

**THE HYBRID PLAN: A PROPOSAL FOR FEDERAL**

**CREDIT REFORM**

by

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**ABSTRACT**

The current budgetary and administrative treatment of federal credit is misleading and controversial. This paper reviews underlying issues and current proposals for reform, and suggests an alternative. The Hybrid Plan essentially combines the advantages of each of the two main alternatives. Unlike other proposals, the Hybrid Plan would allow the management of credit policy to be responsive both to the pervasive diversity embodied in federal credit policies and to improvements in the government's ability to administer credit programs.

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## I. Introduction

The federal budget provides a framework for recording, measuring, and comparing the costs of alternative government programs. One of the largest areas of federal activity is the provision of credit. Federal credit programs target many types of borrowers, and embody widely divergent goals and practices. During 1987, new direct loans and loan guarantees were 32% of other outlays. By the end of 1987, outstanding direct and guaranteed loans exceeded \$741 billion, and outstanding credit of Government-Sponsored Enterprises reached \$581 billion.<sup>1</sup>

The magnitude and diversity of federal credit indicates the need for appropriate budgetary techniques. Such techniques should provide clear estimates of the costs of credit programs, and allow for comparisons of spending and credit alternatives. Unfortunately, current budgetary practices are grossly misleading in this regard. The Unified Budget is based on cash flows, and therefore is not conducive to measuring the costs of credit programs, because those costs accrue over time. A related problem is that, under current procedures, loan sales reduce the deficit, even though they generate no real change in the government's financial position. Many analysts believe these distortions have played an important role in determining the composition and contributing to the rapid rise of federal credit in recent years.<sup>2</sup> Credit programs are also plagued by inconsistent and often deceptive management practices. Thus, needed information is often difficult to obtain.

Growing awareness of these issues has spawned a variety of recent proposals for the budgetary and administrative reform of federal credit. Although most analysts agree that the budget should record the expected discounted future costs of current credit activity, disagreements arise

concerning how to measure those costs, the budgetary treatment of loan sales, and the need for institutional reform. In this paper, I focus on underlying issues in credit reform, critique existing proposals, and outline and justify an alternative.

The first issue is the appropriate definition of a subsidy for budgetary purposes. A subsidy may be defined as the cost to the government of holding the asset, the benefit to the borrower, or the government's market loss on a credit transaction (e.g., issuing and then reselling a direct loan). Although all three definitions are used (sometimes interchangeably), these definitions are conceptually distinct, and, empirically, can vary by wide margins. Since the budget is meant to analyze costs, the cost to the government of holding or selling the asset is the appropriate definition. A subsidiary issue involves the appropriate discount rate to use for estimating government cost. Although this issue is not critical for the proposal, I argue that the appropriate rate is less than the market rate of interest.

A second issue is how to measure the subsidy. Under the Market Plan (CBO [1984]), the government would resell its loans and reinsure its guarantees to obtain a market loss subsidy measure. Loan resales offer many potential advantages, including reduced administrative costs, better incentives for agencies in loan origination and documentation, and verifiable estimates of the subsidy. The government could actually increase revenues (on an expected value basis) since the private sector can collect debts much more effectively than the government has been able to do. However, across-the-board resales are not currently a feasible alternative. Some general problems arise concerning discretionary forbearance, poor documentation, and loss of control over the program. Recent government experience with nonrecourse loan sales has revealed many additional problems

as well. In fact, for reasons outlined below, it is unlikely that these sales have been successful in achieving any of the potential advantages listed above. Despite recent experience, the government should continue to work toward conditions under which resales are feasible.

Whether resales will then be the preferred method of measuring subsidies depends on the alternative, which is estimation of subsidy costs by discounting all related cash flows. This proposal is termed the Appropriations Plan (CBO [1984]). Although there are some questions concerning the effectiveness of such estimates, similar calculations are made in the private sector on a routine basis. In addition, estimation is the only way to generate subsidy estimates for those portfolios where resales are inappropriate.

Given these alternatives, the Hybrid Plan is simply to use both methods to calculate subsidy costs. Under the Hybrid Plan, a central credit agency (the "Fund") could estimate government costs or conduct resales, making the appropriate choice for each program. The appropriate choice would be the subsidy definition that minimized government costs, if the problems associated with resales can be resolved. If not, the estimate of government cost would be the subsidy.

Unlike the Market Plan, the Hybrid Plan could be implemented immediately. Unlike either alternative, the Hybrid Plan would allow for the fundamental diversity in federal credit, by using the appropriate subsidy measure for each program. Loans that could be successfully resold would be. Subsidies for other loans would be estimated. The Hybrid Plan could also adjust to improvements over time in government's ability to estimate subsidies and to conduct resales. As conditions for resales were improved, resales would become a viable option.

Under the Appropriations Plan, the issuing agency would have incentives to underestimate subsidies while the central fund would have incentives to overestimate them (if the Fund were held fiscally responsible for revenue shortfalls). In contrast, under the Hybrid Plan, if the issuing agency believed the Fund's cost estimates were too high, the agency could request that its loans be resold. Under the Market Plan, there is a fear that loans would sell at steep discounts. In contrast, under the Hybrid Plan, government could estimate the cost of holding the loan and develop a minimum required bid on any resales. Thus, the Hybrid Plan would offer several advantages over either single alternative.

Section II reviews the shortcomings of current budgetary and administrative practices. Section III outlines and contrasts prominent reform proposals. Section IV discusses issues in defining the appropriate subsidy. Section V examines alternative methods of estimating subsidies. Section VI covers additional issues: the treatment of financing and institutional reform. In Section VII, I propose and analyze the Hybrid Plan. Section VIII offers some concluding remarks.

