

THE EXPORT-IMPORT BANK:
IMPLICATIONS FOR THE FEDERAL BUDGET
AND THE CREDIT MARKET

Staff Working Paper

October 27, 1976



CBO-1113

CONGRESS OF THE UNITED STATES
Congressional Budget Office
Washington, D.C.

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price 60 cents
There is a minimum charge of \$1.00 for each mail order

PREFACE

The federal budget for fiscal year 1977 again includes the annual budget authority and outlays of the Export-Import Bank of the United States. **The** removal of the Export-Import Bank from the budget in 1971 and subsequent return in 1974 spawned debate on some of the **Bank's** activities. This paper, prepared at the request of the Senate Budget **Committee**, examines some of the budgetary and economic implications of the **Bank's** activities. The paper investigates (1) how Congress influences the practices and/or policies of the Bank, and (2) the significance of the **Bank's** activities in the U.S. credit market. In keeping with the Congressional Budget **Office's** mandate to provide nonpartisan analysis of policy options, it contains no **recommendations**.

This paper was prepared by **Rosemary E. Minyard** of the National Security and International **Affairs** Division of the Congressional Budget Office, under the supervision of Lawrence G. **Franko** and John E. Koehler. The author wishes to acknowledge the substantial help provided by Ramon Espinosa of **CBO's** Budget Analysis Division, Jim Hess of the Export-Import Bank, and **CBO** summer intern Arlena Barnes. The paper was edited by Patricia H. Johnston, and Shirley **Hornbuckle** typed the several drafts.

Alice M. Rivlin
Director

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SUMMARY

The Export-Import Bank (Eximbank) was established to facilitate export transactions between U.S. sellers and foreign buyers. It fulfills this mandate through its borrowing authority which generates funds for the Bank's various loan and guarantee programs.

Arguments in support of including the Eximbank in the budget imply that the Bank's loan and credit activities have an important effect on the U.S. economy and that these activities can be controlled through the appropriations and budget processes. The principal argument against including the Bank in the budget is that the Bank requires no annual appropriation for its activities.

This study finds that the Congress has used the Eximbank as a tool of foreign policy, permitting and prohibiting Eximbank transactions of various sizes and kinds. But neither the appropriations nor the new budget process are efficient means for achieving fiscal policy objectives through the Eximbank. The Appropriations Subcommittees can, to a degree, influence actual budget authority and outlays for the Bank by changing the amount approved for new loan authorizations. But there is no sure way to know by how much budget authority and outlays will in fact change. Since the Bank has permanent, indefinite authority to borrow, the actual value of budget authority is indeterminate until signed contractual obligations are made, and hence the Budget Committees have very little command over the Bank's practices. The Budget Committees can revise estimates of budget authority and outlays but they have no control over the way budget authority and outlays are generated or their amounts.

This study also finds that the Export-Import Bank does influence the supply of export credit. Eximbank channels funds to exports requiring long-term financing. The difference between the Eximbank interest rate and the market rate is an implicit interest rate subsidy. The subsidy is estimated as the difference between the rate Eximbank charges its customers and the rate the funds would earn in the market. Since it is an estimate of the reallocation of credit from domestic to export-financing uses, the subsidy is a better indicator of the Bank's effect on the economy than is the Bank's budget authority.

A subsidy arises because Eximbank can **borrow**, mostly from the government at government bond rates, and lend at a rate lower than the going rate in the export finance market. **The** subsidy is not a transfer of **taxpayers'** money. **The** size of the subsidy is not under the control of the Eximbank. **The** subsidy decreases when the market rate falls, or Eximbank starts disbursing loans which were authorized at a higher interest rate, or when Eximbank disbursements decline. For fiscal year 1975 over 50 percent of the subsidy went to support sales of aircraft and other transportation equipment, nuclear power plants and **equipment**, and other special industrial **machines**.

CHAPTER I

OVERVIEW OF **THE EXPORT-IMPORT** BANK

Although the Export-Import Bank (**Eximbank**) was created in **1934**, its current operations are based on the **Export-Import** Bank Act of 1945, as amended. This act directs the Eximbank to facilitate export transactions between **U.S.** sellers and foreign buyers. It does this in several ways:

- The Eximbank borrows from the Treasury and/or the private market to provide "direct" loans to foreign purchasers. When the Eximbank extends a direct **loan**, the money is paid to the **U.S.** exporter and the foreign buyer signs a note to repay the **Bank**.
- The Bank extends "**discount**" loans, which are advance commitments to lend against or acquire export debt obligations held by commercial banks when and if the banks need cash.
- The Eximbank guarantees loans to foreign purchasers by commercial banks and extends credit insurance. Financial guarantees assure commercial banks repayment of export loans. Credit insurance protects **U.S.** exporters against political and commercial risks.

