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A CBO STUDY

New Approaches to The Budgetary Treatment of Federal Credit Assistance

Congress of the United States
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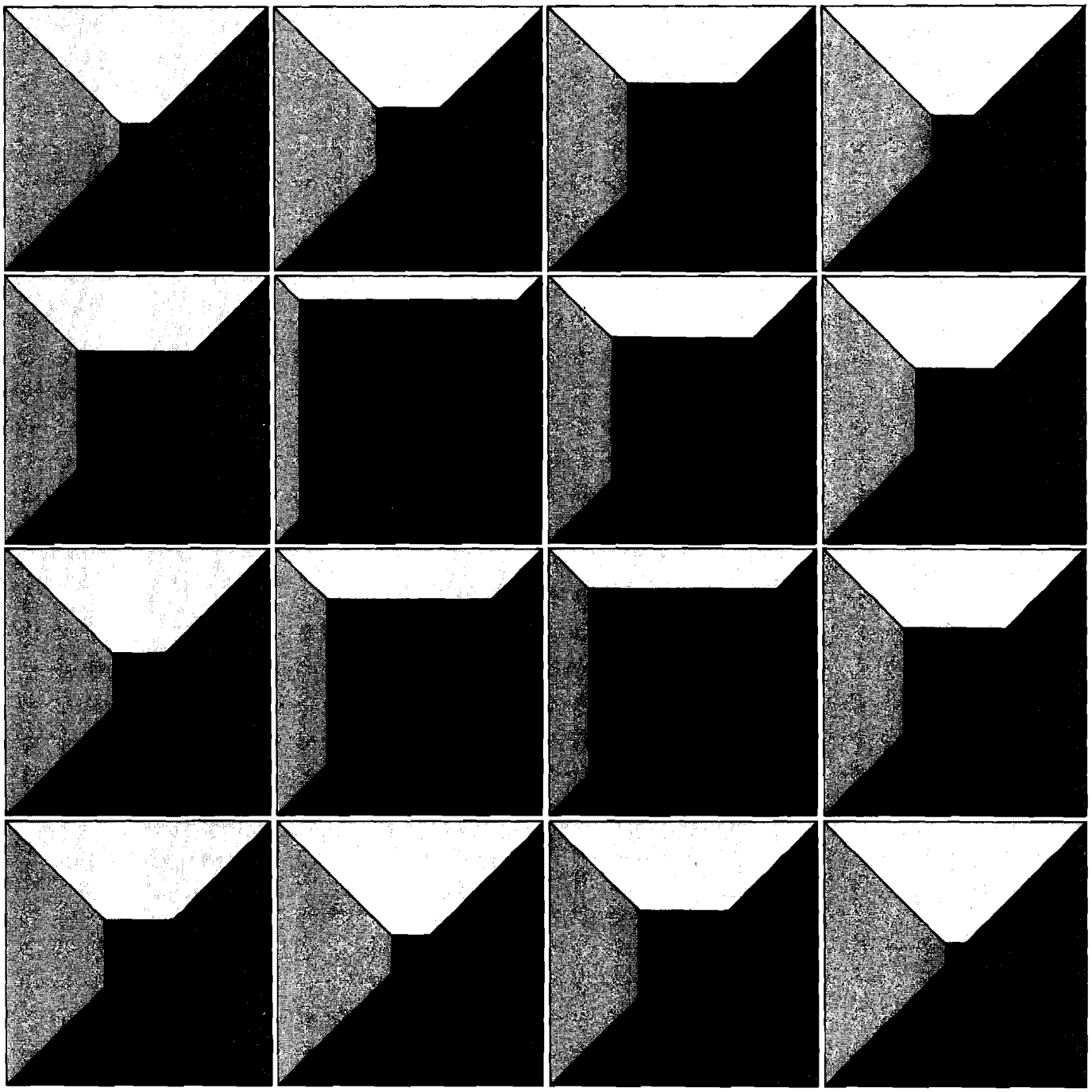

NEW APPROACHES TO THE BUDGETARY TREATMENT OF FEDERAL CREDIT ASSISTANCE

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NOTES

The text of Chapter III is based on budget data for 1982, which was available when this analysis was prepared. Most of the tables, however, also contain data for 1983.

Several real examples of federal credit assistance to individuals and businesses are detailed in Chapter III. The identity of recipients, however, is intentionally obscured.

PREFACE

This report on current and alternative means of accounting for federal credit assistance was undertaken at the request of the Subcommittee on Federal Credit Programs of the Senate Banking Committee. The study, which excludes federal deposit insurance and the federally sponsored, privately owned credit enterprises, analyzes the shortcomings of current budgetary practice in depicting the subsidy cost of federal credit assistance. It then examines four options for improving the quality of federal credit data in the budget.

The study was prepared by Marvin Phaup of the Budget Process Unit under the supervision of Richard P. Emery, Jr. Deirdre B. Phillips investigated many of the specific instances of credit assistance featured in Chapter III and provided research assistance. Useful comments and suggestions were made by John Sturrock, Rodney Bent, Ron Boster, Robert Buckley, Everett M. Ehrlich, Alfred B. Fitt, Win Hambley, Eric Hanushek, Robert Hartman, Martin D. Levine, Roy Meyers, Beth Rhyne, Robin Seiler, John Shillingburg, and David Zlowe. Robert L. Faherty, together with Francis Pierce and Johanna Zacharias, edited the manuscript, assisted by Nancy H. Brooks. Paula Gatens and Brenda Lockhart prepared the manuscript for publication.

CONTENTS

CONTENTS (Continued)

TABLES

TABLES (Continued)

BOXES

32-174 O - 84 - 2

SUMMARY

The budget of the United States provides a framework for debate and decision about the appropriate size, financing, and allocation of the federal government's fiscal resources. To fulfill this function and to enable informed choice, the budget must be both comprehensive with respect to activities that use up what is scarce and accurate with respect to the value of what is used up. If the budget is incomplete in coverage or if the costs of an activity are otherwise misstated, decisions may be biased toward activities with excluded and understated costs and away from those with overstated costs.

SHORTCOMINGS OF CURRENT PRACTICE

In accounting for federal credit assistance, the U.S. budget misstates costs by exclusion and by the use of incidental cash outflow as their measure. Though overstated for some programs, the value of resources consumed by all federal credit assistance is understated by about $20 billion annually. Incomplete budget coverage arises for two reasons: first, statutory prohibitions on the inclusion of some accounts in the budget; and second, failure of current procedures to place a cash value on contingent liabilities (obligations to pay in the event of occurrences that are possible but not certain)--loan guarantees are the most common example. For instance, the Rural Electrification and Telephone Revolving Fund (RETRF) and the Federal Financing Bank (FFB) are, by law, off-budget. The off-budget status of the Federal Financing Bank is especially significant because it enables on-budget credit agencies to reduce reported activity by "selling" loans to the FFB and by directing the FFB to make direct loans to agency clients on the strength of agency guarantees. Moreover, loan guarantee commitments and other contingent liabilities are assigned an outlay value of zero under current budget practice.

The misstatement of resources consumed by federal credit subsidy is compounded by the cash outflow measure of budget costs. The cash outflow measure assigns cost to various activities on the basis of dollars paid out, independently of the terms on which those funds are advanced. Thus, the same cost is assigned to an outlay that consumes fiscal resources (an outright grant, for example) as to an equal amount paid to acquire an interest-bearing asset (a direct loan that is expected to be repaid with interest). Direct loans made by the government at below-market rates of

interest do have a cost, but that cost is not the amount loaned (except in the unusual case where the borrower defaults before the first repayment and leaves government without prospect of recovery). Similarly, loan guarantees extended by the government on debts with some chance of default have a cost greater than the zero amount currently assigned this activity by the cash outflow measure.

The subsidy or spending-equivalent cost of below-market direct loans, is the difference between the amount of the loan and its market value. If, for example, $1 million is advanced but the interest rate and other terms are below prevailing market terms such that private investors would pay only $600,000 for the loan, then $400,000 is its subsidy, or spending-equivalent cost. The lower the interest rate, the longer the term to maturity, the greater the probability of default, and the lower the value of the collateral, the lower the market price and the greater the loan subsidy. For loan guarantees, the spending-equivalent cost is the single-payment premium that would be charged for such a guarantee by a competitive, actuarially sound insurer. The larger the loan, the more likely the default, the longer the guarantee is to be in force, and the less secure the collateral, the greater the premium and the cost of the guarantee.

REFORM PROPOSALS

Numerous proposals exist that could improve the comprehensiveness and the measure of federal credit budget costs.

The FFB Plan. The Federal Financing Bank could be brought on-budget; or the budgetary treatment of transactions involving the FFB could be changed to attribute activity to the originating agency. Adoption of the FFB Plan would include $10-15 billion in annual outlays that now go unrecorded in the unified budget. The FFB Plan, however, accepts the cash outflow measure of cost and would fail to provide a spending-equivalent measure of credit.

The Add-On Plan. Existing budget documents could be expanded to include estimates of the spending-equivalent subsidies conveyed by credit assistance. These estimates would be memoranda items not included in the budget totals. Budget makers could refer to the estimated difference between the amounts loaned and market prices and to the value of guarantees in particular programs. Comparing spending and credit would remain cumbersome, however.

The Appropriations Plan. The accounting rules pertaining to revolving funds and government credit corporations could be changed so that the sub-

sidy value of credit activity would be subject to annual appropriations by the Congress. The essential feature of this reform is that the credit agencies would be required to pay the estimated value of subsidies conveyed by current year loan obligations and guarantee commitments to a governmental, financially sound revolving fund. Adopting the Appropriations Plan would constitute a major step toward correcting the misstatement of credit costs in the budget and rendering spending and credit programs directly comparable.

The Market Plan. The Appropriations Plan could be modified by having the revolving funds sell their loan originations and reinsure risk with private suppliers. The revolving funds would recover the losses on loan sales and the cost of insurance premiums from the credit agencies. Besides eliminating the task of estimating loan and insurance prices, the Market Plan would shift most risks from taxpayers to investors.

Although all of these proposals constitute departures from current practice, each may be feasible. Off-budget status is conferred by legislation and can be so withdrawn. No statutory barriers stand in the way of an executive decision to include agency estimates of credit subsidies in the budget as a memorandum item. If agencies could develop the ability to estimate these subsidies accurately under the Add-On Plan, no additional implementation obstacles would be raised by the Appropriations Plan. The sale of government-originated loans to private investors may seem unusual, but it is common practice for the Federal Housing Administration Fund and the Government National Mortgage Association. More generally, the practice of originating and reselling loans in the secondary market is widely used by thrift institutions, mortgage bankers, and commercial banks. Finally, it is somewhat unusual, but not unheard of, for the government to sell loans without a government guarantee. Experimental purchases of insurance by government are already planned.

All four reform plans, and possible variations on each, would enhance the quality and usefulness of unified budget data. The FFB Plan would increase the comprehensiveness of the budget and is an important first step toward reform. The other plans, with varying degrees of forcefulness, would provide a substitute measure of the subsidy cost of federal credit for the present measure of incidental cash outflow. But only the Appropriations and Market Plans would accomplish this switch in the unified budget. The choice between these two may reduce to the question of who is to assess the value of government loans and guarantees: government analysts or financial markets.

CHAPTER I. INTRODUCTION

The federal government often functions as a financial intermediary: borrowing money through the issue of Treasury securities and relending to private firms and individuals. At the end of 1982, for instance, the federal government had direct loans outstanding of $208 billion or an amount equal to 20 percent of the national debt. Suppose that the market interest rate on loans to a specified group of farmers is 18 percent. If government lends $1 billion to farmers at its own cost of money, 10 percent, how much, if anything, does this cost the government?

Three possible answers are:

- o $1 billion,
- o $1 billion less repayments received this year on advances made under this loan program, and
- o 8 percent of the unpaid balance per year.

Before selecting one of these or another answer, consider why the question is important. An activity's cost--what it uses up that is scarce--is central to Congressional policy-making. Decisions or choices are made by weighing alternative resource-consuming activities while recognizing that resources used in one activity are not available for use in another. Moreover, Congressional decisions are constrained, with varying degrees of flexibility, by several kinds of scarcity. First, in recent years, the Congress has set in its credit budget annual ceilings on new obligations of government direct loans and federal commitments to guarantee loans. To allocate a specified volume of credit under one program is a decision not to provide that credit under another. Second, the Congress is mindful of the financing requirements of its actions. Given a target level of Treasury borrowing, funds raised for one program will be denied another. Third, the Congress is subject to the scarcity of economic resources. Land, labor, and capital are limited to society by availability and to the Congress by self-imposed ceilings on spending. The spending cost of a credit program is the value of resources consumed in excess of interest and fees collected.

Given the different measures of cost in which alternatives are weighed, all the multiple-choice answers can be correct. The cost of the contemplated loan program is $1 billion in terms of the limited volume of

direct loan obligations to be extended by the federal government in the current year. If the loan program has been in operation long enough for repayments to be received, net financing costs will be disbursements less repayments, or net cash outflows. Finally, the spending- or grant-equivalent cost of the program is 8 percent of the unpaid balance per year. This last cost measure is derived from the proposition that minimum, full-cost interest rates are observed in competitive, well-functioning credit markets. If the full-cost rate of this loan is 18 percent, then the subsidy is the difference between the full-cost rate and the rate paid by the assisted borrower.

Each of these measures of cost is legitimate within its own frame of reference: $1 billion in limited credit volume used; disbursements less repayments in financing preempted; 8 percent of the unpaid balance in spending-equivalent cost. Confusion and errors arise, however, when these measures of cost are used in the wrong context. For example, it is not sensible to use $1 billion as the spending-equivalent cost of $1 billion in 10 percent direct loans to farmers, unless an immediate complete default is confidently expected.

In fact, inappropriate measures of costs are frequent in U.S. budget accounting for federal credit assistance. These are most often encountered in the unified budget: the statement of outlays and revenue that is the central focus of the budget process, commonly referred to as "the" budget. As a hybrid of earlier budget forms, the unified budget serves several purposes: to provide a framework for national policy discussion and decision; to measure the resource costs of government; and to identify the amount of money government must borrow--the deficit. Usually these objectives are mutually consistent, but a conflict arises in the treatment of federal credit. The difficulty occurs because, under current accounting and operating procedures, the unified budget uses net cash outflow as the sole measure of costs. This measure correctly reflects the financing requirements of federal credit but is inappropriate as a measure of spending-equivalent cost. As a consequence, choices are made in the budget process across credit programs and between credit and spending alternatives without benefit of a common cost denominator.

Several accounting and operating reforms exist that would provide data on the value of resources consumed by subsidized credit transactions. This paper explores some of these means of improving the quality of budget data and of facilitating comparisons of unified budget dollars among credit programs and between credit and direct spending. Chapter II describes the current budget treatment of government credit activity and the weaknesses of this approach. Chapter III details current practice through an examination of nine, highly diverse, revolving funds and government financial cor-

porations. Chapter IV considers some advantages and disadvantages of accounting and operating changes that would remedy the current exclusion and other misstatements of federal credit cost. Chapter V describes several financial institutions that augment the activities of federal credit agencies and that can be useful in assessing the subsidy cost of credit assistance.

Scope of the Study

In order to keep this paper to manageable proportions, its scope has been limited in several respects. First, the focus of the paper is on accurately measuring the spending-equivalent costs of credit programs, without regard to the desirability of any particular program. Although Chapter III contains some illustrative cases of the use of federal credit, no effort is made to measure benefits or to evaluate programs. None of the options discussed should be interpreted as "for or against" the use of credit instruments.

Second, the definition of federal credit has been restricted, somewhat arbitrarily, to direct loans, guarantees of financial assets, and some casualty insurance. Federal deposit insurance, the Federal Reserve, and government-sponsored enterprises have been excluded. Third, the search for misstated and mismeasured budget costs has stopped at the defined boundaries of federal credit. 1/

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1. Other aspects of the budget that have been suggested for further study include the possibility of creating a capital budget, making greater use of accrual accounting, and valuing federal government assets and liabilities in inflation-adjusted dollars. For further discussion, see William E. Buiter, "Measurement of the Public Sector Deficit and Its Implications for Policy Evaluation and Design," International Monetary Fund Staff Papers, 30.2 (June 1983), pp. 306-349.

CHAPTER II. FAILINGS OF CURRENT BUDGET ACCOUNTING FOR FEDERAL CREDIT

Those who would draw inferences about the value of resources consumed by federal credit activity from the U.S. budget are frustrated by the budget's use of net cash outflow (roughly, advances less repayments) as the yardstick of cost and by the exclusion of some credit activity from the budget. This chapter describes current budget practice and explains how a system--useful in describing the costs of many spending programs--is ill-suited to identifying the costs of credit assistance. The first part of the chapter defines current practice while the second illustrates the system's incompleteness and incompatibility with a spending-equivalent accounting of credit.

FEDERAL ACCOUNTING RULES

To begin, some terms should be defined. Budget, unless otherwise noted, refers to the unified budget of the United States included in the Administration's submission to the Congress and the Congressional budget resolutions. The unified budget records budget authority (authority to commit the government to spend), outlays, and revenues for a fiscal year. Budget authority enables an agency to "obligate" funds; when the bills are presented, the obligation is liquidated and the budget records an "outlay." Unified budget outlays less revenues equals the unified deficit. An accounting system refers to those rules and practices that determine the bookkeeping treatment of government transactions in the budget, including those of the public-enterprise revolving fund accounts, such as the fund that finances investment by rural electric cooperatives. These revolving funds are created by the Congress to receive funds to finance specified, ongoing activities such as originating direct loans and issuing guarantees and insurance. Most credit activity enters the budget through a revolving fund account.

