Federal Agency Debt: Another Side of Federal Borrowing

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DISAPPOINTMENT in recent domestic economic performance has sparked increasing interest in the role of the federal government in the U.S. economy. As it is widely believed that government deficits contribute to inflation, much of the public concern focuses on the size of the federal budget deficit and the growth of federal indebtedness.

Since the government finances most of its spending in excess of tax receipts by issuing new debt, continued budget deficits enlarge the amount of federal debt outstanding. For instance, the large budget deficits of the last four years have contributed to about a $250 billion increase in Treasury debt outstanding from December 1975 to September 1979.

While the federal deficit is coming under closer public scrutiny, a substantial portion of federally related programs and their associated debt has escaped much of this attention. Specifically, the debt of federally owned and federally sponsored agencies is often overlooked.[1] Like the debt of the Treasury (or, for that matter, any other debt), agency debt has important effects on capital markets.

This article focuses on this additional source of federal influence on capital markets. To provide the necessary background and perspective, the article first examines the general nature and function of the agencies. Unlike most discussions of these agencies, which focus primarily on their microeconomic effects, this article considers the macroeconomic implications of agency debt operations.

FEDERAL AGENCIES AND SPONSORED AGENCIES

The federal government conducts its business through various departments and agencies, which for the most part receive their authorization to spend (appropriations) through the budget process. Decisions about the level and allocation of federal spending are reflected in the budget of the U.S. government.[2] This authorized budget spending is primarily financed by the Treasury's tax receipts and by sales of Treasury debt, although some on-budget agencies are authorized to issue their own debt (panel A of exhibit 1). Spending of some *federally owned* agencies, however, is placed outside the budgetary process and is designated as "off-budget." Panel B of exhibit 1 lists these federally owned, off-budget agencies.

[1]Federally sponsored agencies are, technically, independent private enterprises that have been created by congressional legislation. Despite this independent status, these agencies remain subject to broad policy guidance from the federal government.

[2]Although the unified budget concept represents the official budget of the federal government, the national income accounts (NIA) concept is more frequently used in evaluating economic activity. For a description of these two budget concepts, see David J. Ott and Attiat F. Ott, *Federal Budget Policy*, 3rd ed. (Washington, D.C.: The Brookings Institution, 1977), pp. 4-23.

In addition, the federal government sponsors a number of other "private" agencies, whose spending is also excluded from the federal budget. These sponsored agencies are listed in panel C of exhibit 1.

Functions of Government Agencies

While some agencies, such as the Postal Service or the Tennessee Valley Authority, mainly provide certain services, the primary function of many federal agencies is to allocate credit to particular sectors of the economy. For instance, the Federal Housing Administration (FHA) was established in the 1930s to mitigate the increase in mortgage foreclosures that accompanied the Depression. Similarly, a variety of other federal agencies has been established to allocate credit to particular sectors such as housing (e.g., Federal National Mortgage Association), agriculture (e.g., Federal Land Banks), small businesses (e.g., Small Business Administration), and international trade (e.g., Export-Import Bank).

The justification for directing agency aid to particular sectors generally relies on allegations that capital market imperfections prevent resources from flowing naturally to certain socially desirable activities. These alleged imperfections include monopolistic elements in lending markets, economies of scale enjoyed by some borrowers but not others, and external benefits to society in excess of those capturable by the borrower (and ultimately the lender). The belief that such imperfections discriminate "unfairly" against particular sectors or classes of borrowers within the economy has prompted Congress to authorize various sector-specific credit programs.[3]

Federally Owned Agencies

Though the off-budget agencies listed in panel B of exhibit 1 are wholly owned by the U.S. government, their spending is not reflected in the unified budget totals, despite the recommendation of the President's Commission on Budget Concepts that the unified budget ". . . include all programs of the federal government and its [wholly owned] agencies."[4] Some of these agencies' activities are, nevertheless, subject to congressional and presidential review.

Exhibit 1

A. On-Budget Entities Authorized to Issue Debt Not Subject to Federal Debt Limitations
- Government National Mortgage Association (GNMA)
- Export-Import Bank of the United States (Ex-Im Bank)
- Tennessee Valley Authority (TVA)
- Family Housing Program of the Defense Department

B. Federally Owned, Off-budget Agencies
- Rural Electrification and Telephone Revolving Fund
- Rural Telephone Bank
- Pension Benefit Guaranty Corporation
- Postal Service
- Federal Financing Bank (FFB)
- Regional Rail Reorganization Program of the U.S. Railway Association

C. Federally Sponsored Agencies
- Federal National Mortgage Association (FNMA)[1]
- Student Loan Marketing Association (SLMA)[2]
- Banks for Cooperatives[3]
- Federal Intermediate Credit Banks (FICB)[3]
- Federal Land Banks (FLB)[4]
- Federal Home Loan Banks (FHLB)[5]
- Federal Home Loan Mortgage Corporation (FHLMC)[6]

[1]Converted to private ownership in September 1968.
[2]Created as private enterprise in June 1972.
[3]Converted to private ownership in December 1968.
[4]Converted to private ownership in 1947.
[5]Converted to private ownership in 1951.
[6]Created as private corporation in July 1970.