## II. Current Practices<sup>3</sup>

### A. Budgetary Treatment

The current Unified Budget is based on net cash-flow accounting. For direct expenditure programs, cash flow accounting is an appropriate and informative measure of the costs of current programs. However, net cash flow is a completely useless indicator of the costs of new credit programs.

This is perhaps best seen in the treatment of guaranteed loans. The net cost to the government of issuing a guarantee is the discounted expected guarantee payments it will have to make minus the guarantee fee. However,

if there are no defaults in the first year, no cost is recorded for new guarantees. Since the government charges a fee, the net outlay attributed to the new guarantee is negative, even though net expected discounted costs are typically positive. In addition, the government must pay, in the current period, any obligations on previously issued loan guarantees. Thus, in any given year the net cash flow for loan guarantees represents the difference between realized costs of previously-issued guarantees and fees received for new guarantees. Nothing remotely resembling the expected government costs of newly issued guarantees is included as a budget entry.

A similar situation occurs for direct loans. A government loan of \$1 is treated the same as an expenditure of \$1. This implies that the cost of the direct loan is its face value, and that the cost occurs when the loan is issued. Both implications are wrong. The government's cost accrues over time, and only to the extent that repayments are insufficient to cover borrowing and related administrative costs. In addition, payments on previously-issued loans are included in current budget accounts. Thus, the budget entry for a direct loan account is based on previous years' repayments and current year loan volume. This entry bears no relation to the expected costs of current direct lending.

Thus, cash-flow accounting does not yield estimates of the costs of current policies for two reasons: the mingling of previously-issued and newly-issued credit; and the emphasis placed on credit volume rather than the subsidy embedded in the loan or guarantee. CBO [1984, p. 66] estimates that these problems induce budgetary misstatements of the cost of credit policy "by widely varying amounts, averaging about \$20 billion annually." Although the magnitude of the misstatement is striking, the lack of any systematic relation between budget entries and current policy decisions is

even more important, because it severs the link between current outlays and the costs of credit policies.

Several additional problems exist as well. First, when credit costs or revenues are included in the budget, they often appear in categories seemingly unrelated to their original agency. For example, Bosworth, et al. [1987, pp. 152-53] point out that interest income from direct loans appears as a negative outlay in the net interest category. In addition, administrative costs of credit programs are typically not separated from other administrative costs in agency accounts. Finally, the Unified Budget completely omits any consideration of Government-Sponsored Enterprises (GSEs), the Federal Deposit Insurance Corporation, or the Federal Savings and Loan Insurance Corporation, although all of these agencies provide guarantees or credit, and possess at least implicit government backing.<sup>4</sup>

Recognition of these shortcomings has led to attempts to gather better information concerning credit programs. The Credit Budget, initiated in 1980, collects additional information, chiefly new direct loan obligations and guaranteed loan commitments. It covers all direct and guaranteed loans, but fails to distinguish creditworthy and highly subsidized loans. The Office of Management and Budget estimates the "subsidy" component of most major credit programs. Although it is useful for other purposes, this information is inappropriate for budgetary use, because it represents the benefit to the borrower, rather than the cost to government, of a credit subsidy.

Budgetary entries are too high for new direct loans and too low for loan guarantees. The incentives thus created have had important effects on government policy (see CBO [1988] and MacLaury [1973]). For example, the growth of guarantees has exceeded the growth of direct loans in recent years. No new direct lending programs have been set up since Gramm-Rudman



targets went into effect. The Administration has also proposed converting loans to guarantees, for no clear programmatic reason (CBO [1988]).

Moreover, since GSEs are off-budget, creation of a GSE involves no budgetary cost. In 1988, in an effort to aid the Farm Credit System and the FSLIC, the government created two new GSE's. Given that these agencies borrow at rates higher than the U.S. Treasury, it is difficult to see any programmatic reason why such agencies were created and placed off-budget. Finally, under current budgetary practices, loan asset sales (without recourse) may be used to reduce the budget deficit.

All of these practices represent deceptions. That is, they appear to be undertaken solely for the purpose of reducing reported deficit figures, yet they involve, at best, no significant change in the government's financial position.

Recognition of the subsidy as the appropriate budgetary outlay would produce several advantages over the current system. The full cost of a credit program would be shown explicitly, and immediately. The budget would distinguish highly subsidized versus creditworthy loans. Comparison of spending and credit programs would be more straightforward. Incentives for financially deceptive policies would be reduced substantially.

#### B. Administrative Practices

The government runs hundreds of direct and guaranteed lending programs out of dozens of agencies, all of which have varying purposes, loan terms, and target groups, and with little central oversight until recently. It is not surprising that administrative inconsistencies have arisen.

First, because of the great diversity of intentions embodied in federal credit programs, documentation and origination procedures vary widely across agencies. Second, the government has a poor record of collecting its debts.

Delinquent debt almost doubled from \$29.7 billion in 1981 to \$59.2 billion in 1986, while seriously delinquent debt approximately tripled, and comprised 69% of the total outstanding debt in 1988. Although the Debt Collection Act of 1982 gave agencies many instruments through which to collect debt (including contracting for collection services with the private sector), these powers have been used sparingly (see Committee on Small Business [1988]).

Third, a variety of nonstandard accounting practices tend to overstate the financial health of credit programs. Many agencies roll over their debt, paying off delinquent, previously-issued loans by issuing new loans. Alternatively, a defaulted loan guarantee can be converted to a direct loan, thus avoiding the immediate need to write off the loan. Some agencies simply keep bad loans on the books at nominal value. For example, as late as 1987, the Eximbank held in its portfolio at face value \$81 million in loans made to Cuba in the 1950s. More seriously, several billion dollars of FmHA loans, delinquent by more than a year, were also carried at face value (Special Analysis F, FY 1987, p. F-38). Finally, discretionary forbearance is a standard feature of many federal credit programs. The absence of government-wide standards makes it difficult to determine the true status of an account from its official status.

