods for subsidy estimation: econometric models, historical averages, and informed opinion. Agencies are urged to move from informed opinion towards econometric models.³⁵

Agencies prepare these cost estimates for each credit account they administer as part of their budget request although often they will reestimate these subsidy costs at the end of the fiscal year based on experience and economic changes.³⁶ OMB and the Treasury Department offer written implementation guidance containing illustrative cases as examples of how to account for credit

the Executive Branch. See H.R. REP. No. 105-217, at 988 (July 1997). There is also some suggestion in OMB testimony to various House Committees that efforts were being made to improve subsidy estimation and to standardize the use of certain common information across agencies. See Testimony Before the House Comm. on Small Business, House of Representatives, 105th Cong. (July 16, 1997)

⁽statement of G. Edward DeSeve, Controller and Acting Deputy, Director of Management, Office of Management and Budget) available at 1997 WL 397680 (F.D.C.H.) (explaining ongoing improvements being made to subsidy estimates and internal agency review of information to improve accuracy); Testimony Before the House Committee on Government Reform and Oversight, Subcomm. on Government Management, Information and Technology, 105th Cong. (April 18, 1997) (statement of John Koskinen, Deputy Director for Management, Office of Management and Budget) available at 1997 WL 194356 (discussing agency efforts to collect data and conform to the FCRA).

³³ See Stanton, supra note 26, at 8.

³⁴ *Id*.

³⁵ See COFFI, supra note 1, at 11, 11-12 (discussing also what an econometric model is and how this differs from "historical averages").

³⁶ See 2 U.S.C. 661c(f).

transactions under the FCRA. ³⁷ The Federal Accounting Standards Advisory Board (FASAB) has also developed accounting guidance for credit transactions. ³⁸

The OMB comments on agencies' estimates for credit and tries to resolve any differences based on technical facts and the level of agency independence. The OMB does have final legal authority to determine the estimates³⁹ although in practice the OMB performs its responsibilities in conjunction with the agencies administering the credit programs and the Congressional Budget Office (CBO). The Director of the CBO has a role in developing the guidelines for subsidy estimates used by the agencies in addition to the OMB. The FCRA specifically mandates that the Director of the OMB consult with the Director of the CBO on creating subsidy estimate guidelines.⁴⁰ In particular, the FCRA charges the OMB and CBO together to "coordinate" the development of more accurate historical performance data on the direct loan and loan guarantee programs including an annual review to improve cost estimates.⁴¹ Besides the formal statutory mandate for cooperation among the OMB, CBO and agencies, coordination occurs because of the informal political constraints such as the CBO's responsibility for scoring each credit bill, which limits the executive branch's ability to manipulate subsidy estimates.⁴²

b. The Budget Accounts

_

The detailed guidance provided to agencies and with which they must comply are numerous. *See, e.g.*, Off. of MGMT. AND BUDGET CIRCULAR A-11, PREPARATION AND SUBMISSION OF BUDGET ESTIMATES; Off. of MGMT. AND BUDGET CIRCULAR A-34, INSTRUCTIONS ON BUDGET EXECUTION; Off. of MGMT. AND BUDGET CIRCULAR A-129, MANAGING FEDERAL CREDIT PROGRAMS *all available at* http://www.omb.gov (last visited March 15, 2005).

See FED. ACCT. STANDARDS ADVISORY BOARD (FASAB), ACCOUNTING FOR DIRECT LOANS AND LOAN GUARANTEES, STATEMENT OF RECOMMENDED ACCT. STANDARDS, NUMBER 2 (1993); FASAB, AMENDMENTS TO

GUARANTEES, STATEMENT OF RECOMMENDED ACCT. STANDARDS, NUMBER 2 (1993); FASAB, AMENDMENTS TO ACCT. STANDARDS FOR DIRECT LOANS AND LOAN GUARANTEES (SFFAS NO. 18) (2000); FASAB, TECHNICAL AMENDMENTS TO ACCT. STANDARDS FOR DIRECT LOANS AND LOAN GUARANTEES (SFFAS NO. 19) (2001) all available at http://www.fasab.gov/standards.html (last visited March 15, 2001).

³⁹ See 2 U.S.C. § 661b(a).

⁴⁰ *Id.* § 661b(c).

⁴¹ *Id*.

⁴² See Pompeo, supra note 1, at 19.