Both on-budget and off-budget federal agencies allocate credit primarily through the administration of loan programs directed toward particular sectors of the economy. The agencies may grant loans either directly, by lending to specific borrowers, or indirectly, by purchasing loans initiated by private lenders but guaranteed or insured by the federal government. Loans are financed either by the Treasury or by agency borrowing. The Treasury-financed portion of the agencies' activities is, like all Treasury debt, subject to statutory debt limitations.[5]

[3]Sometimes, however, imperfections are confused with economic differentiation. It is not an imperfection of the capital market when an unrestricted market assigns a higher risk premium to certain activities, since some projects entail more risk than others. If riskier projects are to succeed in attracting financial capital, they must offer investors a higher potential return. The primary function of a competitive capital market is to allocate credit toward the most promising among alternative projects for a given level of risk. In a free market, lenders bear the risk inherent in a given project. Government loan guarantees, loan participations, and other subsidies that are channelled through government agencies do not eliminate the inherent risk of making loans to certain groups; they simply spread the risk over a larger segment of society, the taxpaying public.

[4]*Report of the President's Commission on Budget Concepts* (Government Printing Office, 1967), p. 7.

[5]The statutory debt limitation refers to the legal ceiling of the debt of the federal government, as set by Congress. Only the House of Representatives may initiate changes in this statutory debt limit, which was $830 billion as of June 30, 1979. While constituting a legal ceiling on outstanding debt, the debt limitation has been changed by Congress whenever government financing needs have nudged against the ceiling.

Debt issued directly by off-budget agencies, however, is free from these statutory limitations, although it is reported by the Treasury as part of gross federal debt. In addition, there are some on-budget agencies that can issue debt which is not subject to statutory limitation (see panel A of exhibit 1). Consequently, federal debt subject to statutory limitation, a frequently used measure of the overall government debt, understates the full extent of direct federal government borrowing. For instance, at the end of June 1979, outstanding Treasury debt was $804.9 billion while federally owned agency debt was $7.3 billion, for a total of $812.2 billion. Of this total, only $806 billion was subject to the prevailing statutory limit of $830 billion.

Since 1973, outlays of federally owned, off-budget agencies have increased rapidly (table 1).[6] This rapid growth has largely been associated with the activity of the Federal Financing Bank (FFB), an intermediary that merits special attention.

Table 1

Outlays of Off-Budget, Federally Owned Agencies
(Millions of Dollars)

Fiscal Year	Outlays
1973	$ 60
1974	1,447
1975	8,054
1976	7,285
TQ*	1,785
1977	8,684
1978	10,327
1979 (Est.)	11,990
1980 (Est.)	11,956

*TQ = Transition Quarter (July 1976-September 1976).
SOURCE: U.S. Office of Management and Budget, *The Budget of the U.S. Government*, 1980.

The Federal Financing Bank

In December 1973, Congress established the Federal Financing Bank as an independent agency of the U.S. government.[7] The FFB acts as an intermediary by coordinating the federally owned agencies' fund-raising activity in U.S. capital markets. Of the federally sponsored agencies (panel C of exhibit 1), only the Student Loan Marketing Association (SLMA) is eligible for FFB financing.[8]

The FFB facilitates the funding of various agencies' programs in three ways. First, it acquires new or outstanding debt from federally owned agencies. This effectively reduces competition among the agencies and the Treasury for the existing supply of loanable funds in capital markets. Testimony given in the congressional hearings on the creation of the FFB clearly reveals this to be the primary function intended for the FFB. The declining volume of off-budget, federally owned agency debt provides evidence that the FFB has succeeded in reducing the independent debt operations of these agencies.

Second, it acquires loan assets from federal agencies and third, it acquires loans that have been guaranteed by other federally owned agencies.[9] As discussed below, both of these FFB transactions can be used by agencies as alternatives to debt issuance in financing agency programs. FFB acquisition of agencies' loan assets and guaranteed loans in 1978 had risen to about two-thirds of its financing of agency activity.

In all three cases, the FFB finances its activity either by issuing its own debt or by borrowing directly from the Treasury. Though the FFB is authorized to issue up to $15 billion of its own securities, it has raised virtually all of its funds through Treasury borrowing. On the only occasion when it issued its own securities, its market-determined borrowing costs were considerably higher than anticipated.

The rationale for creating the FFB was to lower the cost of marketing agency debt by effectively consolidating the debt of several agencies and by coordinating its placement. The differential between the rate paid on the FFB's borrowings and that earned on its holdings of various agencies' debt covers its operating expenses. The FFB currently acquires agency debt at a yield 12.5 basis points (⅛ percentage point) above the interest rate on Treasury securities of comparable maturity. The FFB itself borrows from the Treasury at this latter rate.

The balance sheets of a typical agency, the FFB, and the Treasury help to illustrate the method of

[6]Outlays, in general, refer to the expenditures and loans of an agency.

