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# **ECONOMIC REVIEW**

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## EUROBONDS AND THE EUROBOND MARKET

The Eurobond is a creature of the 1960's and only a few years younger than Eurocurrency, its companion phenomenon in international finance. Just as a Eurocurrency deposit is denominated in a currency other than that of the nation where the bank accepting the deposit is located,<sup>1</sup> a Eurobond issue is denominated in a currency other than those of the nations where most or all of the issue is initially marketed. Also, just as most Eurocurrency deposits are United States dollar deposits, most Eurobonds are denominated in dollars.

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<sup>1</sup>For a discussion of Eurocurrency and, in particular, the Euro-dollar, see *The Eurodollar Market*, Federal Reserve Bank of Cleveland, June 1970.

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The first Eurobond issues appeared in 1963. The volume of these offerings has grown rapidly since that time, and this type of issue has become an important source of capital for United States firms seeking to expand their foreign operations. This article describes some of the features of Eurobonds and the Eurobond market, briefly relates the events that led to the development of the Eurobond, and discusses the supply of and demand for Eurobonds. The yields on various types of Eurobonds are also compared with each other and with domestic bond yields, and the relationship between the United States balance of payments and the Eurobond market is explored.

### DEFINITION OF EUROBONDS

International bonds are debt issues floated outside the country in which the borrower resides or is incorporated. Currently outstanding international bonds can be divided into two categories—foreign bonds and Eurobonds.<sup>2</sup> Foreign bonds, sometimes called conventional or classical bonds, are issues sold in and denominated in the currency of a nation foreign to the borrower. These bonds are underwritten by a national syndicate resident in the country in which the issue is floated. In contrast, Eurobonds are usually underwritten by a multinational syndicate and are floated simultaneously in several nations. The bonds are denominated in currencies other than those of the nations where most or all of the issue is marketed. For example, if a United States

firm wished to float an international bond issue to provide additional capital for its subsidiary in Italy, the firm might float a bond issue denominated in lire and marketed in Italy by an Italian underwriting syndicate. This would be a foreign bond. On the other hand, the firm might issue bonds denominated in Deutschemarks (or dollars) to be sold in several nations of western Europe by an underwriting syndicate comprised of firms in several nations. This would be a Eurobond.

This article focuses on Eurobonds and United States participation in the Eurobond market. When separate information on Eurobonds is not available, data on international bonds as a whole are used. Lack of separate data on Eurobonds, however, is not a serious handicap because these issues have accounted for about three-fourths of the annual sales of international bonds since 1965.

### CHARACTERISTICS OF EUROBONDS

The most prevalent denomination of Eurobonds has been the United States dollar; the Deutsche-mark has been the second most common currency of denomination. The Dutch guilder, British pound, and Belgian, French, and Swiss francs have also been used for denominating relatively minor amounts of Eurobonds. It is not unusual for the currency of denomination to be different from the borrower's domestic currency; e.g., United States corporations occasionally float Eurobond issues denominated in Deutschemarks.

Most Eurobonds are publicly placed issues and have maturities in the range of eleven to fifteen years, although other maturities are used. Only about 20 percent of Eurobonds have been privately placed, and most of these issues have maturities of less than five years. Since their inception, the great majority of Eurobonds have

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<sup>2</sup>There is some variation in the nomenclature used by participants in and observers of the world's bond markets. The most important variation is the use of the term international bond for Eurobond. This eliminates a general term for debt issues floated outside the borrower's country of residence.

been straight debt offerings, but sometimes warrants and conversion features have been used to enhance the marketability of specific corporate issues. Periodic data on the frequency and terms of call options in Eurobond contracts have apparently not been published. However, an examination of the Eurobonds issued in 1969 reveals that—for that year at least—most Eurobonds were callable, usually in from three to eight years at prices generally ranging from 102 to 105.

Eurobond issues tend to be relatively modest in size when compared with debt offerings in the United States. For example, in 1969 less than twelve percent of all Eurobond issues were for amounts of \$40 million or more. To date, the largest issue floated amounted to \$125 million and was issued in May 1970 by ENEL (Ente Nazionale Elettrica), the Italian electrical energy agency. The typical denomination of a dollar Eurobond is \$1,000.

Most Eurobonds are bearer bonds with coupons attached. Although normally unsecured general obligations, Eurobonds are usually guaranteed by the parent corporation when they are issued by a financial subsidiary, or they are obligations of a government (or its agency) whose power to tax provides assurance that interest and principal will be paid. Sinking fund provisions in the bond contract are quite common.