The FRCA sets up a system of three budgetary accounts to record the budget information necessary for accrual accounting to work—program, financing, and liquidating accounts. For specific credit accounts established after the FCRA was enacted there is an on-budget "program account" and an off-budget "financing account." Credit obligations and guarantees made after the enactment of the FCRA do not use the third type of account established by the FCRA, a liquidating account. The on-budget program accounts receive appropriations for the subsidy costs and separately appropriations for the administrative expenses of a credit activity. The financing account is used to record the cash-flows associated with loans or guarantees. As an off-budget account, the financing account's cash flows are not included in budget totals but are a "means of financing."

After a subsidy cost is finalized, the process begins when a loan or guarantee is disbursed to the borrower and the subsidy cost associated with the loan or guarantee that was appropriated into the program account is paid out of that account into the off-budget financing account. ⁴⁷ For example, when the federal government commits to a direct loan it appropriates the subsidy amount into the program account. Later when the loan is actually made to the borrower the program account pays the subsidy cost into the financing account. The financing account then pays out the subsidy cost as well as the unsubsidized part of the loan to make the full loan to the borrower. See Figure 1 illustrating the cash flows for a direct loan through these budgetary accounts.

The unsubsidized portion of the loan is financed with money from intragovernmental loans. Typically, and as mentioned earlier, the financing account has borrowed from the Treasury.

Borrowed funds from the Treasury are often the indirect proceeds of government securities issued

⁴⁴ See 2 U.S.C. § 661a(8); see also infra note 50-54 (discussing liquidating accounts in more detail).

⁴³ See 2 U.S.C. §§ 661a(6)-(8), 661d(b)-(d).

⁴⁵ See 2 U.S.C. § 661c(g) (providing that the funding for an agency's administration of a loan or guarantee should be "displayed as distinct and separately identified subaccounts within the same budget account" as the subsidy cost). ⁴⁶ See 2 U.S.C. § 661c(d)(3); COFFI, *supra* note 1, at 13; Pompeo, *supra* note 1, at n.46.

⁴⁷ See 2 U.S.C. § 661c(d)(1)-(2). It is possible that program accounts may have unused budget authority at the end of a fiscal year if the obligations or commitments are less than estimated and appropriated. See COFFI, supra note 1, at 13. Typically, these amounts may not be carried over for future use. Similarly, these accounts may not be used in excess of the amounts appropriated or this would violate the Anti-Deficiency Act, 31 USC § 1341 (2000). *Id*.

to the public in the private market. 48 The financing account records both incoming and outgoing cash flows such as loan disbursements, borrowings from the Treasury, repayments, interest payments and fees from borrowers. The FCRA is structured so that the financing account should be in a break-even position given the incoming and outgoing cash-flows and assuming the subsidy transfer from the program account was estimated accurately by the OMB and the administering agency.49

Since the FCRA took effect beginning in fiscal year 1992, older loans and guarantees extended prior to its enactment (October 1, 1991) that remain outstanding are treated distinctly and subsidies are not calculated for these accounts. 50 Pre-FCRA federal credit is accounted for on a cashflow basis in a liquidating account that manages the cash flows derived from these loans.⁵¹ These obligations have "permanent indefinite budget authority" to cover losses, and when applicable, excess balances are transferred to the U.S. Treasury. Current budget figures continue to encompass the contingent liabilities incurred from these pre-FCRA loans and guarantees although almost all the cash flows that remain are loan repayments and interest or guarantee claims and recoveries.⁵³ Eventually, as these older loans mature, default or terminate, the balances in these accounts will reach zero.⁵⁴

c. Other Accounting Mechanisms

⁴⁸ See infra note 66 and Figure 1.

⁴⁹ See COFFI, supra note 1, at 13 (describing the role of the specific budget accounts); 1998 GAO CREDIT REFORM, supra note 3, at 39-40 (describing the budgetary accounts and their relationship).

² U.S.C. §§ 661f(b), 661d(d).

⁵¹ See Id. § 661a(8); SCHICK, supra note 1, at 43; 1998 GAO CREDIT REFORM, supra note 3, at 39-40.

⁵² See 1998 GAO CREDIT REFORM, supra note 3, at 40 n.2 (defining permanent budgetary authority as "available as a result of permanent legislation and does not require annual appropriation" and indefinite budgetary authority as an unspecified amount of budget authority).

 ⁵³ See COFFI, supra note 1, at 13.
 54 Id.