[7]The actual operations of the FFB are carried out in an office within the U.S. Treasury.

[8]Even though the SLMA is an independent, federally sponsored agency, its loan assets are fully guaranteed by the government and are, therefore, eligible for FFB financing.

[9]For simplicity, guaranteed loans are defined here to include certificates of beneficial ownership (CBOs), which some agencies issue. These CBOs are essentially ownership claims on a pool of loans, which themselves remain in the agency's possession. The CBOs are then guaranteed by the issuing agency. Under present accounting procedures, CBOs are not treated as agency debt.

Exhibit 2

Agency Assets	Agency Liabilities	FFB Assets	FFB Liabilities
$10 M Cash (Proceeds from sale of note to FFB)	$10 M Note	$10 M Agency Note	$10 M Loan from Treasury

Treasury Assets	Treasury Liabilities
$10 M Loan to FFB	$10 M Treasury Note

FFB debt intermediation (exhibit 2). Suppose the agency has issued a new $10 million note which the FFB purchases. The FFB, in turn, finances this transaction by borrowing $10 million directly from the Treasury. The Treasury issues $10 million of its securities to finance its loan to the off-budget FFB. This final transaction becomes part of the debt subject to the congressionally imposed statutory debt limitation.

In the case of on-budget agencies, the discipline imposed by the budget process may be compromised when the FFB acquires loan assets from agencies or loans guaranteed by agencies. This may occur because of the way in which spending authorizations are determined. In calculating the outlay totals for budgetary purposes for some on-budget agencies, repayments of past loans to the agency *and* the sale of existing loan assets are deducted from new loans. The resulting net new loan figure is the basis for determining the agency's budgeted outlays. For example, suppose an agency is budgeted to make outlays of $10 million and currently has outlays totalling $10 million, including $7 million of loans. If it sells this $7 million of loan assets to the FFB, its outlays for budgetary purposes then would amount to $3 million.

Similarly, sales by an agency of guaranteed loans are treated as an offset to the agency's outlay totals for budgetary purposes. In effect, these loan-asset and guaranteed-loan sales become alternative means of financing the agencies' programs.

To illustrate this type of FFB intermediation, exhibit 3 again presents the balance sheets of an agency, the FFB, and the Treasury. Suppose the agency grants a loan of $20 million to a borrower (A) and finances this loan with a sale of its own debt. If this debt is purchased by the FFB, the example parallels exactly the case developed in exhibit 2. The agency, however, can sell this loan (the loan asset)

Exhibit 3

Agency Assets	Agency Liabilities	FFB Assets	FFB Liabilities
Loan Assets + Note from A $20 Million — Note from A $20 Million + Note from B $20 Million	Debt $20 Million	Loan Assets Note from A $20 Million	Borrowings from Treasury $20 Million

Treasury Assets	Treasury Liabilities
Loans to the FFB $20 Million	Treasury Debt $20 Million

to the FFB if the loan is guaranteed by this or another agency. Suppose the agency conducts such a sale and uses the proceeds to issue a new loan to another borrower (B). The net result of this transaction is that the agency's balance sheet remains unchanged. The FFB's balance sheet now shows a $20 million loan asset (the note from A) and a $20 million liability in the form of its borrowings from the Treasury. Finally, the Treasury's balance sheet shows a $20 million loan to the FFB and $20 million in newly issued debt. The net result of this transaction is that the Treasury has indirectly financed the extension of an agency loan. This process could, in principle, continue repeatedly until the agency reached its lending limit. Only the most recently granted loan would appear on the agency's balance sheet as a loan asset (or note). The FFB, however, would be holding notes on all previously granted loans while the Treasury's debt would expand to accommodate these transactions.

When the FFB acquires a guaranteed loan from an agency, the transaction effectively transforms a *contingent* liability of the government (in the form of a loan guarantee) into a *direct* loan by the Treasury. This transformation occurs because the FFB finances its acquisitions with loans from the Treasury, which, in turn, finances the loan to the FFB by issuing new debt. Thus, the FFB's acquisition of guaranteed loans or loan assets tends to distort the budget process by lowering the *outlay* totals for budgetary purposes of those agencies authorized to make such sales. Nevertheless, sales of loan assets and guaranteed loans to the FFB, as well as the budgeted outlays, all ultimately affect the Treasury's indebtedness.[10]

[10]The dramatic increase in guaranteed loans and their extensive purchase by the FFB has led to several, as yet unsuccessful, legislative initiatives to limit their use.

A hypothetical example illustrates how these transactions could distort what many people consider the meaning of a "balanced" federal budget. Though it is widely believed that a balanced budget implies no additional federal borrowing, this is not necessarily true. Suppose that all authorized and budgeted outlays of agencies are fully financed by tax receipts. While the budget would be balanced, the Treasury or the FFB would still issue additional debt if at least one agency, whether on- or off-budget, grants loans that are then sold to the FFB in a loan asset sale. In this case, the net outlays of the agency remain unchanged, but the Treasury's debt rises when it finances the FFB's acquisition of the loan asset.