Although only a small proportion of Eurobond trading takes place on organized exchanges, Eurobonds are usually listed on at least one European stock exchange to help assure a successful flotation. Issues by subsidiaries of United States firms are usually listed on the Luxembourg Stock Exchange, probably because its fees and other registration requirements are among the least

burdensome of the European exchanges.<sup>3</sup>

**Unusual Features.** Perhaps the most interesting features of the Eurobond market are the parallel loan, the currency option clause, and the use of unconventional denominating units—specifically, the European Unit of Account and the European Currency Unit. These features, which appear in relatively few issues, are the product of efforts to reduce the risk that a lender incurs by acquiring an asset denominated in a foreign currency that may—during the life of the asset—be devalued relative to the lender's domestic currency.

A *parallel loan* is, in effect, several bond issues offered simultaneously in several national markets, with each portion denominated in the currency of the nation in which it is sold. One such loan was issued by ENEL in July 1965. This loan was composed of six portions, denominated in Deutschmarks, Belgian, French and Luxembourg francs, Dutch guilders, and Italian lire, and had a total value equivalent to \$60 million.<sup>4</sup>

The *currency option clause* first appeared in 1957 in an issue by Petrofina of Belgium.

The holders of these bonds were permitted to demand payment of interest and principal in Swiss francs, German

<sup>3</sup>For more detail on the customary features of Eurobonds, see John F. Chown and Robert Valentine, *The International Bond Market in the 1960's*, (New York: Frederick A. Praeger, 1968), pp. 40-54 and 66-67, and *The Financing of Business with Euro-dollars*, (New York: Morgan Guaranty Trust Company, April 1969), pp. 14-17.

<sup>4</sup>See H. Robert Heller, "Foreign Bond Issues in Europe," *Lloyds Bank Review*, October 1967, p. 53. An alternative view would be to consider the Italian lira portion as a domestic bond issue, and each of the other portions as a foreign bond issue.

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marks, Belgian francs or Dutch guilders, the currency being changeable at will for each and every interest payment. In many subsequent issues the freedom of the lender was restricted to a single choice of currency among a given number of different currencies.<sup>5</sup>

One unconventional denominating unit is the *European Unit of Account (EUA)*. Bonds denominated in EUAs are in reality more complex currency option bonds and warrant a special discussion. In the 1961-1970 period, thirty EUA issues, totaling the equivalent of \$336.1 million, were floated. Although there was some variation among the terms of the thirty EUA bond contracts, a general outline of their main features can be presented here.<sup>6</sup> The principal amount of these bonds is expressed in EUAs, with one EUA equal to 0.88867088 gram of fine gold, which is also the gold value of the United States dollar. A holder of an EUA bond, however, cannot receive interest and principal payments in gold or in EUAs. He must elect to be paid in any one of the 17 reference currencies listed in the bond contract. The reference currencies are those of the members of the former European Payments Union.

<sup>5</sup>Heller, *op. cit.*, p. 52. Subsequent issues have given lenders options between the pound sterling and the Deutschemark, between the Deutschemark and the rand, and between the pound sterling and the dollar. See *The Financing of Business with Euro-dollars*, *op. cit.*, note to Table 2; and *World Financial Markets*, Morgan Guaranty Trust Company, Statistical Supplement to the December 1969 issue, note on p. 4.

<sup>6</sup>For more detail on EUA contracts, see "The European Unit of Account," *Economic Commentary*, Federal Reserve Bank of Cleveland, April 20, 1970, and *The European Unit of Account*, (Brussels: Kredietbank N.V., January 1967). An important point that is not discussed here is the possibility of a change, in special circumstances, of the gold value of an EUA.

The relationship between one EUA and each reference currency is determined by their respective gold values throughout the life of the bond. For example, if a contract for an EUA bond had been written on January 15, 1971, the following rates of exchange would have existed between the reference currencies and the EUA:

1 EUA =	26.0000	Austrian schillings
=	50.0000	Belgian francs
=	7.5000	Danish kroner
=	5.5542	French francs
=	3.6600	German marks
=	30.0000	Greek drachmas
=	88.0000	Icelandic króna
=	0.4167	Irish pounds
=	625.0000	Italian lire
=	50.0000	Luxembourgish francs
=	3.6200	Dutch guilders
=	7.1429	Norwegian kroner
=	28.7500	Portuguese escudos
=	5.1732	Swedish krona
=	4.3728	Swiss francs
=	15.0000	Turkish liras
=	0.4167	United Kingdom pounds sterling

If there are no changes in the gold values of the reference currencies by the time the bond matures, the holder of a 1,000 EUA bond could elect to receive either 26,000 Austrian schillings, 50,000 Belgian francs, or 7,500 Danish kroner, etc. If, however, the gold value of one of the reference currencies is changed, e.g., the Belgian franc devalued by ten percent, one EUA would then be equal to 55.0 Belgian francs, and a 1,000 EUA bond could be redeemed at maturity for either 26,000 Austrian schillings, 55,000 Belgian francs, or 7,500 Danish kroner, etc. In contrast, if the Austrian schilling had been revalued (upward) by five percent, one EUA would then be equal to only 24.7 Austrian schillings, and 1,000 EUA bond could be redeemed at maturity for either 24,700 Austrian schillings, 50,000 Belgian francs, or 7,500 Danish kroner, etc.