In recent years, attempts have been made to improve and standardize these accounting and administrative procedures. OMB circular A-129 requires agencies to undertake more standard origination and documentation procedures. A government-wide effort to sell collection rights to the private sector was enacted in 1985, but has faced serious start-up problems. The lasting success of these initiatives is as yet unclear.

In summary, current procedures obscure the true financial status of credit programs. Administrative reform is needed to provide better and more consistent information. Such information would be useful both in year-to-year budgeting decisions and in detecting emerging financial crises in credit programs at an early stage.

### III. Proposals For Reform

Concern over the inadequacies described above has led to a variety of recent proposals. Although virtually all proposals begin with the proposition that the budget should reflect the subsidies in current credit activity, they differ on several other issues. The main alternatives are delineated in CBO [1984]: the Appropriations Plan and the Market Plan.<sup>5</sup>

Under the Appropriations Plan, each agency would be required to report annual appropriations for the estimated present value of the subsidy costs embedded in new loan obligations and guarantee commitments. This goal would be achieved either by tightening accounting standards in each agency or by consolidating credit accounts into a National Loan Fund. In the former case, the agencies would be required to follow more standard (and uniform) accounting procedures, including minimum capital requirements, market valuation of assets and liabilities, and matching asset and liability maturities. Each agency would make their own subsidy estimates, which would be recorded as outlays.

In the alternative case, the consolidated fund would be responsible for estimating subsidies. Origination and servicing would remain in the agencies, but the Fund would issue all loans and guarantees. Financing would consist of agency payments to the Fund of the estimated subsidy and borrowing from the FFB. Agency budget accounts would show the subsidy,

while the Fund's accounts would reflect financing. The costs would be interagency transfers if the Fund were established, or simply reported as budget outlays if no Fund is established. Although the subsidy element and financing element are separated, financing would remain on budget. Stripped of its institutional detail, a similar conceptual framework has been proposed by Boskin and Barham [1984].

A proposal by Bosworth, Carron, and Rhyne [1987] shares several features of the Appropriations Plan, but differs in other ways. They support the Fund approach, citing the advantages of averaging default estimates over a portfolio of loans. They argue, however, that the Fund should be off-budget. Otherwise, agency subsidy payments would be interagency transfers and would not affect overall outlays. CBO [1984, p. 56] has pointed out that interagency transfers may not be seriously regarded in the budget process. Off-budget status would also remove the effects of financing credit from the budget. Finally, Bosworth, et al., argue that the Fund should provide estimates of the cost to the government, rather than the market valuation of the subsidy.

In its FY 1989 Budget, the Administration has proposed a credit reform plan similar to the Appropriations Plan. It would employ the market measure of the subsidy cost, and keep the Fund on-budget. A Senate Budget Committee Plan would modify the Administration proposal in two main ways. First, discounting would occur at the cost of government funds, rather than an adjusted private market rate. Second, the Plan would keep accounts in the individual agencies; no consolidated Fund would be established.

The key unifying features of these plans are: (1) immediate budgetary recognition of the full subsidy embodied in new credit activity, and (2) government estimation of those subsidies. The proposals differ on

institutional details (whether a Fund is established, whether it should be on-budget, etc.) and -- most importantly -- on the appropriate method of calculating the subsidy. CBO [1984] and the Administration FY 1989 Plan would estimate the private market value (i.e., discount at the market rate), the Senate Plan would discount at the Treasury rate; Bosworth, et al., would use an adjusted government borrowing rate.

The prototypical alternative to such proposals is the Market Plan. Under the Market Plan, all direct loans would be resold to the private sector, and all guaranteed loans would be reinsured with private insurers, both in a timely manner. CBO [1984] envisions such activities being carried out by a Fund, which could package the loans as collateral and issue pass-through securities. The amount of money lost on the direct loans, or the difference between guarantee fees and reinsurance premiums charged by private investors, would represent the subsidy and would be charged to the agency issuing the credit. Thus, the Market Plan features (1) immediate recognition of the full subsidy costs of new credit activity, and (2) determination of costs by market valuation. The proposed Credit Reform Act of 1987 very closely mirrors the Market Plan (see OMB [1987]).

In addition to these proposals for sweeping credit reform, since 1987, the Administration has engaged in a pilot program of non-recourse loan asset sales. Portions of selected portfolios have been sold off in recent years; similar sales are scheduled to continue in the near future. The objectives of the program appear to be to test the feasibility of non-recourse loan sales and to improve the management of federal credit. These sales are discussed in Section V.

Given the two principal features of Market Plans and Appropriations Plans, it would be tempting to conclude that the only remaining issue is who

should estimate the subsidy: the market or the government. This conclusion would be misleading, however, because it ignores the issue of the correct definition of a subsidy, and because the answer will in general depend on characteristics of the credit program. As discussed in Section IV, alternative subsidy definitions can yield substantially different estimates of the subsidy. Therefore, the choice of the appropriate definition of a subsidy cannot be ignored. Section V considers conceptual and practical issues in measuring the alternative subsidy definitions.

#### IV. Defining A Credit Subsidy

A credit "subsidy" can refer to:

- (A) the cost to the government of holding the asset: the expected discounted net costs to the government over the life of the loan;<sup>6</sup>
- (B) the benefit to the borrower: the expected discounted value of the reduction in borrower payments compared to a completely private loan; and
- (C) the government's capital loss on a credit transaction: for a direct loan, the difference between the face value of the loan and what the private sector would pay for it immediately after issuance; for a loan guarantee, the difference between the government's guarantee fee, and the private fee charged for reinsuring all government risk.