Eximbank as a Foreign Policy Tool

The Congress also uses the Eximbank as an instrument to pursue other, more specific goals related to the execution of U.S. foreign policy. It does this by requiring Eximbank operations to follow special politically motivated guidelines. The history of the **Bank's** participation in trade to communist countries provides an illustration of Congressional influence on the **Bank's** policies via the legislative process.

Title III of the Foreign Assistance and Related Agencies Appropriations Act of 1964 (**P.L. 88-634**) prohibited the Eximbank from lending or in any way participating in the extension of credit to any communist country, except when the President determined that participation was in the national interest. This ban was repeated in comparable appropriations acts until 1968. In 1968 Congress

included the same provision in the **Eximbank** Act and also prohibited the **Bank's** participation in extending credit to any country which furnished **goods**, supplies, military assistance or advisers (by direct government action) to a nation engaging in armed conflict with the armed forces of the United States (**P.L. 90-267**). Because of the Vietnam **war**, this measure effectively denied Eximbank credit to all communist countries, except Yugoslavia.

Subsequently, however, other laws were passed facilitating the use of the Eximbank as an instrument of **East-West** trade. In 1971, the Export Expansion Finance Act (P.L. 92-126) removed the absolute prohibition on Eximbank financing to countries which supplied states in armed conflict with the United **States**. A national interest determination was again to be made on a country-by-country basis. With this law the Congress gave the Executive Branch more flexibility to administer the restriction on trade to communist countries.

In keeping with the spirit of using the Eximbank as an East-West trade policy instrument, the Congress passed, as a provision of the Trade Act of 1974 (P.L. 93-618), a ban on new loans and guarantees which would exceed \$300 million to the Soviet Union without Congressional approval. The **same** act also prohibits U.S. Government credit to any **non-market** economy restricting the emigration of its citizens. P.L. 93-646 of 1975 is a further illustration of how Congress uses the Bank to fashion the U.S. response to detente. Limitations are set in that act for energy-related transactions with the Soviet Union. Also, a separate Presidential determination of national interest is required on each loan of \$50 million or more to a communist country.

Administration and Congressional Policy Formation

Despite broad Congressional guidance of the activities of the Bank, most policies and practices of the Bank evolve to reflect U.S. foreign policy considerations as they are determined by the Administration. Policies are formulated and coordinated in the Administration by the National Advisory Council on International Monetary and Financial **Policies**.^{1/} **However**, by statute, the

1. The National Advisory Council on International Monetary and Financial Policies is composed of the Secretary of the Treasury, the Assistant to the President for Economic Affairs, the Secretaries of State and Commerce, the Chairman of the Board of Governors of the Federal Reserve System, and the President of the **Export--(continued)**

Congress reserves for itself the authority to disapprove many **Eximbank** projects. This potential veto power is, in many **cases**, the formal **mechanism** which involves the Congress in the use of Eximbank activities as a tool of foreign policy.

A case in point is the development of the Eximbank as a policy instrument in controlling the sale of nuclear power plants abroad. To facilitate Congressional control, the Congress, in 1975 (P.L. **93-646**), amended the **Eximbank's** charter to require Congressional review of any proposed Eximbank credit and/or guarantee of \$60 million or more. The review is to be made before the Eximbank **finally** authorizes the transaction. Because of the amount of financing required for nuclear power plant sales, all such cases go to the Congress for **review**.^{2/} Later that year House and Senate resolutions urged that the Executive Branch negotiate an agreement providing for strict multinational safeguards on the international transfer of nuclear fuel, technology, or **equipment**.^{3/} They also urged, perhaps as a **stop-gap** measure, a halt to **such** transfers to any country that had not accepted international atomic energy safeguards or that had not become a party to the Treaty on the **Non-Proliferation of Nuclear Weapons**.^{4/}

Since the **Bank's** broad mandate to foster **U.S.** exports is complicated by specific directives related to **U.S.** foreign policy, it is difficult to measure the costs or benefits, and, hence, the effectiveness of using the Eximbank as a policy tool. In addition, the effectiveness of the Bank is also hard to measure in any year because of the considerable lags between the **Bank's** lending decisions and actual lending. The lags make it difficult for lending associated with particular policy objectives to be identified through the budget process.

Import Bank. Both the president and the board members of the Eximbank are nominated by the President to serve at his discretion. The Congress influences the **President's** choice of the Eximbank president and board members because they must be **confirmed** by the Senate.

2. The role of the Administration in monitoring nuclear export **financing** is similar to that of the Congress. The National Advisory Council automatically reviews financing related to nuclear technology when the Eximbank's participation is \$30 million or more.

