

FEDERAL CREDIT PROGRAMS -- THE ISSUES THEY RAISE

Remarks by

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## CREDIT PROGRAMS -- THE ISSUES THEY RAISE

### Federal Agency Securities -- What are they?

Even in the relatively narrow context of a discussion on federal debt management, the term "federal agencies" covers a broad and diverse range of debt instruments. At one end of the spectrum one finds the direct obligations of Government-owned agencies such as the Export/Import Bank, TVA, and the Postal Service -- obligations that are virtually indistinguishable in credit standing from direct obligations of the U.S. Government itself. At the other end are the notes of private issuers, such as SBIC's that are guaranteed by a government agency, in this case the Small Business Administration. In between fall every sort and description of instrument, distinguished by differing degrees of access to the Treasury in case of default, of insurance coverage as to interest and principal, of marketability based on size of issue, minimum denomination, etc., and differing degrees of explicitness in the extent to which the obligations are guaranteed, if at all.

Despite this great diversity, most market people think of the term "federal agencies" as encompassing primarily the obligations of the so-called federally-sponsored agencies that are privately owned and that operate outside the budget: the Federal National Mortgage Association, the Farm Credit System, and the Federal Home Loan Bank System. This narrower use of the term reflects both the size and the activity of these particular borrowers in the credit markets, and the fact that their obligations are sold in the open market and traded actively. Other

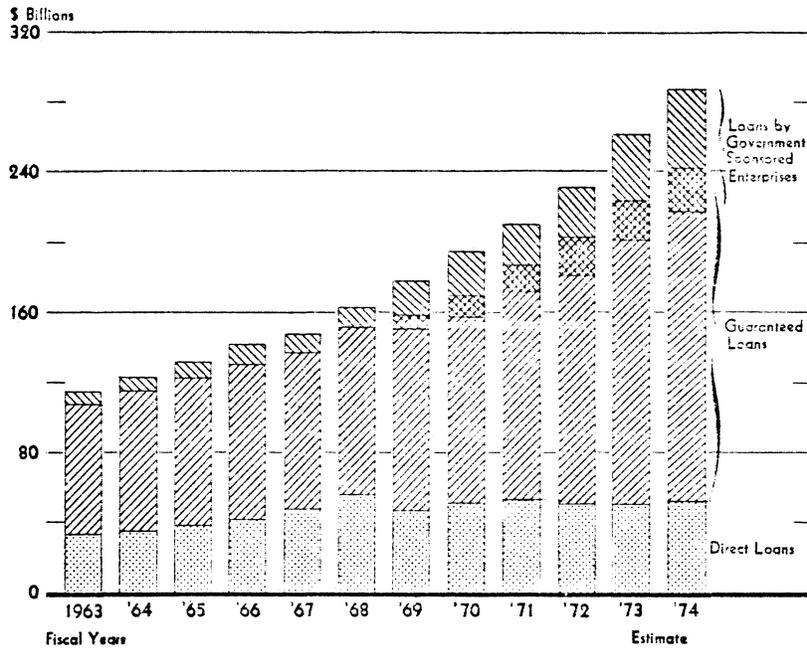
agency issues are generally smaller, less actively traded, or tailored to specific types of investors.

To focus on agency issues as such, by whatever definition, however, is to miss the broader context of the federal government's involvement in the credit markets more generally. Before the off-budget agencies became so large, the federal government through regular budget agencies had long been in the business of extending direct loans in support of a wide variety of programs. In addition, of course, the government had long been in the business of guaranteeing the debt of private parties, most notably through the mortgage insurance programs of the FHA and VA. Thus, while for some purposes it is sufficient to look at the role and implications of government agency securities, defined as bond-type instruments sold and traded in the open market, for other purposes it is more relevant to look at the broader aspects of the government's function as a credit granting and credit guaranteeing entity.

#### Expansion of Federal Credit Programs

Starting from the broader perspective of the government's role in credit markets generally, it's not hard to document the very rapid rates of growth in federally-assisted credit in recent years, both in absolute terms and in relation to credit flows in the capital markets. The accompanying chart, taken from Special Analysis E of the 1974 Budget, depicts graphically the accelerating trend in amounts of federal and federally-assisted credit outstanding over the last decade. As shown in the chart, total

### Federal and Federally Assisted Credit Outstanding



borrowing under federal auspices is expected to reach \$287 billion in 1974, a two-year increase of \$55 billion and 24% over the 1972 level.

Another indication of the growing importance of federal credit assistance is the increased proportion of funds raised in the credit markets that benefit from some form of federal assistance:

FEDERALLY ASSISTED BORROWING\*  
(Billions of \$ or %)

	<u>Amount</u>		<u>Percent</u>	
	<u>FY 1962</u>	<u>FY 1972e.</u>	<u>FY 1962</u>	<u>FY 1972e.</u>
Federally Guaranteed	5	25	8	18
Sponsored Agency	<u>1</u>	<u>4</u>	<u>2</u>	<u>3</u>
Total	\$6	\$29	10%	21%

\* Change in amount outstanding

Source: Adapted from Treasury material accompanying submission of bill to establish a Federal Financing Bank, Dec. 9, 1971.