An EUA bond provides an advantage for lenders in countries that devalue and for borrowers in countries that revalue upward during the life of the bond. If there were both a revaluation of the borrower's domestic currency and a devaluation of the lender's domestic currency, both borrower and lender would reap a speculative gain from the use of an EUA bond.<sup>7</sup>

The most recent innovation in the denomination of Eurobonds is the use of the *European currency unit*, which is represented by the symbol  $\text{ƒ}$ . In December 1970, the European Coal and Steel Community floated a \$50 million, 15 year, 8 percent bond issue denominated in the European currency unit—the first such issue. An  $\text{ƒ}$  bond holder can choose to receive interest and repayment of principal in Deutschemarks, Dutch guilders, Italian lire, or French or Belgian francs. The  $\text{ƒ}$  bond differs from an EUA bond in that the  $\text{ƒ}$  bond contract provides for unchanged conversion rates between the unit of denomination ( $\text{ƒ}$ ) and the five currencies. Whereas the EUA bond provides the lender with a speculative gain only in the case of devaluation of his home currency, the  $\text{ƒ}$  bond not only provides the lender with a speculative gain from devaluation of his home

currency, but also provides him with the possibility of a speculative gain from a revaluation of any of the five reference currencies (except his own, if it is one of the five).

**Regulatory Legislation.** Eurobonds are generally free of issue restrictions in most European countries. In contrast, European countries usually have quite stringent regulations regarding the issue of foreign bonds in their capital markets.

The purchase of Eurobonds by residents of European nations is subject to foreign exchange regulations, but these have often been unimportant, depending on the stability of the currency and the nation's balance of payments. Austria, Belgium, Germany, Italy, Luxembourg, the Netherlands, and Switzerland are quite liberal regarding the purchase of Eurobonds by their citizens. Great Britain and France are major exceptions to this liberal attitude. For example, residents of Great Britain are restricted in their purchases of foreign securities by the requirement that the funds used may only be derived from the sale of other holdings of foreign assets. These foreign investment funds may be purchased by residents of Great Britain, but only at a substantial premium over spot exchange rates.

## DEVELOPMENT OF THE EUROBOND MARKET

The Eurobond market is generally considered to have originated in 1963. Foreign bond issues had, of course, been floated prior to that time. In fact, New York City was the most important market for foreign borrowing between the end of the war and 1963. Although a substantial portion of foreign bonds floated in the New York market were purchased by foreigners, sales of foreign bonds to United States residents amounted to almost \$944 million in 1962 and reached \$938 million in the

<sup>7</sup>The term "speculative gain" is used here and in the discussion of the  $\text{ƒ}$  bond to mean that when a bond is redeemed, the lender can receive, directly or indirectly, more units of his domestic currency than he originally invested. In the case of the borrower, speculative gain is used here to mean that to redeem a bond a borrower must pay out fewer units of his domestic currency than he could have purchased with the proceeds from sale of the bond (at par, and disregarding costs of the sale) at the time the bond was issued. It is assumed that both lender and borrower measure their wealth in their domestic currency. Changes in the "value" (however measured) of a unit of domestic currency caused by revaluation, devaluation, or the causes thereof are disregarded.

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first half of 1963.<sup>8</sup> In an effort to stem this outflow of capital, which was contributing to the United States balance of payments deficit, the Interest Equalization Tax (IET) was proposed by President Kennedy in July 1963. The IET, which was enacted in September 1964 and made retroactive to July 1963, levies a tax on purchases by United States residents of bonds (and stocks) issued by borrowers in developed nations.<sup>9</sup> Thus, if foreigners issuing bonds subject to the IET wish to be successful in selling their securities to United States residents, they must offer a rate of interest high enough to compensate the buyer for the tax. The IET, therefore, encouraged foreign borrowers to float issues on European markets instead of in the United States.