The FCRA establishes two other accounting mechanisms to incorporate credit programs into the scorekeeping system: modification and reestimates.⁵⁵ First, a "modification" is any government action (usually legislative) which increases the subsidy cost of an outstanding loan or guarantee. ⁵⁶ Legislation that changes the target population of borrowers in a housing assistance program or that lowers contractual prepayment penalties thereby increasing the government's costs on these loans are examples of loan modifications. Modification is only permitted when new budget authority to cover the additional estimated cost is made.⁵⁷ The second accounting mechanism created by the FRCA is "reestimates." These are changes in the subsidy cost that are made in a subsequent year that corrects for errors in interest rates, default rates or other technical assumptions.⁵⁸ Most programs prepare reestimates at the end of each fiscal year or less often if the OMB permits and they appear in the President's annual budget as well as in other budget documents.⁵⁹ Reestimates are displayed in a separate subaccount within a program account and are identified as a change in program costs and a change in net interest. 60 Permanent indefinite budget authority is provided for reestimates. 61 This is in contrast to modifications, which require additional budget authority. Thus, upwards reestimates raise the cost of credit subsidies, increase outlays at the time of the reestimate, and increase the budget deficit (or lower the surplus) while downward estimates reduce credit subsidies, decrease outlays at the time of reestimate, and lower the deficit (or increase the surplus) when the reestimate is made. 62

3. The Scope of the Act

_

⁵⁵ 2 U.S.C. § 661c(e)-(f); see Pompeo, supra note 1, at 13.

⁵⁶ See id. §661c(e) (defining "modification")

⁵⁷ Id

⁵⁸ 2 U.S.C. § 661c(f); see COFFI, supra note 1, at 14.

⁵⁹ See Cong. Budget Off., Credit Subsidy Reestimates 1993-1999 1 (2000) [hereinafter CBO Subsidy Reestimates].

^{60 2} U.S.C. § 661c(f).

⁶¹ *Id*; see supra note 52.

⁶² See COFFI, supra note 1, at 14.

The FCRA is not applicable to all federal loan and guarantee programs. Given the concerns that motivated credit reform and the purposes of the FCRA it describes, it is somewhat interesting to note that several large programs are excluded specifically from its provisions although they share similarities with those credit programs subject to its requirements. The FCRA does not apply to the Federal Deposit Insurance Corporation, National Credit Union Administration, Resolution Trust Corporation, Pension Benefit Guaranty Corporation, National Flood Insurance, National Insurance Development Fund, Crop Insurance, or the Tennessee Valley Authority. Additionally, the language in the statute excludes specifically certain mandatory programs and exempts other federal programs and activities affecting the allocation of credit that do not meet the definition of a direct loan or loan guarantee. Whether accrual accounting should be extended to these federal insurance programs or even to social insurance programs such as Social Security—all of which involve contingent liabilities—remains an open issue as discussed in Part II of this paper.

4. Credit Reform and the Federal Deficit

The unique cash-flow issues that are a consequence of federal spending via credit programs and treatment of these programs under accrual accounting has an impact on the government's financing needs but one that is cancelled out over time. The need for federal borrowing from the public is determined annually by the unified budget, and federal borrowing is included in the measure of the gross federal debt.⁶⁶ As described earlier, credit programs disburse loans, whether a

⁶³ 2 U.S.C. § 661e(a). The FCRA required the Congressional Budget Office (CBO) and the Office of Management and Budget (OMB) to study whether accrual accounting should be applied to federal deposit insurance programs and to report back to Congress within a certain time period. *See id.*§ 661e(b). The CBO and OMB did present alternatives for presenting accrual information in the budget in a 1991 report, see generally CONG. BUDGET OFF., BUDGETARY TREATMENT OF DEPOSIT INSURANCE: A FRAMEWORK FOR REFORM (1991) and EXEC. OFF. OF THE PRESIDENT, OFF. OF MGMT. & BUDGET, BUDGETING FOR FEDERAL DEPOSIT INSURANCE (1991).

⁶⁴ See 2 U.S.C. § 661c(c) (exempting mandatory programs that constitute an entitlement or existing credit programs of the Commodity Credit Corporation).

⁶⁵ See Pompeo, supra note 1, at 15 n.59.

⁶⁶ See Off. of MGMT. & BUDGET, ANALYTICAL PERSPECTIVES FOR FY 2006, FEDERAL BORROWING AND DEBT 246, 248 (2005) available at http://www.whitehouse.gov/omb/budget/fy2005/pdf/spec.pdf (last visited March 17, 2005)

direct loan or a guarantee, but only the subsidy portion or the cost to the government of making these loans is appropriated funding when the commitment to the credit program is made. The unsubsidized portion, which is off-budget as part of the cash flows through the financing accounts, ⁶⁷ is funded by borrowing from the Treasury or other government accounts in intragovernmental transactions. See Figure 1.