As a proportion of funds raised, the federally assisted portion has doubled to about 20 percent over the last decade. Nor do these figures include the impact on credit markets of the increase in direct government debt issued to finance budget deficits.

As is obvious from the chart, the entire growth in federally-assisted credit in recent years has taken the form of guarantees and loans by government-sponsored agencies. In fact, the volume of outstanding direct loans extended by budget departments has not increased at all on balance since 1967.

The expansion of federally-assisted credit has occurred not only in aggregate amounts outstanding, but also in the proliferation of departments, programs, and off-budget agencies making use of this sort of assistance. A list of federal, federally-guaranteed, and federally-sponsored agencies borrowing from the public was attached to the Treasury's proposal in December 1971 to create a federal financing bank (to be discussed below), and is reproduced here. Section IV of the list shows proposals for new borrowing agencies and new guarantee programs before Congress at that time. Since then, the guaranteed Washington METRO Bonds have been authorized and issued, the Farmers Home Administration has been granted broad new authority to finance rural development credit, and the Environmental Financing Authority and the National Student Loan Association have been enacted and will probably be in operation by next year. Just since 1969 when I started my assignment at the Treasury, various other new agencies and programs have come into existence, including: the Rural Telephone Bank, the U.S. Postal Service, GNMA mortgage-backed securities, new communities debentures, Amtrak, Pefco, Overseas Private Investment Corporation. Indeed, it would be rather surprising if the pressure to provide credit assistance outside the budget did not result in a wave of new programs and financing vehicles, each with its own constituency and special characteristics.

Another dimension to the growth in federal credit assistance is the tendency to "upgrade" the form of instrument issued or guaranteed so that it will be more readily marketable and presumably

FEDERAL, FEDERALLY-GUARANTEED, AND FEDERALLY  
SPONSORED AGENCY BORROWING  
FROM THE PUBLIC 1/

- I. Federal agencies regularly issuing in the securities market direct obligations of a type which will be eligible for sale to the Federal Financing Bank:

Credit agencies:

Export-Import Bank  
Federal Housing Administration  
Rural Telephone Bank

Other agencies:

Tennessee Valley Authority  
U. S. Postal Service

- II. Federal agencies issuing guarantees of a type for which the submission of budget plans will be required by the Federal Financing Bank Act:

- A. Guaranteed obligations regularly financed in the securities market: 2/

Agriculture:

Farmers Home Administration (asset sales)

Commerce:

Maritime Administration (merchant marine bonds)

Health, Education, and Welfare:

Academic facility bonds (debt service subsidies)  
Hospital facilities (asset sales)

Housing and Urban Development

College housing bonds (debt service subsidies)  
GNMA mortgage-backed securities 3/  
New community debentures  
Public housing bonds and notes (debt service subsidies)  
Urban renewal notes (debt service subsidies)

Transportation:

Railroad (Amtrak, etc.)

Export-Import Bank (PEFCO, etc.)

General Services Administration (asset sales)

Small Business Administration (SBIC debentures)

Funds appropriated to the President:

International security assistance  
International development assistance  
Overseas Private Investment Corporation

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1/ Excludes minor programs and programs in liquidation.

2/ Guaranteed borrowing includes sales of Federal loan assets on a guaranteed basis and borrowings partly guaranteed by means of debt service subsidies.

3/ Includes GNMA guarantees of mortgage-backed bonds issued by FNMA and FHLMC.

**B. Other guaranteed obligations:**

**Commerce:**

Economic Development Administration  
Trade adjustment assistance

**Defense:**

Defense production

**Health, Education, and Welfare:**

Health manpower training facilities  
Nurse training facilities  
Student loans

**Housing and Urban Development:**

Federal Housing Administration

**Export-Import Bank**

**Small Business Administration**

**Veterans Administration**

**III. Federal sponsored agencies whose obligations will not be eligible for sale to the Federal Financing Bank:**

**Farm credit agencies:**

Banks for cooperatives  
Federal intermediate credit banks  
Federal land banks

**Federal Home Loan Banks**

**Federal Home Loan Mortgage Corporation**

**Federal National Mortgage Association**

**IV. Major proposals before Congress:**

**A. New borrowing agencies:**

Environmental Financing Authority  
National Student Loan Association  
U. S. International Development Corporation  
National Development Bank  
Urban Development Bank  
National Credit Union Bank  
Rural Development Bank

**B. New guaranteed borrowings:**

Farmers Home Administration farm operating loans  
(asset sales)  
Transportation Department equipment trust certificates  
Washington Metropolitan Area Transit Authority  
District of Columbia government borrowing  
(debt service subsidies)  
Taxable municipal bonds for rural development  
(debt service subsidies)

carry a lower interest cost. This upgrading can be seen most easily in the transformation of guaranteed mortgages into guaranteed bonds through issuance of GNMA mortgage-backed securities.<sup>1/</sup> It is also evident in the efforts to "perfect" the guarantees on various types of securities, e.g., SBIC debentures and Merchant Marine bonds, to obtain a cleaner and faster tap on the Treasury in case of default, to increase the ratio of guarantee from 90% to 100% etc.