Two principles govern ideal unified budget accounting: comprehensiveness and cash-basis. Comprehensiveness means that all activities that consume fiscal resources should be included in the budget. Cash-basis means that these activities should be recorded in terms of the amount of net cash outflow obligated or disbursed in the current year. The use of net cash outflow as the valuation measure means that receipts generated by an activity may be deducted from outlays to arrive at a net budget amount. Also,

an activity that neither absorbs nor supplies cash in the current year is excluded from the current year budget.

In accounting for federal credit in the unified budget, budget documents:

- Include the amount of budget authority and outlays for direct loans as a cost in the unified budget.
- Include loan repayments, interest earned, and income from the sales of loans and real assets as revolving fund offsetting receipts.
- Exclude contingent liability commitments such as guarantees of the debts of others or insurance from the unified budget, because these commitments do not obligate a specific amount of funds nor do they contemporaneously absorb cash.
- Include claims for payment and reimbursement filed under government guarantees and insurance as obligations in the year the claims are made.
- Include premiums and fees collected under guarantee and insurance programs when received as an offset to current year outlays.

The significance of these accounting conventions is best understood by considering, first, their application at the revolving fund account level, and second, how the results are aggregated into budget totals.

Accounting for Revolving Fund Activity

Transactions of federal credit programs are reported in the Appendix to the President's Budget in three accounting schedules: Program and Financing, Financial Condition, and Status of Direct Loans and Guaranteed Loans.

The Program and Financing (P & F) statement is analogous to an income and expense (or sources and uses of funds) report for a private firm. On the program side, as shown in the text box, it lists the major categories of program activity giving rise to a flow of obligations and outlays: making loans, purchasing defaulted guaranteed securities, incurring interest on borrowed funds. However, commitments arising from the issue of guarantees or insurance are omitted from the P & F statement because no specific amount of spending is committed or effected. These contingent commitments appear in the P & F statement only upon the exercise of a claim for

HYPOTHETICAL CREDIT ACCOUNTING STATEMENTS

Program and Financing

Obligations		Financing	
Loans	$100	Loan repayments	$ 40
Purchases of guaranteed securities in default	50	Interest earned	20
Interest due to Treasury	25	Fees and premiums	20
		Sales of loans	40
Total	$175	Total	$120

Net obligations deficit: $175 - 120 = $55
Net cash outlays: (May vary from net obligations, see text)

Financial Condition, Year-End

Assets		Liabilities and Government Equity	
Loans	$400	Debt to Treasury	$250
Property acquired from defaults	150	Interest owed	25
Treasury securities	200	Government equity	475
Total	$750	Total	$750

Contingent liabilities for guarantees outstanding: $1,000

Contingent liabilities for guarantees outstanding to the FFB: $ 500

reimbursement. The P & F schedule also shows flows of financing for the discharge of these obligations: loan repayments, interest earned, fees and premiums collected, the sale of assets. These sources provide a financing offset to obligations and outlays. The flow of net obligations--program commitments less cash claims on others--therefore, is evident from the two sides of the P & F statement. Annual net obligations of the fund is an extremely important concept because it is closely related to the two summary figures that appear in the unified budget: outlays and budget authority. Net new obligations, plus or minus a timing adjustment for differences in the rate at which the fund discharges its obligations and collects its receivables, equals outlays. Net obligations minus unused and available authority from previous years equals the amount of new budget authority required to carry out the activity shown in the P & F statement. In credit programs, little of substance is added by reporting both budget authority and outlays. Because outlays is the critical variable in determining the program's contribution to the deficit, outlays will be emphasized here to the exclusion of budget authority.

The second credit account statement in the Budget Appendix is the Statement of Financial Condition or balance sheet of the revolving fund. The stock of assets held by the fund or government corporation at year-end is listed by categories along with the book values of each. Loans held by the fund are valued at the face amount rather than at market value (which would take into account the interest rate on the loan, its maturity and risk as well as the principal amount outstanding).

Not all loans originated by an account appear on the balance sheet. Some agencies may sell their loans as a means of financing new lending. Loans sold on the open market have to be priced to yield a competitive interest rate and, for most government agencies, loan sales to private investors require deep price discounts. The Federal Financing Bank (FFB), however, will purchase loans from federal credit agencies at face value, if the agency guarantees 100 percent of interest and principal. Usually, agencies do not sell the loans, per se, to the FFB. Rather, agencies sell certificates of benefical ownership (CBOs) on which the agency pays a rate of interest based on the FFB's cost of money, not the rate of interest paid by borrowers. CBO sales, however, are treated as loan sales for budgetary purposes and, therefore, remove the underlying loans from the agency's balance sheet.

The statement of financial condition shows, in addition to assets, the stock of accumulated liabilities of the fund including accounts payable, accrued interest, and borrowings. Asset holdings less liabilities equal the government's equity position in the fund. For private firms, the value of equity indicates the ability of the firm to suffer loss and survive as an on-

going concern. For government agencies, the equity position is of less significance to the viability of the fund. In fact, several of the accounts to be examined have negative equity values; that is, their liabilities exceed their assets. However, so long as they have authority to borrow from Treasury, they can continue to operate and sustain losses indefinitely.

The third Budget Appendix document useful in describing federal credit is the Status of Direct Loans and Guaranteed Loans. These schedules show the volume of loans originated and purchased by each revolving fund, including those sold to the Federal Financing Bank and to others. Federal Financing Bank loans extended on the basis of a fund guarantee are also reported along with contingent liabilities arising from commitments to guarantee. In those cases where the Congress has imposed limitations on program commitments, these appear in the schedules. For simplicity of presentation in this paper, information from the status reports is summarized in terms of contingent liabilities as a note to the Statement of Condition.

Summarizing Revolving Fund Schedules in the Unified Budget. The links between the P & F statement, the balance sheet, and the loan status schedules and the unified budget are restricted to outlays and budget authority. Of the detail provided in the Budget Appendix, these two figures--one of which is somewhat redundant--are the only ones recorded in the unified budget. In many ways, the emphasis on net outlays as a summary statistic is appropriate. The unified budget is cash-based and net outlays is the measure of net cash outflow. The budget is a measure of financial flows rather than stocks of assets and liabilities; the statement of financial condition, therefore, has no place in the budget. Guarantees do not commit the government to specific outlays and, therefore, might be excluded. For now, then, it is sufficient to note that federal credit assistance is represented in the current year unified budget by current year net cash outlays (and budget authority) resulting from current and past activity.

DEFICIENCIES OF CURRENT PRACTICE

Existing budget accounting practice exhibits two failings with respect to federal credit assistance. First, exceptions to the rule of comprehensiveness have been mandated by law and accounting practice. That is, despite the cash outflow measure of cost, some cash flows are excluded from the budget decision documents. Exclusion occurs because the transactions of some accounts are prohibited by statute from being included in the unified budget and because of the availability of offsetting receipts from repayments and ersatz loan sales, for example. Second, net cash outflow from a credit account does not measure the value of resources consumed by the activity giving rise to the cash outflow. Because the current measure of

credit cost does not always show all the pertinent cash flows and, in general, is not indicative of the subsidy delivered by the activities so described, its use may misinform a process concerned with the allocation of resources among competing uses and the redistribution of income and wealth.

Exclusion

By law, the activities of the Federal Financing Bank and the Rural Electrification and Telephone Revolving Fund (RETRF) may not be included in the unified budget totals. The off-budget status of the FFB is especially important in reducing reported activity by the several revolving funds that sell loans to the FFB and that use the FFB as a source of direct loans for agency clients. As described above, when the FFB purchases certificates of beneficial ownership from a revolving fund, the fund is able to show offsetting receipts equal to loans made. Net outlays, therefore, are zero and the loan is transferred off-budget. Similarly, a direct loan made by the off-budget FFB does not appear in the unified budget even though the loan provides governmental funds. As shown in Table 1, total lending by the FFB in 1982 was $22.1 billion. Net lending, however, was only $14.2 billion. The difference results from maturing and repaid loans.

Netting receipts, including repayments and fees received, against obligations also reduces reported outlays by federal credit agencies. Similarly, the exclusion of guarantees from measured credit activity--or equivalently assigning this contingent liability a cost of zero--permits revolving funds to provide loan funds without being charged for the associated cash outflow.

The absence of minimum equity requirements for revolving funds does not understate or exclude activity but permits some programs to continue, while sustaining substantial operating losses, without appealing to the Congress for funds. Under current budget practice, some funds may finance a negative equity position through continued, increased borrowing from Treasury or the FFB. That is, they may borrow to cover current losses, repay old borrowing, and finance an increasing interest expense.

Inappropriate Measure of Cost

Net cash outflow in the current year is not a measure of the value of resources consumed by credit activity in the current year. Net cash outflow reflects the rate of increase in loan activity, the extent to which a fund employs sales of loan assets and guarantees, and the portion of direct loans advanced by the FFB on the strength of agency guarantees. The use of net cash outflow as a budget cost measure implies that the value of resources

TABLE 1. DISTRIBUTION OF NEW DIRECT LOAN OBLIGATIONS OF THE FEDERAL FINANCING BANK (By fiscal year, in millions of dollars)

Credit Activity	Actuals 1982	Actuals 1983	Administration Estimates 1984
Purchase of Agency Loan Assets			
Farmers Home Administration			
Agriculture credit insurance	5,380	4,160	6,934
Rural housing insurance	5,170	4,400	6,112
Rural development insurance	1,535	1,010	1,626
Rural Electrification Administration	528	344	403
Health Maintenance Organizations	17	12	10
Subtotal	12,630	9,966	15,085
Agency-Guaranteed Loans Held as Direct Loans			
Foreign military sales credits	3,084	3,932	4,401
Rural Electrification Administration	4,712	3,442	3,360
Student Loan Marketing Association	700	---	---
Community development grants	179	61	225
Railroad programs	16	15	20
Tennessee Valley Authority--			
Seven States Energy Corporation	386	161	165
Small Business Administration			
Small business investment companies	215	430	575
Satellite leases (NASA)	146	189	131
Other	37	100	---
Subtotal	9,425	8,329	8,877
Total FFB New Lending	22,055	18,295	23,962

SOURCE: Budget of the United States Government, Fiscal Years 1984 and 1985.

consumed by a loan activity is the same for a grant of $1 million as for a $1 million loan advanced at 5 percent interest as for a $1 million loan at 10 percent interest. The use of this cost measure also implies that a loan guarantee which significantly reduces the recipient's borrowing cost and commits the government to pay off the loan consumes no fiscal resources, is without redistributive effects, and has no consequence for the level of economic activity.

The inappropriateness of net cash outflow in a particular fiscal year as a measure of credit program cost undermines the legitimacy of budgeting. If the costs of credit activity are misstated for individual programs and in aggregate, then costs are comparable neither across credit programs nor across credit and spending programs. In the absence of a comparable cost measure, it is impossible to budget--to choose among alternative uses of resources--because the costs of some activities are grossly misstated. 1/

The Spending-Equivalent Costs of Federal Credit

Interest rates in competitive capital markets reflect the value of resources consumed by the extension of credit. The cost of credit consists of the following components: a pure rate of time preference or interest, administrative costs, default and late payment risk premiums, an interest rate risk premium (if assumed by lenders), and taxes to which the lender is subject. If the federal government extends credit to a borrower, these same costs are incurred, even if they are not recognized. 2/ The subsidy conveyed by a federal credit program, therefore, is the difference between the rate paid by the borrower without assistance and the rate paid with assistance. A borrower who would have had to pay 15 percent interest per year on the

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1. The importance of the assumed comparability of cost is emphasized in Alice M. Rivlin and Robert W. Hartman, "Control of Federal Credit," in Reconstructing the Federal Budget: A Trillion Dollar Quandry, Albert T. Sommers, ed. (Prager, 1984).

2. At least two bases exist for disputing this assertion. One is that government intervention improves or perfects market performance such that relevant resource costs are reduced by federal credit programs. A related, second possibility is that government and private discount rates differ. For a discussion of the latter point, see Joseph E. Stigletz, "The Rate of Discount for Benefit-Cost Analysis and the Theory of the Second Best," in Discounting for Time and Risk in Energy Policy, F.R. Ruskin, ed. (Johns Hopkins University Press, 1982), pp. 151-204 and references therein.

unpaid balance and who receives a government loan at 5 percent, costs taxpayers 10 percent of the unpaid balance until the loan is repaid. This 10 percent per year subsidy consists of the same costs incurred by a private lender and not covered by the 5 percent rate charged: explicit interest expense (the difference between the riskless rate of interest on U.S. Treasury debt and the rate paid by the borrower), administrative costs, default risk, late payment costs, and interest rate risk.

Explicit Interest Expense. Many federal direct loan programs charge a lower rate of interest than the Treasury's cost of money. 3/ This difference must be financed by taxpayers and is an unambiguous cost of federal credit.

Administrative Expense. Government loans, guarantees, and insurance programs have to be administered. Some federal credit agencies have extensive networks of field offices to accept applications, verify information, disburse funds, and monitor borrower performance. The costs of these administrative systems are already in the budget, but they are rarely allocated to particular credit programs.

Default Costs. Every loan entails some risk that the loan will not be repaid. In private credit markets, interest rates and guarantee fees include a risk premium. This premium both induces lenders to bear the risk and assures that, on average, payments by borrowers are sufficient to cover default losses. In government lending, default risk exists in at least equal measure. The cost of this risk, now borne by taxpayers without compensation, is the fee that would be required to induce the bearing of these risks.

Late Payment Costs. Many borrowers, whether the lender is the U.S. government or a private financial institution, are occasionally in arrears on their payments. Even if the payment is eventually received, late payments mean interest earnings forgone by the lender. For the federal government, late payments increase U.S. borrowing requirements and interest costs. Delinquencies on mortgages held by the Department of Housing and Urban Development, for example, raise that department's debt requirements by more than $1 billion. This raises HUD's interest costs by $100 million per year.

Costs of Interest Rate Risk. When a financial intermediary borrows at one maturity and lends at another, it runs a risk of loss from unanticipated changes in interest rates. Suppose, for example, that 15-year, fixed interest-rate loans are financed with one-year borrowing. If interest rates have risen at the end of one year, when borrowing must be refinanced, the

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3. Several examples are discussed in the next chapter.

lender will have to absorb losses until interest rates return to their original level or the loan is repaid. When government borrows short and lends long, the risk of such losses is borne by taxpayers. 4/

Even a partial listing of the cost components of lending suggests the possibility of adding up the elements to obtain the "true" cost of federal loan programs. Unfortunately, the cost of government borrowing (at the maturity of the loan) is the only component easily obtained. Administrative costs are mixed with other agency expense. Default and repayment data are not available for many credit programs on a consistent reporting basis (but default rates on federal programs are known to be far higher on average than defaults on private credit). Alternatively, the adding up of costs to market rates suggests that subsidy costs may be calculated by comparing market and government interest rates for the same set of borrowers. Here too, though, missing federal default data require the simplifying assumption that default risks are the same for market and subsidized borrowers. One such set of estimates for direct loans, expressed in terms of the present value 5/ of the subsidy over the life of the loan, is shown in Table 2. The Office of Management and Budget estimates that the total subsidy (present value) for all federal direct loan programs (assuming equal risk of default by market and subsidized borrowers) exceeded $12 billion in 1982. This compares with $9.1 billion in net cash outflow cost recorded in the unified budget for direct loan programs. 6/

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4. Most direct loan programs (27 of 34 for which the Office of Management and Budget estimates subsidy costs) have a loan maturity of ten years or more. Only about 10 percent of the marketable interest-bearing public debt has a maturity of this length. The average maturity of the public debt is about four years; more than 40 percent has a maturity of less than one year.

5. Loan and guarantee subsidies are delivered over the life of the loan. A subsidy to be received in three years, for example, is worth less than the same amount today. To render future subsidies comparable with current amounts, outyear values must be translated to present values. After this conversion, each year's subsidy may be added to obtain the total value of the subsidy today. The subsidies in Table 3 have been reduced to their estimated present value. For further explanation, see the box on Present Value and the Pricing of Financial Assets in Chapter IV.

6. Direct loans, on- and off-budget, resulted in cash outflow financing needs of $23.5 billion in 1982.

TABLE 2. INTEREST SUBSIDY VALUES FOR SELECTED FEDERAL LOAN PROGRAMS, FISCAL YEAR 1982

Loan Program	Average Terms: Interest Rate (percent)	Average Terms: Years to Maturity	Annual Market Rate (percent)	Obligations (millions of dollars)	Present Value of Subsidy (millions of dollars)
Export-Import Bank	11.0	12.0	15.5	3,516	641
Agriculture Credit Insurance Fund	9.2	10.0	14.0	4,199	744
Rural Housing Insurance Fund	3.0	33.0	13.0	3,454	2,203
Rural Electric and Telephone	4.9	35.0	14.5	1,099	649
FFB, Loans to the Public	10.3	10.0	14.6	30,082	4,750

SOURCE: Budget of the United States Government, Fiscal Year 1984, Special Analysis F, Federal Credit Programs.

The net current cash outflow measure of the cost of federal credit is not completely independent of the spending-equivalent or present value of subsidy cost. In an unchanging world, where for each federal credit program loan disbursements, loan repayments--hence, net lending--and interest rates were forever constant, net lending would equal the default, late payment, and explicit interest cost of federal credit assistance. Because these components account for most of the subsidy, net lending would be a biased but approximate measure of wealth conveyed. In a world of variable loan disbursements, repayments, and interest rates, however, net cash outflow provides almost no information about the spending-equivalent cost of current credit activity.

The Congress is caught in a quandry. The existing, unified budget measure of credit cost is inappropriate for weighing alternative uses of resources. But the relevant costs cannot be obtained from readily available data. To improve the decision process, better information is required. Significant steps to this end could be taken by changing accounting procedures and revolving fund operations. These reforms are described in Chapter IV.