A second measure that was intended to improve the United States balance of payments and that encouraged development of the Eurobond market was the voluntary balance of payments program announced by President Johnson in February 1965. As part of this program, United States firms were encouraged to borrow abroad, rather than export capital, to finance their direct foreign investments.<sup>10</sup> The guidelines of the voluntary program became more demanding in 1966 and

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<sup>8</sup>See Heller, *op. cit.*, pp. 49-50. For additional detail on borrowing in the period 1958-1963, see "Foreign Capital Borrowing in the United States," *Economic Review*, Federal Reserve Bank of Cleveland, January 1964, and "Investment Characteristics of New Foreign Capital Borrowed in the U. S.," *Economic Review*, Federal Reserve Bank of Cleveland, June 1964.

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<sup>9</sup>Canadian issues are exempt from the tax. In 1965, a partial exemption was granted to Japanese issues.

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<sup>10</sup>For more information, see "Direct Foreign Investment of the United States," *Economic Review*, Federal Reserve Bank of Cleveland, March 1971.

1967; in 1968 they were replaced by mandatory restrictions on capital outflows for direct foreign investments. Both the voluntary and mandatory balance of payments programs stimulated the borrowing by United States firms in the Eurobond market.

## THE NATURE OF THE EUROBOND MARKET

United States corporations usually issue Eurobonds through financial subsidiaries that are specifically established for this purpose. Most of these subsidiaries are incorporated in Delaware, Luxembourg, or the Netherlands Antilles. United States corporations use subsidiaries to issue Eurobonds for two reasons. First, since the funds derived from sale of the bonds are for use overseas, the United States balance of payments program necessitates that the securities be issued in a manner that provides substantial assurance they will not be purchased by Americans. This is accomplished if the securities are issued in a way or for a purpose that makes them subject to the Interest Equalization Tax. Bonds issued by a firm incorporated in Luxembourg or the Netherlands Antilles are subject to the IET. Bonds issued by a firm incorporated in Delaware or another one of the fifty states are also subject to the IET *if* the firm was formed for the purpose of obtaining funds for use by a foreign affiliate.

American firms also issue Eurobonds through financial subsidiaries to avoid withholding taxes on interest payments to bondholders. Freedom from withholding taxes enhances the attractiveness of a Eurobond and makes it marketable at a lower coupon rate. In fact, competition for lenders' funds has made the Eurobond market a market in tax-free bonds. Under current United States tax laws, interest payments on bonds issued by a



domestically incorporated firm that receives over 80 percent of its gross income from foreign sources are not subject to withholding tax. Interest payments on bonds issued by subsidiaries incorporated in Luxembourg or the Netherlands Antilles are also free from withholding tax.<sup>11</sup>

The marketing of a Eurobond issue involves a large organization. The underwriters of an issue form a marketing organization with several levels; each level accepts the bonds at successively smaller discounts from the ultimate offer price.

What happens is that a group of managers (which may only consist of one firm...) having formed a team of underwriters, enter into an agreement with the issuing company to purchase all the bonds at an agreed price. This price will stand at a small discount from the ultimate offer price in order to compensate for the risks involved, the discount usually being in the range of 2 to 3 percent. This underwriting group (or "purchase group") then forms a large international selling group to which the bonds are offered at a smaller discount (usually about 1 1/2 percent), and the selling group in turn can offer the bonds to dealers at a discount of 1/2 percent.<sup>12</sup>

The typical marketing organization includes firms in several nations, primarily in Western Europe and the United States. The Eurobond issues are sold by direct contacts between firms in the marketing organization and prospective buyers: "...the public

are never invited to subscribe, and press advertisements are either for information only or are required for stock-exchange quotation."<sup>13</sup>

The secondary market for Eurobonds is mainly over-the-counter, although most issues are listed on at least one organized exchange. Two clearing systems, Euro-clear and CEDEL, were established to expedite the delivery of bonds traded in the secondary market. Euro-clear, operated by Morgan Guaranty Trust Company, commenced operations in December 1968. CEDEL (Centrale de Livraison des Euro-Obligations, or Center of Deliveries of Eurobonds), an independent organization, was organized through the initiative of the Banque Internationale à Luxembourg and the Kredietbank S.A. Luxembourgeoise and began operations in 1971.<sup>14</sup>

## SUPPLY OF EUROBONDS

Data on the supply of Eurobonds are available from at least four highly regarded sources, but the data often differ substantially (see Table I). The disparities among the data are probably due to differences in definitions of Eurobonds as well as from difficulties in collecting data, particularly on privately placed issues. Caution is therefore required when using Eurobond data because the disparities often amount to as much as a 25 percent difference between the highest and lowest figures reported for an item. Whenever possible, the Morgan Guaranty Trust Company was used as

<sup>13</sup>*Ibid.*, p. 71.