While there is nothing inherently wrong in trying to devise characteristics for securities that will make them more marketable, the rub comes when the ultimate objective is to create securities that are indistinguishable from direct government debt, and yet still preserve some rationale for not counting the issues as a means of financing budget deficits or against the federal debt ceiling -- a clear case of trying to have one's cake and eat it too.

#### Why the Growth in Federal Credit Programs and Agency Securities?

If the fact of rapid expansion in federal credit programs is self-evident, the factors stimulating this growth are more complex. The most basic question to be asked, I suppose, is why the federal government should be involved in credit programs at all. There are a variety of answers.

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<sup>1/</sup> From none in 1970, such securities jumped to \$6.8 billion outstanding in 1972, and are expected to reach \$15.6 billion in 1974.

First, credit assistance, just like expenditures on goods and services and transfer payments, may be used to alter in a socially desirable way (it is assumed) the allocation of resources in the economy. And indeed, it is a fact that programatic objectives can be achieved either through cash grants or credit assistance within a considerable range of overlap.

Second, a case is made for federal involvement in the credit markets (e.g., through guarantees) as a means of overcoming market imperfections. This is perhaps the purest case, where assistance is "temporary", i.e., until the market itself fills in the gaps. In practice, many of the federally-assisted credit programs contain a proviso requiring the lending agency to find that private financing is not available on reasonable terms.

But the Congress has gone well beyond the "market imperfections" rationale, to provide very substantial elements of subsidy in the form of debt service grants, below market interest rates, etc. not on a temporary but on a continuing basis. The intent, of course, is again to influence the allocation of resources, but to do so in a way that leverages the federal budget dollar. It can be argued, for example, that many worthwhile (i.e., benefits > costs) projects in the private sector would not be undertaken if the full cost of the investment had to be financed out of the investor's stream of current income. By analogy, there are presumably many worthwhile investments that could be made by the federal government (forgetting that in an accounting sense the government has no capital budget as such) either in bricks and mortar (e.g., waste treatment plants) or

education (college tuition assistance) that would not be made if the full cost had to be funded through current tax receipts whereas the stream of benefits will accrue over a long period of years.

But this argument simply makes the case for borrowing to finance a certain type of federally desired outlay. It says nothing about who should borrow, the government itself or the party(ies) to be assisted. As the growth in credit programs outside the budget shows, however, this is a more theoretical than a practical question. In practice, a budget dollar has a much greater scarcity value to Congress and the Administration than a dollar borrowed from the private sector -- borrowed with federal assistance maybe, but no direct federal debt!

Indeed, there's little doubt that the single most important factor that explains the growth and proliferation of federal credit assistance is the desire to see programs funded with a minimum use of scarce budget dollars. An early example of the effort to conserve budget dollars yet carry on programs was the ingenious development of the so-called Participation Certificate in 1966. By carefully tailoring the provisions of this instrument, the Administration sought to issue "participations" in a pool of financial assets (the claims arising out of previous direct loans) and count the transactions as sales of assets (i.e., negative expenditures) rather than as a means of financing the deficit. This particular device gave rise to heated political debate, and the accounting practices were changed to preclude (or at least make more difficult) such

practices thereafter. But the budget pressures that spawned initiatives of this sort continued, and so did the efforts to escape the budget constraints with new and different credit programs.

In 1967, the Report of the President's Commission on Budget Concepts said that "one of the most difficult questions the Commission has faced is how federal loan outlays should be reflected appropriately in the budget." In the end, the Commission recommended, and the Administration agreed, to include direct loans within a unified budget (rather than deleting direct loan transactions from the budget as proposed by some). Prophetically, the Commission said:

"Highlighting of direct loan programs -- and strict control of almost all of them within the budget -- could create incentives to redirect federal loan programs to some extent into government guarantee or insurance of private loans. These may have much the same effect on resource allocation and on economic impact as direct loans, even though federal funds are not directly involved, and even though such guarantee and insurance programs are not reflected in the budget except for administrative expenses and defaults, and occasional provision of secondary market support."

The Commission also recommended that government-sponsored enterprises, such as FNMA, the Federal Land Banks and the Federal Home Loan Banks, which had previously been omitted from the (adminis-

trative) budget even though they were owned in part by the government, be omitted from the (unified) budget accounts when such enterprises were completely privately owned.<sup>1/</sup>

As we have seen, since direct loans were not removed from the unified budget, they stopped growing entirely, and all of the growth in federally-assisted credit took the form of loan guarantees, or loans by sponsored agencies which are practically invisible in the budget documents. In addition, the trend toward "debudgeting" of credit agencies accelerated. Not only were the Banks for Cooperatives and the Federal Intermediate Credit Banks "privatized" (i.e., government capital replaced by private capital, thus qualifying them as "100% privately owned" and by this criterion out of the budget), but the Federal National Mortgage Association also joined the parade.

At about the same time, and partly in consequence, the functions of the housing oriented agencies -- FNMA, and FHLB -- expanded from so-called secondary market operation (or in the case of FHLB, rediscounting) designed to assure liquidity to mortgages and mortgage lenders over the business cycle, to the provision of funds for the housing sector on a more or less continuing basis. Obviously, this change in purpose implied a continued tapping of the bond markets to provide the funds.