The FFB's operations have at least two additional effects on capital markets. First, the agencies' access to funds via the FFB lowers their cost of funds relative to low-risk private borrowers. While government insurance or loan guarantees for various programs have always given such programs a competitive edge in financial markets, the method of placement used before the FFB's creation did involve an implied market assessment of their riskiness. When different agencies issued debt, the market implicitly made a relative evaluation of the various programs. Furthermore, the cost of funds to the agencies prior to the FFB's creation was higher. This is evident from the fact that in 1974 the FFB initially was lending to the agencies at a 37.5 basis-point (⅜ percentage point) premium over the new-issue Treasury bill rate. This rate was at or below the prevailing interest rate on agency securities at that time. This spread was reduced in two steps (in November 1974 and May 1975) to the present 12.5 basis points. In congressional hearings, these reductions were said to have primarily reflected a narrowing in the market spreads between yields on agency and Treasury issues as the general level of interest rates declined during the 1974-75 recession.[11] Although such yield spreads tend to be cyclical, the FFB's lending rate has maintained the same 12.5 basis-point spread over Treasury yields as interest rates have risen during the 1975-79 expansion. Thus, agencies can obtain funds at only a slight premium above the Treasury's own rates, a fact which may have the additional long-run effect of encouraging agencies to place more debt than otherwise.

A second effect the FFB has on capital markets results from the transformation of guaranteed loans into direct loans. Before the establishment of the FFB, insured agency loans were sold to the public in private capital markets. Since its formation, however, the FFB (and ultimately the Treasury) has financed an increasing portion of these transactions. By effectively underwriting loans to the private sector in this way, the FFB channels loanable funds to relatively high-risk borrowers who otherwise would have acquired the loans only at a higher cost, if at all.

Table 2

Annual Averages of Monthly Levels of Outstanding Debt
(Billions of Dollars)

Year	Aggregate Federal Debt	Treasury Debt	Agency Debt
1955	$280.8	$277.8	$ 3.0
1956	280.0	276.1	4.0
1957	279.6	274.3	5.3
1958	283.7	277.2	6.5
1959	295.5	287.5	8.0
1960	298.8	289.1	9.6
1961	302.0	292.0	10.0
1962	311.7	299.5	12.2
1963	319.2	305.6	13.6
1964	328.3	312.7	15.6
1965	336.1	318.5	17.6
1966	346.1	323.5	22.6
1967	361.4	334.1	27.2
1968	386.2	352.2	34.0
1969	401.1	360.7	40.4
1970	424.1	375.6	48.6
1971	453.6	403.4	50.2
1972	485.4	432.5	52.9
1973	523.1	459.6	63.5
1974	556.1	477.7	79.4
1975	623.1	535.5	93.2
1976	711.0	620.0	101.5
1977	778.3	682.2	108.4
1978	864.9	754.3	124.9
1979*	924.9	797.6	144.1

*Average based on first six months of 1979.
SOURCE: *Federal Reserve Bulletin.*

Federally Sponsored Agencies

In addition to federally owned agencies, Congress has also established several *federally sponsored* agencies to allocate credit to selected sectors of the economy. Because these sponsored agencies either were converted to private ownership or were initially established as private enterprises, their activity falls completely outside the budgetary process. Like federally owned agencies, they channel funds to specialized sectors within the economy, either through

[11] *Loan Guarantees and the Federal Financing Bank*, Hearings before the Subcommittee on Economic Stabilization, 95 Cong. 1 Sess. (GPO, 1977), p. 180.

Table 3

Percent Changes in Annual Averages of Outstanding Debt

Year	Aggregate Federal Debt	Treasury Debt	Agency Debt
1956	-0.3%	-0.6%	30.5%
1957	-0.2	-0.6	33.0
1958	1.5	1.0	24.3
1959	4.1	3.7	22.5
1960	1.1	0.6	20.1
1961	1.1	1.0	4.0
1962	3.2	2.6	21.9
1963	2.4	2.0	11.1
1964	2.9	2.3	15.1
1965	2.4	1.8	12.9
1966	3.0	1.6	28.5
1967	4.4	3.3	20.4
1968	6.9	5.4	24.8
1969	3.9	2.4	18.7
1970	5.7	4.1	20.3
1971	6.9	7.4	3.4
1972	7.0	7.2	5.4
1973	7.8	6.3	20.0
1974	6.3	3.9	25.0
1975	12.0	12.1	17.4
1976	14.1	15.8	8.9
1977	9.5	10.0	6.8
1978	11.1	10.6	15.1
1979*	6.9	5.7	15.4

*Based on first six months of 1979.

direct loans to individual borrowers or through the purchase of loans that were initiated in the private sector. These government-sponsored agencies are listed in panel C of exhibit 1.