NINE FEDERAL CREDIT PROGRAMS AND THEIR PRINCIPAL FUNCTION

The **Federal Housing Administration Fund (FHA Fund)** guarantees residential mortgages.

The **Rural Housing Insurance Fund (RHIF)** offers direct mortgage loans for housing purchases.

The **Agricultural Credit Insurance Fund (ACIF)** makes direct loans for the purchase and operation of farms and to small businesses operated by farmers to supplement farm incomes.

The **Rural Development Insurance Fund (RDIF)** offers direct loans for water and sewer systems and for other capital-intensive public works.

The **Rural Electrification and Revolving Telephone Fund (RERTF)**, makes direct loans for power distribution and telephone networks; it also guarantees loans for power generation and transmission.

The Small Business Administration **Business Loan and Investment Fund (BLIF)** both lends directly and offers loan guarantees for the purchase or expansion of small businesses.

The **Disaster Loan Fund (SBA-Disaster)** lends directly to property owners to help them recover from flood, drought, and other natural disasters.

The **Export-Import Bank (Eximbank)** lends directly to foreign purchasers of U.S. export goods.

The **Overseas Private Investment Corporation (OPIC)** insures the foreign assets of U.S. firms and individuals.

CHAPTER III. THE PROBLEM IN DETAIL: NINE BUDGET ACCOUNTS

To demonstrate the pervasive absence of spending-equivalent credit costs from the budget, it is necessary to examine specific, representative cases. Nine federal revolving funds and credit-related corporations have been selected for this purpose. These accounts, identified in the box on the facing page, include the largest direct loan and guarantee programs with a broad cross-section of beneficiaries, operating characteristics, and depth of subsidies.

Together, the nine accounts originate more than 40 percent of the federal government's direct loans and over half of its loan guarantees. The size of the accounts in assets, loans, and contingent liabilities at year-end 1982 is shown in Table 3. Assistance is provided to housing, agriculture, international and domestic business, and community development. Both on-budget and off-budget funds are represented. Financing sources include fees, loan sales, borrowing, and appropriations. The extent of subsidy varies from nearly zero to almost 100 percent of the funds advanced.

The procedure of this chapter is to examine the simplified P & F statements and balance sheets for the selected revolving funds and credit corporations. The intent is to determine the degree to which these accounts provide a straightforward and complete enumeration of financial activity and to assess the usefulness of these budget data in depicting the costs of these activities. This examination of individual accounts suggests two conclusions. First, the accounting and operating practices of every revolving fund or government credit agency, though quite legitimate, reduce its visibility in the cash-based unified budget (see Table 4). Second, the budget data provided for these credit accounts, though comprehensive in the sense that all activity appears somewhere, are inadequate for rational budgeting.

> General descriptions of government programs fail to depict the personal and community circumstances within which policy intervention takes place. To provide a clearer picture of these programs, this chapter contains a number of specific instances of the use of federal assistance. These particular examples--all of which are real--were chosen because they were fairly representative, relatively uncomplicated, and readily available.

TABLE 3. TOTAL ASSETS, LOANS, AND CONTINGENT LIABILITY ON GUARANTEES AND INSURANCE OUTSTANDING, SELECTED FEDERAL CREDIT PROGRAMS, YEAR-END 1982 (In millions of dollars)

Program	Total Assets	Loans	Contingent Liability on Guarantees and Insurance
FHA Fund	6,193	2,590	138,866
RHIF	1,239	432	24,986 a/
ACIF	3,146	789	24,494 a/
RDIF	694	152	9,339 a/
RETRF	10,157	9,745	20,125 a/
BLIF	2,662	1,949	8,760
SBA-Disaster	7,045	5,929	10
Eximbank	17,285	16,665	14,524
OPIC	782	28	3,260
Total	49,203	38,279	244,364

SOURCE: Budget of the United States Government, Fiscal Year 1984, Appendix.

a. These guarantees are principally for loan assets sold to the Federal Financing Bank. Loan activity in these funds, therefore, is severely understated.

FEDERAL HOUSING ADMINISTRATION FUND

The FHA Fund consists of about 40 different housing finance programs that have grown up around the basic home mortgage insurance plan established by Section 203(b) of the National Housing Act of 1934. 1/ Section

1. Budget data for the FHA Fund are also available for four groupings of programs. Here, for brevity, the four are aggregated at the Fund level. In cases where several programs are financed from a single fund, it is impossible to determine the financial performance of any single program. Aggregating across programs in the budget also permits one program's subsidy of another to go unrecognized.

TABLE 4. ACCOUNTING AND OPERATING FEATURES OF SELECTED FEDERAL CREDIT PROGRAMS

Program	Netting of Financing Against Obligations	Guarantees or Insurance	CBO Sales	Fund Off-Budget	Treasury Borrowing
FHA Fund	X	X			X
RHIF	X		X		X
ACIF	X		X		X
RDIF	X		X		X
RETRF	X	X	X	X	X
BLIF	X	X			X
SBA-Disaster	X				X
Export-Import	X	X			X
OPIC	X	X			X

203(b)--the prototype, high loan-to-value mortgage insurance--still accounts for about 60 percent of FHA Fund insurance outstanding. Other housing programs financed through the Fund include: homeownership assistance (Section 235) under which HUD makes cash payments to lenders in order to reduce the mortgage interest cost of low-income borrowers; insurance of home improvement loans under Sections 203(k) and 220(h); insurance of mortgages on multifamily rental projects; and insurance of loans to finance the preservation of historic structures.

The Program and Financing statement of the Fund (shown in Table 5A) reflects some of these activities. During fiscal year 1982, the Fund's largest incurred obligation was, as might be expected of an insurance program, $890 million for claims arising out of defaults by insured borrowers. The second largest single expense was for interest to Treasury. Over the years of its operation, the Fund has often depended on Treasury for financing and has now accumulated a debt of $4 billion. Before 1984 (when a 3.8 percent, one-time fee was instituted), the Section 203(b) program charged a premium of 0.5 percent of the outstanding loan balance each year. Private mortgage insurance firms (PMIs) also often charge 0.5 percent of the outstanding balance on a 10 percent downpayment loan for the first year of insurance. However, PMIs rates are usually lower (0.25 percent) for subsequent years.

32-174 O - 84 - 3

TABLE 5. FEDERAL HOUSING ADMINISTRATION FUND

A. Program and Financing Statement, Fiscal Years 1982 and 1983
(In millions of dollars)

Obligations	1982	1983	Financing	1982	1983
Claims on defaults	890	1,480	Fees and premiums	758	817
Interest to Treasury	334	334	Interest received	496	592
Participation payments	50	86	Sale of property	377	697
Other expenses	526	499	Mortgage sales	129	202
	1,800	2,399	Recoveries and other	79	80
				1,840	2,388

	1982	1983
Net obligations deficit (surplus):	(40)	11
Cash outlay, net (surplus):	(237)	(192)

B. Balance Sheet, End of Fiscal Year
(In millions of dollars)

Assets	1982	1983	Liabilities and Government Equity	1982	1983
Treasury securities	2,559	2,623	Debt to Treasury	4,112	4,034
Assigned mortgages	2,250	1,412	Other liabilities	923	1,089
Other assets	1,384	1,882	Government equity	1,158	794
	6,193	5,917		6,193	5,917

	1982	1983
Contingent liability for guarantees outstanding:	138,866	156,633

SOURCE: Budget of the United States Government, Appendix, Fiscal Years 1984 and 1985.

"Participation payments," amounting to $50 million in 1982, represent refunds to insured borrowers whose premiums exceeded losses on insured mortgages retired in that year. Other obligations incurred include administrative costs and expenses to repair and maintain properties acquired as a result of default.

The Fund finances its activities in large part by fees and premiums. The $758 million so collected in 1982, along with $496 million in interest on U.S. Treasury securities and acquired mortgages, covered nearly 70 percent of the Fund's obligations for the year. In addition, the Fund auctioned some of the properties and mortgages it had acquired as a result of default. Other mortgages sold by the Fund were originated by HUD as loans to purchasers of HUD property. When combined with recoveries and other miscellaneous sources of income, Fund financing in 1982 exceeded obligations by $40 million. In addition, because the Fund incurred obligations at a faster pace than these were liquidated by payment, cash transactions for the Fund showed a surplus of $237 million in fiscal year 1982.

The balance sheet for the FHA Fund (shown in Table 5B) identifies two major types of interest-earning assets held by the Fund: Treasury securities which could be liquidated quickly to honor guarantee commitments, and mortgages acquired from private lenders because of default but which may have returned to earning status. Other Fund assets include real property in inventory and awaiting resale. Government equity equals the cumulative government investment in the Fund less cumulative net losses realized.

A figure that would add much to the table would be expected payouts arising from the contingent liability on guarantees outstanding less expected insurance premiums but, as is the case with most other federal credit accounts, this number is not available. In part, this figure is not available because expected net losses on mortgage insurance outstanding are subject to sudden, dramatic changes resulting from factors outside the control of HUD. One such development was the consent settlement of Ferrell v. Hills, U.S. District Court for the Northern District of Illinois, Eastern Division (1976), and, subsequently, Ferrell v. Pierce (1983), which severely restricted HUD's ability to foreclose on and otherwise recover delinquent mortgages and, thus, minimize the loss to the Fund from insured defaults.

On grounds of completeness, FHA Fund budget data are no worse than average for a revolving fund. A potential maximum liability of $139 billion is clearly shown along with an equity reserve of $1.2 billion. This is close to the limit of knowledge about any government enterprise that issues guarantees or insurance under current practice. Actual costs will depend on the volume of guarantees outstanding, but also on the policies adopted by or forced on FHA with respect to eligible applicants and properties, collection and foreclosure rules, and changes in the price of mortgaged properties.

The two commonly employed budget summary statistics, outlays and budget authority, have only the remotest connection to long-term costs in the FHA credit programs. For example, focusing on outlays for 1982, one might conclude that this activity has no cost to government and is profitable. But this interpretation runs afoul of the $222 million appropriation that the Fund received in 1982. If the Fund were profitable, there would be no need for additional federal monies. Nor is the appropriation a useful assessment of the Fund's cost to the government because, while $105 million of the appropriation was for debt reduction, $86 million was for authority to borrow from the Treasury. New borrowing authority is not a useful measure of resources consumed by this activity. Finally, the most commonly employed credit control device--appropriations limits on loan and guarantee commitments--is only loosely related to actual developments. In 1982, for example, the dollar limit on guarantee commitments by the FHA Fund was set at $40 billion, a ceiling more than $20 billion above the actual level of commitments extended.

None of the current budget displays for the FHA Fund indicate the costs that its current and past activity will impose on resources of the U.S. government and, ultimately, on taxpayers. In this respect, the Fund is typical of revolving funds and government credit institutions.

FARMERS HOME ADMINISTRATION

The FmHA is a financial intermediary providing development funds to small towns (population up to 10,000 in most cases but occasionally up to 50,000) and country areas. As such, it provides an annual flow of capital--about $8 billion in 1982--for single- and multi-family housing, farms, private enterprise, and community facilities in rural regions by obtaining funds from the FFB through CBO "sales" and relending on below-market terms. Farmers Home lending is limited in most cases to those who cannot obtain credit elsewhere on "reasonable" terms. Individuals who borrow from FmHA often tend to be young, low-equity families who are buying their first home or attempting to start a farm or small business. The agency also lends to finance recoveries from natural and economic disasters such as drought; to improve or to purchase housing for the low-income elderly; to construct multi-family rental units; and to develop and improve water and waste disposal systems. At the end of fiscal year 1982, FmHA was servicing a $56 billion loan portfolio. Farmers Home also administers several small grant and loan guarantee programs.

FmHA loans are made from three revolving funds specializing in housing, farm, and community facility loans, respectively. These are the Rural Housing Insurance Fund (RHIF), the Agricultural Credit Insurance Fund (ACIF), and the Rural Development Insurance Fund (RDIF).

Rural Housing Insurance Fund

Two loan programs dominate activity in the housing fund: Section 502 individual home ownership loans to low- and moderate-income families ($20.5 billion of the $25.2 billion total RHIF outstanding loans at year-end 1982) and Section 515 loans to provide rental housing for low- and moderate-income families and for those aged 62 and older ($4.4 billion). 2/

The P & F statement and balance sheet for RHIF (both shown in Table 6) indicate the large extent to which the Fund uses sales of certificates of beneficial ownership to the Federal Financing Bank as a financing measure. Even though RHIF entered into obligations to lend $3.5 billion in fiscal year 1982 and, in fact, had loans outstanding of $25.0 billion at year-end, the asset statement shows loan holdings of only $0.4 billion. The "missing" loans are found in the note to the balance sheet--contingent liability for guaranteed loans, $25.0 billion ($23.0 billion of which is to the FFB).

These loans are transferred from the balance sheet by "sale" of guaranteed participations (CBOs) in these loans to the FFB. This is a remnant of the FmHA practice of selling guaranteed CBOs to private investors before the FFB was established in 1973. If the RHIF transaction were treated as what it seems to be--borrowing from the FFB--the transaction would not reduce FmHA loans. The Administration and others have proposed that CBO "sales" to the FFB be so treated. 3/ When CBOs or the underlying loans mature, RHIF repurchases these from the FFB; hence, the $2.5 billion CBO purchase obligation shown for 1982.

Losses sustained by RHIF have been financed by appropriations and by borrowing from Treasury ($2.2 billion outstanding at year-end 1982). These losses accumulate in the government equity account until these are paid for with appropriated funds. However, the large negative net worth of the Fund poses no threat to its continued operation so long as the Fund retains its permanent, indefinite borrowing authority. In fiscal year 1982, RHIF received an appropriation of $658 million as reimbursement for losses and subsidies and additional borrowing authority of $1.3 billion. This was sufficient to cover the obligated deficit of almost $2 billion. Net cash outlays totaled $1.2 billion.

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2. For further details, see Congressional Budget Office, Rural Housing Programs: Long-Term Costs and Their Treatment in the Federal Budget (June 1982)

3. Budget of the United States Government, Fiscal Year 1984, Appendix, I-E58. Congressional Budget Office, The Federal Financing Bank and the Budgetary Treatment of Federal Credit Activities (January 1982). See also bills introduced by Senator Trible, S.2213, and Congressman Gradison, H.R.4629.

TABLE 6. RURAL HOUSING INSURANCE FUND

A. Program and Financing Statement, Fiscal Years 1982 and 1983
(In millions of dollars)

Obligations	1982	1983	Financing	1982	1983
Loans	3,580	2,951	Repayments	905	2,473
CBO purchases	2,525	2,718	Interest received	1,167	
Interest on CBOs	2,516	2,878	Sale of CBOs	5,170	4,440
Other expenses	645	470	Other receipts	50	9
	9,266	9,017		7,292	6,922

	1982	1983
Net obligations deficit:	1,974	2,095
Net cash outlay:	1,246	1,828

B. Balance Sheet, End of Fiscal Year
(In millions of dollars)

Assets	1982	1983	Liabilities and Government Equity	1982	1983
Balance with Treasury	267	27	Debt to Treasury	2,241	2,621
Accounts receivable	240	255	Accounts payable	1,267	1,360
Loans	432	325	Other liabilities	282	357
Real property	300	379	Government equity	-2,550	-3,351
	1,239	987		1,240	987

	1982	1983
Contingent liability for guarantees outstanding:	24,986	26,671
Portion of guarantees outstanding to FFB:	23,921	25,676

SOURCE: Budget of the United States Government, Appendix, Fiscal Years 1984 and 1985.

Agricultural Credit Insurance Fund

The major FmHA loan programs financed through the Agricultural Credit Insurance Fund are farm and nonfarm enterprise ownership loans ($5.8 billion of the total $24.5 billion total ACIF outstanding loans at the end of 1982), farm operating loans ($2.7 billion), and disaster and economic emergency loans ($15.3 billion). The P & F statement and balance sheet for this Fund (both shown in Table 7) correctly suggest a considerable similarity between the operations of the ACIF and the RHIF: both make extensive use of CBO sales to the FFB, cover losses principally through Treasury borrowing, and have accumulated a substantial excess of liabilities over assets. Both the farm ownership and the egg layer loans cited in the text boxes on the following pages were financed by the ACIF.

In fiscal year 1982, the ACIF received a $464 million appropriation for reimbursement of losses and subsidies and additional borrowing authority of $175 million. Commitments for farm ownership and farm operating loans were limited by appropriations act language to no more than $825 million and $1,375 million, respectively. No limit was set for emergency loans. Actual commitments for real estate and operating loans were $662 million and $1,251 million.

Rural Development Insurance Fund

The Rural Development Insurance Fund, the smallest of the three FmHA revolving funds, had outstanding loans of $6.6 billion at the end of 1982. Water and waste disposal loans to small communities accounted for 80 percent of this loan volume. The remainder consists almost entirely of loans for other community facilities including clinics, public use buildings, and firehouses. Typical loan terms are 40 years at 5 percent interest. RDIF also includes a business and industry loan guarantee program under which businesses in small towns may borrow from a commercial lender with a 90 percent FmHA guarantee. When a guaranteed borrower defaults, FmHA purchases the loan from the lender and attempts to restore the loan to earning status. At year-end 1982, the Fund held $287 million in loans acquired through the guarantee program (see Table 8B).

As is true with the other two FmHA funds, interest received on the loan portfolio is less than interest paid on CBOs by the RDIF. This cost, plus defaults and other expenses, has necessitated borrowing by the Fund from Treasury of slightly more than $1 billion. In 1982, the Fund received an appropriation of $180 million but the government's equity position remains near minus $1 billion. Though the net obligation balance was in surplus for 1982 (obligations incurred by others to the Fund exceeded those of the Fund to others), the RDIF liquidated prior obligations at such a rate that net cash outlays were $412 million.