3. S. Con. Res. 69, October 9, 1975, and H. Con. Res. 371, July 30, 1975.

4. Ibid.

CHAPTER II

EXPORT-IMPORT BANK AND THE BUDGET

In order to help control federal expenditures, the Congress now sets ceilings on budget authority and outlays in the various budget **functions**, of which international affairs is one. The levels of **Eximbank** budget authority and outlays are included in the international affairs function. The Bank generates budget authority and outlays by a different process than **most** of the other programs in the function, however, and it is therefore relatively difficult for Congress to use the budget process to control Bank operations and to affect the use of the Eximbank as a tool of international trade **policy**.

Arguments for the **Bank's** remaining on or going off the budget often assert that being on the budget allows greater Congressional control of Eximbank lending or that being off the budget allows the Bank more flexibility to administer its **mandate**.^{1/} But the process by which the Bank generates budget authority and outlays is the same whether the Bank is on or off the budget. Being on budget does not allow greater Congressional control of Eximbank lending. Being off the budget does not necessarily allow the Bank more flexibility.

The next section describes how budget authority and outlays are generated and demonstrates that there is little relationship to annual program approvals. A subsequent section explains that overall authority, a potential constraint on Bank activity, has never actually been used to limit Bank budget authority, although increases in the overall authority have been required from time to time as Bank operations have grown.

What Are Budget Authority and Outlays?

Budget Authority

Budget Authority for the Eximbank is the authority to borrow to meet its commitments to its **customers**. It is an estimate of the net increase in credits to Eximbank customers that the Bank might have to finance in the future by borrowing. This borrowing authority

1. In 1971, P.L. 92-126 removed the **Bank's** programs from the budget and in 1975 P.L. 93-646 returned the programs to the budget again.

allows the **Eximbank** to incur obligations; no subsequent appropriation is required. The authority is both permanent and indefinite. **The Bank's** charter gives it the authority to tap both the Treasury and the private market for as long as necessary. **The** amount of funds which can be borrowed annually is not predetermined in the enabling legislation.^{2/}

Each **fiscal** year the Eximbank must go to the House and Senate Appropriations Subcommittees for approval of the levels of its new activity. This approval limits the amount of new authorizations the Eximbank can make in that year in order to fund projects presented to it by U.S. exporters or foreign buyers. During the year the Bank authorizes assistance to exporters and foreign purchasers to complete negotiations for export **sales.**^{3/} Later a signed loan agreement contract will be entered into among the Eximbank, the foreign buyer, and often a commercial bank.

The magnitude of budget authority in any year is a function of total signed loan agreements and other contractual obligations entered into by the Bank, repayments of principal to the Bank, and Bank net **income.**^{4/} An average of 33 percent of newly **authorized** credits becomes signed loan agreements in the same year as authorized. About 60 percent **is** signed in the next year and the rest is cancelled. The total flow of Eximbank loan authorizations signed during the year, plus 25 percent of the net increase in credit guarantees, less cancellations and loans that will be repaid and Bank net income equals budget authority. But because historically about 60 percent of the yearly value of loan agreements signed are from previous years' authorizations, and because budget authority also includes other contractual obligations net of repayments, annual changes in new program approvals afford little leverage over the value of budget **authority.**

2. This type of budget authority is different from contract authority. Contract authority allows contracts to be entered into prior to an appropriation and then requires a subsequent appropriation to liquidate the contracts.

3. Eximbank lends an average of 40 percent of any export contract; the balance is financed from other sources.

4. Net income equals the value of interest receipts and guarantee fees received by the Bank less administrative expenses, insurance claims, and interest charges paid by the Bank. The Eximbank also guarantees commercial export loans; one-fourth of the net increase in amounts guaranteed during the fiscal year are charged against budget authority.

Outlays

While budget authority is an estimate of possible future borrowing, outlays are the actual net borrowing by the Bank for the year. Outlays equal net cash payments related to current and prior **years'** commitments, disbursements on direct credits, less principal repayment and Bank net **income.**^{5/} Only outlays actually affect the federal deficit or surplus.

Overall Authority

Overall authority is a limitation on the sum of the amount of outstanding loans and 25 percent of outstanding guarantees and insurance. When the Bank requests yearly program approval, the amount cannot allow the Bank to exceed the limitation on overall authority. The value of this limitation is established by statute.

Changes in the limitations on overall authority historically have accommodated the changes in volume of demand for **Eximbank** loans, guarantees, and insurance. Table 1 shows historical increases in the limitation on overall authority and actual authority used. Overall authority (OA) actually used rose from \$12.3 billion in fiscal year 1972 to \$17.8 billion in fiscal year 1974 (not shown in the **table**). When **Eximbank's** use of OA rose to \$19.1 billion in fiscal year 1975, it was very close to the statutory limitation of \$20 billion. The 1975 increase in the limitation on OA to \$25.0 billion is expected to permit the **Bank's** use of OA to rise to **\$24.9** billion in fiscal year 1977.