The appropriate definition depends on the particular application. For example, to measure the effects of programs on borrower behavior, the benefit to the borrower is the most appropriate. However, for budgetary purposes, this definition is irrelevant. The budget does not attempt to measure the benefits or effects of programs, or even all of their costs. The budget typically records only the financial costs incurred by government. Therefore, despite the fact that OMB only estimates (B), the budget should incorporate definition (A) or (C).

The practical problems created by having three wholly different concepts of a subsidy would be minimized if calculations using each concept

generated fairly similar estimates of the "subsidy" value. Unfortunately, the different concepts can yield widely divergent estimates. In FY 1983 and FY 1984, OMB provided subsidy estimates corresponding roughly to (A) and (B) for the same programs. For each program OMB selected a comparable private loan. To determine the benefit to the borrower, the reduction in borrower payments under the credit program were discounted using the interest rate on the private loan.<sup>7</sup> To determine government cost, OMB discounted the reduction in borrower payments by the 10-year Treasury rate, averaged over the previous 6 months. As OMB candidly admits, these estimation procedures omit many considerations. Nevertheless, they serve to provide estimates of the relative magnitude of the subsidies offered in various programs and a comparison of the two subsidy concepts.

Because the Treasury rate will typically be lower than the interest rate on private loans, government cost will typically provide a lower "subsidy" estimate than the benefit to the borrower, using OMB's procedures. The aggregate numbers bear this relation out, as shown in Table 1. For direct loans, OMB estimates that the benefit-to-the-borrower overstates government costs by about 35% in FY 1983 and FY 1984. For guaranteed student loans (the only guaranteed loan program whose subsidies are estimated in those years), the over-statement is 36% in 1983 and 83% in 1984. The benefit-to-the-borrower measure substantially overstates actual government costs.<sup>8</sup>

However, examination of the data for individual programs reveals that benefit-to-the-borrower may have been understated in several cases. In particular, for 3 programs in FY 1983 and 7 (out of 32) programs in FY 1984, the private discount rate used was lower than the government borrowing rate. Correction of this problem would raise the benefit to the borrower and

TABLE 1  
Alternative Subsidy Estimates<sup>a</sup>

<u>Program</u>	<u>Year</u>	<u>Benefit to The Borrower</u>	<u>Cost to the Government</u>	<u>Ratio</u>
<u>FY 1983 Budget</u>				
Direct Loans	1983 <sup>b</sup>	21.4	16.0	1.34
Guaranteed Student Loans	1983 <sup>b</sup>	33.0	24.2	1.36
<u>FY 1984 Budget</u>				
Direct Loans	1984 <sup>c</sup>	16.2	12.0	1.35
Guaranteed Student Loans	1984 <sup>c</sup>	31.2	17.0	1.83
<u>FY 1985 Budget</u>				
Direct Loans	1983 <sup>d</sup>	17.1	7.1	2.40

<sup>a</sup>Expressed as a percentage of loan volume.

<sup>b</sup>Based on Tables F-11a, F-11b, "Special Analysis F," Special Analysis: Budget of the United States, FY 1983.

<sup>c</sup>Based on Tables F-14a, F-14b, "Special Analysis F," Special Analysis: Budget of the United States, FY 1984.

<sup>d</sup>Based on Figures on p. F-29, "Special Analysis F," Special Analysis: Budget of the United States, FY 1985.



therefore further separate that estimate from the cost to the government.

In the FY 1985 budget, OMB reset the interest rates such that, in all cases, the private discount rate was higher than the public one and improved its method of calculating the benefit to the borrower.<sup>9</sup> With these changes, it reestimated 1983 direct loan subsidies. These estimates are shown in the last row of Table 1. Notably, under these improved procedures, the gap between borrowers' benefits and the government cost grows dramatically. According to OMB, the benefit to the borrower overstates government costs by 140% for FY 1983 direct loans. OMB has not since published cost-to-the-government estimates.

OMB's procedures overestimate the differences between (A) and (B) for two reasons. First, they omit administrative costs. However, even large administrative costs (say, 3-5% of loan volume) would not change the relative ordering.<sup>10</sup> Second, discounting at the Treasury borrowing rate almost surely understates that government cost. Since it is essentially a risk-free rate, the Treasury rate is appropriate for discounting only if the stream of income is certain, which is not true for credit programs, or if the government is risk-neutral. Although a case could be made that the government is risk-neutral in at least some contexts,<sup>11</sup> risk pooling does not appear to be the motivation for federal credit programs.

An alternative is to discount at the market rate of interest. I believe that use of this rate would overstate government costs, based on the following reasoning. The rate of return required by private investors must compensate them for their cost of raising funds, administrative costs, risk, and profit. The government similarly pays for raising funds and administrative costs. Even if we add in an allowance for risk and profit to the government costs, the required public rate of return will be less than the

required private return because the cost of funds is lower for government.

Thus, an intermediate rate that controls for the variability of credit payments and adds an allowance for profit is appropriate. As suggested by Bosworth, et al. [1987], the rate at which large commercial banks borrow may be the most appropriate.<sup>12</sup>

It remains to compare the subsidy estimates generated by market valuation (C) to those discussed above. OMB [Special Analysis F, FY 1989, p. F-42] states that the benefit to the borrower is the same as the market loss. However, for at least three reasons, market valuation should lead to higher subsidy estimates than OMB's benefit-to-the-borrower calculations. First, as OMB points out, its calculations do not take into account the more detailed information requirements of the private sector. Second, OMB uses data for a private loan with comparable purpose and type of borrower. However, recipients of federal credit are not a typical cross section of borrowers. In some cases in order to qualify for federal credit, a borrower must show evidence that he or she does not meet private market credit standards. Third, investors display great reservations about legislated discretionary forbearance and a host of regulations concerning foreclosure. All of these considerations will reduce private valuation of government credit, and do not appear to be accounted for in OMB estimates.<sup>13</sup>

Therefore, the relationship between the government cost of holding the asset (liability) or selling (reinsuring) it will depend on a variety of factors. These include the quality of information in the portfolio, the importance of discretionary forbearance and other regulations, the thinness of the associated private market, and the discount rate. Two key points should be highlighted. First, the two definitions need not provide the same subsidy estimate. Second, the minimum cost alternative will likely vary

with the characteristics of each program. Credit reform should allow government to employ and record the least cost method in each case. Both the Market and Appropriations Plans are lacking in this regard.