RURAL HOUSING FOR AGED

As agriculture has become more mechanized, farm employment has declined in many regions of the United States. Young people, consequently, have tended to move away from some rural areas, leaving behind a population disproportionately elderly. The changing population has reduced the demand for existing farm dwellings and increased demand for smaller, low-maintenance residential units for the retired in the towns. But because the resale value of rural dwellings has declined and the price of desirable, in-town units has increased, rental units close to shopping and medical care are very expensive compared to the means of many rural retirees.

In one Virginia town, FmHA financed the construction of Bluemont Center, a 33-unit, single-story facility of one-bedroom, independent living apartments for retirees that opened in 1981. This Section 515 rural rental housing unit is now full and has a waiting list of about 40 individuals and couples. The excess demand arises, in part, because Bluemont Center is attractive, clean, well-managed, close to shopping, and a social center for many elderly in the county.

It is also subsidized twice over. First, the facility, built by a limited partnership, is financed by a 50-year loan for $1.5 million at an effective interest rate of 1 percent per year. Assuming a market interest rate of 13 percent, $1.5 million for 50 years at 1 percent is equivalent to a one-time grant of $1.4 million. (The exact precent value of the grant-equivalent depends on the timing of principal repayments. Second, FmHA pays monthly rent supplements to the owners of Bluemont Center so that no tenant pays rent of more than 25 percent of income. Many tenants of Bluemont Center pay rents of less than $100 per month for units estimated to have a market value of more than three times that amount.

Bluemont Center is an example of the type of multi-unit housing financed by the Rural Housing Insurance Fund. In recent years, the Congress has imposed limits have been imposed by the Congress on the rent supplement program and this has severely restricted multi-family activity in the Fund.

YOUNG FARMERS

Mr. K, a farmer, is 29 years old, married, with two children. For eight years, he and his family lived in a mobile home and worked on rented farm land. In 1981, FmHA drew up a long-term farm and home plan with Mr. K under which he later borrowed $62,000 to purchase 60 acres of farmland, $35,800 to build a house on the land and $95,000 to construct an egg layer building near the house. The house, financed by RHIF, will relieve the family's crowded living conditions and permit Mrs. K to tend the egg operation without leaving the children in the care of others. FmHA loaned 100 percent of the contract price of the house for 33 years at 7 percent. Private financial institutions were charging 13 percent interest and requiring a down payment of at least 5 percent when the home loan was made. The farmland purchase was financed through ACIF with a 20-year, 13-1/4 percent interest loan and the egg layer with a 30-year, 10-3/4 percent loan. In neither case was a down payment required.

The FmHA revolving funds are comparable to the FHA Fund in completeness of activity covered by the budget data and also in terms of their failure to convey the costs to government of these activities. Farmers Home uses CBO sales to move on-budget direct loans off-budget--a practice not employed by FHA. In neither the FHA nor the FmHA accounts is there a measure of the subsidy cost of current activity. Aggregating across Farmers Home Administration revolving funds, FmHA committed to lend $8.4 billion, recorded outlays of $3 billion, and received $1.5 billion in authority to borrow and $1.3 billion in appropriated funds in 1982. But none of these figures is indicative of spending-equivalent cost.

SMALL BUSINESS ADMINISTRATION

The SBA attempts to promote the interests of small business through technical assistance, management training, aid in obtaining government contracts, and--most important--subsidized loans and investments. SBA also administers a disaster loan program for the victims of physical--mostly flood--disasters. Most of the agency's credit programs are financed by two revolving funds: the Business Loan and Investment Fund and the Disaster Loan Fund.

TABLE 7. AGRICULTURAL CREDIT INSURANCE FUND

A. Program and Financing Statement, Fiscal Years 1982 and 1983
(In millions of dollars)

Obligations	1982	1983	Financing	1982	1983
Loans	4,223	3,002	Repayments	3,477	4,775
CBO purchases	4,398	3,465	Interest received	1,940	
Interest on CBOs	2,614	2,787	Sale of CBOs	5,380	4,160
Interest on borrowing	177	249	Other receipts	25	19
Other expenses	127	332		10,822	8,954
	11,539	9,835			

	1982	1983
Net obligations deficit:	717	880
Net cash outlay:	1,370	1,408

B. Balance Sheet, End of Fiscal Year
(In millions of dollars)

Assets	1982	1983	Liabilities and Government Equity	1982	1983
Accounts receivable	2,012	2,600	Accounts payable	1,185	1,240
Other assets	345	456	Debt to Treasury	2,375	2,925
	3,146	3,332	Other liabilities	428	434
			Government equity	-842	-1,267
				3,146	3,332

	1982	1983
Contingent liability for guarantees outstanding:	24,494	25,089
Portion of guarantees outstanding to FFB:	23,412	24,107

SOURCE: Budget of the United States Government, Appendix, Fiscal Years 1984 and 1985.

WATER SYSTEM DEVELOPMENT

Crab Point is a small town adjacent to a national wildlife refuge and miles of federally owned beaches. Because of this proximity, Crab Point, until the late 1960s a very small community of watermen and their families, has grown as a summer tourism center. During seasonal peaks, the population of the town may rise from 2,000 to five times this number or more.

These surges in population severely strain the town's water supply system. By 1976, water shortages were beginning to limit the area's growth potential and create an inconvenience for both permanent and temporary residents. Accordingly, in 1977, the town completed a new well and filter plant financed with a $301,000, 5 percent, 40-year loan from the Rural Development Insurance Fund of Farmers Home. Continued growth in demands on the water system, however, forced the town to add three new wells and a 16-inch waterline from the well site (5.5 miles away) in 1982. This stage of the water project was also financed with an FmHA 5 percent, 40-year loan for $1.5 million. The water system now appears capable of meeting anticipated demand.

If the town had been unable to borrow from FmHA at 5 percent, if would have had to pay more than 10 percent on revenue bonds sold in the municipals markets.

Business Loan and Investment Fund

The SBA's major business credit assistance, the so-called Section 7(a) program, is financed through BLIF and consists of a relatively small direct loan program (less than $200 million advanced in 1982) and a larger loan guarantee program (more than $2 billion in commitments issued in 1982). Under the latter, 90 percent of a loan made by a commercial institution to a qualified small business may be guaranteed. When guaranteed loan repayments are delinquent by more than 60 days, SBA must "purchase" the guaranteed portion from the lender. SBA charges a premium of 1 percent of the guaranteed amount, but the income covers only a small fraction of losses from defaults. An SBA study of Section 7(a) guarantees estimated that a fee of 8.3 percent of the guaranteed sum, paid when the loan was issued, would be required to put the program on an actuarially sound,

TABLE 8. RURAL DEVELOPMENT INSURANCE FUND

A. Program and Financing Statement, Fiscal Years 1982 and 1983
(In millions of dollars)

Obligations	1982	1983	Financing	1982	1983
Loans	646	730	Repayments	137	553
CBO purchases	516	514	Interest received	357	
Interest on CBOs	689	792	Sale of CBOs	1,535	1,010
Interest on borrowing	102	115	Other receipts	3	
Other expenses	63	154		2,032	1,563
	2,015	2,305			

	1982	1983
Net obligations deficit (surplus):	(17)	742
Net cash outlay:	412	575

B. Balance Sheet, End of Fiscal Year
(In millions of dollars)

Assets	1982	1983	Liabilities and Government Equity	1982	1983
Accounts receivable	201	232	Accounts payable	387	416
Loans made by Fund	152	105	Debt to Treasury	1,045	1,275
Loans (guaranteed and purchased from lender)	287	349	Other liabilities	237	238
Other assets	53	45	Government equity	-975	-1,198
	694	731		694	731

	1982	1983
Contingent liability for guarantees outstanding:	9,339	9,806
Portion of guarantees outstanding to FFB:	6,403	6,908

SOURCE: Budget of the United States Government, Appendix, Fiscal Years 1984 and 1985.

DAY-CARE CENTER

Mr. S who lives in a southern city received an SBA Section 7(a) direct loan for $127,000 in 1980 to expand his day-care business, which began operating in 1978 in a three-bedroom house on one acre of land. Only 23 children attended the center initially, but the demand for day-care services in the area grew, and Mr. S and his wife decided to build a structure to accommodate more children. They also bought the two acres adjoining their property to allow for the expansion. After having been turned down by several local banks, they applied for a loan at the SBA. They received a 15-year loan at 8-1/2 percent interest.

The current facility houses 105 children, ages 2-12, and operates from 6:30 a.m. to 6:30 p.m. The basic rate per child is $41 per week. The center provides transportation to and from the local elementary school. Fourteen supervisors, one cook, and one cleaning person are employed. Mr. & Mrs. S plan to double their enrollment by the end of 1984. However, their application for an SBA guaranteed loan was recently turned down by a commercial bank on the grounds that their firm is insufficiently capitalized.

unsubsidized basis. 4/ In recent years, the direct loan program, which charges borrowers the Treasury's cost of funds plus a fractional mark-up, has suffered a higher default rate than the guarantee program. This probably reflects the 10 percent loss exposure of commercial lenders who are, therefore, more selective in granting SBA guaranteed loans than is SBA itself. But both guaranteed and direct loan borrowers are required to show that credit is unavailable to them without SBA assistance.

The $178 million obligation for loans and investments shown in Table 9A includes $115 million in direct loans for small business, $35 million for businesses owned by the handicapped or the economically disadvantaged, and $27 million for the purchase of debentures and preferred securities issued by minority enterprise small business investment companies (MESBICs). MESBICs use these funds for direct investments (equity and

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4. Financial Status of the SBA 7(a) Guaranty Program: Budgeting, Effects of the Economy on Losses and Alternatives to the Present Program, prepared by J. Ramon Estefania, Chief Actuary, SBA, in cooperation with Ann Arbor Actuaries, Inc. (1980).

TABLE 9. BUSINESS LOAN AND INVESTMENT FUND

A. Program and Financing Statement, Fiscal Years 1982 and 1983
(In millions of dollars)

Obligations	1982	1983	Financing	1982	1983
Loans and investments	178	831	Loan repayments	233	537
Default payments on guarantees	505		Interest earned	256	
Interest expense to Treasury	148	164	Other income	55	13
Other expenses	144	158		544	550
	975	1,153			

	1982	1983
Net obligations deficit:	430	603
Net cash outlay:	704	592

B. Balance Sheet, End of Fiscal Years
(In millions of dollars)

Assets	1982	1983	Liabilities and Government Equity	1982	1983
Loans	1,949	2,076	Liabilities	261	288
Other assets	714	976	Government equity	2,401	2,764
	2,662	3,052		2,662	3,052

	1982	1983
Contingent liability for guarantees outstanding:	8,760	8,330
Portion of guarantees to FFB:	825	1,008

SOURCE: Budget of the United States Government, Appendix, Fiscal Years 1984 and 1985.

long-term debt) in minority enterprises. In addition, SBA guarantees the payment of principal and interest on debentures issued by small business investment companies (SBICs), which permits the sale of these notes to the Federal Financing Bank. In 1982, direct loans made by the FFB and guaranteed by BLIF increased (net of repayments) more than $150 million.

The relative importance of guarantees in BLIF-financed activity is suggested by Table 9A in that obligations arising from guaranteed loan defaults are almost three times as large as direct loans and investments. The interest payment to Treasury of $148 million requires some explanation inasmuch as BLIF does not have significant Treasury debt outstanding. SBA's authorizing legislation requires BLIF to pay interest to Treasury on BLIF loans outstanding and for these interest payments to be based on the Treasury's cost of borrowing at comparable maturities. What this amounts to is an interest payment on government financing similar to a (below-market) return-on-equity investment. Viewed in this way, Treasury's interest income of $148 million provided funding for almost half of BLIF's $326 million appropriation in 1982. The net obligations deficit of $430 million translates into a much larger cash outlay for 1982 because the Fund liquidated its own obligations much faster than it collected its receivables.

Disaster Loan Fund

The Disaster Loan Fund may be distinguished from BLIF in terms of purpose (to enable property owners, including individuals and small businesses to recover from physical disasters), financial instrument (almost exclusively direct loans rather than guarantees), and rate of interest charged (one-half the prime rate to a maximum of 8 percent for applicants without credit elsewhere). 5/ The funds are similar in that both pay interest to Treasury on Fund loans outstanding.

Some of these differences and similarities may be confirmed in Table 10. Physical disaster loans are the only type of loan now made in significant quantities by the Fund; contingent liabilities associated with guarantees issued are trivial; and the reported government equity position in the Fund is quite large.

The budget data for SBA's BLIF and disaster funds, thus, are quite straightforward and--relative to other credit accounts--remarkable only because of:

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5. Those with credit available elsewhere pay a higher rate.

FLOODING

Mr. G who lives in a small college town, received an SBA disaster loan of $7,200 in 1978 so that he could replace the furniture and furnishings destroyed when his basement apartment was flooded with 54 inches of water. The apartment complex in which he lived is situated beside a major river. His apartment was one of 82 units in the 475-unit complex to be lost. The flooding occurred despite the presence of a restraining wall and operating flood pumps. Mr. G received a ten-year loan at 1 percent interest. The payments are $66 per month.

After the flood, the owners moved Mr. G to a third-floor apartment, where he remained for approximately seven months. During this time, he received counseling from SBA representatives who helped him reschedule some of his obligations. At the end of the seven months, he purchased a detached house several miles from the river.

- The absence of CBO sales, even in the Disaster Loan Fund where the direct loan portfolio is large; and

- The treatment of Treasury debt as quasi-equity financing. The effect of this treatment (based on the statutory requirement that SBA pay interest to Treasury on SBA loans outstanding) is to understate SBA indebtedness. This practice does not, however, lead to any understatement of SBA loan activity.

RURAL ELECTRIFICATION ADMINISTRATION

As a part of the Department of Agriculture, REA promotes investment in electricity (and to a smaller extent telephone) systems operating in rural and suburban areas. It does so by reducing the cost of funding to cooperatives and other nonprofit organizations through the provision of direct loans and loan guarantees. Direct loans (35-year maturity and 5

TABLE 10. SBA DISASTER LOAN FUND

A. Program and Financing Statement, Fiscal Years 1982 and 1983
(In millions of dollars)

Obligations	1982	1983	Financing	1982	1983
Physical disaster loans	237	117	Repayments	604	857
Interest expense to Treasury	289	236	Interest received	263	
Other	52	28	Other	6	1
	578	381		873	858

	1982	1983
Net obligations deficit (surplus):	(295)	(477)
Net cash outlay (surplus):	(302)	(430)

B. Balance Sheet, End of Fiscal Year
(In millions of dollars)

Assets	1982	1983	Liabilities and Government Equity	1982	1983
Loans	5,929	5,363	Debt to Treasury	325	325
Fund balance with Treasury	919	993	Accounts payable	264	220
Other	197	208	Other liabilities	28	-300
	7,045	6,564	Government equity	6,428	6,319
				7,045	6,564

	1982	1983
Contingent liability for guarantees outstanding:	10	8

SOURCE: Budget of the United States Government, Appendix, Fiscal Years 1984 and 1985.

32-174 O - 84 - 4

DROUGHT

The Crews Farm Equipment Company has received four disaster loans from the SBA. The family-owned company consists of two businesses, one that sells and services farm equipment and the other, a farm that produces corn, soybeans, wheat, and barley. The total indebtedness to SBA is $295,000 with interest rates ranging from 3 to 8-1/2 percent at terms of 7 to 15 years.

In the last several years, increasingly dry summers followed by several weeks of rain in the fall have significantly reduced crop yields in the area where the company is located. The smaller harvests have meant lost income to the Crews farm and to neighboring farms that buy and have their farm equipment serviced by the Farm Equipment Company. The company has experienced operating losses in the last several years.

Since receiving the first loans in 1977, one for the farm for $15,000 at 3 percent interest and one for the business for $25,000 at 6-5/8 percent, representatives of the company have met many times with local SBA representatives to work out repayment plans. On a number of occasions, SBA has granted forbearance allowing delayed payments and accepting payment of interest alone. The owners of the company, however, are uncertain when the company will earn a profit that would enable the repayment of the SBA debt.

percent interest rate) account for about 15 percent of REA credit activity. 6/ The remaining 85 percent consists of REA guarantees of system loans, most of which are made by the Federal Financing Bank (35-year maturity, interest equal to Treasury's borrowing rate, plus one-eighth of a percentage point).

Direct loans are processed and insured by REA but funds are advanced by the off-budget Rural Electric and Telephone Revolving Fund. As shown in Table 11, the Fund obligated $1.1 billion in electric and telephone loans in 1982. The Fund finances its lending from repayments of interest and principal and sales of CBOs to the FFB. In 1982, CBO sales financed just under one-half of Fund advances.

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6. Special hardship cases may qualify for 2 percent interest loans.

TABLE 11. RURAL ELECTRIFICATION AND TELEPHONE REVOLVING FUND

A. Program and Financing Statement, Fiscal Years 1982 and 1983
(In millions of dollars)

Obligations	1982	1983	Financing	1982	1983
Interest expense on CBOs	213	254	Loan repayments	389	750
Electrification loans	850	850	Interest income	327	
Telephone loans	249	251	Sale of CBOs	528	344
Other	8			1,244	1,094
	1,321	1,355			

	1982	1983
Net obligations deficit:	76	261
Net cash outlay (surplus):	(0.2)	(2)

B. Balance Sheet, End of Fiscal Year
(In millions of dollars)

Assets	1982	1983	Liabilities and Government Equity	1982	1983
Loans	9,745	9,848	Debt to Treasury	7,865	7,865
Other assets	412	425	Other liabilities	1	
	10,157	10,273	Government equity	2,292	2,408
				10,157	10,273

	1982	1983
Contingent liability for guarantees outstanding:	20,125	23,268
Portion of guarantees to FFB:	19,404	22,406

SOURCE: Budget of the United States Government, Appendix, Fiscal Years 1984 and 1985.