The programs and debt of sponsored agencies are not part of the unified budget, are not subject to the debt limitation of Congress, and, except for the SLMA, do not involve indirect FFB financing by the Treasury. Many of these programs were converted to private ownership and thereby removed from the budgetary process soon after Congress adopted the new unified budget concept in 1967. Though these agencies' budgets are not directly subject to congressional review, their activity is not completely independent of the federal government. For instance, FNMA has a guaranteed emergency access to Treasury loans up to specific limits. Despite the formal distinctions usually made between the Treasury and the sponsored agencies, the debt of these agencies constitutes a source of federally related credit demand in U.S. capital markets.

AGGREGATING FEDERAL DEBT

The sum of Treasury debt, federally owned on- and off-budget agency debt, and federally sponsored agency debt is a more appropriate measure of the federal government's full impact on U.S. credit markets. Since the FFB essentially converts agency debt into Treasury debt, that debt which the FFB intermediates must be deducted from the total. An example will clarify this calculation.

When an agency issues debt to finance its programs, that debt is counted in the total of agency debt outstanding. When the FFB purchases this debt, it borrows from the Treasury which, in turn, issues new Treasury debt, thereby adding to the total Treasury debt outstanding. A simple total of these two debt categories essentially would count the agency-initiated debt twice. For example, this double counting would occur if, in exhibit 2, the debt of the agency and that of the Treasury were added together. Since the FFB essentially passed the agency debt through to the Treasury, the debt should be counted only once. Subtracting the FFB-financed debt eliminates this double counting.[12]

Table 2 reports the annual outstanding debt of the Treasury, of all agencies, and the sum of these two categories (aggregate federal debt) after netting out FFB debt financing. These data reveal a substantial increase in the outstanding debt of the agencies. (From here on, federally owned agencies and federally sponsored agencies will be referred to as "agencies.") From 1955 to 1978, outstanding agency debt grew at an annual rate of 17.5 percent while Treasury debt grew at the much slower rate of 4.4 percent. In 1955, agency debt constituted only about 1 percent of all debt raised under federal auspices. By 1978, it totalled more than 14 percent of all federally related debt.

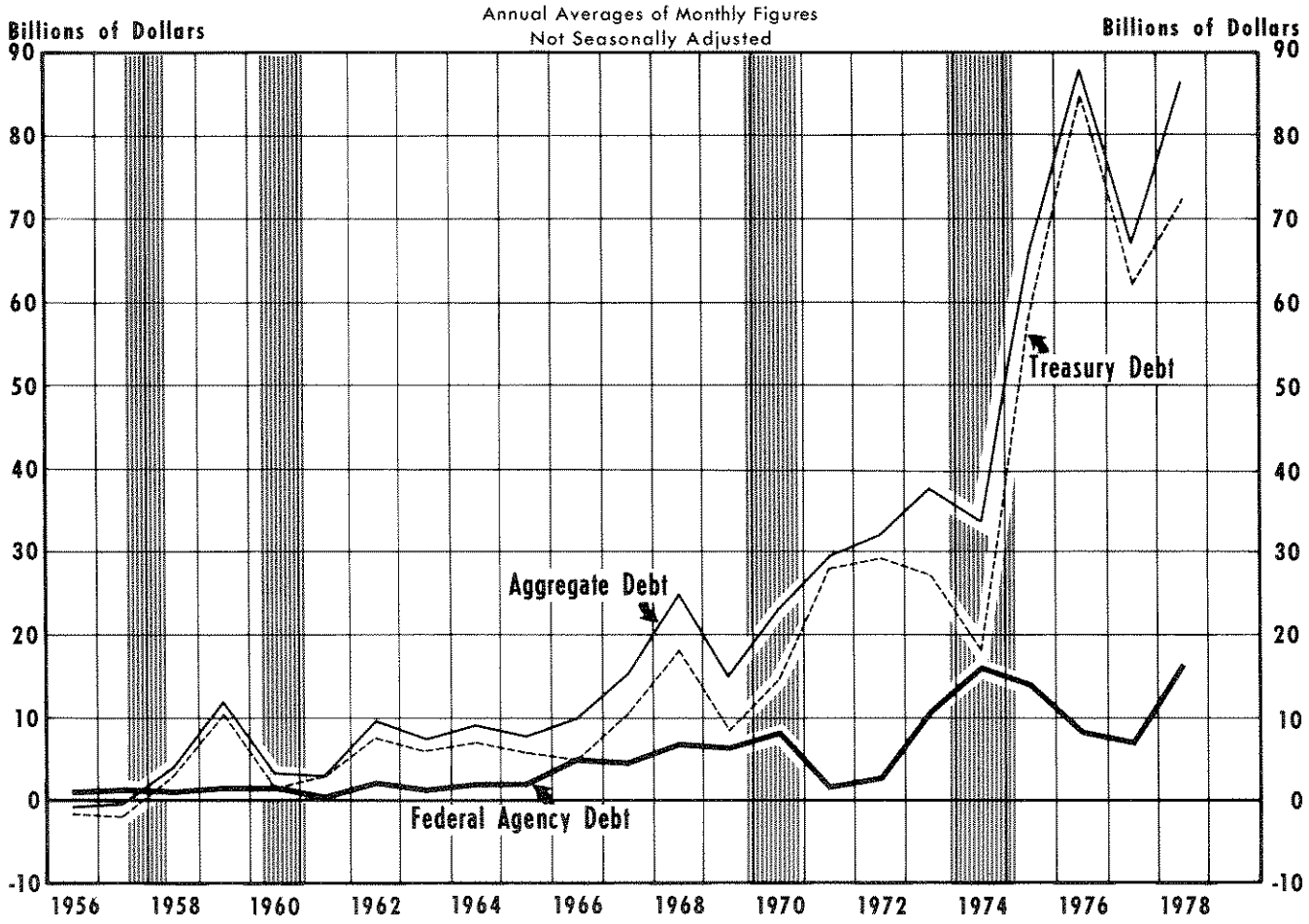
Table 3 reports annual growth rates for the three debt categories. Comparing the growth rates of Treasury debt and aggregate federal debt reveals that aggregate federal debt grew faster in every year except 1971, 1972, and 1975-77.[13]