The adjustment of overall authority to a new higher ceiling can result in an increase in budget authority. As the ceiling on overall authority was approached in fiscal years 1974 and 1975, budget authority first declined from \$2.3 billion in fiscal year 1973 to **\$1.4** billion in fiscal year 1975. Later, the increase in the ceiling on overall authority in fiscal year 1975 permitted net increases in outstanding **Eximbank** loans and obligations, reflected in budget authority increases estimated for fiscal year 1976 and fiscal year 1977.

Chart I illustrates the relationship between overall authority and the flows of new program approvals each year into budget authority and outlays for fiscal years 1975, 1976, and 1977. New program approval in fiscal year 1975 totaled \$4.1 billion. Because only some

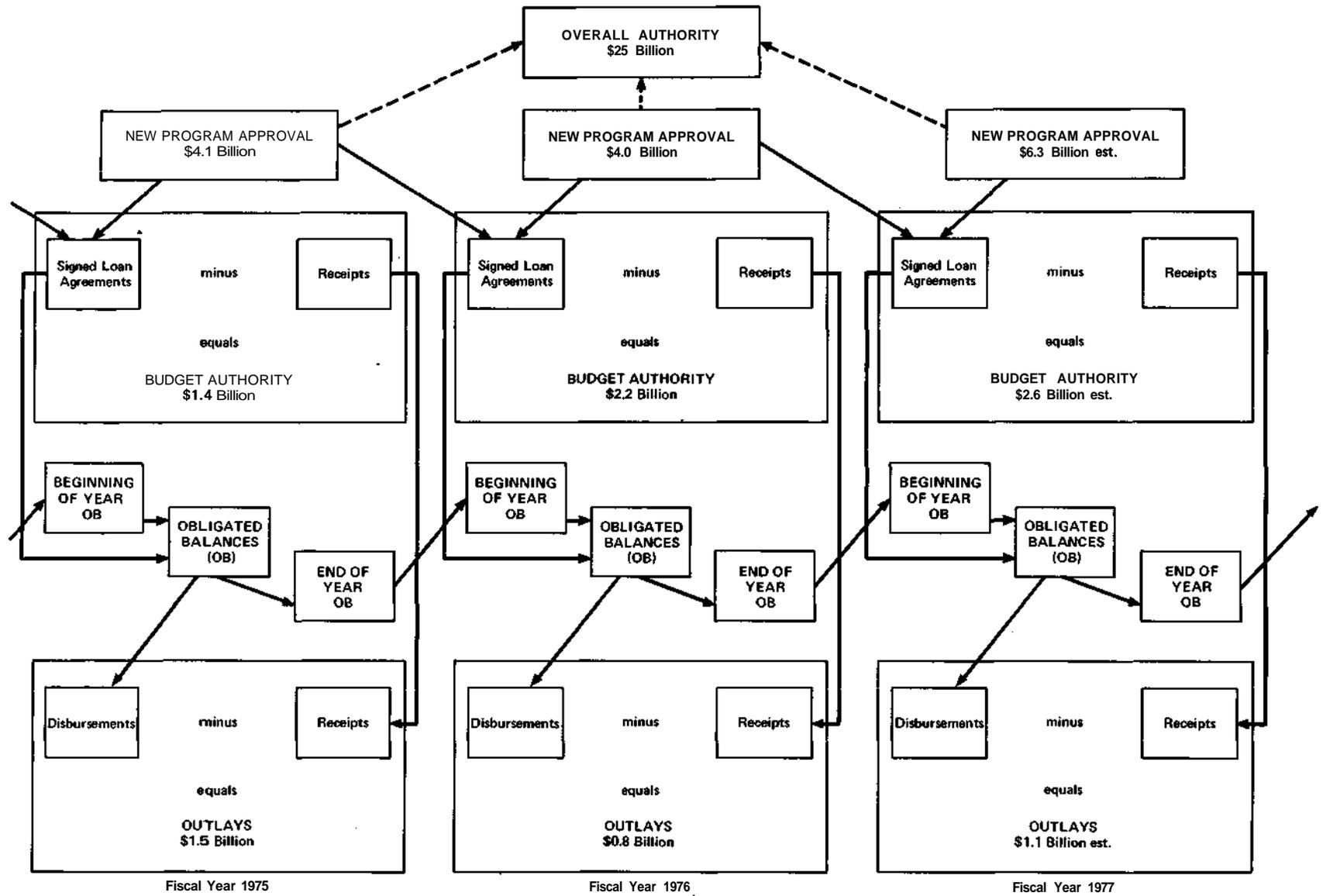
5. The amount of newly authorized loans which are disbursed in the same year is very small (10 percent).