COOPERATIVE POWER AND LIGHT

Cooperative Power and Light is a rural electric cooperative serving 6,100 people. The remoteness of its service area contributes to frequent outages, especially during severe weather. Yet, at 4.66 cents per kilowatt hour plus a $14 facility charge, electricity rates are below the 1983 national average which exceeded 7 cents per kilowatt hour for residential power.

The Co-op has borrowed $10 million from REA since it began operations in 1938. It's outstanding balance with the agency is now $8.4 million. The interest rate on this debt is 2 percent for $1.8 million and 5 percent on the rest. Cooperative Power and Light also owes $2 million to the Cooperative Finance Corporation (see Chapter V).

On December 23, 1982, the Co-op filed for bankruptcy under Chapter 11 to protect itself from obligations to Washington Public Power Supply System (WPPSS) under power purchasing agreements signed in the 1970s. Under the terms of these agreements, Co-op and 87 other systems had promised to pay WPPSS for the cost of two nuclear power plants (Units 4 and 5) whether or not the plants were ever completed and operated. In the early 1980s, as an anticipated shortage of power failed to materialize, construction of Units 4 and 5--on which over $2 billion had already been spent--was terminated. In December 1982, WPPSS billed Co-op for its first monthly installment on its WPPSS 4 and 5 agreement, $170,000. The Co-op filed for bankruptcy.

On June 5, 1983, the Washington State Supreme Court ruled that the utilities had not legally entered into the purchase agreements with WPPSS and, therefore, were not responsible for payments. Relieved of this obligation, Co-op came out of bankruptcy on December 22, 1983.

Loan guarantee applications, principally to finance generation and transmission--as opposed to distribution--facilities, are also processed by REA and, when granted, are advanced by the FFB. In 1982, loans made by the FFB and guaranteed by RETRF totaled $4 billion. As shown in Table 11, RETRF has a contingent liability on guarantees to FFB of $19.4 billion, of

which $16.3 billion is for guaranteed direct loans and $3.1 billion is for CBOs. To date no defaults have occurred on REA guaranteed loans.

When the RETRF was created in 1973, the Fund consisted of about $8 billion in outstanding REA loans and cash. (Before this, REA had been financed through other means including the Farmers Home RDIF.) Under the terms of the authorizing legislation, the Fund was given the interest on these outstanding loans but was scheduled to begin repayment of principal to Treasury beginning in 1993. This is the debt to Treasury shown in Table 11B. Because the RETRF has had these monies interest-free, and because it has been able to borrow additional amounts through the sale of CBOs, no additional appropriations have been required to finance the Fund. This has led the rural electric cooperatives to conclude that RETRF "eliminat(ed) the use of tax revenues as a funding source for REA loans" and "not one dime from taxpayers has been used to fund new REA loans or to defray the interest expense on the CBO borrowings." 7/ To accept this view, interest earned on REA loans must be categorized as fundamentally different from other government revenues including user fees and taxes.

Moreover, RETRF is faced with an imminent financing squeeze. Because the Fund has loaned more than it has received in interest and principal repayments, it has had to obtain funds through CBO placements with the FFB at the Treasury's cost of money plus an eighth of a percent. Thus, the Fund has been lending at less than 5 percent and borrowing at a rate about double that. Its average cost of money (taking into account the $7.9 billion at zero interest), therefore, is approaching its average rate of return on loans. As the proportion of funds obtained through CBOs increases, the average cost of funds rises. When the average cost of money exceeds the average rate of return on loans, the Fund will face a negative cash flow. It can avoid this "crossover," now projected to occur in 1988, by slowing its pace of lending (and thus reducing the growth in CBO interest payments). Raising the rate on Fund loans would slow down loan growth and raise the average rate earned. To do so would require a revision in the REA Act.

The repayment of the $7.9 billion to Treasury, scheduled to begin in 1993, is also perceived by some of the Fund's borrowers as a threat to the "integrity" of the Fund. Legislation has been introduced (for example, S. 1300 and H.R. 3050) which would forgive this debt. This legislation would also permit the administrator to adjust RETRF interest rates on new loans from time to time and subordinate the government's lien position in the event of default. The legislation also proposes that interest on CBOs be adjusted whenever interest rates drop by 1 percent or more. This one-way,

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7. National Rural Electric Cooperative Association, The REA Revolving Fund, Briefing Paper (April 1982).

downward-only, penalty-free refinancing would benefit the Fund at the expense of Treasury, which does not have a similar refinancing option with investors in Treasury debt.

Congressional control of the RETRF has been exercised mainly through appropriations legislation. In recent years, these acts have specified not only ceilings for electric direct loans, telephone direct loans, and guarantees, but also minimum lending levels. In 1982, REA achieved the minimum specified quantity of loans for electrification but fell slightly short of the required amount for telephones. The guarantee level, however, was about $1 billion short of the mandated minimum. These shortfalls are not considered to constitute nonfeasance on the part of REA, provided that the administrator can show that they were beyond the control of the agency.

THE EXPORT-IMPORT BANK OF THE UNITED STATES

Eximbank, an independent government agency, attempts to increase U.S. exports by reducing financing costs for foreign buyers of U.S. goods. 8/ It does so through a combination of direct, low-interest loans to foreign importers, guarantees of bank export financing, and insurance of foreign receivables held by American firms.

The Bank offers fixed-rate loans for terms of five to ten years or more in amounts up to 75 percent of the purchase price. In 1982, on loans with a maturity of more than five years its quoted rates were: relatively poor countries, 11 percent; intermediate countries, 12 percent; relatively rich countries, 12 percent. Eximbank also charges an application fee of 2 percent of the loaned amount and a fee for loan amounts approved but undisbursed. The Bank often agrees to accept later repayment of principal so that supplementary, private financers can be repaid first. Eximbank finances its direct loan program by borrowing from the FFB at the Treasury's cost of money plus one-eighth of a percent. The average cost of funds on FFB borrowing by Eximbank was 13.4 percent in 1982. This was higher than the rate earned on loans disbursed in 1982.

The Bank also guarantees intermediate term (six months to five years) bank loans to foreign buyers. In doing so, Eximbank accepts 100 percent of the political risk (for example, war, expropriation) and up to 85 percent of the commercial risk. With the Foreign Credit Insurance Association (FCIA)--a group of about 50 private, casualty insurers--the Bank also participates in writing insurance against political and commercial risk on

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8. It does not, though its name may suggest otherwise, assist U.S. importers.

AIRCRAFT EXPORTS

Singapore Airlines recently ordered 16 new jet aircraft: 10 from Boeing and 6 from the European consortium, Airbus Industrie. The Boeing order for six 747-300s and four 757s is worth $1 billion. Airbus will provide six A-310s for $420 million.

The Export-Import Bank is providing a direct loan to Singapore Airlines for 75 percent, or $138 million, of the Boeing 757s' cost. The loan bears an interest rate of 10 percent, plus application and commitment fees. In addition, Boeing is lending Singapore Airlines $18.4 million, or 10 percent of the purchase price. Repayment will begin June 30, 1985, and will be made in 20 equal semiannual installments. The first two and a part of the third will be applied to repayment of the Boeing credit, with the remaining installments applied to repayment of Eximbank. The government of the Republic of Singapore has unconditionally guaranteed repayment of both loans. Ordinarily, Eximbank would have offered financing at 12 percent but in this case Airbus financing was available at 10 percent. Eximbank was forced to reduce the rate to stay competitive.

Eximbank also offered to assist with financing the 747s but Singapore Airlines refused the offer. Instead, it will fund the purchase through "alternative means."

short-term (up to 180 days) and intermediate-term foreign receivables held by U.S. exporters. It shares in the premium income from this insurance.

As indicated in Table 12, the direct lending program is accounted for in a straightforward manner: all new obligations to lend are shown in the P & F statement, and the cumulative stock of outstanding loans is shown on the balance sheet. Similarly, the FFB debt used to finance these loans appears as a liability. In this respect, a contrast between the Bank and the Farmers Home and REA revolving funds is evident: whereas these agencies all obtain financing from the FFB on the same terms, Eximbank does not treat its borrowing as a CBO asset sale and, consequently, Eximbank lending and the associated outlays remain on-budget.

TABLE 12. EXPORT-IMPORT BANK OF THE UNITED STATES

A. Program and Financing Statement, Fiscal Years 1982 and 1983
(In millions of dollars)

Obligations	1982	1983	Financing	1982	1983
Loans	3,554	861	Loans repaid	1,731	3,387
Interest to FFB	1,451	1,615	Interest revenue	1,361	
Other obligations	49	36	Other income including fees and premiums (net)	16	
	5,054	2,512		3,108	3,387

	1982	1983
Net obligations deficit (surplus):	1,946	(875)
Net cash outlays:	1,173	578

B. Balance Sheet, End of Fiscal Year
(In millions of dollars)

Assets	1982	1983	Liabilities and Government Equity	1982	1983
Loans	16,665	16,983	Debt to FFB	13,954	14,676
Other assets	620	785	Other liabilities	292	300
	17,285	17,768	Government equity	3,039	2,792
				17,285	17,768

	1982	1983
Contingent liability for guarantees outstanding:	6,069	6,675
Contingent liability for insurance in force:	6,084	7,848

SOURCE: Budget of the United States Government, Appendix, Fiscal Years 1984 and 1985.

The Bank's guarantee and insurance activities are off-budget except for the fees and premiums these activities generate, which appear as a financing item net of claims paid. The note to the balance sheet indicates that the Bank's contingent liability on these guarantees and insurance now totals more than $12 billion.

Because of an initial capitalization of $1 billion provided by the U.S. Treasury in 1945 and years of a favorable spread between its cost of money and loan rates, the Bank has not required additional appropriations. At the end of 1982, the government's equity position in the Bank totaled $3 billion. Though losses are projected to continue for the next several years, especially in light of the Bank's financial exposure in some of the troubled economies of the world (Brazil, $1.7 billion; Mexico, $2.8 billion; Philippines, $1 billion), the Bank does not appear in imminent danger of a negative net worth. And, even in such a contingency, Eximbank's operations would not be restricted under current practice, so long as it continued to receive Congressional authority to borrow. 9/ In 1982, the Bank received $3.3 billion in indefinite borrowing authority. Appropriations acts have also imposed activity ceilings on Eximbank. In 1982, these were well above actual activity levels (direct loan obligations ceiling, $4.4 billion; guarantees ceiling, $9.2 billion).

OVERSEAS PRIVATE INVESTMENT CORPORATION

OPIC, created by the Foreign Assistance Act of 1969, encourages U.S. investment in friendly, developing countries by insuring U.S. assets in those countries against loss due to expropriation, inconvertibility of currency, war, or other political risk. While its principal activity is writing insurance--on real rather than financial assets--which usually results in its exclusion from credit agency listings, OPIC also makes direct loans and guarantees loans to foreign investment projects in which U.S. firms have a substantial interest.

The similarity of OPIC to private casualty insurers and the distribution of its activity is suggested by Table 13. At the end of 1982, OPIC had outstanding: $34 million in loans; $160 million in guarantees; and $3,100 million in maximum potential liability. The principal asset of the Corporation, appropriately, is $669 million in liquid U.S. government securities.

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9. And so long as the Bank does not violate the limit established in its authorizing act of $40 billion in commitments where direct loans are counted at 100 percent of their face value and loans and guarantees at 25 percent of the Bank's liability.

FOREIGN OIL EXPLORATION

Tenneco Oil Exploration & Production, a subsidiary of Tenneco, Inc., has purchased political risk insurance coverage through the Overseas Private Investment Corporation for its petroleum exploration and production operations in Tunisia. Most of Tenneco's activities are located in or near Sfax, about 150 miles south of Tunis. The recent food price riots occurring there have made Tenneco's purchase of insurance coverage seem increasingly important. The insurance provided by OPIC primarily covers war, revolution, insurrection, civil strife, and interference with operations. Tenneco chose not to carry expropriation and inconvertibility of currency coverage.

Tunisia was one of two countries where Tenneco's petroleum operations were insured for political risk. However, Tenneco recently terminated commercial market coverage for its Colombian operations because the risk covered (expropriation, confiscation, and nationalization) were not great enough to warrant the quoted renewal premiums.

OPIC insurance comprises a combination of coverage for the actual value of current operations and proven reserves and a standby value that allows for any increased coverage necessary as a result of successful drilling or increased investments. Originally Tenneco purchased coverage of $100 million for its operation. Since less oil was found than anticipated, coverage was reduced to $25 million limits, a little over half of which is for proven reserves and equipment in place.

OPIC charges annual premiums for insurance that vary from 0.1 percent to 1.0 percent of the amount at risk depending on the type of coverage, but premiums do not vary across host countries approved for OPIC insurance. (OPIC practice on this point differs from private practice, which is to rate countries as well as the nature of the enterprise for risk. See Chapter V.) The Corporation will insure no more than 90 percent of the asset at risk (plus accrued interest and earnings) but will issue insurance for up to 20 years. OPIC also reinsures some risks with private companies. As shown in Table 13, premium income less premiums paid for shared risk exceeded claim payments by a factor of 13 in 1982. OPIC also charges fees of 1-3/4 to 2-1/2 percent per year for guarantees outstanding. Interest rates on

TABLE 13. OVERSEAS PRIVATE INVESTMENT CORPORATION

A. Program and Financing Statement, Fiscal Years 1982 and 1983
(In millions of dollars)

Obligations	1982	1983	Financing	1982	1983
Insurance claim payments	2	1	Interest on Treasury securities	66	61
Shared-risk premiums paid	5	6	Insurance premiums	31	
Guaranty reserves	28	26	Other interest	6	
Loans	10	10	Loan repayments	3	46
Other	12	13	Guarantee fees	3	
	57	56		109	107

	1982	1983
Net obligations deficit (surplus):	(52)	(51)
Net cash outlays (surplus):	(88)	(101)

B. Balance Sheet, End of Fiscal Year
(In millions of dollars)

Assets	1982	1983	Liabilities and Government Equity	1982	1983
U.S. Government securities	669	763	Liabilities	22	43
Assets acquired in claims settlements	43	48	Government equity	759	842
Loans	28	28		782	885
Cash balance with Treasury	24	32			
Other	17	14			
	782	885			

	1982	1983
Contingent liability for guarantees outstanding	160	177
Maximum potential liability for insurance in force	3,100	3,400

SOURCE: Budget of the United States Government, Appendix, Fiscal Years 1984 and 1985.

direct loans are negotiable, not concessionary. In addition, OPIC loans have maximum maturities of 5 to 12 years, tend to be for less than 50 percent of the project cost, and constitute senior debt such that OPIC receives a first lien on the fixed assets of the borrower.

The Corporation also routinely acquires assets in the settlement of insurance claims. For example, claims for loss due to inconvertibility of foreign currency are settled by exchanging U.S. dollars for the insured's holdings of foreign currency. Similarly, OPIC requires owners to surrender securities evincing claims to expropriated property when claiming compensation. The Corporation also pursues claims against foreign governments whose actions have imposed losses on OPIC.

The government's equity position in the Corporation, which totals more than $750 million, arises from $106 million in appropriated funds and retained (untaxed) earnings. Under current law, OPIC is to repay the U.S. Treasury an amount equal to 25 percent of net income (after transfers to reserves) each year beginning in 1982 until the $106 million has been repaid. The Corporation returned $50 million in 1982 and $56 million in 1983. OPIC's equity position provides reserves for the payment of insurance claims, which together with the Corporation's authority to borrow up to $100 million from the Treasury seems adequate for normal events. However, all commitments, guarantees, and insurance of OPIC constitute obligations of the government of the United States. Thus, should OPIC reserves turn out to be insufficient, the Congress would have to appropriate sufficient funds to pay off bona fide claims.

CHAPTER IV. REMEDIES

Many ways exist of making budget data more informative as to the resources consumed by federal credit assistance. Some promising, not necessarily mutually exclusive possibilities include:

- Correcting the understatement of lending and borrowing that arises from the off-budget status of the FFB. This would accept the current budget concept of credit cost, net cash outflow while making the budget more comprehensive. It would not bring the subsidy cost of credit into the budget. (The "FFB Plan.")

- Adding estimates of the subsidy cost of federal credit assistance to existing budget documents. The government's explicit interest subsidies, administrative costs, expected default losses, and other costs would appear as an attached schedule to Budget Appendix statements, Congressional Budget Office cost estimates, and Appropriations Committee reports. To avoid double counting of credit cost (net cash outflow and spending-equivalent cost), these estimates would not appear in the unified budget totals, but they would be routinely available for budget oversight. (The "Add-on Plan.")

- Retaining existing credit assistance policies but requiring an annual fund appropriation for spending-equivalent costs. The funds would continue to borrow from Treasury or the FFB and relend at subsidized interest rates. But the Congress would have to provide funds explicitly to cover present and expected future costs from current activity. As the more detailed discussion below shows, this reform would put the estimated spending-equivalent cost of federal credit assistance into the unified budget. (The "Appropriations Plan.")

- Requiring all revolving funds and financial corporations to sell their loans to investors and reinsure their assumed risks with private firms. They would continue their public-purpose activities, including originating loans and issuing guarantees and insurance at subsidized rates. As under the Appropriations Plan, the funds would be treated as appropriations-dependent, financially sound intermediaries. This policy would enable the budget to show the subsidy cost and financing requirements of federal credit assistance in a single number. (The "Market Plan.")