Because the unsubsidized portions do not receive funding from appropriations like the subsidy costs, the unsubsidized part of the loan is funded by intragovernmental transactions that rely on financing from a different source—borrowing from the public. The funding for the unsubsidized portion of credit programs is then included in the calculation of the government's annual financing needs, which is included in both the unified budget and the measure of the federal debt. This unsubsidized portion is treated as off-budget because it is not considered a cost to the government under the FCRA since eventually this portion of the loan or guarantee will be repaid as borrowers in the credit programs repay their loans and other related fees; however, the disbursement of the loan from the financing account to the borrower will change the deficit. Similarly, the deficit will be impacted continually by incoming financing account receipts from those persons who have borrowed through credit programs, which can be used to finance the payment of the government's obligations and reduce the need for further borrowing from the public. 68 The FY 2006 Budget explains the implications of the net financing disbursements or the total net cash flows of the financing accounts on borrowing and the federal debt: "The result is that the intragovernmental transactions of the financing accounts do not affect Federal borrowing from the public. Although

[hereinafter ANALYTICAL PERSPECTIVES] (defining the gross federal debt to consist of both debt held by the public and debt held by government accounts).

⁶⁷ See supra notes 47-49 and accompany text (discussing financing accounts and associated cash flows as off-

⁶⁸ For a more detailed discussion of this process and the relationship between net financing accounts and the federal debt, see ANALYTICAL PERSPECTIVES, supra note 66, at 250.

the deficit changes because of the budget's outlay or receipt, the net financing disbursement changes in an equal amount with the opposite sign, so the effect cancels out..."⁶⁹

B. Where Practice Deviates From Formal Requirements

1. The Challenges of Estimating the Subsidy in Practice

a. The Risk of Gaming

The automatic appropriation for subsidy reestimates means that for discretionary programs, there is a difference in the budget treatment of the original subsidy cost and that of the subsidy cost reestimate. Because reestimates have permanent and indefinite spending authority and they are exempt from spending caps, there is a structural incentive to underestimate the initial subsidy costs of discretionary spending as any shortfall will be funded automatically. This effectively transforms upward reestimations into mandatory spending. In contrast, mandatory credit programs, which do not require appropriations, have incentives to keep estimates low to avoid becoming a target for cuts during budget fights. Additionally, reestimates are difficult to track so agencies may have even less incentive to make their initial estimates accurate. In some sense, upward reestimates can be seen as costless, which in politically-sensitive times permit agencies to underestimate costs but still may ensure a higher level of funding for their credit programs. This also results in transparency and accountability concerns since the political process is not serving as a check on these appropriations.

This feature of subsidy estimates makes them an important budgetary device to monitor but given the difficulties inherent in the estimation process some level of reestimates is inevitable. In 2000, the CBO released a report reviewing the history of subsidy estimates from 1993 through 1999

⁶⁹ Id

⁷⁰ See 1998 GAO CREDIT REFORM, supra note 3, at 4.

⁷¹ See Pompeo, supra note 2, at 37-38.

⁷² See CBO SUBSIDY REESTIMATES, supra note 59, at x.

⁷³ See COFFI, supra note 1, at 9.

⁷⁴ Id

finding although incentives exist for agencies to underestimate subsidies corrected reestimates do not reveal "any pattern of bias in initial subsidy estimates." The CBO found that by the end of 1999, reestimates had increased more than \$8.7 billion from initial estimates, *see* Table 1, but that most of this upward revision was for a single program. Without this outlier, reestimates equaled about 8% of initial credit subsidies for all loans and guarantees extended by the federal government since 1991 or \$3 billion total. In addition to the CBO's findings, there are constraints that may limit the ability to abuse the reestimation process including agency's reputational concerns about producing unreliable estimates as well as the detailed mandatory disclosures required to buttress the final calculation estimate of the subsidy costs. To

Table 1

Cumulative Subsidy Reestimates, Fiscal Years 1993-1999 (in millions \$)					
_	Reason for Reestimate				
Type of Credit Programs	Changes in Interest Rates	Change in Technical or Default Assumptions	Change in Volume of Lending	Unknown	Total Reestimates
Discretionary	1,172	-1,198	n.a.	354	327
Mandatory	62	7,885	719	-270	8,397
All Credit Programs	1,234	6,687	719	84	8,724

Source: Based on information in CBO SUBSIDY REESTIMATES, *supra* note 59, at 10, t.1 (compiling information from *Budget of the United States Government, Fiscal Year 2000: Federal Credit Supplement*, and data from agencies).

b. Insufficient and Inaccurate Information

⁷⁵ CBO SUBSIDY REESTIMATES, *supra* note 59, at ix; *see also* GEN. ACCOUNTING OFF., CREDIT SUBSIDY ESTIMATES 7, n.12 (1998) (studying a limited number of programs and finding similar patters of reestimation between discretionary and mandatory programs).