Table 1

OVERALL AUTHORITY FOR EXIMBANK LENDING, **GUARANTEES**, AND INSURANCE: LIMITS AND ACTUAL USE

<u>Fiscal</u> <u>Year</u> <u>Effective</u>	<u>Public Law</u>	<u>Total Overall Authority</u> <u>(Billions of dollars)</u>	<u>Overall Authority</u> <u>Actually Used</u> <u>(Billions of dollars)</u>	∞
1952	(82-158; 65 S. 367)	\$ 4.5	\$ 3.1	
1955	(83-570; 68 S. 677)	5.0	3.3 (est.)	
1958	(85-424; 72 S. 133)	7.0	4.5	
1964	(88-101; 77 S. 128)	9.0	5.5	
1968	(90-267; 82 S. 49)	13.5	8.9	
1972	(92-126; 85 S. 345)	20.0	12.3	
1975	(93-646; 88 S. 2333)	25.0	19.1	

Chart I. Flow of New Program Approval into Overall Authority, Budget Authority, and Outlays



of the \$4.1 billion of new program approvals were signed in fiscal year 1975, budget authority in that year only equalled \$1.4 billion. The value of budget authority roughly equals total signed loan agreements net of receipts.^{6/} Most of the remainder of fiscal year 1975 new program approvals were signed in fiscal year 1976. Outlays equal disbursements on agreements signed in current and prior fiscal years, net of receipts, and in fiscal year 1975 were \$1.5 billion. Only some of the agreements signed in fiscal year 1975 led to disbursements in that year and the remainder became obligated balances to be disbursed in succeeding years.

Congressional Leverage Over the Export-Import Bank's
Budget Authority and Outlays

The Appropriations Subcommittees can, to a degree, influence actual budget authority and outlays for the Bank by changing the amount approved for new loan authorizations annually. But there is no sure way to know by how much budget authority and outlays will, in fact, change. Since the Bank has permanent indefinite authority to borrow, the actual value of budget authority is **indeterminant** until signed contractual obligations are made.

The Appropriations Subcommittees rely on the Eximbank's estimate of its desired budget authority. Its estimate of budget authority has generally exceeded the actual budget authority. The discrepancy between the actual and estimated budget authority is due principally to the difficulty of predicting international economic events; the actual levels of credits authorized and signed will vary with changes in economic climate. While the Budget Committees can revise the estimates, they, like the Appropriations Committees, have no control over the way budget authority and outlays are generated in a particular year. **Thus** they have very little command over the Bank as an instrument of fiscal policy.

6. Budget authority also includes 25 percent of guarantee and insurance **authorizations**, and Eximbank net income.

CHAPTER III

THE EXPORT-IMPORT BANK AND THE CREDIT MARKET

Rationale for the Eximbank Credit Program

Proponents of Eximbank activities argue that the loan programs of the Bank fill a gap in the credit market for long-term (7 to 12 years) financing of capital goods exports. The alleged gap exists because commercial banks are said to avoid the political and exchange risks of extending loans to countries which seek long-term credit but whose ability to repay might be doubtful. The quantity of funds demanded for the financing of long-term capital goods exports is greater than the quantity supplied by the private capital market, and Eximbank narrows the gap by increasing the supply of funds available.

There are real barriers to the supply of domestic funds for export financing. Commercial banks often will not extend loans for terms **exceeding ten years**, and prefer to lend no longer than five years without guarantees or **insurance**. National banks are also limited in extending credit by the statute (12 U.S.C. 84) which sets a ceiling of 10 percent of a **bank's** loan portfolio to any one borrower. Banks frequently encounter this ceiling when customers are foreign governments, foreign government agencies, or foreign, **state-owned** corporations. Many borrowing countries, such as Mexico, Spain, and Iran, have numerous **state-owned** companies which also are customers of U.S. banks. For the purpose of the U.S. regulations, however, a foreign government and all its owned agencies and companies are considered to be one and the same borrower.

Insurance companies are also reluctant to provide financing for exports. Insurance companies have very long-term liabilities and, therefore, prefer very long-term but very secure **assets**.^{1/} The political and exchange risks appear to be too great for insurance companies to put a large share of their assets into foreign lending. Also, many insurance companies, because they are chartered in New York State, have a ceiling of 10 percent of their assets on foreign lending resulting from a New York law. A similar New Jersey law restricting foreign lending to 5 percent of assets also applies to many insurance companies.