<sup>14</sup>For more detail on the secondary market and the operation of the clearing systems, see Stanislas M. Yassukovich, "The Development of the International Capital Market," *Euromoney*, January 1971, pp. 18-19, and "The Primary and Secondary Eurobond Markets," *Weekly Bulletin*, Kredietbank, August 28, 1970, pp. 337-341.

<sup>11</sup>This section has relied heavily on the following article, which may be consulted for further detail on the taxation aspects of Eurobonds issued by United States firms: Morris Mendelson, "Some Tax Considerations in American Eurobond Flotations," *National Tax Journal*, June 1969, pp. 303-310.

<sup>12</sup>Chown and Valentine, *op. cit.*, p. 68.

TABLE I

Sales of Eurobonds and Foreign Bonds as Reported by Four Sources  
1963-1970  
(mil. of \$)

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>
<b>Eurobonds</b>								
Bank for International Settlements	\$137	\$ 696	\$1,046	\$1,107	\$1,889	\$3,368	\$3,110	n.a.
International Monetary Fund	210	629	1,116	1,417	2,231	4,115	3,386	n.a.
Morgan Guaranty Trust Company	n.a.	n.a.	1,041	1,142	2,002	3,573	3,156	2,966
Organization for Economic Cooperation and Development	258	650	836	1,408	2,148	3,846	3,406	n.a.
<b>Foreign bonds sold in Europe</b>								
Bank for International Settlements	449	340	251	530	400	1,030	819	n.a.
International Monetary Fund	375	330	267	645	458	1,738	1,570	n.a.
Morgan Guaranty Trust Company*	n.a.	n.a.	376	378	403	1,135	827	378
Organization for Economic Cooperation and Development	274	478	565	594	416	1,490	1,466	n.a.
<b>Total international bonds</b>								
Bank for International Settlements	586	1,036	1,297	1,637	2,289	4,398	3,929	n.a.
International Monetary Fund	585	959	1,383	2,062	2,689	5,855	4,956	n.a.
Morgan Guaranty Trust Company*	n.a.	n.a.	1,417	1,520	2,405	4,708	3,983	3,344
Organization for Economic Cooperation and Development	533	1,127	1,401	2,002	2,564	5,336	4,872	n.a.

n.a. Not available.

\* Figures from this source include all foreign bond issues sold outside the United States.

the primary data source for this article because that bank provides the most detailed information. When necessary, other sources have been used and are, of course, identified in the tables and charts.

In recent years, the international bond market has been dominated by new issues of Eurobonds. Since 1964, the annual volume of Eurobond issues has been from two to five times as great as the annual volume of foreign bonds (see Table I). A major cause of the divergence has been that United States firms usually issue Eurobonds when borrowing in the international bond market because their access to foreign capital markets has been substantially limited by foreign authorities. In the 1965-1970 period, United States borrowers raised \$5,201 million in the Eurobond market in contrast to only \$499 million in the foreign bond market (see Table II).

In addition to issues by American corporations, Eurobonds are issued by foreign corporations, governments, state enterprises, and international organizations. In the 1965-1970 period, over one third of all Eurobonds were issued by United States companies; about one fourth, by foreign companies; one third, by state enterprises and governments; and the small remainder, by international organizations (see Table III).

Eurobonds are issued almost exclusively by borrowers in developed nations; more than two-thirds of all Eurobonds have been issued by borrowers in the United States and continental Europe. A major portion of the growth in Eurobond volume in 1965-1968 was attributable to the increase in volume of issues floated by United States firms, particularly in 1968 when United States borrowing jumped to \$2,059 million from

TABLE II

United States Corporate Issues of Eurobonds and Foreign Bonds  
(mil. of \$)

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	Total for 1965- 1970
Eurobonds	\$358	\$439	\$562	\$2,096	\$1,005	\$741	\$5,201
Foreign bonds	<u>10</u>	<u>24</u>	<u>48</u>	<u>139</u>	<u>223</u>	<u>55</u>	<u>499</u>
Total international bonds	\$368	\$463	\$610	\$2,235	\$1,228	\$796	\$5,700

Source: Morgan Guaranty Trust Company

TABLE III

Eurobonds by Category of Borrower  
(mil. of \$)

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	Total for 1965- 1970	Percentage Distribution
United States companies	\$ 358	\$ 439	\$ 562	\$2,096	\$1,005	\$ 741	\$ 5,201	37.47%
Other companies	319	376	575	603	817	1,065	3,755	27.05
State enterprises	110	118	442	349	682	594	2,295	16.53
Governments	189	108	303	500	584	351	2,035	14.66
International organizations	<u>65</u>	<u>101</u>	<u>120</u>	<u>25</u>	<u>68</u>	<u>215</u>	<u>594</u>	<u>4.27</u>
Total	\$1,041	\$1,142	\$2,002	\$3,573	\$3,156	\$2,966	\$13,880	100.00%

Source: Morgan Guaranty Trust Company

\$527 million in the previous year (see Table IV). Similarly, the decline in total Eurobond volume in 1969 and 1970 (not shown in table) was caused by a reduction in the volume issued by United States borrowers.