More recently, we have seen a less subtle example of debudgetization. Since there was little hope of turning the Export-Import Bank into a "private" institution, Congress took

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<sup>1/</sup> Though the volume of outstanding loans of such excluded enterprises should be shown as a prominent memorandum item.

the bull by the horns and simply declared in legislation that Ex-Im's lending would be excluded from the budget totals beginning August 17, 1971. It's not just coincidental that Ex-Im's lending is expected to jump from \$250 million in FY '72 to \$1.6 billion in FY '74.

Having set this precedent, one should not be surprised at the May 1973 enactment of a bill that likewise removed the REA 2% loans from the budget, and at the same time provided REA with broad new guarantee authority. A similar bill is now pending to debudget the AID 2-3% development loan program.

In essence, the growth and proliferation of credit programs has been a consequence of the increasing scarcity of budget vs. non-budget dollars, and the vagaries of the definitions of what's included and excluded from the budget totals. Related to the scarcity of budget dollars were the massive capital expenditure programs that the federal government sought to stimulate (if not fund) in the areas of urban renewal, public housing, mass transit, waste treatment, etc. -- programs that in the private sector would indeed be funded by borrowing rather than financed out of current income.

Another spur to the expansion of federal credit assistance has been the two bouts of very tight credit conditions that have occurred in recent years, the credit crunch of 1966, and its even tougher successor in 1969-70. Congressional concern with the impact of these periods of credit tightness on particular sectors of the economy, most notably housing, stimulated a search for ways to mitigate the impact through preferential credit facilities.

Out of this search, for example, came the development of mortgage-backed securities, together with a much more active role for the housing agencies.

Increased budget pressures have thus given rise to something like a typical life cycle in which outright grants, say for construction, were replaced by direct loans, on grounds that the government was only providing temporary financing that would eventually be repaid -- a budget saving not in the short run, but certainly in the long run. The second step was to transform the direct loans into guarantees of private credits, thus costing the budget only a fraction of the total outlay and effecting the saving immediately. To be sure that the projects in fact got the necessary funding without the government having to put up much of the money, Congress authorized varying amounts of subsidies to accompany the guarantee programs, e.g., payment of all but 1% of interest on Section 235-236 guaranteed loans for low income housing.

Similarly, in the area of higher education, the government previously had made 3% direct loans to colleges for the construction of academic facilities and college housing. In 1970, this program was phased out and instead the government agreed to provide to private lenders interest subsidy payments of all interest above 3% so that the cost to the colleges would not be increased.

#### Implications of Expanded Federal Credit Programs

The more or less unfettered expansion of federal credit programs and the accompanying deluge of agency direct and guar-

anteed securities to be financed in the credit markets has undoubtedly permitted Congress and the Administration to claim that wonder of wonders -- something for nothing, or almost nothing. But as with all such sleight-of-hand feats, the truth is somewhat different.

The fact is that the growth and proliferation of federal credit programs has created, or at least exacerbated, problems on a number of fronts. Some of these problems are of interest primarily to managers of the public debt. Others have ramifications well beyond that limited concern, touching on:

- 1) the control of federal expenditures generally,
- 2) the ability to measure the impact on the economy of "the budget"
- 3) the functioning of credit markets as allocators of resources.

The uncomfortable truth is that there is very little agreement on the net impact on resource allocation of the government's growing role in the credit markets.<sup>1/</sup>

To take the debt management concerns first, the basic point is that the growth in federally-assisted debt in recent years has significantly outpaced the growth in direct federal debt. Simply in terms of size of issues, frequency of financings and anticipating cash flow problems, the task of "managing" individual agency financing now requires the same expertise that has been built up in the Treasury to manage the national debt. Even if that expertise can be acquired -- as it has been in a

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1/ See note by John Kareken and Neil Wallace in Appendix.

number of instances -- it involves an inefficient duplication of talent and extra administrative costs.

Similarly, there are extra costs associated with 1) introducing new agencies to the market, 2) selling issues that are smaller than some minimum efficiently tradeable size, 3) selling securities that only in varying degree approximate the characteristics of direct government debt in terms of perfection of guarantee, flexibility of timing and maturities, "cleanness" of instrument, etc. As a result of such considerations, the market normally charges a premium over the interest cost on direct government debt of comparable maturity ranging from 1/4 percent on the well-known federally-sponsored agencies such as FNMA, to more than 1/2 percent on such exotics as SBIC debentures, New Community Bonds, etc. In some cases (e.g., SBA guarantees of loans to small businesses) this premium reflects actual services rendered by the private sector, such as origination and/or servicing of loans, co-insurance, credit appraisal, etc. More often, however, the premium on guaranteed obligations far more than compensates for such services. In general, if cost of financing were the only consideration, it would be most efficient to have the Treasury itself provide the financing for direct loans by issuing government debt in the market.\*

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Efficiency, however, is not the only criterion. To put all the credit programs back in "the budget" without distinguishing more clearly than at present between an "income account" (i.e., the stream of expenditures) and "balance sheet transactions" (i.e., exchanges of assets/liabilities) might exacerbate the problems of interpreting the economic impact of "the budget", as discussed below.