V. Measuring The Subsidy

A. Market Valuation

Market valuation involves resales of direct loans and reinsurance of loan guarantees. I will focus exclusively on resales.

Well-run loan asset sales offer many conceptual advantages. First, they generate immediate estimates of the subsidy, and they can identify any previously hidden subsidy. These estimates are verifiable, and thus not subject to manipulation. Second, they offer the potential to reduce government administrative costs of servicing and collecting debt. Third, resales could raise government revenues (on a present discounted basis) since private sector collection records are much better than those of government. Fourth, resales give agencies a strong incentive to improve origination and documentation procedures. Thus, under ideal circumstances, resales could constitute an important component of effective budgetary and administrative reform.

However, several issues have arisen in the implementation of government loan sales. First, many federal credit portfolios have not been developed with resales in mind. Accordingly, they are characterized by nonstandardized features, poor documentation, and unusual regulations. Such factors either must be changed, or may cause the loan to sell at a steep discount relative to what they are worth to government (due to private sector unfamiliarity and uncertainty concerning such provisions). Raising the quality of loan documentation to private sector standards can prove costly.

In at least one case, a proposed sale by HUD was cancelled due to the prohibitive expense of gathering the necessary information (GAO [1986], p. 8).

A second and related problem is that discretionary forbearance is a standard feature of federal credit. For example, SBA may suspend payments for up to 5 years. Private investors express great dislike and concern over such provisions.<sup>14</sup> It would be naive to expect private investors to follow government forbearance practices. Although it should be technically possible to write exact foreclosure regulations into government credit, such a policy would require delicate, program-specific negotiations. In addition, legal questions arise. For example, the Debt Collection Act of 1982 explicitly prohibits:

The contractual transfer of "inherent government functions," such as authority to resolve disputes, compromise claims, terminate collection actions ...

(Committee on Small Business [1988], p. 44)

The only solution so far proposed to these problems is to have government sell loans with (partial) guarantees (GAO, 1988). This policy would be undesirable for reasons discussed below.

Third, because of the lack of comparable existing private markets, participation may be thin. This consideration is important because the premise of many credit programs is that the analogous private market does not exist. At least one Department of Education loan sale has been abandoned due to a perceived lack of interest (GAO [1988], p. 28).

Fourth, loan asset sales can result in changes in credit policy rather than just in the administration and budgetary treatment of credit programs. This may happen in either of two ways. Agencies may "improve" origination by tightening credit standards. In addition, borrowers have specific rights under federal credit programs. For example, borrowers may challenge any

discretionary agency action, such as denial of a payment suspension. Private investors would not be subject to such challenges. Credit "policies" rightly refer to the servicing and collection of loans, as well as the original terms. Although tightening standards may be desirable, a programmatic change should be identified and debated as such, and not pushed through under the guise of "management reform". Such considerations are especially important for federal credit because some analysts believe that proposed loan sales are simply a new way to try to dismantle existing programs (see Committee on Small Business [1988], p. 5).

Fifth, the government loses an important element of control by immediate resale. Specifically, it may be difficult for the government to control use of the loan proceeds if the loan has been sold. In 1983, HUD cancelled some loan sales for precisely these reasons (CBO [1984], p. 70).

Despite the above problems, proponents argue that many previous loan sales have been successful. However, most of these sales have occurred in mortgage markets, where problems of nonstandardized features, poor documentation, and extraordinary regulation do not exist. In addition, comparable private instruments are available, and the loans are characterized by extremely good collateral (Hinton [1984]). However, the biggest difference between previous and proposed sales is that most of the former occurred with partial or full government guarantees (recourse). Sales with recourse provide none of the benefits of well-run loan sales: it is impossible to identify subsidies; agencies receive no incentives to improve documentation; administrative costs do not fall; and the private sector will not have an incentive to collect funds from the borrower. Selling loans with recourse is effectively a high-cost method of government borrowing.

Sales without recourse have occurred under the Pilot Program in recent years. The Market Plan, of course, proposes full scale adoption of such sales. The limited history of nonrecourse sales indicates several additional problems in implementing the Market Plan.

First, under current procedures it is impossible to estimate the subsidy. This occurs because, in order to attract investors, the government securitizes the underlying loans and writes senior and subordinated claims on the pool. However, since the subordinated debt has rarely been sold, and since the equity shares (consisting of any excess cash flows) are not sold, it is impossible to estimate the subsidy. It is critical to note that the same feature that makes the loan sale attractive to begin with also obfuscates the subsidy estimate (Girerd [1987]).

Second, recent sales are unlikely to have reduced administrative costs significantly, because the government has chosen to sell only nondelinquent loans. It seems reasonable to believe that the vast majority of servicing and collection costs are associated with poorly performing portfolios (GAO [1988], p. 40). Reluctance to sell nonperforming loans may be due to lack of investor interest or to fear of low market valuation.

Third, since the loans already have low default records, the private sector is unlikely to be able to collect on the debts more effectively than government does. Thus, the possibility of enhancing (discounted) federal revenues is diminished by current sales practice.