As mentioned earlier, the United States dollar is the currency used most frequently to denominate Eurobonds by both American and foreign borrowers. In the 1963-1969 period, 78 percent of all Eurobonds issued were denominated in dollars, while the Deutschmark was the currency of denomination for 17 percent of the Eurobonds issued. The remainder were denominated in the European Unit of Account, the pound sterling, or other western European currencies (see Table V).

Eurobonds have generally been straight debt issues, but some corporations have issued bonds

that are convertible into equity shares of the issuer. The warrant is another device used to enhance the attractiveness of Eurobonds. Warrants, detachable from the bond, are options to buy shares of the issuing corporation (or the parent corporation if the bond is issued by a financial subsidiary) at a specific price without surrendering the bond. In the years 1963-1970, 27 percent of all Eurobonds issued were convertible or had warrants attached. The year 1968 was atypical with regard to convertible issues; in that year 54 percent of all Eurobond issues had an equity feature. Pessimism about the prices of shares in American firms (most convertibles are issued by United States firms) in 1969 and 1970, however, lessened the attractiveness of a convertible feature and reduced convertible issues as a

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TABLE IV

Eurobonds by Country of Borrower  
(mil. of \$)

	1963	1964	1965	1966	1967	1968	1969	Total for 1963- 1969	Percentage Distribution
United States	-0-	-0-	\$ 331	\$ 439	\$ 527	\$2,059	\$1,032	\$ 4,388	38.64%
Continental Europe	\$ 88	\$408	456	426	886	658	1,082	4,004	35.25
United Kingdom	-0-	-0-	25	40	51	134	235	485	4.27
Canada	-0-	-0-	-0-	-0-	-0-	38	228	266	2.34
Japan	20	162	25	-0-	-0-	180	246	633	5.57
Rest of the world	25	5	83	101	305	259	247	1,025	9.02
International institutions	5	121	128	101	120	40	40	555	4.88
Total	\$138	\$696	\$1,048	\$1,107	\$1,889	\$3,368	\$3,110	\$11,356	100.00%

Source: Bank for International Settlements

TABLE V

Eurobonds by Currency of Issue  
(mil. of \$)

	1963	1964	1965	1966	1967	1968	1969	Total for 1963- 1969	Percentage Distribution
United States dollar	\$196.5	\$550.5	\$671.5	\$1,167.0	\$1,935.3	\$2,962.1	\$2,364.3	\$ 9,847.2	78.45%
Deutschemark	-0-	75.0	100.0	146.3	161.3	737.7	964.9	2,185.2	17.40
Belgian franc	-0-	-0-	-0-	-0-	-0-	40.0	-0-	40.0	0.31
Pound sterling	-0-	14.0	64.4	19.6	20.2	28.8	-0-	147.0	1.17
French franc	-0-	-0-	-0-	-0-	12.2	20.3	-0-	32.5	0.25
Netherlands guilder	-0-	-0-	-0-	-0-	-0-	-0-	16.6	16.6	0.13
Swiss franc	13.9	-0-	-0-	-0-	-0-	-0-	-0-	13.9	0.11
European unit of account	48.0	10.0	-0-	75.6	19.0	57.0	60.0	269.6	2.14
Total	\$258.4	\$649.5	\$835.9	\$1,408.5	\$2,148.0	\$3,845.9	\$3,405.8	\$12,552.0	100.00%

Source: Organization for Economic Cooperation and Development

proportion of all new issues to 36 percent in 1969 and to 8 percent in 1970 (see Table VI).

A preponderance of straight debt Eurobonds have been long-term; i.e., with maturities of 8 years or more. In the 1965-1970 period, 80 percent of straight Eurobonds were long-term. The proportion of straight debt Eurobonds issued in a single year accounted for by medium-term (3-7 years) maturities has ranged, however, from 9 percent to 30 percent (see Table VII).