Efficiency of financing is not the only debt management cost of the proliferation of agency issues. Since the market views the various kinds of agency and guaranteed issues as falling generally in a single category -- federal debt -- it makes little sense to have one agency preparing an issue right on top of another, or the Treasury itself. The role of traffic cop in terms of timing and maturity distribution of potentially competing issues is important to the government in minimizing costs, and important to the smooth functioning of the debt market itself. The Treasury has long played this role, in some cases by legislative mandate, in other cases by custom. But it's not hard to understand that the problem of coordination has become more complex as the number of issuing entities has increased along with the size of their issues, and as they have asserted a greater degree of "independence" commensurate with their status "outside the budget". Paul Volcker, Undersecretary of the Treasury for Monetary Affairs, made the point effectively in a 1971 talk when he said: "We are already at the point where some federal financing is coming to market at least three out of every five business days."

Off-budget financing of a growing number of federal programs through use of federally-assisted credit has almost certainly weakened administrative control over these programs in the Congress and in the Administration. While it would be hard to prove this point, common sense and personal experience argue strongly in its favor. Since contingent liabilities under guarantees are inevitably obscured in the complexities of the budget documents and departmental presentations, only administrative costs of such programs, and provision for defaults, are at all prominent in the review of

departmental programs involving guarantees. The same is true a fortiori for the sponsored agencies. As a result, there is little awareness of, or interest in, the growth, in some cases explosive growth, of such programs. Nor is there any interest in the additional costs to the government over the longer run of financing loans via guarantees of private debt rather than through Treasury issues.

In welcome contrast, some members of Congress have become concerned about the cost of subsidies buried obscurely in a wide range of federal programs, credit programs among them. As a result, I assume, Special Analysis E in the budget now presents a discussion of the subsidy element in federal credit programs, both direct loans and guarantees. On commitments undertaken in FY 1972, the annual interest subsidy (i.e., the difference between the lending rate and assumed borrowing cost of 8 percent) worked out to about \$880 million. The present value of this subsidy over the average life of the loans, also discounted at 8 percent, was some \$7 billion. Because the President suspended new commitments under a number of the HUD programs, e.g., for urban renewal, low-rent public housing, subsidized mortgage insurance, etc., the budget shows declining subsidies over the next two years in the credit program area, measured in terms of new commitments. No attempt was made to value the subsidy element in outstanding loans! Perhaps, just perhaps, one of the reasons for the re-evaluation of some of these credit programs was because their true cost came to light for the first time. In general, however, I'd wager that credit programs with their leveraged budget dollars will continue to escape the close scrutiny accorded direct budget outlays.

Another sort of potential "economic cost" that stems from the growth and proliferation of federal credit programs is the homogenization of debt coming into financial markets. One function that credit markets are supposed to perform is that of distinguishing differing credit risks and assigning appropriate risk premia. For all of the criticisms leveled against the techniques and practices of the bond rating agencies and investment bankers, no one denies the usefulness -- to the markets and to the economy -- of evaluating the relative economic viability of different financial undertakings, and pricing issues accordingly. Indeed, this is the essence of the ultimate resource allocation function of credit markets.

- As an increasing proportion of issues coming to the credit markets bears the guarantee of Uncle Sam, the scope for the market to differentiate credit risks inevitably diminishes. With the big federal umbrella covering a growing portion of funds moving through the credit markets, these markets become simply vehicles for mobilizing private savings, and their role in assessing credit risks is displaced or forgotten. Theoretically, the federal agencies issuing or guaranteeing debt could perform this role, charging as costs of the programs differing rates of insurance premia. In practice, all of the pressures are against such differential pricing of risks, even if the technical expertise were available. As a result, the potential exists for reduced efficiency in resource allocation in the economy, as federal credit programs spread.

Admittedly, it's impossible to measure the actual costs of this potential resource misallocation. Moreover, against any such costs must be set the possibility that financial markets, left to their own devices (i.e., without the federal programs), do an even worse job than the government in channelling funds to borrowers with the highest social priorities. The net effect of this "homogenization" argument therefore is unfortunately in doubt. But the expansion of credit programs in particular areas should at least take explicit account of these offsetting social and economic costs. (Or more accurately, differing degrees of externalities.)

Finally, the most difficult economic question raised by the growth of federal credit programs is the extent to which they distort assessments of the economic impact of the federal budget on the economy. On the one hand, financial transactions are for the most part excluded from the National Income Accounts budget on grounds that such transactions simply represent exchanges of assets/liabilities and do not themselves generate income/expenditures. And the National Income Budget is generally taken to be the most useful set of accounts for analyzing the economic impact of the federal government.

On the other hand, there are a lot of Congressmen who have been seriously deluding themselves and their constituents if the substitution of credit program assistance for outright grants, and the subsequent expansion of these credit programs, has not in fact meant increasing federally-assisted claims on real resources.