⁷⁶ See id. The program that required over \$5 billion in reestimates was the FCC's loans to successful bidders in the auctions of licenses to use electromagnetic spectrum. *Id.* at xi. For a sense of how these government estimates compare in accuracy to other types of government estimates, see Briefing Paper No. 4, *The Role of Estimation in Budget Procedures: Baselines*, Parts II.A-.B (2005) (on file with Professor Howell Jackson).

For a detailed discussion of what other types of gaming are possible as well as what may constrain gaming, see Pompeo, *supra* note 1, at 24-30, 39-42.

Credit programs' historical performance data is relied upon heavily in calculating subsidy estimations as it provides data on which to project default, delinquency and recovery. The availability of sufficient loan histories and comparable previous credit history data has been a persistent problem in implementing the FCRA, although there is some acknowledgement it may be improving in the most recent years. At least one commentator, writing early after the FCRA was enacted, suggested it is the "single greatest obstacle" faced by those parties responsible for implementing the FCRA. The GAO has reported that problems with underlying credit data continue although the agencies have had several years to obtain and refine historical data. In addition to insufficient historical data, the GAO has long catalogued poor cost data and recordkeeping in federal credit programs even prior to enactment of the FCRA. More recently, the GAO analyzed these problems on the availability and reliability of supporting documentation in a cross-cutting review of ten programs. They noted "the frequent absence of documentation and reliable information limit the ability of agency management, the OMB and Congress to exercise the intended oversight." However, they also noted that "making credit reform work is important" and the availability of supporting documentation has improved in the most recent years studied.

-

⁷⁸ The FCRA highlights the importance of historical data by requiring annual review of it by both the OMB and CBO. *See* 2 U.S.C. §661b(d)-(e).

⁷⁹ See Pompeo, supra note 1, at 21-22 (explaining the role of historical data and its importance in estimating subsidies).

⁸⁰ See 1998 CREDIT REFORM, supra note 3, at 6.

⁸¹ See generally Gen. Accounting Off., Federal Credit and Insurance: Programs May Require Increased Federal Assistance in the Future (1989) Gen. Accounting Office, Additional Actions Needed to Improve Federal Financial Management Systems (1990). The GAO concluded in a 1993 report that the use of inadequate historical information resulted in inaccurate estimates. See Gen. Accounting Off., Agencies and Serious Problems Meeting Credit Reform Accounting Requirements 8 (1993). They also concluded that the potential of the FCRA would not be realized without significant effort to improve "serious...weaknesses...resulting in unreliable historical credit information." *Id.* 13.

⁸² 1998 GAO CREDIT REFORM, *supra* note 3, at 5.

⁸³ GAO CREDIT REFORM, *supra* note 3, at 5.

⁸⁴ See id. at 5. ("None of the 10 program in our study had for our review all of the required budget request, budget execution, and reestimate subsidy rates and supporting documentation for fiscal years 1992-1998"). Given the most recent studies on the adequacy of supporting documentation evaluate the issue are from over 5 years ago, it is possible these critiques are less relevant now that several more years have passed.

Similarly, while reviewing specific aspects of credit reform in 2000, the CBO found that the reestimates in the President's budget in the years since the FCRA was enacted "are in such disorder that they cannot be used for analysis" although the CBO suggested "a few modest changes in current practice could improve the accuracy." Specifically, they found inconsistencies and incomplete reporting of information that seem to occur as a result of producing, recording and reporting this information. Since credit reform under the FCRA requires historical performance data and review of information over the life of the loan or guarantee, data problems will contribute to unreliable and unreasonable credit subsidy estimations. To address these concerns, both the GAO and CBO have recommended ways to reduce errors.

This problem of estimation in modern credit reform is discussed in more detail in Part II of this paper but understanding the extent of reliability and accuracy in these types of estimates is necessary to determine the success of the FCRA and the possible pros and cons of applying accrual accounting to other parts the federal budget involving contingent liabilities.

⁸⁵ CBO SUBSIDY REESTIMATES, *supra* note 59, at ix.

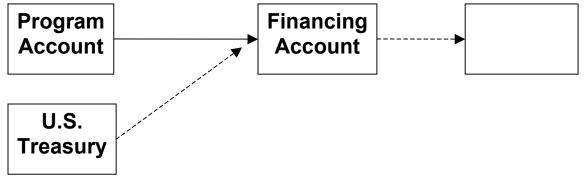
⁸⁶ *Id.* at ix.