Recent experiences with nonrecourse loan sales have been unsuccessful in achieving three of the potential advantages of asset sales described above. The fourth, the incentive to improve origination and documentation, may also be lacking. The principal incentive to improve these procedures will occur only when subsidies are directly incorporated into the budget.

However, if the subsidies cannot be estimated, they cannot be used as outlay numbers in the budget. Therefore, recent nonrecourse sales give less incentive to improve origination than successful loan sales would.

Finally, GAO [1988] notes that none of the Pilot Program sales have occurred without the government retaining at least some of the risks. Thus, although loan sales have much to offer under ideal circumstances, across-the-board divestiture of federal credit as envisaged by the Market Plan is currently not a feasible alternative.

#### B. Estimation

The alternative method is to estimate subsidies by projecting and discounting future cash flows and related costs. Such projections can attempt to estimate any of the three subsidy definitions provided above.

Currently, OMB estimates the benefit to the borrower. This is done by comparing the terms of federal credit and a private loan for a "comparable" borrower and purpose.<sup>15</sup> The subsidy is the discounted value of the reduction in borrower payments induced by federal credit, where discounting occurs at the internal rate of return for the private loan.

As discussed in Section IV, benefit-to-the-borrower is irrelevant as a budgetary entry. Nevertheless, analysis of OMB's estimation procedures is useful. First, as OMB admits, these estimates are necessarily rough; they use a representative loan (or guarantee) from each portfolio, and thereby omit the diversity of loans held by some programs, such as SBA. Second, choosing a comparable private loan is at least somewhat subjective and therefore subject to manipulation. Third, in many cases the credit program itself is based on the premise that no private market exists. No meaningful estimate of benefit to the borrower, as defined by (B), is obtainable under these circumstances. Estimating the government's market loss on a credit

transaction suffers the same problems.

An alternative approach is to estimate the expected government cost of holding the credit. As discussed above, this is a more reasonable subsidy definition to employ in the budget, and OMB has provided similar estimates in the past.

This approach immediately discards two of the problems associated with estimating benefit-to-the-borrower or market loss: there is no need to determine "comparable" private loans, and no issue arises as to whether a private market exists. However, like current OMB estimates, projections of expected government cost would be imprecise. Nevertheless, the estimates need not be exact for budgetary purposes, only unbiased.

CBO [1988, p. 68] argues that government estimation of its own costs is currently not feasible because agency information is of poor quality. In particular, accounts are frequently maintained at a Revolving Fund level, rather than an individual loan or cohort level. Developing uniform methods and sufficiently good data to estimate government costs would have a cost. However, if the government wishes to sell such assets, a similar informational effort would be required. Private sector information requirements may be more severe than those needed to estimate government cost. In addition, for some programs cost estimates can be derived with currently available data (see Boskin and Barham [1984], Bosworth, et al. [1987], or Rhyne [1984, 1988]). For others, estimates will improve over time as data availability and analysts' expertise improve. Finally, private agents -- particularly lenders and insurers -- make such calculations on a regular basis. Government could either adopt private estimation techniques or contract with private firms to do the estimation.



An additional issue is that any projection will be subject to dispute. This problem can be mitigated to at least some extent by having estimates done by an independent agency (i.e., not the credit issuing agency) that is fiscally responsible for mistakes it makes. Another way to reduce the problem would be to test estimates against market valuation.

Thus, although estimation of government costs is not problem-free, it appears to be possible, it would improve over time, and it measures an appropriate concept for budgetary purposes. Furthermore, estimation is the only way to derive subsidies for portfolios that cannot be sold under current conditions. Incorporation of even imprecise estimates into the budget would represent a vast improvement over current practice.

## VI. Further Issues

### A. Treatment of Financing

Under current cash-flow budgeting techniques, a loan sale reduces the current year budget deficit. This feature is also incorporated in the Senate Budget Committee Plan and the Administration's FY 1989 budget proposal. In fact, one of the Administration's objectives in reselling loans is to "increase unified budget offsetting collections in the year of sale".<sup>16</sup> In contrast, CBO [1988] argues that sales should instead be considered a below-the-line item; that is, a means of financing the deficit, rather than of reducing it. The importance of this issue is highlighted by the recent \$6.8 billion sale of loans enacted specifically to meet Gramm-Rudman targets.<sup>17</sup>

The CBO modification is consistent with the goals of credit reform described above. For example, as discussed in Section II, treating a \$1 loan as equivalent to a \$1 expenditure is misleading. The loan's costs

accrue over time and are likely to be much less than \$1. For similar reasons, it is equally inappropriate to treat a \$1 loan sale as equivalent to a \$1 expenditure reduction. Although both reduce current net outlays, the loan sale involves a reduction in future revenues as well. The net discounted revenue effect of a sale will be much less than a \$1 gain to the government. If definitions (A) and (C) generate the same subsidy estimates, the net discounted revenue effect of a sale is zero. If (C) generates a larger subsidy estimates than (A), the revenue effect is negative.

A second reason to favor below-the-line treatment is the need to separate subsidy and financing costs. As long as financing is allowed to affect agency net outlays, there will always be an incentive for agencies to consolidate the two, i.e., to obfuscate the subsidy costs.

Effective budgetary reform depends on clear reporting practices and the elimination of financial gimmicks. For both of these reasons, below-the-line treatment of financing is an essential step toward real credit reform.

#### B. Institutional Structure

An additional issue concerns the need to centralize credit operations. Systematic oversight of federal credit is currently hindered by the large number of credit-issuing agencies and the diverse practices they follow. Although it may be possible to institute budgetary and administrative reform under the current institutional arrangement, a centralized agency (a "Fund") would provide many advantages.