Apart from this fundamental conundrum, there is the further complication of changing definitions. It would be difficult enough if we were dealing simply with changing magnitudes relative to the economy and to each other -- of loans and expenditures in a consistently defined "budget". But as we've seen, major credit agencies have been "debudgeted" in recent years, so that whatever the economic impact of their programs (which can certainly be taken as greater than zero), this impact has been lost sight of by those analyzing "the budget". The same "disappearance" applies to programs that were once funded through direct loans but are now funded by guarantees of private credit. If these changes were small, they could be ignored. But in practice they amount to several billions of dollars from one year to the next.

There is by now a fair literature on the economic impact of federal credit programs -- most notably in the Staff Papers of the President's Commission on Budget Concepts -- but still very little agreement on theoretical grounds and almost no valid policy guides, such as we have with the full employment budget. Credit programs, in essence, continue to fall between the cracks -- confronted directly neither by the fiscal policy advocates nor the monetarists.

Theoretically, the monetarists could argue that there's very little to be debated here. If the monetary authorities simply stuck to their knitting and provided a steady increase in the monetary base (or some other magnitude), there would be allocation effects as the government-assisted borrowers bid away financial resources from the rest of the market, but there would be no risk of excessive credit creation overall, since

this is ruled out by definition. In practice, I find this "solution" no solution at all, because the real world doesn't work in the way postulated.

A point of current interest -- much attention is focused at the moment on Congress' efforts to impose on itself a more rational mechanism for controlling aggregate federal expenditures. This is one of the more hopeful initiatives taken by that body. It would be too bad if the opportunity is missed to incorporate at the same time an overall review of federally-assisted credit programs into the new budget review process.

In summary, the costs of uncontrolled expansion of federal credit programs, and related federal agency issues, may be thought of as falling into two categories: debt management costs and economic costs, with some overlap. In the first category may be listed:

- 1) duplication of financial expertise at various agencies
- 2) higher costs of marketing agency issues than for direct federal debt, because of
  - a) unfamiliarity of issues to buyers
  - b) small size of individual issues
  - c) varying degrees of "guarantee"
  - d) inflexibility of maturities and other terms
- 3) greater risk of market congestion from uncoordinated issuing dates and terms.

The economic costs include:

- 1) less close scrutiny by Congress and the Administration of loan and guarantee programs than expenditures outlays

- 2) great possibilities for hidden subsidies
- 3) dilution of resource allocation function of credit markets by homogenization of credit risks
- 4) difficulty of measuring economic impact of growing federal credit programs.

#### THE FEDERAL FINANCING BANK -- A PROPOSAL TO MITIGATE SOME OF THESE PROBLEMS

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The problems cited above are not new. But the continued rapid growth of federal credit programs and agency issues makes the search for some solutions more pressing.

In December 1971, the Treasury on behalf of the Administration submitted a bill to Congress to establish a Federal Financing Bank. Recognizing that it was not realistic, and perhaps not even desirable, to try to turn back the clock and route a greater portion of federally-assisted credit through direct loans financed out of current receipts or direct government borrowing\*, the Treasury proposed the creation of what is essentially a financing shell. The "bank" would be authorized to buy any obligation "issued, sold, or guaranteed" by a federal agency, and in turn finance such purchases through sale of its own securities, which will be obligations of the U.S. This financing arrangement is obviously designed to consolidate under one roof the issues of many different agencies. It would achieve hopefully economies

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\*E.g., for unsubsidized guaranteed issues, it may in fact be preferable to have the borrower pay the higher cost associated with partially guaranteed agency issues than get the "subsidy" of the government's own credit costs.

of scale, better coordination of issues, and lower program costs for the agencies concerned.

Apart from the potential benefits the bank might effect as a debt management device, another provision of the bill is designed to encourage better coordination of credit programs through more rigorous control. Specifically, agencies issuing or guaranteeing securities in the market would be required to submit financing plans in advance to the Treasury. (A second, and potentially more important control, i.e., that no federal agency would be permitted to guarantee issues "except in accordance with a budget program submitted to the President," was deleted from the 1973 version of the bill.)

- The consolidation of issues should focus attention more widely on the scope and growth of credit programs and agency issues, and hopefully permit the informed public to relate anticipated demands of federally-assisted credit on the flows of funds available -- just as is now done in relating federal expenditures to resource availability in the economy.

A P P E N D I X

TO: Bruce K. MacLaury, President  
Federal Reserve Bank of Minneapolis

FROM: John Kareken and Neil Wallace

SUBJECT: Federal Credit Programs and Desired Investment

DATE: June 4, 1973

1. You indicated that you wanted us to take up the question "What are the macroeconomic effects of Federal credit programs?" But as you probably know, this is not a question to which one can turn to the economics literature for a satisfactory answer. We have had to make up our own. It is by no means complete. It holds only for wealth-maximizing economic units -- for firms and households, that is, but probably not for nonprofit institutions such as universities and colleges. Moreover, it may be wrong. That is a possibility you will want to keep in mind when drafting your talk.
2. There being various Federal credit programs, our answer is in several parts:
  - (a) Financial intermediation by the Federal government has a macroeconomic effect. More particularly, an increase in the Federal government's portfolio of private loans or equities, financed by an increase in, say, the stock of Treasury securities outstanding, is expansionary. An increase in desired investment results.