⁸⁷ See id. at x. For purposes of analysis, the CBO was able to correct the reestimates inaccurately reported in the President's Budget with help from the credit agencies and the OMB. *Id.*

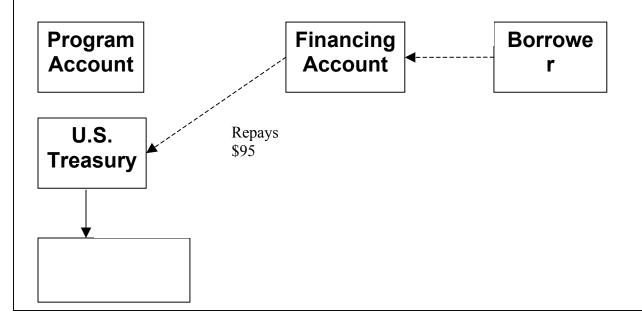
⁸⁸ See 1998 GAO CREDIT REFORM, supra note 3, at 23-24; CBO SUBSIDY REESTIMATES, supra note 59, at xii, 25-28.

Figure 1. Cash Flows for Loan Disbursement and Repayment Under the FCRA

Example: Disbursing a Direct Loan



Example: Repaying a Direct Loan



Note: Dashed line represents off-budget cash flows while a solid line indicates on-budget cash flows.

* This example assumes that based on borrower default risk, the government is able to recover only \$95 in repayment of the \$100 owed. Of the \$95 payment from the financing account to the Treasury, \$4.52 represents interest, which is an

on-budget cash flow. This payment offsets the equal \$4.52 payment of interest that the Treasury owes its bondholders (public borrowing).

PART II. EXISTING CRITIQUES

A. Scope of the Act

Much of the recent literature focuses on expanding the use of accrual accounting to other federal programs that entail long-term financial obligations. Indeed, FRCA constitutes a beachhead for those favoring government-wide adoption of the more forward-looking scheme of accrual accounting. Politicians have enacted or introduced a variety of proposals to implement accrual accounting to monitor a wide array of long-term fiscal commitments and obligations. As policymakers and public officials have come to appreciate the deficiencies of cash-flow accounting systems for particular government financial programs, such as deposit and crop insurance, military health care costs and pension costs, they have lent increasing support to suggestions of expanding the FRCA principle of accrual accounting to programs that functionally resemble direct lending and loan guarantees.

The CBO has reported on the inadequacy and inability of federal reporting to systematically account for long-term liabilities. ⁸⁹ In a recent report, it noted that contingent liabilities introduce unusual accounting problems in that they are cash flows of unknown size that must be paid out at unknown times. The federal government has assumed significant contingent liabilities, providing either explicit or implied insurance against bank failures, terrorism, natural disasters and crop failures. In each event, the federal government has assumed the risk of future losses. Because these programs bear some or all of the risks for certain activities or beneficiaries, they are functionally similar to existing federal loan programs, yet they are substantially more complex.

_

⁸⁹ See generally Cong. Budget Office Testimony on Budgeting for Insurance Programs: Hearing Before the Budget Task Force, Budget Committee of the U.S. House of Representatives (April 23, 1998) (statement of Marvin Phaup, Deputy Assistant Director, Special Studies Division, Cong. Budget Office) available at http://www.cbo.gov/ftpdocs/4xx/doc438/042398.pdf (last visited April 15, 2005).

While federal loans and guarantees are limited both as to the amount of the liability and the period of maturation, no such constraints bind insurance programs. Commitment to insure financial deposits or pension funds is inherently open-ended, and it extends to all present and future beneficiaries. Consequently, significant uncertainty and volatility will cloud any estimate of the balance of insurance programs, much more than can be represented by a single number on budgetary statements. Nevertheless, insurance programs are accounted for on a cash-flow basis: expenditures are recorded only when payments are dispersed and revenue when cash is received. For therein lies the deficiency, for cash flow accounting is utterly inept at tracking or recording the large, speculative, open-ended obligations of insurance coverage.

The present system does not match current premium receipts with future expected disbursements, and it does not systematically calculate the present value of expected future outlays. Generally, the budget does not recognize either the total risk or liability of the insurance program unless it can be estimated with certainty or until there's a definite cash flow associated with the program. Not surprisingly, given cash flow's efficiency at monitoring current receipts and inability to acknowledge future costs, there is a bias towards showing net cash flows.