PRESENT VALUE AND THE PRICING OF FINANCIAL ASSETS

A sum, say $100, invested at 10 percent per year will grow to $110 in one year and to $121 in two years. Therefore, if 10 percent rates of return are generally available, a promise to pay $121 in two years will have a value today of only $100. Or, in slightly different words, the promised $121 two years hence is discounted at the prevailing market rate of interest (10 percent) to its present value, $100.

A financial asset (other than cash) is a claim on future cash payments. Various types of financial assets--equity shares, bonds, commercial paper, Treasury bills--are traded in organized markets, and their prices may be observed continuously during business hours. Prices of financial assets are affected by the interest rate reflected in the promise to make future payments, market interest rates on alternative investments, the time pattern of promised payments, and the certainty attached to those payments. The price of a financial asset will be higher: the higher the interest rate on the security, the lower market interest rates, the sooner payments are to be made, and the greater the certainty of the payments.

A promise to pay $121 in two years that sold for $100 when market rates were 10 percent would sell for less than $100 if market rates rose, because the security would have to be priced to give the purchaser the same rate of return available on alternative investments. If interest rates rose from 10 percent to 12 percent, for example, the promise to pay $121 in two years would drop in price to $96.45. Why? The $96.45 will grow to $121 in two years at 12 percent interest.

Similarly, a loan deliberately made at a below-market rate will have to be priced to yield the investor a competitive yield. If government lends $100 in exchange for a promise to pay $121 in two years, with market rates of 12 percent, the loan will sell for $96.45. The present value of the subsidy to the borrower is $3.55.

THE FFB PLAN

Loans sold to the FFB through certificates of beneficial ownership (CBOs), and FFB direct loans based on agency guarantees, do not appear on the initiating agency's balance sheet. Direct loans appear on the program and financing statement but are offset by CBO sales financing (see text box). The unified budget, therefore, reflects none of this activity, except by reference to the off-budget deficit. The unified budget understatement could be corrected either by putting the FFB itself on budget or by attributing FFB purchases of CBOs and direct loans to the appropriate program agencies. The latter approach would probably be more informative because it would identify loans by agency fund rather than as FFB lending.

This change would end budget understatement due to off-budget activities of the FFB, but it would not eliminate all understatement nor would it help to put the subsidy cost of credit into the budget. Contingent liabilities on guarantees and insurance, as well as the activities of off-budget agencies such as RETRF (unless redefined by statute as on-budget), would remain unrecorded in the unified budget totals. This reform would not address the issue of the appropriate measure of cost, although it would increase the accuracy of the cash outflow cost measure and contribute to the goal of a comprehensive unified budget. Its principal effect would be to increase unified budget outlays and the unified budget deficit, and to decrease the off-budget deficit dollar-for-dollar with CBO purchases by the FFB. Direct FFB loans originated on the basis of 100 percent guarantees by on-budget agencies would be treated as agency direct loans and would also appear in the unified budget as outlays, adding to the on-budget deficit. (The discussion of the other three plans that follows assumes that the FFB Plan has been adopted and that the unified budget includes all federal credit activity.)

THE ADD-ON PLAN

One approach to improved budgeting for federal credit would be a requirement that all budget documents contain agency estimates of the pure interest, administrative, expected default, and other costs of proposed credit activity levels. Routine production of these estimates with oversight by OMB might facilitate the accumulation of expert knowledge about these costs in agency budget departments and promote better program management. The display of these estimates would affect neither the current unified budget measure of credit cost nor the unified budget outlays and deficit. In fact, under current law, the President could submit a budget that included such schedules for each program in a form similar to the subsidy estimates now included in Special Analysis F of the Budget.

THE FFB PLAN

Accounting for a $100,000 loan financed by a CBO sale to the FFB, under current practice and after changing the treatment of FFB transactions.

Current Practice

Revolving fund makes loan and issues CBO to FFB.

On-Budget Revolving Fund

Program	Financing
Loans: $100,000	CBO sales: $100,000

Loan origination and sale via a CBO transaction washes the activity off the books of the Fund and the agency.

Net obligations: 0
Net cash outlays: 0

Balance Sheet

(No entry)

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FFB shows the CBO and the financing debt to Treasury, but because FFB is off-budget the transaction does not appear in the unified budget.

Off-Budget FFB Balance Sheet

Asset	Liability
CBOs: $100,000	Debt to Treasury: $100,000

Unified Budget

Outlays: 0

Off-Budget

Outlays: $100,000
Deficit: $100,000

With FFB Reform

On-Budget Revolving Fund

Program	Financing
Loans: $100,000	(No entry)

Revolving fund makes loan and issues CBO to FFB, but CBO sale is treated as borrowing, which is not a source of offsetting financing. Net obligations and outlays reflect the full amount of the loan.

Net obligations: $100,000
Net cash outlays: $100,000

Balance Sheet

Loans:	Borrowing from FFB:
$100,000	$100,000

* * * * *

Unified Budget

Unified budget includes amount of the loan as an outlay.

Outlays: $100,000

Deficit: $100,000

THE APPROPRIATIONS PLAN

This proposal would require annual appropriations to each credit program equal to the estimated present value of the subsidy conveyed by current year obligations and commitments. These annual appropriations would be the spending-equivalent costs of credit assistance. This objective might be achieved by centralizing all credit assistance in a single, actuarially sound national loan fund 1/ or by imposing rigorous accounting standards on existing funds.

A National Loan Fund. Such a fund would make loans and issue guarantees on terms authorized by existing statutes and at the direction of present credit agencies. In fact, the fund would possess no discretion about whether to grant a loan or guarantee. It would, however, be responsible for estimating the subsidy conveyed by these transactions. The fund would finance its activities with:

- Full-cost loan and guarantee subsidy fees paid by the directing agencies; and

- Borrowing from the Federal Financing Bank.

For loans, the subsidy recovery fees would equal the difference between the amount advanced and the estimated market value of the loan. For guarantees or insurance, the fees would equal the estimated single-payment premium 2/ that would be charged by a competitive, actuarially sound insurer. The fund would avoid interest rate risk by matching the maturities of its assets and liabilities. Loan applications and other paperwork would continue to be handled by existing agencies but all monies would be disbursed and all risks assumed by the national loan fund.

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1. Proposed by David G. Mathiason, Deputy Associate Director for Budget Review, Office of Management and Budget. One version of the Mathiason plan is described in Committee on Economic Development, Strengthening the Federal Budget Process (June 28, 1983) pp. 49-59.

2. A single-payment insurance premium is one in which the buyer pays a specified sum at the beginning of the life of the contract. A single-payment premium on a multiyear contract is greater than the annual premium but less than the sum of annual premiums because the insurer has the premium to invest over the entire contract period. The amount of premium is determined by converting expected future claims to their present value.

The principal consequence of this change on the budgetary treatment of federal credit assistance is that, by separating the credit subsidy from the financing of the loan, the budget would be able to show the pure subsidy value of the transaction (see text box). This separation becomes even more significant when repayments are considered. Suppose that in the Appropriations Plan example shown in the box, the Loan Fund received repayments of $50,000 or more. While this would reduce the reported outlays of the Fund to zero (or to a negative value if repayments exceeded $50,000), it would have no consequences for the subsidy value of current loan activity charged to the credit agency. Repayments and other pure financing flows are prevented from obscuring the subsidy cost of current credit assistance.

Although not shown in the box, guarantees and insurance commitments would be accounted for on the books of the Loan Fund as equal-valued obligations and financing, and as an outlay equal to the estimated, actuarial fee in the accounts of the credit agency. Similarly, subsequent outlays by the Fund to satisfy claims against guarantees would not affect the budget cost of new credit assistance being provided by agencies.

Rigorous Accounting Standards. Essentially the same budgetary effects could be obtained without creating a new loan fund, by imposing rigorous accounting standards on existing revolving funds. The object of these rules would be to force the revolving funds to recognize estimated net losses resulting from their credit activities and to require an annual appropriation equal to those losses. This objective could be approximated by applying the following rules to the funds:

- Minimum capital requirements. Every fund would be required to meet minimum capital reserve standards. The level of the requirement is less important than the existence of a fixed net worth position at which loss-generating activity must stop. A sufficient requirement would be that all funds must maintain a positive level of equity capital or, if already positive, the amount reported on September 30, 1983.

- Market valuation of assets and liabilities. All claims (firm and contingent) would be valued at estimated market prices. An exchange of unequally valued assets (cash for a low-interest loan note, for example) would result in a charge against net worth equal to the loss on the transaction. The extent of such transactions would be subject to limitation by the capital requirement and the availability of appropriations.

- Matched asset and liability maturities. All funds would be required to avoid interest rate risk by matching the maturities of their assets and liabilities.

THE APPROPRIATIONS PLAN

Accounting for a $100,000 loan whose market value is $50,000, under the current cost concept and after adoption of the Appropriations Plan.

Current Practice
(Cash-Outflow Cost Concept)

As in the FFB reform case, the loan is shown on the books of the revolving fund

On-Budget Revolving Fund

Program	Financing
Loans: $100,000	(No entry)

Net obligations: $100,000
Net cash outlays: $100,000

Balance Sheet

Asset	Liabilities
Loans: $100,000	Debt to Treasury: $100,000

* * * * *

and in unified budget outlays as the amount advanced.

Unified Budget

Outlays:
$100,000

Deficit:
$100,000

With Appropriations Plan

Fund disburses loans at direction of agency. Fund initially finances loan with Treasury borrowing, which is not a source of offsetting financing.

Fund estimates market discount on loan and receives compensating funds from agency.

On-Budget National Loan Fund

Program	Financing
Loans: $100,000	
	Payment of subsidy fees from agency: $ 50,000

Net obligations: $ 50,000
Net cash outlays: $ 50,000

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Agency pays the subsidy value of the loan and records the payment as an outlay. Inasmuch as the agency has no source of financing other than appropriations, the agency will be able to direct the Fund to make such loans only to the extent that it receives appropriations for loan subsidies.

On-Budget Credit Agency

Program	Financing
Credit subsidy paid to Loan Fund $50,000	(No entry)

Net obligations: $50,000
Net cash outlays: $50,000

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Unified budget includes both the agency outlays for loan subsidies and the net outlays of the Loan Fund. The latter is a pure financing transaction equal to the debt of the Loan Fund to Treasury. In agency and Fund accounts, however, the subsidy component is distinguishable from the financing component.

Unified Budget

Outlays: $100,000
Deficit: $100,000

The advantages of the Appropriations Plan include the creation, through accounting changes, of a spending-equivalent budget measure of credit costs. The valuation of subsidized loans and guarantees at market prices forces immediate recognition of loan obligations and guarantee commitment costs equal to the present value of the subsidy accruing to the borrower over the life of the loan. This treatment would be equivalent to that now afforded durable real assets acquired by the government, such as highways, aircraft carriers, and dams. Adoption of the Appropriations Plan would also curtail opportunities for agency managers to disguise subsidy costs through continuous borrowing and charging of losses against (nonexistent) equity, unrecognized contingent liabilities, uncovered interest rate risk, and overstated asset values.

A notable feature of the Appropriations Plan is that the credit agency accounts would show the estimated subsidies conveyed by current year activities, while net borrowing requirements would appear in fund accounts. This means that the unified budget (which includes both types of account) would assign the same cost to a dollar of financing (borrowing to acquire an equal-valued asset) as to a dollar of exhaustive spending (credit subsidies, for example.) But this also means that the unified budget would be comprehensive with respect to the total amount of funds that the government needs to acquire during a fiscal year for all purposes.

Disadvantages. Two shortcomings of the Appropriations Plan are, first, the major difficulties associated with determining the market values of financial instruments acquired and issued by the loan funds, and second, the risk that credit subsidy fees would not be regarded as meaningful for budgeting. Market values will be especially difficult to assign to assets not currently traded in financial markets: Commodity Credit Corporation price support loans, loans to very high risk borrowers, debts of the revolving funds, and insurance and guarantee contracts now available only from government.

A perception of fund evaluations as arbitrary might reinforce a tendency for credit subsidy costs to be regarded as "just an interagency accounting transfer" rather than a valid cost measure. Experience with a somewhat similar General Services Administration user fee collected from tenant agencies in government-owned or managed space has not been encouraging. 3/

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3. Congressional Budget Office, The Federal Buildings Program: Authorization and Budgetary Alternatives (June 1983).

THE MARKET PLAN

The major disadvantages of the Appropriations Plan, which are the difficulties of assessing market values and the risk that the credit subsidy fees would be regarded as meaningless accounting transfers, could be overcome by requiring the revolving funds or the National Loan Fund to sell all loans to private investors soon after they were made and to reinsure all insurance and guarantees with private suppliers.

For purposes of discussion, suppose a single fund was established to market loans and buy insurance. Such a market-modified fund could either originate loans at the direction of the agencies or acquire loans from the revolving funds for immediate sale at auction. Rather than attempting to market individual loans, the fund could sell pure passthrough securities that would entitle buyers to receive interest and principal on the underlying loans, but only as collected. Alternatively, the passthrough securities could be offered with a guarantee issued by a private firm. In this case, the buyer would be entitled to a certain, but smaller, stream of interest and principal. Although many existing institutions could be expected to bid for these loans and securities, the development of institutions specializing in such investments, including mutual funds, can be foreseen. Because of the below-market terms on government direct loans, their market sale price would be less than the funds advanced. Every loan and loan sale, therefore, would result in a loss to the fund. This loss--estimated under the Appropriations Plan--would be equal to the present value of the subsidy extended to the borrower. Administering agencies would indemnify the fund promptly for losses on loans originated at agency direction.

Similarly, instead of guarantee and insurance risk being borne by government, the national fund would purchase guarantees and insurance services from private suppliers. To protect itself further, government could establish qualifying standards for financial soundness that potential suppliers would have to meet. To maintain direct comparability with the present value of loan subsidies, guarantees would be purchased with a single-payment premium, paid when a guarantee was issued. 5/ Agencies would reimburse the fund promptly for guarantee and insurance costs incurred at their direction.

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5. Amendments to the National Housing Act adopted in 1983 authorized the Secretary of Housing and Urban Development to establish a demonstration mortgage reinsurance program involving no more than 10 percent of insured mortgages in two administrative regions.

Advantages. These modifications to the Appropriations Plan would permit accurate reflection of the costs of federal credit activity without government estimation, in a manner that would make them difficult to ignore (see text box). These are advantages of substance rather than convenience. Obtaining the necessary values under the Appropriations Plan would be extremely difficult. The task is not discharged by simply observing markets. In some cases, the instruments to be valued are not traded and may never be traded unless the government offers to sell these loans and buy risk-bearing services. In addition, government cash disbursements for credit would equal funds advanced (and insurance paid for by government) less loan sale proceeds (and fees collected from assisted firms and individuals). This sum would be the spending equivalent cost of government credit activity, equal to agency transfers to the fund and no greater than the amounts appropriated for this purpose. No pure financing transactions, such as borrowing, would appear in the budget to cloud the measure of cost because none would be necessary. In fact, the subsidy costs of credit would equal the total cash requirements of credit assistance.

After the loan was sold or the insurance purchased, the taxpayers' liability would be fixed at the capitalized, present value of the subsidy based on the market's expectation of outcomes. This would not only limit the taxpayer's cost and assure that those most willing to bear the risk would do so; it would also reduce moral hazard in government policy. (Moral hazard is the possibility of a change in behavior resulting from the existence of insurance, such as could affect the likelihood of a claim--for example, if a person, after purchasing auto theft insurance, begins leaving the key in the ignition switch. Thus if the government is liable in case of loan default by firms in a particular industry, this exposure may cause it to adopt trade, regulation, and tax policies favorable to the industry even though these are undesirable the standpoint of the economy.) Terminating government's contingent liability will reduce this source of moral hazard. 6/

Routine sales of loans made at below-market terms would also have the benefit of forcing careful attention to the terms in loan contracts. This is because the purchaser of a loan has the right to protect his or her interest, including foreclosure, if the terms of the agreement are not followed

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6. Moral hazard, though suggestive of morality, is not an ethical concept. For example, a cost-benefit study of a proposal to impose import quotas on a specified product will be more favorable to the proposal if the government has guaranteed the debts of the domestic industry. Moral hazard is more closely related to probabilities and arithmetic than to ethics.

THE MARKET PLAN

Accounting for a $100,000 loan whose market value is $50,000, with the Market Plan.

Fund makes loan, sells it, and receives the difference between amount advanced and sales price from agency.

On-Budget Loan Fund

Program	Financing
Loan: $100,000	Loan sales: $50,000 Loan subsidy fee: $50,000

Net obligations: 0
Net cash outlays: 0
Contingent liability: 0

* * * * *

Agency covers the market discount on the loan and records the payment as an outlay.

On-Budget Agency

Program	Financing
Loan subsidy paid to loan fund: $50,000	(No financing entry.)

Net obligations: $50,000
Net cash outlays: $50,000

* * * * *

Unified budget reflects agency outlays for loan subsidies. There are no additional financing transtions to record.

Unified Budget

Outlays: $50,000
Deficit: $50,000

closely. If the Congress intends to permit a borrower six months of arrears before default can be declared, this will need to be written into loan contracts. Under the present system, the intent of the Congress and the courts appears to be to show extreme forbearance in determining when a government loan is in default. This intent should be codified if the Congress wishes to maintain a consistent degree of leniency over time and across programs. The more lenient the requirements placed on the borrower, the lower the market price of the loan and the greater the effective subsidy.

One of the costs of federal credit activity--loan oversight and servicing--might continue to be borne by the administering agencies and recovered through fees. Many of the credit agencies already have in place an organizational structure for monitoring and collecting loan payments. The agencies would have some incentive to perform this service efficiently with loan sales because effective administration would attract premium loan prices. Higher loan prices, in turn, would enable an agency to support a higher level of lending activity per dollar of credit subsidy appropriated.