Under an Appropriations Plan, standardization of origination procedures, records, and complicated subsidy calculations would be far simpler with a centralized Fund. Having the Fund estimate subsidies would reduce the incentive to understate costs. Under a Market Plan, the Fund would be able to centralize sales and reinsurance. Under either plan,

creation of the Fund would reduce duplication of tasks and records.

Perhaps most important, as new needs arise, the existence of a centralized Fund could make further reform of federal credit possible. For example, a plausible future scenario, discussed below, would involve the government attempting some hybrid of the Market and Appropriations Plan and, over time, deciding which loans to sell and which to keep. A Fund would be the natural way to develop, experiment, and choose among these issues.

### VII. The Hybrid Plan

Budget reform is necessary to provide adequate information on the costs of credit programs and to minimize the potential for financial deception. Administrative problems are systemic in nature, and caused by the absence of uniform standards and procedures.

Any proposal for reform must confront two critical issues. First, credit programs are extremely diverse. Policies embody widely varying goals; portfolio characteristics vary considerably as well. Some programs are premised on the absence of any comparable private market, while others face direct and stiff competition from private suppliers.

Second, credit reform should be viewed as a process, not a single act. In order to bring about effective, lasting reform, many procedures will need to be clarified, and much information gathered and analyzed. However, implementation of basic budget reform is too important to wait until all the associated problems have been resolved. Thus, any reform proposal should be capable of adjusting to increased government expertise and changing conditions in administering credit programs.

Reforms based on the Market or Appropriations Plans do not pass these tests. Loan asset sales are not a panacea for credit policy. Nonrecourse

loan sales have not been effective in achieving any of the potential advantages of resales. Immediate wholesale liquidation of the government's loan portfolio would be a disaster. Yet, under appropriate circumstances, resales have much to offer. The government should work toward developing these circumstances, but this will take time.

Estimation of government costs is the only way to derive reasonable subsidy values for loans that are not in a condition to be resold. Although firms make such estimates on a routine basis, estimation of government costs may prove difficult and/or expensive. Nevertheless, estimation techniques should improve over time.

Since there is no reason to discard the advantages of either approach, we propose that the government undertake both strategies: market valuation and estimation of government costs. While not without its problems, we believe this plan is more appropriate than either individual alternative.

Specifically, the Hybrid Plan would revolve around a central agency (the "Fund") which would be responsible for estimating government costs, conducting resales, and acquiring reinsurance. The Fund would apply the appropriate subsidy definition for each program. If conditions surrounding a particular program made resales inappropriate, the appropriate measure would be estimation of government cost. When problems with resales were satisfactorily resolved, the appropriate measure would be the one that minimized government cost. Thus, if it cost the government less to sell than to hold the asset, a resale would occur. As discussed above, which option is less expensive will vary, depending on the characteristics of each individual program.

In other respects, the Fund could operate just as it would in the Market or Appropriations Plans. Origination procedures, documentation, and

servicing could be accomplished in the agencies, but would be done subject to the Fund's standards. Alternatively, the Fund could take on servicing responsibilities for a fee. The Fund would collect subsidies from the originating agency, would issue all loans and guarantees, receive loan payments, pay defaulted guarantees, and be fiscally responsible for misestimates. The Fund's objective would be to break even. It could be an existing agency, or a newly created one. The Fund would be off-budget, for reasons discussed above.

Relative to the Market and Appropriations Plan, the Hybrid Plan presents several advantages. First, it is sufficiently flexible to cope with the diversity of federal credit. Whereas the Market and Appropriations Plans would force the government to either sell all credit or hold all of it, the Hybrid Plan would allow an appropriate action to be taken for each program. This flexibility is important because sales of some portfolios under current conditions would result in vast overstatement of necessary government costs. Thus, the Hybrid Plan allows the opportunity to avoid resales where they would be disastrous.

Second, the Hybrid Plan is flexible enough to adapt to increasing government expertise in estimating subsidies and in administering loan sales. As problems associated with loan sales were resolved, the Fund could sell loans that were previously held. Thus, the Hybrid Plan allows the opportunity to exploit the advantages of resales when they are present.

Because the estimation and resale procedures would be centralized, experimentation and pilot programs would be greatly simplified. For example, the Fund could use (selected) loan sales to check their subsidy estimates. Importantly, the Fund could generate internal subsidy estimates on loans offered for resale. These estimates (or some function of them)

could be used as minimum bids, thus providing a cap on loan sale losses.

Establishing the Hybrid Plan would not cost much more than establishing either the Market or Appropriations Plan. Similar information and restructuring would be required in any case.

The Hybrid Plan raises some new issues in implementation. First, adequate criteria would be needed for deciding to hold or sell an asset. CBO [1984, p. 63] suggests criteria like the importance of discretionary forbearance, or the thinness of any associated private markets. Establishing or implementing these or other criteria would not be trivial. However, there is no need to develop a "perfect" set of criteria. One reasonable way to begin would be to work within the framework of the existing Pilot Program for loan sales, while holding assets from other programs.<sup>18</sup> As government expertise and experience in conducting resales and estimating subsidies grows, additional choices can be made. The important point is that the Hybrid Plan does allow those choices to be made, and allows them to adjust to changing conditions.

A second potential problem is that the Hybrid Plan would give agencies incentives to choose programs with features to avoid resale, if it is assumed that agencies do not want their credit resold. However, some agencies might want to sell their loans, especially after Fund estimates of government cost are included in the budget. The advantage to the agency would be the assistance it received in improving its records and procedures. In addition, if it thought the Fund's subsidy estimates were too high, the agency could use resales as an opportunity to demonstrate the creditworthiness of its program. This would be an important check on the Fund's estimates, because the Fund would have a fiscal incentive to overestimate government costs. In any case, the Hybrid Plan, like either the Market or

Appropriations Plans, would give agencies incentives to use better origination and documentation procedures.