Extending the scope of accrual accounting to insurance programs would not be without its drawbacks. As described previously, the risks against which the federal government insures are highly speculative, more so than calculating default risks under direct loan and guarantee programs. Insured risks cannot be predicted with any degree of certainty. "Indeed, one of the reasons the government offers such insurance is that private firms may be unwilling to do so in the face of pervasive uncertainty about the probability and severity of future losses." Any estimate of either the magnitude or timing of such risks is likely to be extremely volatile, sensitive to even the slightest changes in current economic conditions. Reestimates of insurance costs will be frequent and

-

⁹⁰ Id. at 8.

substantial. Finally, accrual accounting of insurance costs will impose greater demands on the federal budget process in terms of analysis and reporting of relevant information.

Even under the present cash accounting system, government agencies do furnish some information regarding the financial contingencies they insure, but not systematically and without recognizing any cost for bearing the risks of those contingent liabilities. In 2003 the government reported over \$112 billion in contingent liabilities, with federal insurance programs accounting for at least \$93 billion of that amount. In addition to that information, agencies report losses that are "reasonably possible." The Pension Benefit Guaranty Corporation reported reasonably possible losses associated with pension plans sponsored by below investment grade firms, totaling approximately \$86 billion. The Federal Deposit Insurance Corporation, which insures deposits of financial intermediaries such as banks, reports possible losses for those institutions of elevated risk levels – roughly \$2.5 billion in 2003.

Despite these programs' limited recognition of future liabilities, or perhaps because of the disparity between reported and actual costs, other units of the federal government are switching or have proposed switching to an accrual methodology to account for long-term liabilities of pension and retirement costs. Since 1985 the Department of Defense (DoD) has employed an accrual system to track military pension costs. Beginning in 2003, the DoD will adopt an accrual accounting system for tracking and managing the health care costs of retired service members.⁹¹

Likewise, in his 2003 budget proposal, President Bush suggested expanding the current accrual accounting system to all federal agencies. Under the Managerial Flexibility Act of 2001, agencies would be charged with paying for retirement benefits – both healthcare and pension benefits – as they accrue for current employees. They would pay these costs through a transfer of

-

 $^{^{91}}$ Cong. Budget Off., Accrual Budgeting for Military Retirees' Health Care (2002).

agency funding into the government's retirement accounts or trust funds, and as such they would not affect the government's surplus or deficit.⁹²

B. Reestimation

At the time of FCRA's enactment in 1990, there was significant concern over the incentive for agencies to underestimate credit costs initially to mask the true costs of incipient credit programs. Accordingly, lower projected costs would maximize political support for approving the new credit program of understated costs. Once congressional approval had been obtained, the agency could then disclose the larger, more accurate costs in subsequent reestimates. However, as mentioned earlier in this paper in Part I.B, following up on enactment of FCRA, CBO analyzed reestimates over a seven-year period and found that on the whole reestimates for defaults were downward.⁹³

Despite the absence of reestimate bias, the CBO found many deficiencies in the inability of some agencies to accurately reestimate the subsidy costs of federal credit programs, as required by FRCA. Current budget documents do not effectively provide timely accurate information about how loan program performance as measured by expectations. Some reports are erroneous, and they do not employ uniform formats, and there is no single source that provides default costs per cohort. CBO suspects that less than a third of credit program reestimates were correctly reported in the 2000 *Federal Credit* Supplement. Agency reports do not employ uniform reporting practices, which make it difficult to compare and analyze differing subsidy costs. For example, some, but not all, agencies separate default reestimates from interest rates reestimates. Furthermore, most agencies lack a good management information system, a basic tool for developing accurate subsidy estimates. Because they lack the capacity to track

 $^{^{92}}$ Cong. Budget Off., President's Proposal to Accrue Retirement Costs for Federal Employees (2002).

⁹³ See accompanying text and supra notes 70-77.

loan performance according to loan types and borrower characteristics, these agencies cannot effectively predict or monitor federal credit costs.

To remedy these problems, CBO recommended three reforms to improve reestimation. First, agencies should increase the level of detail when reporting reevaluations, such as by breaking down subtotals by program, agencies, bureaus, and departments and by occasionally evaluating how past reevaluations compare with actual experience. Second, agencies should deploy integrated financial information systems to improve reestimations. Finally, agencies can significantly improve their quality of loan reestimations by relying more heavily on the private sector, which enjoy superior personnel, motivation, and training. Therefore, instead of hiring consulting firms or contracting out loan servicing, agencies could instead increase the sale of federal loans. Anecdotal evidence from the Small Business Administration indicates that loan information accuracy improved dramatically after selling its loans on the secondary credit markets, thereby allowing it to focus on other areas of loan servicing.94

C. Cost Estimation

The Congressional Budget Office has studied the federal government's calculation of subsidy costs. Despite guaranteeing over \$365 in loans and extending \$65 in direct loans, the government estimated that the costs of such guarantees and direct loans amounted to \$4.2 billion and \$657 million respectively. However, as CBO noted, those estimates do not follow the methodology employed by private lenders in two aspects. First, the government does not include overhead costs from federal agencies; second, the estimates do not incorporate the costs of market risks. Yet despite those deficiencies, cost estimation under FCRA is far more effective than those under the previous cash-based system.