1. Insurance companies almost never lend for terms less than 15 years.

Some proponents argue that the **Eximbank** is needed not only to overcome these barriers to the supply of financing but also because many countries are unable to obtain adequate credit since political risks may be too great for a foreign creditor to assume. **Also**, in some countries capital markets are not **well-developed**, and there is very little information on the sources of available credit. **These** factors are said to contribute to the lack of supply in international markets for long-term **finance**.

If Eximbank were offsetting shortages of credit due to these political risks and lack of information, the distribution of Eximbank credits should reveal that the Bank is providing much credit to less creditworthy countries. **This** appears to be the case.

The Eximbank has its own system of credit ratings, based on premium rates for guarantees and insurance. The ratings range from the most desirable to the least desirable and can be placed on a scale from one to four. Countries with a more desirable rating pay a smaller premium for guarantees or insurance. The Bank charges different premium rates because countries vary in their ability to repay, and a determination of a **country's** ability to repay is based on financial considerations. The following analysis draws on the **Eximbank's** own assessment of the **creditworthiness** of the various borrowing **countries**.

Table 2 lists (1) the percentage distribution of credits outstanding in each class of countries and (2) the distribution of credits outstanding as a percentage of total imports by that class. More than 35 percent of credits outstanding is in Class 1 (in column 1). This indicates that the Bank has extended substantial credit to countries whose credit is well established. However, those countries with better credit ratings also tend to be big importers, and the amount of credits outstanding to a class should be adjusted for the size of their import market. Although a large proportion of total credit is outstanding to Class 1 countries, as shown in column 2 these credits represent only a small proportion of imports by that class of **country.2/**

Thus, although Eximbank has lent substantial amounts to the most creditworthy countries, the structure of its portfolio

2. Some of the **top-rated** countries are France, Germany, the Netherlands, Sweden, Italy, United Kingdom, Venezuela, Canada, Australia, Japan, and Iran. Some of the poorly rated countries are Sierra Leone, Afghanistan, Pakistan, Indonesia, Zaire, Korea, Argentina, and Peru.

TABLE 2

DISTRIBUTION OF **EXPORT-IMPORT** BANK CREDITS, GUARANTEES, AND INSURANCE,
CLASSIFIED BY **CREDIT-RATING** CLASS OF BORROWING COUNTRY

Credit Rating Class of Borrowing Country	(1) Percentage Distri- tion of Total Credits	(2) Distribution of Credits Outstanding as a Percentage of Imports by Countries in that Class ^a
1	35.82	1.63
2	33.37	12.65
3	22.06	9.13
4	5.86	4.76
Ineligible and other	2.89	---

Total credits, guarantees, and insurance outstanding as of December
31, 1975: \$23,238,537,000

a. Imports by the countries of that class from all sources.

indicates also that much of its activity is aimed at countries less likely to receive credit in the private market.

How Export-Import Bank Activities Influence the Credit Market

There are two ways by which the activities of the Eximbank affect borrowing in the U.S. credit market. First, because the Bank has borrowing authority, it can either borrow from the private market by issuing its own debt, or it can borrow from the Treasury. In either case, resources are channeled to the U.S. export sector and away from other credit uses.

Second, the Eximbank affects the amount of money available in the credit market when it extends loans and provides guarantees and insurance. The loan programs of the Bank channel funds mostly from shorter-term, domestic uses to longer-term, export-supportive uses. In the past these loans were, from time to time, extended at a rate of interest substantially below the market rate for commercial loans of comparable maturities.

Cost to the Taxpayer

Eximbank lends on average at a rate of interest higher than the rate at which it borrows from the Treasury or the public. So the Bank is able to operate without causing any direct cost to the taxpayer. In principle, the bank could create an indirect cost to the taxpayer in the following way: When the Bank exercises its authority to borrow annually, it creates outlays, and borrows from the government. Eximbank borrowing from the government may cause an increase in net federal borrowing. If the increase in federal borrowing caused the rate to be paid on the federal debt to rise there would be a cost to the taxpayer. Any such indirect cost to the taxpayer is likely to be negligible, however, because Eximbank borrowing is a small proportion of net federal borrowing and because the U.S. Government can usually borrow additional funds with little increase in interest rates.

Furthermore, the Bank's impact on credit and exports does not depend on its having positive outlays in the budget. Even if the outlays of the Bank are zero in any year, the Bank can continue to affect the supply of credit by issuing new loans with money from loans repaid.

Implicit Subsidy of the Export-Import Bank

In the **past**, Eximbank has lent at rates of interest below market levels. **The** gap between market rates and the Eximbank rate results in an implicit subsidy to the buyers and sellers participating in **Eximbank-financed** transactions. **Conceptually**, there are at least two ways in which the size of the subsidy could be measured:

- (1) The subsidy could be measured as the difference between the rate of interest foreign buyers would have been willing to pay and the rate Eximbank charged foreign borrowers, or
- (2) The subsidy could be measured as the difference between the rate of interest Eximbank could have earned had it lent the funds to domestic **U.S.** borrowers, and the rate Eximbank charged foreign borrowers.