- (b) Direct lending by the Federal government has a macro-economic effect. And there is an effect when the government guarantees private-sector debts. But what these effects are is not clear. A priori, it is impossible to say what happens to desired investment (or, therefore, aggregate demand) when the stock of direct Federal loans or Federally-guaranteed debt is increased.
- (c) There are various possible Federal interest-subsidy programs and they are not all the same in their macro-economic effects. If the Federal government subsidizes firms by giving them sums of money that are proportional to their respective outstanding debts, then desired investment increases. If the subsidy rate is the difference between the market rate of interest and some stated rate (perhaps the Federal government's own rate), then desired investment changes. But depending on circumstances, it may increase or decrease.

#### FINANCIAL INTERMEDIATION

3. It is not difficult to show, using the type of analysis developed by Professor Tobin, that financial intermediation by the Federal government is expansionary.<sup>1/</sup> And why is easily explained. The

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1. See the recent paper by Craig Swan, "A General Equilibrium Model of FNMA and FHLB Actions" (Federal Home Loan Bank Board, February 1973).

Federal government increases the supply of Treasury securities and, by the same amount, its demand for private-sector loans.<sup>2/</sup> Inducing the private sector to shift from loans to Treasury securities requires a higher rate on Treasury securities, however, and a lower rate on private loans. Consequently, the equilibrium rate on private-sector loans decreases and the equilibrium rate on Treasury securities increases. And, what is most important, the equilibrium "supply price of capital" -- as Tobin has defined it, the ratio of the price of a unit of existing physical capital to the price (reproduction cost) of a unit of new capital -- also increases.<sup>3/</sup> But an increase in the supply price of capital is expansionary, for the higher it is the greater is the incentive to produce new capital.

4. There are some of us, however, who are not overly fond of explanations that involve the supply price of capital (or models in which this variable appears). For one thing, if there is a market-determined supply price, then presumably there is a market in which existing capital can be bought and sold. How does the supply price change, except by being bid up or down in a market? But it is surely inappropriate to assume that there are markets for all kinds of existing capital.

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2. Professor Swan considers an increase in the supply of agency securities, matched by an increase in the demand for private-sector loans, but that is because he is specifically interested in the macroeconomic effects of the operation of particular institutions. Whichever supply is increased, whether the supply of Treasury securities or the supply of agency securities, the result is (qualitatively) the same.
  3. The increase in the supply price of capital is not, strictly speaking, necessary. But if a certain reasonable condition (what would seem to be a stability condition) is satisfied, then Tobin's supply price does increase.

5. Fortunately, it is possible to tell a story about financial intermediation by the Federal government without mentioning the supply price of capital. To make it short, we assume that what the government does is buy equities. It finances its purchases by increasing the supply of Treasury securities. With a government purchase of equities, the supply available to the private sector decreases. And on the most reasonable assumptions about portfolio behavior, the price of equities increases. In other words, the rate of return on equities (the earnings-price ratio) decreases. But a decrease in this rate is expansionary. As the rate on equities decreases, there is an increase in the number of investment projects that can be undertaken with no dilution of earnings per share.
6. Thus, whether the rate of return on equities or the supply price of capital is taken as the crucial variable, straight-forward application of portfolio theory produces the conclusion that an increase in financial intermediation by the Federal government increases desired investment and is therefore expansionary.<sup>4/</sup> Of course, only a ceteris paribus increase in such financial intermediation is expansionary. If an increase in such intermediation is accompanied by, say, an appropriate change in the money stock, then only a reallocation of resources will result. There will be more investment in industries favored by Federal financial intermediation and less in others.

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4. This conclusion requires that private-sector units view the government as an institution apart and not, as it were, simply a mutual fund holding a part of their portfolios.

## DIRECT LENDING AND GUARANTEES

7. We turn now to the Federal government's direct lending and its guaranteeing of private-sector liabilities. It suffices to analyze one or the other of these activities. For whether the Federal government lends directly to a firm or guarantees its liabilities, perhaps up to some limit, the effect is the same: the firm's interest cost is decreased. Further, since the guaranteed liabilities of a private firm are just like the liabilities of the Federal government, the changes in the stocks of debt outstanding are the same; whether the Federal government makes direct loans or guarantees private-sector liabilities, there is an increase in the supply of Treasury (that is, risk-free) securities.
8. With a decrease in a firm's interest cost, current and expected dividends increase. So the price of the firm's equities increases. Since this increase results from the change in the dividend stream, there is, however, no decrease in the rate of return on equities. Nor therefore is there any increase in the number of investment projects that can be undertaken with no dilution of equity. Direct lending does not then result in an increase in desired investment.
9. We have said that when the stock of Federal direct loans outstanding increases, the (expected) dividend stream and the price of equities also increase. Tax payments must also increase, however, for with more direct loans outstanding there are increased loan losses. So there is no increase in private-sector income (or, alternatively, wealth). And there is no increase in desired consumption spending. Unless, of course, the Federal government deliberately decreases its

surplus. What is expansionary then is not a ceteris paribus increase in the stock of direct loans outstanding, but an increase that is accompanied by a decrease in the Federal budget surplus.<sup>5/</sup>