⁹⁴ See CBO SUBSIDY REESTIMATES, supra note 59.

CBO stated in its report by noting that market risk is an actual cost borne by the government. These findings mitigate claims by some that government assumes no risks because it can borrow at risk-free rates. While it's true that the Treasury can raise revenues to meet financial obligations through its inherent sovereign power to tax, that doesn't eliminate the risk government assumes. Instead, by guaranteeing and extending loans the government merely shifts the market risks to taxpayers and beneficiaries of federal programs. Similar arguments also fall short, such as the claim that the government enjoys lower risk costs because it can spread risk around widely across the population. Spreading risk is relevant to diversifiable risks, not to market risks, which remain even if diversifiable risks were eliminated. The government can merely shift market risk from lenders to taxpayers.

_

 $^{^{95}}$ Cong. Budget Off., Measures of the U.S. Government's Fiscal Position Under Current Law (August 2004).

SELECTED BIBLIOGRAPHY

Section 13201(a) of the Budget Enforcement Act of 1990, Pub. L. No. 101-508, tit. XIII, 104 Stat. 1388 (1990), created Title V of the Congressional Budget and Impoundment Control Act of 1974. Title V, the Federal Credit Reform Act of 1990 is codified at 2 U.S.C. § 661-661f (2000).

Congressional Budget Office Testimony on Budgeting for Insurance Programs: Hearing Before the Budget Task Force, Budget Committee of the U.S. House of Representatives (April 23, 1998) (statement of Marvin Phaup, Deputy Assistant Director, Special Studies Division, Cong. Budget Office) available at http://www.cbo.gov/ftpdocs/4xx/doc438/042398.pdf.

CONG. BUDGET OFF., CREDIT SUBSIDY REESTIMATES 1993-1999 (2000).

CONG. BUDGET OFF., PRESIDENT'S PROPOSAL TO ACCRUE RETIREMENT COSTS FOR FEDERAL EMPLOYEES (2002).

CONG. BUDGET OFF., ACCRUAL BUDGETING FOR MILITARY RETIREES' HEALTH CARE (2002).

CONG. BUDGET OFF., ESTIMATING THE VALUE OF SUBSIDIES FOR FEDERAL LOANS AND LOAN GUARANTEES (2004).

CONG. BUDGET OFF., MEASURES OF THE U.S. GOVERNMENT'S FISCAL POSITION UNDER CURRENT LAW (2004).

GEN. ACCT. OFF., FEDERAL CREDIT AND INSURANCE: PROGRAMS MAY REQUIRE INCREASED FEDERAL ASSISTANCE IN THE FUTURE (1989).

ACCT. & INFO. MGMT. SUBDIV., GEN. ACT. OFF., FEDERAL CREDIT PROGRAMS (1989).

GEN. ACCT. OFF., ADDITIONAL ACTIONS NEEDED TO IMPROVE FEDERAL FINANCIAL MANAGEMENT SYSTEMS (1990).

GEN. ACCT. OFF., AGENCIES AND SERIOUS PROBLEMS MEETING CREDIT REFORM ACCOUNTING REQUIREMENTS (1993).

GEN. ACCT. OFF., CREDIT SUBSIDY ESTIMATES (1998).

ACCT. & INFO. MGMT. SUBDIV., GEN. ACCT. OFF., CREDIT REFORM: GREAT EFFORT NEEDED TO OVERCOME PERSISTENT COST ESTIMATION PROBLEMS (1998).

CENTER ON FEDERAL FINANCIAL INSTITUTIONS, Budgeting for Credit Programs: A Primer (2004) available at http://www.coffi.org/pubs/Budgeting%20Primer.pdf (last visited March 16, 2005).

Michael Pompeo, Accrual Accounting for Federal Credit Programs: An Evaluation of the Federal Credit Reform Act of 1990 (discussing the unique use of credit as means of distributing benefits relative to other distributions of government benefits) (on file with Professor Howell Jackson) available at LEXIS 95 TNT 2-89 (1995).

Thomas Stanton, *Primer on Credit Reform* (1998) (produced for the Federal Credit Policy Working group, coordinated by OMB) *at* http://www.coffi.org/pubs.html.