Which of these two concepts of implicit subsidy is appropriate depends on the purpose of the analysis. The first concept measures the benefit to buyers and sellers of **U.S.** exports; the second indicates the extent to which the Bank, as a financial intermediary, channels resources to the export sector. The second measure is a better indicator of the **Bank's** effect on the economy than is the estimate of Eximbank budget authority. The second concept of subsidy is also much easier to measure than is the **first** since it does not require a case-by-case estimate of **borrowers'** hypothetical willingness to pay interest. Because of its appropriateness and ease of measurement, this paper uses the second concept of subsidy.

To estimate a value for the implicit subsidy, Eximbank disbursements on loans were taken for different classes of exports in fiscal year 1975. A maturity distribution lists the amount of monies disbursed for loans of the same term for different commodities. The term is not the actual maturity of the loan contract, but the period from the date of first disbursement of monies for the project to the date of final repayment. **For** most projects it takes an average of 4 to 5 years to disburse monies on the total loan before the date of first repayment of principal begins. During that period monies are being paid out from the Eximbank and the commercial bank. When disbursal ends and the project starts generating cash flow, principal repayments begin to the commercial bank for the first part of the remainder of the term and to the Eximbank in the last part. This calculation takes into account the longer term, because once monies are disbursed for a project, **the** opportunity

to use the funds for a different purpose is foregone. **The** calculation also takes into account the fact that in some periods only interest payments are made and in others interest and principal repayments are made on a declining balance basis. An average of loan maturities **weighted** by the impact of the subsidy for each class of exports shows the average term to be nine years.

Total receipts of principal and interest are calculated for each commodity class at an **Eximbank** rate of 6 percent since most of the loan disbursements in **fiscal** year 1975 were made at **6 percent** interest. The present value of those yearly receipts of principal and interest are then calculated at an estimated market rate of **12 percent.**^{3/} Twelve percent is chosen as an arbitrary but defensible estimate of what Eximbank could have earned by lending domestically; it is only two points above the average prime rate charged by banks to their most **creditworthy** borrowers between July 1974 and June **1975.**^{4/} It is important to note that if some other alternative rate were considered appropriate, the magnitude of the Eximbank implicit subsidy would change, but its distribution by industry would not.

In an earlier study, the Office of Management and Budget (OMB) estimated **Eximbank's implicit** subsidy in a different **way.**^{5/} OMB's estimate of the interest subsidy in fiscal year 1975 is based on **authorizations** for loans with an average term of six years at 8.1 percent rate of interest. But not all loan **authorizations** are actually signed and, when they are, the term of the loan varies significantly by the type of export and the extent of commercial participation in financing. OMB's 8.1 percent is probably too low an estimate of the market rate for fiscal year 1975. The weighted average of the maturity of the loans by the distribution of the subsidy shows the average term to be nine years and not six years.

Table 3 **identifies** by commodity groups (1) the values of monies disbursed in fiscal year 1975, (2) the total receipts of

3. See Technical Appendix.

4. A comparable market rate for loans in the 7- to 15-year maturity class is not available. An alternative, albeit arbitrary one, might be a twenty-year BAA corporate bond rate.

5. Special Analysis of the Budget FY 1977, p. 111.

TABLE 3

DISTRIBUTION OF EXPORT-IMPORT BANK LOAN SUBSIDY BY INDUSTRY FOR FISCAL YEAR 1975

(thousands of dollars)						
A	B	C	D	E	F	G
Commodity Description	Total Disbursal	Average Term	Total Receipts of Principal & Interest at 6%	Present Value at 12%	Subsidy: Columns B minus E	Percentage Distribution of Subsidy
Stone, clay, glass, and concrete commodities	3,425	7	4,452	2,700	725	0.11
Misc. manufacturing	179	4	211	154	25	.004
Aircraft, railroad locomotives, ships, motor vehicles	924,359	8	1,250,266	706,044	218,315	31.96
Chemical & allied products	19,053	6	22,886	16,097	2,956	0.43
Misc. textile mill	3,377	7	4,352	2,691	686	0.10
Special industry manufactur- ing machinery	292,943	9	385,410	215,422	77,521	11.35
Building construction & general contracting	105,407	8	141,033	78,645	26,762	3.92
Agriculture, forestry & fishing commodities	91,208	3	96,581	86,358	4,850	0.71
Electrical power, electronic machinery, communication equip.	81,076	8	116,876	59,558	21,528	3.15
Analyzing & controlling instruments	2,008	4	2,273	1,796	212	0.03
Primary metal mining & construction	117,575	9	173,651	83,900	33,675	4.93
Nuclear power construction & equipment	477,981	11	747,032	314,602	163,379	23.92
Eng., Architectural, services	1,776	4	2,054	1,552	224	0.03
Paper and allied powers	120	1	125	115	5	.001
Construction & mining equip.	243,319	7	298,663	202,903	40,416	5.92
Hydroelectric power equip.	326,867	10	484,010	235,130	91,737	13.43