#### AN ALTERNATIVE ANALYSIS OF DIRECT LENDING

10. The conclusion of paragraph 8 -- that direct lending does not change desired investment -- was obtained, however, using portfolio theory. We suspect, however, that there is an important effect of Federal direct lending, an effect on the situation of equity owners, that cannot be taken account of within the confines of portfolio theory, and that therefore this conclusion may well be wrong.
11. We begin our alternative analysis by assuming, not unreasonably, that there is a range of future states (outcomes) for some arbitrarily selected firm. In some of these states, the so-called bankruptcy states, this equity value is zero. In all others, it is positive.
12. Suppose now that there is some investment project which is characterized by a distribution of payoffs, there being a specific payoff for each future state. The problem of the firm is of course to decide whether to undertake this project. If it has no direct loans from the Federal government on its books, then in so doing it will "value" all the payoffs, even those of bankruptcy states. This is because bankruptcy-state payoffs are valuable to private-sector creditors. And if the firm undertakes this project, then the risk of default will decrease, allowing it to

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5. It might be that those who receive the extra dividends have a higher propensity to spend than those who pay the taxes to cover the government's loan losses. But it might also be that they have a lower propensity to spend. The point is that if the distribution of income is allowed to intrude, then anything can happen.

refinance its initial debt at a lower interest cost and thereby increase the return to equity owners.

13. And if all of the firm's debt is in the form of direct loans from the Federal government? Then, since it is borrowing at the lowest possible rate, the bankruptcy-state payoffs are worth nothing.
14. So it is easy to imagine two firms -- one that has no direct loans from the Federal government and one that has only direct loans -- deciding differently about any particular investment project. Consider a project that pays off only in bankruptcy states. The firm with no direct loans may undertake it. The firm with only direct loans will not. Or consider a project that pays off only in nonbankruptcy states. The firm with no direct loans may not want to undertake this project. Even so, the firm with all direct loans may.
15. The conclusion is therefore that direct lending by the Federal government (or a Federal guarantee program) may increase or decrease desired investment. Without specifying in detail the payoff distributions of all the various investment projects, it is not possible to say whether such lending is expansionary or contractionary.
16. Our inclination is to accept the conclusion that direct lending is indeterminate in its effect on desired investment and to reject the conclusion of paragraph 8 (that direct lending leaves desired investment unchanged). For as we have indicated, we are not all that sure about using portfolio theory to get at the macroeconomic effects of Federal direct lending and loan-guarantee programs. The conclusion of paragraphs 3 and 5 -- that financial intermediation by the Federal government increases desired investment and is therefore expansionary --

was obtained using portfolio theory. So we should perhaps be suspicious of it. We are rather confident, though, that we can get this conclusion by analyzing how governmental financial intermediation alters the situation of equity owners and evaluations of investment projects.<sup>6/</sup>

#### INTEREST SUBSIDIES

17. We consider two kinds of Federal interest-subsidy programs. The first, our fixed-subsidy program, involves a subsidy that is independent of the rate at which the subsidized firm or household borrows in the market. Whatever this rate may be, the subsidized unit receives a certain number of dollars per unit of debt. The second type of program, the variable-subsidy program, involves payments that depend on the market rate of interest paid by the subsidized unit. The government pays the difference between this rate and some stated rate (which may be the same as or greater or less than the government's borrowing rate).
18. The fixed-subsidy program is in a sense expansionary. The introduction or extension of the coverage of such a program increases desired investment. With or without a fixed subsidy, the subsidized unit values all investment project payoffs, including those of bankruptcy states. But if there is a fixed subsidy, then there is additional revenue or payoff in every state. In effect, all investment projects cost less than they otherwise would.
19. If, however, a variable-subsidy program is introduced or extended to

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6. We should note that although the FHLB can be regarded as a governmental intermediary, the FNMA, being privately owned, cannot. It has to be regarded as part of the Federal government's loan guarantee program.

more firms and/or households, then desired investment does not necessarily increase. This type of program can be regarded as a combination of a direct or guaranteed-loan program and a fixed subsidy program, with the amount of the fixed subsidy depending on the rate that is stated or used in calculating the subsidy. If this rate is the government's borrowing rate, so that under the variable-subsidy program it pays the difference between private borrowing rates and the government rate, then this program is a direct or guaranteed-loan program. There is no (additional) fixed subsidy involved. And as we have already indicated, the introduction of a direct loan program has an indeterminate effect on desired investment.

20. Under a variable-subsidy program, however, the government may pay the difference between the subsidized units borrowing rate and a rate that is greater or less than its own rate. If it does, then there is some fixed-subsidy effect on desired investment -- in addition, that is, to a direct or guaranteed-loan effect. Even so, the introduction or extension of the coverage of a variable-subsidy program that has a stated rate below the government rate does not guarantee an increase in desired investment. But it would seem to follow from what we have said that a decrease in the stated rate of a variable-subsidy program (the rate used to calculate the subsidy) is expansionary. The lower is this rate, the greater is desired investment.