Arrangements similar to the Hybrid Plan have been noted before. CBO [1984] emphasizes the problem in choosing criteria for holding or selling loans. Phaup [1985] presents a related idea, primarily as a way to assuage fears about loan sales, which would be enacted immediately in his plan. In contrast, we emphasize the flexibility of the Hybrid Plan. It allows budget reform to occur now, and allows for a possible evolution toward regular loan sales as they become appropriate. The Market Plan, in contrast, cannot be reasonably implemented at this point.

#### VIII Concluding Remarks

Although it is desirable, for analytical purposes, to separate management versus programmatic reforms, ultimately the two are related. For example, if the programmatic goal is to replicate a private market, but offer a subsidy in the process (e.g., V.A. loan guarantees), loan resales would seem to be an entirely appropriate method of measuring the subsidy, provided that implementation problems can be resolved. This holds because the government could achieve the same effect by abolishing the credit program and offering a lump sum cash payment to the recipient.

In contrast, consider a program whose stated purpose is to provide an otherwise missing market. In this case, measuring subsidies by eliciting private valuation is inconsistent with the original premise of the program. That is, the government could not necessarily achieve the same result by abolishing the program and providing an equal cost grant.

In either case, there is a fundamental question as to why credit subsidies should be used. In the first case, a lump-sum grant would achieve

the same goal at the same cost. In the second case, a pure market-perfecting program could be run on a balanced-budget basis.<sup>19</sup> Thus, analysis of the appropriate management of credit programs leads naturally to reexamination of the goals of credit programs, and of the appropriateness of using credit as a policy instrument. This effort is beyond the scope of this paper, but constitutes an important complement to budgetary and administration reforms.<sup>20</sup>

Issues in credit reform are also similar to those raised by many other intertemporal aspects of government finances. Government investment, capital gains, inflation, unfunded Social Security and Medicare, and other programs are inadequately treated in formal budget documents. Whether the costs of reforming the budgetary treatment of all such programs exceed the benefits is unclear, and deserving of further study.



## FOOTNOTES

<sup>1</sup>Data taken from "Special Analysis F," FY 1989, and Economic Report of the President, 1988, Table B-76, p. 337.

<sup>2</sup>See, for example, MacLaury [1973], Leonard and Rhyne [1981], and CBO [1988].

<sup>3</sup>The structure and shortcomings of current practice have been detailed in several places, and are only summarized here. See, for example, Leonard and Rhyne [1981], Boskin and Barham [1984], Rivlin and Hartman [1984], Phaup [1985], Bosworth, et al. [1987], and especially CBO [1984, 1988].

<sup>4</sup>See Boskin, et al. [1987] for a discussion of ways to incorporate these programs into the budget.

<sup>5</sup>CBO [1984, p. 49] also lists two other proposals. The FFB Plan, to move the activities of the FFB on-budget, was enacted in 1985. The Add-on Plan would require agency cost estimates to accompany budget documents. Neither Plan addresses the majority of problems outlined in Section II.

<sup>6</sup>For a direct loan, net cash flows are discounted. For a loan guarantee, option pricing techniques are employed. For examples of the latter, see Sosin [1980], Buckley [1985] or Van Order [1987].

<sup>7</sup>Note that this is the correct measure of benefit to the borrower only if the borrower would have received a loan without public assistance, and the borrower's loan demand is unchanged by the subsidy.

<sup>8</sup>The source of the differences is the long maturity of federal credit coupled with different discount rates. In FY 1985, 28 out of the 33 direct lending programs had loan maturities of 10 or more years.

<sup>9</sup>The procedure described in Special Analysis F, FY 1985, p. F-26, classifies loans by purpose and type of borrower, and takes into account differing fees, maturities, and repayment schedules. It still suffers from the deficiencies listed in footnote 7.

<sup>10</sup>Bosworth, et al. [1987, p. 29], present evidence that suggests that 3-5% is a fairly high administrative cost.

<sup>11</sup>For example, the government provides annuities, deposit insurance, health insurance, income insurance (through progressive taxes and transfers), and flood insurance.

<sup>12</sup>CBO [1988, p. 59] argues that discounting at less than the market rate of interest would have nonsensical effects: "Society could be made better off -- and the federal deficit reduced -- by having the government purchase privately-held, risky loan assets." This reasoning is fallacious because it draws a cost-benefit conclusion from a budget statement. As emphasized above, the budget does not estimate benefits on all economic

costs, only federal financial costs. Clearly, no conclusion that "society is better off" is warranted from consideration of the official budget deficit alone.

<sup>13</sup> It is often argued that the private sector will collect loans more effectively than government and therefore will be willing to pay more than government could obtain from holding the loan. This effect should be reflected in OMB's benefit to the borrower estimates, and thus does not affect the arguments presented here.

<sup>14</sup> See testimony in Committee on Small Business [1988].

<sup>15</sup> This procedure is described and cited in footnote 9.

<sup>16</sup> See Joseph R. Wright, "Guidelines for Loan Asset Sales," July 8, 1986, in Government Loan Asset Sales, Committee on Small Business, U.S. House of Representatives, January, 1988.

<sup>17</sup> These sales were required by the Omnibus Budget Reconciliation Act of 1986.

<sup>18</sup> Alternatively, the Fund might ask for agencies to volunteer for loan sales. Agency incentives to do so are discussed in the text.

<sup>19</sup> This line of reasoning is emphasized in Bosworth, et al. [1987].

<sup>20</sup> For further discussion of these issues, see Gale [1988a,b].

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