DEMAND FOR EUROBONDS

It is believed that the demand for Eurobonds comes largely from "private investors scattered throughout the world whose funds are managed, sometimes on a discretionary basis, by a wide range of bankers and other financial advisors."<sup>15</sup>

Very little is known about the distribution by country of Eurobond investors. It has been estimated<sup>15</sup> Stanislas M. Yassukovich, "The Secondary Market in Eurobonds," *Euromoney*, June 1970, p. 9.

TABLE VI

## Eurobonds by Type of Issue

	July— December 1963	1964	1965	1966	1967	1968	1969	1970	Total for 1963— 1970
Convertible bonds*									
Millions of dollars	\$ 5	\$ 97	\$ 110	\$ 242	\$ 260	\$1,910	\$1,131	\$ 238	\$ 3,993
Percent of Eurobonds issued	5.6%	13.3%	10.6%	21.2%	13.0%	53.5%	35.8%	8.0%	27.2%
Straight debt									
Millions of dollars	\$ 85	\$631	\$ 931	\$ 900	\$1,742†	\$1,663†	\$2,025	\$2,728	\$10,705
Percent of Eurobonds issued	94.4%	86.7%	89.4%	78.8%	87.0%	46.5%	64.2%	92.0%	72.8%
Total issues	\$ 90	\$728	\$1,041	\$1,142	\$2,002	\$3,573	\$3,156	\$2,966	\$14,698

\* Includes bonds with warrants attached.

† Includes small amounts of certificates of deposit.

Sources: Organization for Economic Cooperation and Development and Morgan Guaranty Trust Company

TABLE VII

## Maturity Distribution of Straight Debt Eurobonds

	1965	1966	1967	1968	1969	1970	Total for 1965— 1970
Medium-term issues (3-7 years)							
Millions of dollars	\$ 95	\$225	\$ 260	\$ 480	\$ 173	\$ 733	\$1,966
Percent of Eurobonds issued	10.2%	25.0%	15.4%	30.2%	8.5%	26.9%	19.9%
Long-term issues (8 years or more)							
Millions of dollars	\$836	\$675	\$1,427	\$1,108	\$1,852	\$1,995	\$7,893
Percent of Eurobonds issued	89.8%	75.0%	84.6%	69.8%	91.5%	73.1%	80.1%
Total issues	\$931	\$900	\$1,687	\$1,588	\$2,025	\$2,728	\$9,859

Source: Morgan Guaranty Trust Company

mated that 25 percent of Eurobond issues are sold through banks and brokers in Switzerland, 16 percent through banks and brokers in the United Kingdom, and 12 percent through such intermediaries in the United States.<sup>16</sup> Most of the

remainder is placed through intermediaries in other nations of Western Europe. Although these estimates indicate the locations of the intermediaries through whom investors purchase Eurobonds, they are not indicative of the residence of the investors themselves. Eurobonds sold through American intermediaries, for example, can be presumed to be purchased by foreign investors because the IET makes the bonds unattractive to

<sup>16</sup>N. M. Rothschild & Sons, *The Eurobond Market*, (London: Metcalfe, Cooper & Hepburn Limited, February 1969), Table VIII.

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TABLE VIII

Public Issues and Private Placements of Eurobonds

By Maturity

(mil. of \$)

	1963	1964	1965	1966	1967	1968	1969	Total for 1963- 1969	Percentage Distribution
<b>Bonds with a maturity of 5 years and over</b>									
Public issues	\$112.4	\$534.5	\$682.4	\$1,071.5	\$1,772.0	\$2,993.3	\$2,810.4	\$ 9,976.5	91.1%
Private placements	6.0	15.0	53.5	110.0	146.0	487.1	160.3	977.9	8.9
Total	\$118.4	\$549.5	\$735.9	\$1,181.5	\$1,918.0	\$3,480.4	\$2,970.7	\$10,954.4	100.0%
<b>Bonds with a maturity of under 5 years</b>									
Public issues	-0-	-0-	-0-	\$ 7.0	-0-	\$ 25.0	\$ 35.0	\$ 67.0	4.2%
Private placements	\$140.0	\$100.0	\$100.0	220.0	\$ 230.0	340.5	400.0	1,530.6	95.8
Total	\$140.0	\$100.0	\$100.0	\$ 227.0	\$ 230.0	\$ 365.5	\$ 435.1	\$ 1,597.6	100.0%
Total public issues	\$112.4	\$534.5	\$682.4	\$1,078.5	\$1,772.0	\$3,018.3	\$2,845.4	\$10,043.5	80.0%
Total private placements	146.0	115.0	153.5	330.0	376.0	827.6	560.4	2,508.5	20.0
Total issues	\$258.4	\$649.5	\$835.9	\$1,408.5	\$2,148.0	\$3,845.9	\$3,405.8	\$12,552.0	100.0%