[12]Only FFB intermediation of agency debt needs to be netted out of the total, since FFB loan asset acquisitions, in effect, transform agency assets into Treasury indebtedness. In exhibit 3, adding agency debt and Treasury debt together would entail no double counting.

[13]A one-tailed t-test was performed on the mean difference between the two growth rates, calculated over the period 1956-78. The tests confirmed, at the .995 confidence level, that the growth of aggregate federal debt was significantly faster than the growth of Treasury debt.

Chart 1

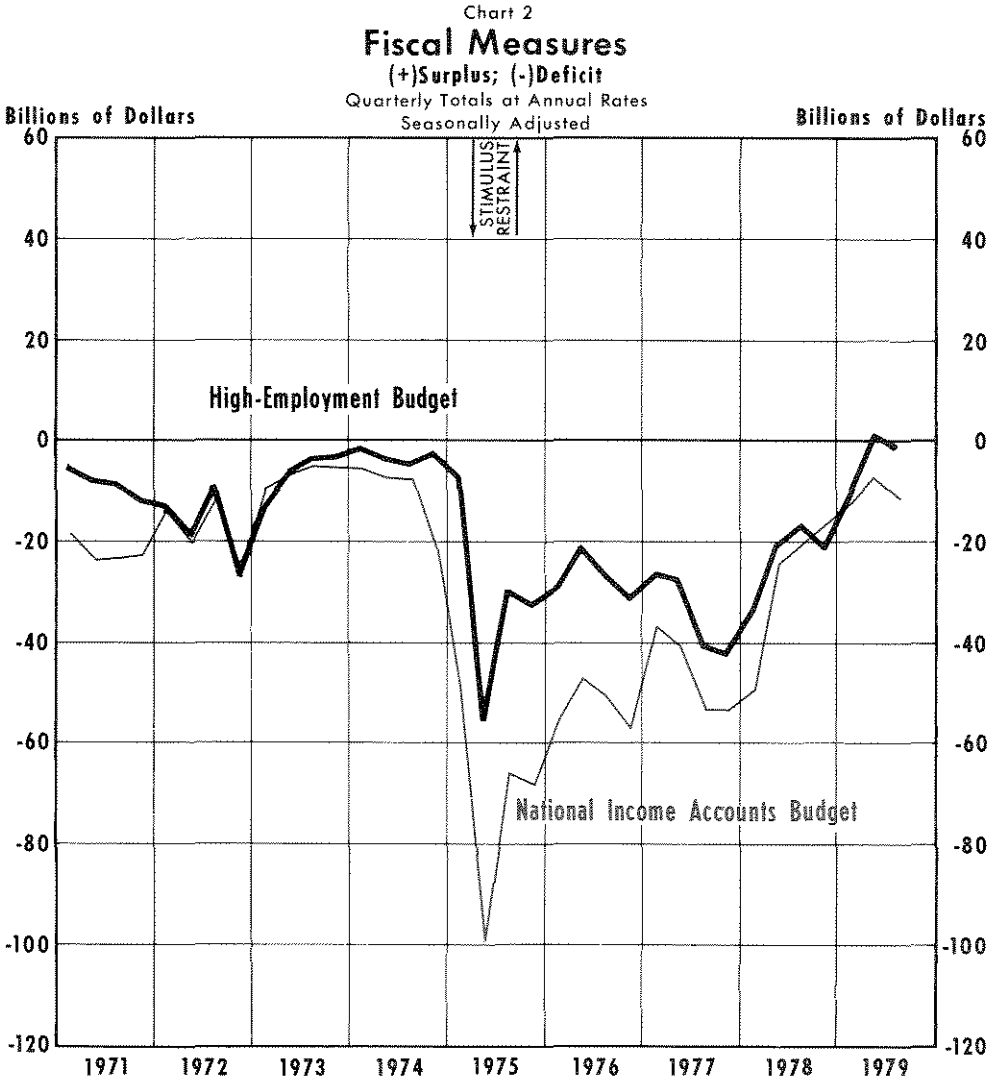
Change in Debt



Shaded areas represent periods of business recessions.
Latest data plotted: 1978

The reversal of the growth trend from 1975-77 requires some explanation. The sharp deceleration of agency debt growth from 1975 to 1977 was accompanied by a sharp acceleration of Treasury debt growth. The annual growth rate of Treasury debt after 1974 is more than four times its growth rate for the entire period 1955-73. Since the post-1974 period spans the life of the FFB, the data suggest that the FFB has, in fact, transferred the debt financing operations from the agencies to the Treasury. However, the sharp acceleration in the growth rates of both Treasury debt and aggregate federal debt since 1974 can be only partially attributed to the effect of FFB financing, since even budgeted programs have required unusually large debt financing in this period.

When the impact of government debt is measured only by Treasury debt, a substantial portion of the effect of federal programs on credit markets is overlooked. The potential consequences of this oversight can be illustrated with an example. The administration's recent energy proposal calls for the establishment of a "private" government-sponsored corporation to develop synthetic fuels. Estimates of the additional debt this corporation would issue run as high as $80 billion over the next decade. The debt of this federally sponsored corporation alone would increase off-budget agency debt by more than 60 percent over present levels, yet would neither be included in commonly used measures of the federal debt nor be reflected in the official federal budget. Because the fund-raising activities of all programs under federal auspices affect capital markets, however, it is appropriate to examine the total of federally related debt when analyzing the government's impact on credit markets.



Sources: U.S. Department of Commerce and Federal Reserve Bank of St. Louis
Latest data plotted: 3rd quarter

IMPLICATIONS OF AGGREGATING ALL DEBT RAISED UNDER FEDERAL AUSPICES

Federal Borrowing and the Business Cycle

When cyclical fluctuations in GNP growth are associated with similar fluctuations in private credit demands, the government can avoid amplifying the resulting interest rate cycle with its own debt operations. If increases in government debt are kept lower during business expansions than during contractions, pressures on interest rates from federal debt operations would be moderated over the business cycle. Since a major objective of federal fiscal policy is to counteract cyclical fluctuations in economic activity, and since fiscal actions regarding federal expenditures and tax receipts are reflected in the budget deficit or surplus, changes in Treasury debt could be expected to vary countercyclically.