Disadvantages. Drawbacks to the Market Plan include, first, uncertainty about the ability of markets to absorb the loans originated and to reinsure the risks assumed by the government under current policy. Second, fears exist that bid prices for loans may be too low and for insurance too high, such that investor profits will be excessive.

Doubts that any bids would be received for some loans and insurance are based in part on the ill-defined terms of the credit agreements under some loan programs. Discretionary forbearance is widely practiced by government credit agencies. But in order to have a salable loan note, the investor must know the nature of the claim being offered. In fact, it would also be to the advantage of the borrower to know the dependable limits of forbearance so that the borrower would not be subjected to the vagaries of bureaucratic discretion. If the Market Plan were adopted, provisions would be needed in some programs either to render loans salable or to reclassify them as grants. Insurers have also expressed reluctance to reinsure government because of the extraordinary procedural requirements customarily imposed and because of the existence of cross-cutting regulations not pertinent to risk-bearing services.

Market prices may also diverge from competitive levels if markets are specialized and dominated by a few firms. Government-sponsored publicity of unexploited profit opportunities might increase competition over time but it is not clear how quickly such an adjustment would occur. Before the establishment of the Federal Financing Bank, agencies marketed their debt directly to investors and, even though they were fully guaranteed by the federal government, interest rates on them were significantly higher than on

Treasury debt. Similarly, today SBA guaranteed business loans and FHA guaranteed mortgages trade at lower prices than Treasury securities of comparable maturity.

Government agencies carrying out loan sales in the past (see Chapter V) have usually set undisclosed minimum prices below which bids would be rejected. The difficulty with this approach is that, if the agency sets the minimum above the market price, the auction will appear to demonstrate that the loan market is not capable of absorbing these loans.

Both the Appropriations and the Market Plans might create incentives for agencies to seek out lower-risk borrowers in order to raise market prices for their loans. In doing so, the agencies would be moving away from their target clients and infringing on commercial markets. A number of other issues would also have to be addressed before the Market Plan could be adopted: How can those instances in which government is more efficient than private firms at diversifying risk be identified and retained with the Market Plan? How would the underlying loans be managed if passthrough securities were issued, with respect to granting grace periods, for example? Should the borrower have authority to veto the purchase of the loan by particular investors?

THE ALTERNATIVES COMPARED

On grounds of comprehensiveness, accuracy, timeliness, and comparability of budget costs, all of the proposals are potentially superior to the current budget treatment of federal credit assistance. Compared to current practice:

- The FFB Plan would increase the comprehensiveness of the budget but retain the cash outflow definition of cost. It addresses only the issue of exclusion. The other three plans address the misstatement of costs.

- The Add-On Plan would provide potentially useful data about the value of resources consumed by credit assistance that are not now to be found in the budget documents.

- The Appropriations Plan would, subject to estimation error, permit direct comparisons of grant and credit costs.

- The Market Plan would also permit comparisons of credit and spending costs, avoid estimation errors, and shift most risk from taxpayers to investors in a manner that would lend credibility to the costs of credit.

The Appropriations and Market Plans--as well as the FFB Plan--would increase the comprehensiveness of the unified budget. This broadening of coverage could be achieved by withdrawing the exclusion or by requiring the on-budget appropriation of subsidy costs to on- and off-budget accounts. The FFB plan differs in objective from the other three in that it is aimed at off-budget status rather than at the cash outflow concept of cost.

The FFB and the Add-On Plans retain the net cash outflow measure of credit cost now employed. The Market Plan effects a complete substitution of credit subsidy costs for cash outflow costs because there are no residual financing requirements after the loan sale. The Appropriations Plan, however, involves a mixture of credit subsidy costs (the appropriated, estimated subsidy) and cash financing needs (fund borrowing). Both appear in unified budget totals.

All four of the proposals would limit opportunities for obscuring the scope and cost of federal credit assistance, but two--Add-on and Appropriations--would create additional costs for budget preparation by requiring estimates of market values. The budgetary goal of a timely presentation of costs, that is at the point those costs are controllable, would be served by the last three plans but costs recorded under the Market Plan would be "final" in that taxpayer liability would end with the sale of the loans and reinsurance of risk.

To function effectively as a framework for defining the fiscal role of the federal government, the budget must be comprehensive with a common, timely, and accurate measure of costs for all prospective activities. The Appropriations and Market Plans appear, on these grounds, to be superior to the FFB and Add-On Plans, which in combination might be valuable as an interim step. The choice between the Appropriations and Market Plans hangs on who is to assign prices to loans and guarantees: government observers or market participants. Conceptually, not much difference exists between agency evaluations using market prices and actual sale of the loans and purchase of guarantees. But doubts may be entertained that agency employees would be willing and able to value loans and guarantees appropriately and/or that financial markets would value the loans and guarantees at competitive prices. If doubts about the performance of markets exceed doubts about the performance of government, then the Appropriations Plan should be favored. Otherwise, the Market Plan should be preferred.

Perhaps the guarantees and loans of some programs are better suited to the Appropriations Plan, while others are better treated by the Market Plan. A mixed Market-Appropriations Plan, however, would require specific criteria that would unambiguously classify particular programs as suitable for one or the other and that would avoid creating perverse agency incentives. Such criteria are not easily discovered.

For example, one possible set of criteria would be to use the Appropriations Plan in cases where:

- o Existing markets are not able to absorb loans without large price declines; markets lack depth.

- o Loan contract terms are not very specific or not usually enforced; discretionary forbearance is important.

- o The likelihood of insurance claims is susceptible to changes in government policy; if FHA defaults are reinsured, the government might adopt more deflationary policies and increase mortgage defaults.

Whether these criteria would succeed in unambiguously classifying any particular program remains to be seen. Moreover, these criteria create incentives for agencies to design credit instruments that could escape market valuation. Namely, agencies can be expected to make loans and issue guarantees that are not currently traded in large volume; with poorly defined contract terms; and subject to moral hazard. If a mixed Market-Appropriations Plan is viewed as a permanent rather than a transitory solution, classification criteria will have to be given serious study.

The Effect of These Proposals on the Unified Budget

The FFB Plan would prevent the understatement of the cash outflow cost of federal credit assistance by bringing the FFB and (in some proposals) all other off-budget credit activities on-budget. Table 14 shows the budget effect of a complete withdrawal of existing exclusions. Unified budget outlays and the deficit would be increased by the amounts shown for off-budget net lending, or by $10-20 billion annually in recent years. If the FFB Plan (or any other) were adopted, historical budget data would be revised to appear as if the plan been in effect.

The Add-On Plan, which requires agency estimates of the market value of resources consumed by credit assistance, would have no effect on unified budget outlays, except for the cost of producing, monitoring, and publishing those estimates.

The Appropriations Plan and the Market Plan would have the same effect on the unified budget, except for differences between agency estimates and market prices for financial assets and insurance and except that fund borrowing net of repayments would also be included in the unified

TABLE 14. FEDERAL GOVERNMENT NET LENDING
(By fiscal year, in billions of dollars)

	On-Budget	Off-Budget	Total
1970	3.0	---	3.0
1971	2.0	---	2.0
1972	2.7	---	2.7
1973	0.3	0.7	1.0
1974	1.9	2.2	4.1
1975	4.3	8.5	12.8
1976	4.2	6.7	10.9
TQ	1.1	2.6	3.7
1977	2.6	9.0	11.6
1978	8.6	11.2	19.8
1979	6.0	13.6	19.6
1980	9.5	14.7	24.2
1981	5.2	20.9	26.1
1982	9.1	14.3	23.4
1983	4.8	10.5	15.3

SOURCE: Budget of the United States Government, Special Analysis F.

budget under the Appropriations Plan. The spending-equivalent costs of these plans can be estimated on the basis of assumed market prices and credit activity levels. These simplifying assumptions are shown in the accompanying box.

The assumed loan activity level is approximately equal to the current level less $4 billion in direct loans currently extended to defaulting guaranteed borrowers. (Because guarantees would be insured, defaults would not be carried as loans extended.) The assumed guarantee activity level corresponds to the current rate of extensions. The assumed market price for direct loans of 50 percent of the face amount is a rough average of estimated and observed market prices:

- 80 percent of par implied by the Office of Management and Budget's estimate of subsidies conveyed by direct loans (which assumes equal default risk on loans originated by government and private lenders);

ASSUMPTIONS USED TO ESTIMATE UNIFIED BUDGET EFFECTS OF APPROPRIATIONS AND MARKET PLANS

Annual Activity levels	
New direct loans	$36 billion
New primary guarantees	$100 billion
Market Prices	
Direct loans	50 percent of face amount
Primary Guarantees	6 percent of guaranteed amount, single payment premium
Secondary Guarantees	Zero

- o More than 55 percent of par for FHA multifamily mortgages; and
- o Less than 40 percent on long-term, low-interest loans such as those made by FmHA (33 years, 3 percent interest) and REA (35 years, 5 percent interest).

A more refined estimate would permit the market price of government-originated loans to vary by type of loan and with market interest rates. The loan guarantee fee of 6 percent is well above single-premium mortgage insurance rates of 2-3 percent of principal for private insurers and 3.8 percent for FHA Section 203(b), but below the SBA actuarial value of 8.3 percent for the Section 7(a) program.

Under these assumptions, the subsidy cost of federal credit assistance would be about $23 billion annually in 1984-1989. Note that this is a pure grant-equivalent number unaffected by repayments, financing or other incidental cash flows and is the only cost of credit that would appear in the

unified budget under the Market Plan. (The Appropriations Plan would also include net cash outflow as a cost of the financing fund.)

	Billions of dollars
Direct Loans (50 percent of $36 billion)	18
Primary Guarantees (6 percent of $100 billion)	6
Less current policy fees and premiums	-1
Total	23

To obtain estimates of the spending-equivalent cost of federal credit assistance in previous years, the market discount on loans and insurance premiums on guarantees can be multiplied by loan obligations and primary guarantee commitments respectively. This has been done in Table 15 where, for comparison, net on-budget lending is also shown. Given the assumptions underlying the calculations, the results suggest that the cost of federal credit assistance has been understated in recent unified budgets by widely varying amounts, averaging about $20 billion annually.

Adoption of the Market Plan would not lead to a $20 billion increase in cost, however. First, for the comparison to be meaningful, the spending-equivalent cost of credit should be compared to total net lending, not on-budget net lending. Use of total net lending would add $10-15 billion annually to the net cash outflow measure of credit cost. Second, under the Market Plan, the existing portfolio of government loans would be sold and outstanding guarantees reinsured. These transactions would produce a one-time net cash inflow to Treasury estimated at $95 billion. These receipts would be used to reduce the public debt. Consequently, a permanent reduction in interest payments of about $10 billion annually would be achieved. Third, the subsidy costs of federal credit activity are being borne by taxpayers, independently of their appearance in the budget. The accounting and operating changes treated here do not change the nature of these costs; rather, they make these costs more perceptible when the government incurs an obligation to bear them.

TABLE 15. ESTIMATED SUBSIDY COST OF FEDERAL CREDIT ASSISTANCE, 1970-1983 (By fiscal year, in bilions of dollars)

	Direct Loan Obligations	Primary Guarantee Commitments	Estimated Subsidy Cost	On-Budget Net Lending
1970	10.4	27.5	6.9	3.0
1971	10.5	38.5	7.5	2.0
1972	18.6	44.8	12.0	2.7
1973	18.1	36.4	11.2	.3
1974	19.0	30.9	11.4	1.9
1975	28.7	30.5	16.2	4.3
1976	29.9	26.1	16.5	4.2
TQ	6.2	8.9	3.6	1.1
1977	38.7	58.8	22.9	2.6
1978	49.6	55.0	28.1	8.6
1979	39.0	86.9	24.7	6.0
1980	44.8	82.2	27.3	9.5
1981	50.1	76.5	29.7	5.2
1982	43.4	53.7	24.9	9.1
1983	4.4	97.2	26.5	4.8

SOURCES: Budget of the United States Government, Special Analysis F, and Congressional Budget Office.

CHAPTER V. SOME COMPLEMENTARY FINANCIAL MARKET INSTITUTIONS

Three of the four reforms discussed in the previous chapter entail various combinations of valuing financial assets and risk-bearing services, selling loans, and purchasing guarantees and insurance--all of which assume the existence of complementary financial institutions. This chapter suggests that these reforms may be feasible because some of the requisite institutions are in place.

SECONDARY LOAN MARKETS

Secondary markets are resale markets. When a financial institution makes a loan to a borrower, this constitutes the primary loan transaction. If the original lender decides to sell the loan to another investor, the transaction is said to occur in the secondary market. As the process by which funds are conveyed from savers to investors has become more specialized, secondary loan markets have become increasingly important. Financial institutions often perform only one or two of the several steps involved in "lending": originating loans, appraising risk, servicing current loans, liquidating loans in default, aggregating many small sums into a large pool of funds, and bearing default risk or interest rate risk. As specialization has increased, the buying and selling of loans has become a common financial transaction in which both government and private institutions are active. Mortgages, in particular, have provided a financial instrument around which large secondary markets have developed.

HUD Loan Sales

The Department of Housing and Urban Development pioneered government loan sales. 1/ For example, HUD's Government National Mortgage Association (GNMA) has been purchasing and reselling mortgages since its inception in 1968. Under its Special Assistance and Emergency Mortgage

1. The Economic Development Administration is currently selling some industrial and commercial loans from its business portfolio. The Farmers Home Administration is also carrying on a small, experimental sale of farm ownership loans.

Purchase Assistance programs, GNMA has purchased and resold mortgages worth more than $25 billion. The purpose of this activity is to subsidize the production of housing, which is accomplished by purchasing below-market-interest-rate mortgages at par and reselling them at market prices. In the process, GNMA realizes a loss on each transaction equal to the present value of the subsidy over the life of the loan. In a sense, GNMA is the prototype market-modified revolving fund, except that GNMA finances its losses through Treasury borrowing (current debt about $11 billion), rather than an annual funds appropriation. If the revolving fund rules described above were adopted, more than $6 billion in appropriated funds would be required to enable the GNMA Special Assistance Functions Fund to meet the minimum capital requirement. The larger point is that GNMA's mortgage auctions have demonstrated the feasibility of secondary market loan sales by agencies of the federal government.

In March and July of 1982, FHA sold "assigned mortgages" (insured mortgages acquired because of default) and "purchase money mortgages" (mortgages originated by HUD to buyers of HUD-owned property) on multi-family projects. In these two auctions, mortgages with an outstanding balance of $235 million generated proceeds of $131 million. 2/ Although HUD continues to auction multifamily mortgages, the department cancelled planned 1983 sales of $750 million in direct, HUD-originated loans made under the Housing for the Elderly or Handicapped Program (Section 202) because of public perception that such sales might divert projects to unintended uses such as luxury apartments. These loans of 35-40 years to non-profit sponsoring organizations were to finance the construction of basic, "no-frills" units, often in conjunction with means-tested Section 8 rental assistance to low-income renters. 3/

The likelihood that loan sales would have resulted in the diversion of Section 202 housing to unintended uses appears quite small. HUD had planned to sell only mortgages on projects with 20-year, Section 8 contracts that assure a long-term HUD involvement. Project owners who purchased the mortgage on their projects would have been required to execute documents binding the current and successor owners to operating the project for the elderly or handicapped. Loans sold to others would have carried the stipulation that HUD could, at its option, buy back the mortgage to prevent foreclosure.

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2. Audrey Hinton, "Multifamily Mortgages: On the Block," Mortgage Banker, January 1984, pp. 28-34.

3. Since 1982, none of the Section 202 units can have swimming pools, balconies, two-bedroom units, or dishwashers.

Fears have also been expressed that loan sales could permit a borrower to capture the subsidy intended for someone else. Suppose, for example, the purpose of a subsidized credit program is to increase the supply of inexpensive rental units in order to hold down rents for low-income families. HUD's (Targeted Tandem) Program 27 fits this description. Under this plan, low-interest loans were made to developers to finance construction. Borrowers under Program 27 may pay off their loans to HUD at any time, though most are dissuaded from doing so by the difference in the HUD loan interest rate and the cost of private financing. Some Program 27 loans were made at 7.5 percent, for example. A loan sale, however, provides the borrower with an option to prepay the loan at a fraction of the unpaid principal balance. A $1 million, 7.5 percent loan will sell for about $500,000 if market rates are 15 percent on comparable instruments. Thus, a borrower could buy his own mortgage and pay off his loan at 50 cents on the dollar (though he would have to do so through an intermediary owing to a restriction that only HUD-approved mortgagees can participate in the auction). In the process, the mortgagor would capture 100 percent of the present value of the mortgage subsidy.

In fact, this subsidy capture is not necessarily inconsistent with the intent of the program, which is to increase the supply of housing with specified structural characteristics. This goal is accomplished with the completion of construction. In any case, the borrower would have received all of the mortgage subsidy even if the loan had not been prepaid. By purchasing the mortgage (indirectly), the mortgagor has elected to take the present value of the subsidy rather than the larger amount spread over the life of the mortgage.

HUD and GNMA loan sales have demonstrated the feasibility of the loan auction process, especially where the individual loans are:

- Large (more than $1 million),
- Homogeneous with respect to contract terms,
- Collateralized by reasonably accessible property,
- Well documented as to repayment performance and project characteristics.

Secondary Markets for SBA Guaranteed Loans

A resale market has also developed since 1973 for loans originated by commercial banks and other lenders and guaranteed under the Small Business Administration's Section 7(a) program. The process begins with the

bank's identification of a qualified borrower and submission of a guarantee application to the SBA. With SBA approval, 90 percent of the loan can be guaranteed. After the loan is disbursed, the bank may sell the guaranteed portion to an investor (sometimes the bank obtains a commitment from an investor before agreeing to make the loan). This loan sale usually takes place through one of the 37 broker/dealers now active in the market. The bank retains the 10 percent unguaranteed portion of the loan and receives the spread between its lending and selling rates as a servicing fee. Proceeds from the loan sale may be used by the bank to make additional loans.