interest and principal resulting from the Eximbank 6 percent **rate**, (3) the present value of those receipts of principal and interest at 12 **percent**, and (4) the total value of the subsidy. **CBO's** estimate of the interest subsidy for fiscal year 1975 is \$683 million. If Eximbank **would** have earned more than 12 percent, this is an underestimate. If Eximbank could not have earned as much as 12 percent lending domestically, it is an overestimate. Table 3 also identifies the percentage distribution of the subsidy among types of exports. **The** distribution shows that over 50 percent of the subsidy goes to support aircraft and other transportation equipment, nuclear power construction and equipment, and other special industrial machinery exports.

CBO's method of choosing an alternative market rate probably underestimates the value of the subsidy to certain recipient countries. **That** is, had **CBO** been able to measure the first subsidy concept, "willingness to pay **interest**," rather than the second concept, "**what** Eximbank could have earned domestically," the subsidy to many **borrowers** would have been larger. Many **poor**, unstable countries have limited access to private **funds**, and the choice of an alternative market rate would be more arbitrary. Also, the risk premium on loans to those countries might be significantly higher than 2 percentage **points**.

The value of the implicit subsidy in **CBO's** calculation is a function of both the alternative market rate and loan disbursements. The subsidy will increase or decrease depending on (1) value of the alternative market rate, (2) the Eximbank rate, or (3) the amount of money disbursed. For example, the subsidy will decrease when the expected alternative market rate falls and/or when Eximbank starts disbursing loans which were authorized at a higher interest rate. For fiscal year 1976 the average prime rate dropped to 7 percent, resulting in an alternative market rate by **CBO's** method of 9 percent. Since disbursements also declined somewhat (around \$2.2 **billion**), the subsidy will decrease from the estimated \$683 million to perhaps \$500 million. The subsidy will also start to decrease in **fiscal** year 1978 when many of Eximbank loan disbursements will be those which were authorized after January 1, 1977 at higher interest **rates**.

TECHNICAL APPENDIX

A term loan analysis was used to calculate the total flow of expected receipts of principal and interest to the **Eximbank**. The data base on which these flows were calculated is the maturity distribution of Eximbank loan disbursements. Disbursements were made on loans in each commodity group in Table 3 for semi-annual terms. The following table lists disbursements and their corresponding terms for the chemicals and allied products commodity group as an example of the data base.

<u>Term in years</u>	<u>Disbursements</u> <u>(thousands of dollars)</u>
1.0	\$ 50
4.0	3056
4.5	601
5.0	1963
5.5	4600
6.0	1933
6.5	5339
7.0	8
8.0	270
8.5	988
9.0	244

A term loan repayment schedule is computed for each semi-annual term disbursement at the Eximbank 6 percent rate on the initial assumption that the principal amount is the same for each period of repayment. Interest and principal are then calculated in each subsequent period of the term on a declining balance **basis, i.e.,** after principal paid in the last period is subtracted. Grace periods were also assumed for periods in which only interest payments were made initially for repayment terms greater than **five** years. The following is a schedule of the number of grace periods assumed for the corresponding semi-annual terms:

<u>Terms</u>	<u>Number of grace periods</u>
5.5 - 6.5	1
7.0 - 8.0	2
8.5 - 10.0	3
10.5 - 12.5	4
13.0 - 15.0	6
15.5 - 17.5	8
18.0 - 20.0	10

Finally, in each **commodity** group the sum of all the receipts of principal and interest was taken for each line of column D in Table 3.

Next a present value analysis of each loan repayment schedule was done at the alternative market rate of 12 percent. **The** present value analysis discounts all receipts of principal and interest to the present value at the required rate of return of 12 percent. **The** formula for the present value of a stream of cash flows is

$$PV = \sum_{t=0}^n \frac{A_t}{(1+r)^t}$$

where r is the alternative market rate for each period t and A_t is the expected principal or principal and interest payment made to the Bank. A_t is discounted in each period by $(1+r)^t$. All of the discounted flows, $\frac{A_t}{(1+r)^t}$, are

summed to get the present value. Column E of Table 3 lists the sum of those present value calculations for each commodity group.

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