An important distinction between the activity of the Treasury and the agencies must be noted, however. Federally owned and sponsored agencies' activities frequently are directed toward allocating credit to specific sectors of the economy. In particular, a large portion of total agency debt is used to moderate cyclical fluctuations in the housing sector.

Near the peak of business cycle expansions, interest rates generally have risen to levels that approach or exceed regulatory ceiling interest rates on time and savings deposits. Consequently, financial intermediaries such as savings and loan associations and mutual savings banks have experienced difficulty in attracting the funds needed to maintain mortgage loan activity. Agencies such as the FHA, GNMA, and FNMA have attempted to offset this effect by increasing their lending (or by purchasing loan assets) in the housing or mortgage markets. This activity has been financed by increasing the agencies' debt at or near business cycle peaks. This implies a tendency for agency debt to behave procyclically, in contrast to the countercyclical behavior of Treasury debt.

Changes in Treasury debt outstanding (chart 1) indicate that Treasury borrowing tends to follow changes in the budget deficit (chart 2), rising during recessions and declining near business cycle peaks. Agency borrowing, on the other hand, tends to rise just before the business cycle peak and to decline after the onset of a recession. Since Treasury borrowing has generally been substantially larger than agency

borrowing, changes in aggregate federal debt have tended to mirror changes in Treasury debt. Nevertheless, ignoring the behavior of agency debt leads to an overstatement of the degree to which government borrowing has been countercyclical.

The effect of agency borrowing on cyclical movements of interest rates is also important in examining the interaction of the federal government and the Federal Reserve System. Through open market purchases of government securities, the Federal Reserve can attempt to counteract the upward pressure on interest rates that can occur when the Treasury borrows. The extent to which Federal Reserve policy accommodates Treasury debt operations is a critical issue in the debate over the impact of government deficits on inflation. Note, however, that the Federal Reserve can undertake open market operations using both Treasury and agency securities. One might expect then, that when the Treasury and agencies increase their debt, the Federal Reserve would tend to increase its holdings of both types of debt. In fact, Federal Reserve holdings of agency securities have increased substantially in recent years, rising from less than $1 billion in early 1972 to more than $8 billion by August 1979.[14] Consequently, studies of Federal Reserve responses to fiscal actions — such as the issue of whether larger government deficits are associated with higher money growth — should consider the expenditures and debt operations of both the Treasury and the agencies.

If off-budget agencies, especially the federally sponsored "private" corporations, continue to proliferate, agency borrowing as a proportion of all debt raised under federal auspices will become increasingly larger. Consequently, the behavior of aggregate federal borrowing over the business cycle could change significantly if the federal government continues to rely on these agencies to change the allocation of the economy's resources while at the same time keeping their outlays out of the budget process.