Investors are attracted to this market for fully guaranteed securities by the yield of 75 to 125 basis points (hundredths of a percent) above Treasury securities of comparable maturity. The services of an SBA-appointed fiscal transfer agent are also available to investors through which loan purchasers may receive a certificate of ownership (rather than full loan documentation), which is itself marketable, and a single monthly check for all Section 7(a) loans held. Loans are available in principal amounts of $30,000 to $500,000 with maturities of 7 to 15 years and with fixed or variable interest rates.

Secondary market volume is less than $1 billion per year. The General Accounting Office estimates that 15-20 percent of loans guaranteed under Section 7(a) are sold. 4/ One feature of these loans that may have hampered the growth of the secondary market is the SBA prohibition on prepayment penalties. As a result, investors cannot be sure of the maturity of the loans they purchase nor can they "lock in" an interest rate. When interest rates decline below the rate at which the loan was originated, borrowers have an incentive to prepay the loan. Investors in fixed-rate loans, therefore, lose if market interest rates rise and do not gain when rates decline. In addition, some investors have complained about the slowness with which SBA pays off on defaults and about difficulties in reconciling interest received with calculated interest due. SBA is taking administrative action to improve the attractiveness of loans sold under this program.

The secondary market has given small business access to capital market participants who do not ordinarily make such loans, including insurance companies, pension funds, and individuals. The program is a working example of how financial instruments with heterogeneous characteristics of

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4. General Accounting Office, SBA's 7(a) Loan Guarantee Program: An Assessment of Its Role in the Financial Market, GAO/RCED-83-96 (April 25, 1983). See also U.S. Small Business Administration, Secondary Participation and SBA Guaranteed Loans (October 1979).

principal, interest, and amortization, and of modest size, can be sold in the credit markets.

SALES OF MORTGAGE-BACKED SECURITIES

An alternative to the outright sale of loans is to sell securities that constitute an interest in a specified set or pool of loans. This technique enables the issuer of mortgage-backed securities (MBS) to purchase and aggregate relatively small loans and mortgages and to sell participations in smaller denominations than the loans themselves. The buyer of an MBS also has a more diversified holding than the buyer of a single loan. Mortgage-backed securities were originally pure passthroughs, meaning that the interest and principal repayments were paid to security owners as received by the security issuer. Subsequently, modified passthroughs, in which the timely payment of principal and interest is assured, became the dominant form. The volume of MBSs increased from insignificant in 1970 to about $190 billion at the end of 1982 (see Table 16). This growth was facilitated by GNMA guarantees of privately issued MBSs and later by MBSs issued by the government-sponsored, privately owned Federal National Mortgage Association (FNMA) and the Federal Home Loan Mortgage Corporation (FHLMC). 5/ GNMA insures (for a fee) the timely payment of interest and principal on securities issued by private mortgage firms and backed by pools of FHA- and VA-insured single-family mortgages. GNMA insurance is available to FHA-approved issuers, with mortgage pools of $1 million or more, on securities sold in minimum denominations of $25,000. FNMA and FHLMC mortgage passthrough underwriting differs from GNMA's in that these quasi-government enterprises insure their own security issues and include conventional mortgages--those not insured by a U.S. government agency--in their mortgage pools.

The volume of conventional mortgage-backed securities issued by private firms is small compared to FHA/VA MBSs and those issued by FNMA and FHLMC. Most estimates place the currently outstanding volume of conventional MBSs issued by private firms at less than $10 billion. Active private issuers include Norwest Mortgage Inc., Sears Mortgage Securities Corporation, and General Electric Credit Corporation.

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5. Joseph Hu, The Multifaceted Revolution in Securitizing Residential Mortgages (Salomon Brothers, October 1983). See also Congressional Budget Office, The Housing Finance System and Federal Policy: Recent Changes and Options for the Future (October 1983).

TABLE 16. OUTSTANDING FEDERALLY UNDERWRITTEN MORTGAGE-BACKED SECURITIES, 1970-1982 (In billions of dollars)

End of Period	Securities Outstanding Issued and/or Guaranteed by			
	GNMA	FHLMC	FNMA	Total
1970	0.4	---	---	0.4
1971	3.1	0.1	---	3.2
1972	5.5	0.4	---	5.9
1973	7.9	0.8	---	8.7
1974	11.8	0.8	---	12.6
1975	18.3	1.6	---	19.9
1976	30.6	2.7	---	33.3
1977	44.9	6.6	---	51.5
1978	54.4	11.9	---	66.3
1979	76.4	15.2	---	91.6
1980	93.9	16.9	---	110.8
1981	105.8	19.8	0.7	126.3
1982	119.2	55.7	14.5	189.4

SOURCE: GNMA, FHLMC, and the Board of Governors of the Federal Reserve System. Table originally appeared in Congressional Budget Office, The Housing Finance System and Federal Policy: Recent Changes and Options for the Future (October 1983), p. 46.

NOTE: Includes securities backed by loans on one- to four-unit homes and securities backed by mortgages on multifamily properties. Only FHLMC includes significant quantities of multifamily property mortgages in its pools (16 percent as of 1982).

A recent Norwest offering of $300 million in Conduit Mortgage Pass-through Certificates illustrates the general character of these instruments. The Norwest securities constitute an interest in a pool of conventional, one- to four-family mortgage loans with principal balances at origination of $30,000 to $250,000. The securities are protected by several layers of collateral and insurance consisting of the value of the properties, hazard insurance on the properties, private mortgage insurance, and privately written pool insurance to cover losses not insured elsewhere. In addition, the issuing company has an indemnity bond to protect security holders in case of a

bankruptcy by the issuer. The certificates are available on both fixed-rate and variable-rate terms reflecting the nature of the underlying mortgages. Timely payment of interest and principal is guaranteed.

The MBS phenomenon illustrates the innovative manner in which specialized financial markets can tailor debt instruments to the demands of investors. It also suggests means by which a group of relatively small loans might be packaged, with varying degrees of government involvement, for sale to investors.

PRIVATE FINANCIAL GUARANTEES AND INSURANCE

Private institutions now offer guarantees and insure timely payment on a wide variety of financial instruments. Conventional single-family mortgages, municipal bonds, commercial paper, commodity futures contracts, term loans to industrial and commercial borrowers, and industrial development bonds, for example, can all be structured so that the risk of default or overdue payment is not borne by the holder of the loan or security.

Private Mortgage Insurance. Perhaps the best-known form of private financial guarantee is private mortgage insurance (PMI). This has existed in the United States since 1885, but the modern industry dates from 1956 when writing authority was granted to an insurer in Wisconsin.

The purpose of mortgage insurance, whether publicly or privately supplied, is to shift the risk of default loss on low-downpayment home mortgages from lender to insurer and, in doing so, to increase the supply of high loan-to-value mortgage funds. PMI differs from FHA insurance in that the private insurer usually writes coverage for the first 20 to 25 percent of the mortgage rather than 100 percent (and is similar to Veterans Administration partial guarantees in this respect), with the remainder of the debt being "insured" by the value of the mortgaged property. The average mortgage insured by a private company is somewhat larger than that insured by FHA or VA, principally because the federal agencies have an upper limit on the size of eligible mortgages (currently $67,500 except in "high cost" areas). PMI is now written for about half of all insured one- to four-family mortgage originations. The 13 domestic (and one Canadian) members of the mortgage insurance association have more than $22 billion of risk insurance in place.

Municipal Bond Insurance. The first U.S. insurer of state and local government debt--the American Municipal Bond Assurance Corporation (AMBAC)--was formed as a subsidiary of MGIC Investment Corporation in

1971. This line of insurance became more widely available in 1974 with the establishment of the Municipal Bond Insurance Association (MBIA) by a consortium of five major casualty companies. Today, insurance for timely receipt of interest and principal is available on general obligation bonds; revenue bonds, including those of municipal utilities; hospital bonds; and industrial development bonds. On new issues, either the entire offering or selected series may be insured. Old issues in unit trusts and individual portfolios can also be insured.

For a small municipal issuer able to meet the underwriting standards of AMBAC and MBIA, the advantage of insurance is that by paying a one-time premium (most commonly, 0.50 percent to 1.25 percent of the amount at risk), the issue receives an AAA credit rating, which in turn may reduce total debt service cost for the borrower. In fact, an issuer can offer the bonds for sale alternatively as AAA-insured or as uninsured obligations and then accept the bid that is highest, net of insurance cost.

At year-end 1982, more than $30 billion of principal and interest insurance was in force on bonds written in every state, Guam, Puerto Rico, and the Virgin Islands. About 10 percent of new, long-term municipal issues are now being insured.

Standby Letters of Credit and Surety Bonds. A standby letter of credit is a written commitment by a bank to pay a creditor of a third party (the customer of the bank, also called the account party) a specified sum if the borrower should default on a financial obligation. For example, industrial firm A wishes to borrow $1 million for one year from financial institution B. Lender B agrees, provided that A obtains a standby letter of credit assuring B of repayment when due. Firm A enters into an agreement with its bank that, if specified documents are presented by B to the bank, the bank will pay the specified sum to B without any determination by the bank regarding "questions of law or fact that may be at issue between the account party and the beneficiary." 6/ Payment by the bank activates a loan agreement between the bank and the account party through which the bank will obtain reimbursement. In exchange for its standby commitment to back up the debt of its customer, the bank receives a fee (commonly 0.5 to 1.5 percent of the contingency). The bank often requires the customer to post collateral.

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6. Reade H. Pyan, Jr., "Letters of Credit Supporting Debt for Borrowed Money: The Standby as Backup," Banking and Law Journal, vol. 100 (May-June 1983), pp. 404-33. Also Stanley F. Farrar, "Letters of Credit," Business Lawyer, vol. 39, no. 3 (May 1983), pp. 1169-78.

TABLE 17. USES OF STANDBY LETTERS OF CREDIT IN SUPPORT OF FINANCIAL OBLIGATIONS, 28-BANK SAMPLE, 1978

Purpose	Amount Outstanding (billions of dollars)	Percent of Total
To Back Commercial Paper	1.1	15.0
To Back Other Loans	1.9	25.4
To Ensure Performance on Options or Futures Contracts	1.1	14.6
Other	3.3	45.0
Total	7.4	100.0

SOURCE: Federal Reserve Bulletin (December 1979).

Standby letters of credit grew out of traditional commercial letters of credit through which shipments of goods to distant buyers were financed. Commercial letters of credit, however, were expected to be routinely taken down or drawn on when the goods were delivered. Standby letters, in contrast, are based on debt for borrowed money rather than shipments of specific goods and are rarely, perhaps only 2-3 percent of the time, drawn upon. Standby letters of credit are structured as commitments to lend rather than as insurance or a guaranty because these latter activities are prohibited to most banks.

The underlying debt being supported by the standby letter can be of any type or maturity from short-term commercial paper to commodity futures contracts to bonds. The results of a 28-bank sample survey on the uses of standby letters are shown in Table 17. The use of standby letters of credit has grown very rapidly since 1973 when total U.S. volume was about $5 billion. By December 1978 amounts outstanding had increased to $25 billion. 7/ Estimates of current volume exceed $100 billion.

7. Peter R. Lloyd-Davies, "Survey of Standby Letters of Credit," Federal Reserve Bulletin, vol. 65 (September 1979), pp. 716-19.

Surety bonds are a competitive alternative to standby letters of credit offered by insurance companies. Though much smaller in volume than standby letters of credit, they are structured much like the bank instrument in that the account party pays a fee when the surety is issued and remains liable to the insurer for disbursements made in its behalf.

Political Risk Insurance. Insurance against confiscation, contract repudiation, inconvertibility, embargo, and license cancellation by foreign governments is available to exporters and overseas investors from five domestic insurance firms and Lloyd's underwriters as well as OPIC and Eximbank. 8/ Compared to government insurers, private coverage has lower insurance limits per project (approximately $60 million as against $150 million), is for shorter terms (1-3 years versus 20 years), and excludes physical damage caused by war. However, private insurers are willing to cover existing facilities as well as new investments in more countries than OPIC, which is restricted to low-income, politically approved countries.

THE COOPERATIVE FINANCE CORPORATION

The National Rural Utilities Cooperative Finance Corporation (CFC) is a private, borrower-owned, self-help intermediary that provides electric cooperatives with access to capital markets. Several features make the CFC worthy of note here. The first is its institutional structure, which might be usefully adopted elsewhere. Incorporated in 1969 with equity capital contributed by electric cooperatives, CFC issues long-term bonds and short-term commercial paper to finance loans to members. As shown in Table 18, CFC has outstanding: bonds, $1,458 million; commercial paper, $188 million; and loans, $2,190 million. The Corporation whose bonds are rated AA, also has available a $900 million line of credit from a group of large domestic and foreign banks. As a cooperative, not-for-profit enterprise, CFC paid no income taxes on 1982 earnings of $17.3 million.

A second noteworthy feature of CFC is that it is a potential source of information on the market value of electric cooperative debt and related guarantees. As an active participant in the long-term loan market (CFC makes loans to cooperatives for up to 35 years but at an interest rate that is market-based and fixed for the first seven years only), the Corporation could be a valuable source of information to a reformed RETRF or national loan fund.

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8. Lynn Brenner, "How to Insure Against Political Risks," Institutional Investor, April 1981, pp. 212-20.

TABLE 18. COOPERATIVE FINANCE CORPORATION FINANCIAL STATEMENTS, FISCAL YEAR ENDING MAY 31, 1982
(In millions of dollars)

Balance Sheet

Assets		Liabilities and Equity	
Cash	11.1	Long-term debt	1,458.2
Loans	2,189.9	Commercial paper	187.6
Receivables	41.2	Other liabilities	41.1
Other	55.1	Members' equity	610.4
	2,297.3		2,297.3

Operating Results

Expense		Income	
Interest on borrowed money	302.4	Interest on loans	313.3
		Interest on securities	10.8
Operating expenses	5.7	Other	1.3
	308.1		325.4
	325.4	Income	
Less	308.1	Expense	
	17.3	Earnings (called "margins" by co-ops)	

Third, CFC guarantees cooperatives' debt to finance pollution control equipment and offers loan commitments that can be used as alternatives to letters of credit and surety bonds. This market-based activity means that CFC would be well placed to bid on RETRF loans under the market-modified lending plan described in Chapter IV. Similarly, the Corporation would seem to be a potential supplier of loan guarantees, if the government should elect to purchase these from private institutions.

THE PRIVATE EXPORT FUNDING CORPORATION

As the CFC is to electric cooperatives, the Private Export Funding Corporation (PEFCO) is to the export financing community. Owned by 54

TABLE 19. PRIVATE EXPORT FUNDING CORPORATION FINANCIAL STATEMENTS, DECEMBER 31, 1982 (In millions of dollars)

Balance Sheet

Assets		Liabilities and Equity	
U.S. Treasury securities	1,425.2	Short-term paper	1,596.4
Export loans	1,623.0	Long-term notes	1,427.6
Other	366.8	Other	308.7
	3,415.0	Shareholders' equity	82.3
			3,415.0

Operating Results

Expense		Income	
Interest and fees on borrowed money	211.6	Interest and fees on loans and investments	233.8
Other expenses	14.5		
	226.1		233.8
	Net income:	$7.7	

commercial banks, 7 industrial corporations, and 1 banking firm--all of which are active in international trade and finance--PEFCO makes medium- and long-term fixed-rate loans to foreign buyers of U.S. goods. PEFCO lending is restricted, however, to those borrowers possessing an unconditional guarantee for principal and interest from the Export-Import Bank. In most cases, PEFCO loans are part of a financing package involving private lenders and Eximbank.

PEFCO raises funds by selling unsecured commercial paper and notes secured by pledge of its Eximbank guaranteed export loans. The close relationship between PEFCO and Eximbank includes a $50 million revolving line of credit extended by Eximbank to the Corporation. Eximbank also exercises a broad supervisory oversight over PEFCO's financial decisions.

A strong dollar, high U.S. interest rates, and recession abroad reduced the demand for U.S. exports and PEFCO supplemental financing in 1982. As shown in Table 19, however, PEFCO was able to continue to operate profit-

ably. The Corporation has also been increasingly active recently in developing a secondary market for Eximbank-guaranteed loans originated by other financial institutions. Not only does this increase the attractiveness of export financing to commercial banks, but it provides PEFCO with a source of Eximbank-guaranteed loans during periods when export originations are at low levels.

GLOSSARY OF ABBREVIATIONS

ACIF	Agriculture Credit Insurance Fund
AMBAC	American Municipal Bond Assurance Corporation
BLIF	Business Loan and Investment Fund, Small Business Administration
CBOs	Certificates of beneficial ownership
CFC	National Rural Utilities Cooperative Finance Corporation
Eximbank	Export-Import Bank of the United States
FFB	Federal Financing Bank
FHA	Federal Housing Administration
FHLMC	Federal Home Loan Mortgage Corporation
FmHA	Farmers Home Administration
FNMA	Federal National Mortgage Association
GNMA	Government National Mortgage Association
HUD	Department of Housing and Urban Development
MBIA	Municipal Bond Insurance Association
MBS	Mortgage-backed securities
OMB	Office of Management and Budget
OPIC	Overseas Private Investment Corporation
P & F	Program and financing statement
PEFCO	Private Export Funding Corporation

PMI	Private mortgage insurance
RDIF	Rural Development Insurance Fund
RETRF	Rural Electrification and Telephone Revolving Fund
REA	Rural Electrification Administration
RHIF	Rural Housing Insurance Fund
SBA	Small Business Administration
VA	Veterans Administration