The High-Employment Budget Concept

Since the early 1960s, many economists have emphasized that simple budget concepts overlook the impact of economic activity on the budget. Specifically, during recessions the budget tends to fall deeper into deficit as unemployment insurance coverage and other social programs expand. Some economists argue, therefore, that the relevant measure of the budget's impact on the economy is a *full-employment* or *high-employment budget* concept. This concept estimates the size of the budget deficit or surplus that would result if the economy were at a high level of employment. The high-employment budget deficit then measures the impact on the economy of the government sector alone.

Chart 2 plots both the actual and the high-employment budget measures. These budget measures are calculated on a national income accounts (NIA) basis rather than the unified budget basis. The chief difference between the two methods is that the NIA budget nets out all loan activity while the unified budget does not. The NIA high-employment budget concept is an unofficial measure that is used by the Council of Economic Advisors and others for assessing the impact of the government sector on economic activity.[15] The rationale for netting out government loan activity is that such loans constitute a contingent liability and are not truly expenditures. This approach, however, overlooks allocational effects of such loans. Further, since the volume of such loans may vary over the business cycle, the NIA budget concept overlooks some important aspects of the relationship between government spending and economic activity.

Measures of the high-employment budget ignore the off-budget expenditures and receipts of both government-owned and -sponsored agencies. Consequently, the high-employment budget concept understates the economic stimulus attributable to the federal government. Since a major part of off-budget agency activity involves loans, which the NIA budget concept nets out, placing these agencies on budget would have little effect on the currently constructed high-employment budget. Any additional economic stimulus generated by off-budget programs still would not be taken into account when evaluating a high-employment budget measure.

Chart 2 shows that during the recent expansion (I/1975-II/1979) the high employment budget was, like the actual NIA budget, considerably in deficit.

[14]On February 15, 1977, the Federal Open Market Committee amended its guidelines for the conduct of Federal Reserve System operations in federal agency issues to take account of the FFB. Federal Reserve purchases of agency securities were limited to those agencies that are not eligible to borrow funds from the FFB, although securities issued by the FFB itself may be purchased. See Board of Governors of the Federal Reserve System, *64th Annual Report, 1977* (1978), pp. 189-90.

[15]Though the idea of the high-employment budget has a long history, it was first given prominence in a policymaking context during the Kennedy Administration. For a discussion of full-employment budget concepts and their application, see Alan S. Blinder and Robert M. Solow, "Analytical Foundations of Fiscal Policy," in *The Economics of Public Finance,* (Washington, D.C.: The Brookings Institution, 1974), pp. 3-115.

During the latter part of this period, accelerating inflation accompanied a rapid growth of agencies' activity, as reflected in their debt. Thus, at least during the past year, the conventional high-employment budget measure is likely to have understated the effect of the government's overall impact on the economy.

Balanced Budget Proposals

Political pressure to contain government spending, especially deficit spending, has increased during the past few years. The most familiar proposals call for a constitutional amendment either to balance the budget, to limit federal spending to a specific percentage of GNP, or to limit tax revenues.

Debate on these issues has centered on a few key arguments about the desirability and practicality of such limitations. Both sides in this debate, however, have often overlooked the federally owned and federally sponsored programs that are not part of the budget. The existence of these programs and their potential for expansion raises serious questions about the effectiveness of constitutional amendments or legislation directed at containing government spending. For instance, Congress could satisfy requirements for balancing the budget by removing some agencies and their programs from the budget or by redesignating them "private" institutions, as was done with the Federal National Mortgage Association in 1968. Either action would improve Congress' ability to balance the budget, but would violate the amendment's intent. Ignoring these potential congressional actions reduces the likelihood that constitutional reforms, if adopted, will achieve their supporters' objectives.

SUMMARY AND CONCLUSIONS

While the function of federally owned and federally sponsored agencies primarily involves questions of microeconomic importance, these agencies also generate effects that are macroeconomic in nature. When fiscal policies are examined, the actions of these independent, off-budget agencies are frequently ignored. Aggregating these agencies' debt with Treasury debt is necessary to assess the full impact of federal programs on the economy, especially on credit markets.

The growth of off-budget spending, especially that financed indirectly by the Treasury through the Federal Financing Bank, underscores the importance of these agencies. In practice, the FFB permits some programs to be funded without undergoing congressional review through the budget process.

When analysts evaluate the government's cyclical impact on capital markets and the economy, they usually examine only the behavior of Treasury debt. This approach, however, could produce misleading conclusions since agency debt behaves differently over the cycle than Treasury debt. Agency debt tends to fluctuate procyclically, thereby dampening the countercyclical effects of Treasury debt operations. Disregarding agency activity could also lead to incorrect measurement of the fiscal impact contained in any given "full-employment" budget measure.

Agency debt activity also has important implications for recent proposals to balance the budget. If the alternative of financing federal programs through off-budget agencies is overlooked, proponents of a balanced budget may find that adoption of their proposals will fail to achieve their objectives.