Source: Organization for Economic Cooperation and Development

TABLE IX

International Bonds Sold in 1969

By Issuer and Method of Placement

	Public Issues		Private Placements		Total Issues	
	Mil. of \$	Percent	Mil. of \$	Percent	Mil. of \$	Percent
U. S. companies	\$1,132.4	89.2%	\$137.3	10.8%	\$1,269.7	100.0%
Other companies	859.6	91.0	85.5	9.0	945.1	100.0
State enterprises	580.1	73.5	208.8	26.5	788.9	100.0
Governments	578.1	84.7	104.3	15.3	682.4	100.0
International and regional organizations	226.3	66.8	112.6	33.2	338.9	100.0
Total	\$3,376.5	83.9%	\$648.5	16.1%	\$4,025.0	100.0%

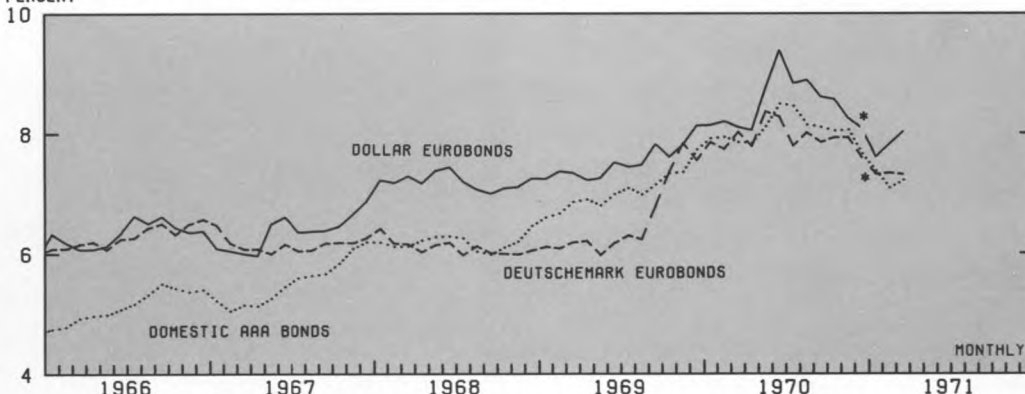
Source: Morgan Guaranty Trust Company

United States investors. Similarly, foreign investment restrictions discourage the purchase of Eurobonds by residents of Great Britain. It has also been estimated that only 30 to 40 percent of the Eurobonds sold through Swiss intermediaries are placed with residents of Switzerland.<sup>17</sup>

A substantial amount of Eurobonds is privately placed each year. In the 1963-1969 period, the total volume of privately placed bonds amounted to \$2,509 million. There is a strong tendency for private placements to be shorter maturity issues and for the shorter term issues to be privately placed. In the 1963-1969 period, 61 percent of all private placements were issues with maturities of

<sup>17</sup> *Ibid.*, para. 22.

CHART 1.  
COMPARATIVE YIELDS ON BONDS ISSUED BY U.S. CORPORATIONS  
PERCENT



\* NEW SERIES FOR DOLLAR EURO BONDS AND DEUTSCHEMARK EURO BONDS STARTS DECEMBER 1970.

LAST ENTRY: MARCH 1971

SOURCE OF DATA: BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

less than five years; and of all Eurobonds with maturities of less than five years, 96 percent were privately placed (see Table VIII).

International and regional organizations and state enterprises seem to be the most likely to have their Eurobond issues placed privately, while the opposite obtains for private corporations. In 1969, 33 percent of the Eurobonds sold by international and regional organizations were privately placed; in contrast, only 9 percent of the Eurobonds of non-United States companies were privately placed (see Table IX).

An active secondary market in Eurobonds could be expected to have a favorable influence on the initial demand for Eurobonds. In general, investors are more willing to purchase any asset if there is a market in which the assets can be readily resold. Most secondary market trading in Eurobonds is conducted over-the-counter, but there are apparently no published data on the volume of Eurobond trading. One observer, however, believes

that "no other national market after New York and London can match the Eurobond market today in terms of daily turnover, so that it represents the third largest market for debt securities in the world."<sup>18</sup> The same observer states that "sinking fund activity represents the single most consistent and powerful source of volume and support of the secondary market."<sup>19</sup> Sinking fund provisions may usually be satisfied by purchases of bonds in the secondary market. Rising interest rates have caused most outstanding bonds to sell below par, making secondary market purchases an attractive way for the borrower to perform his sinking fund obligations.

<sup>18</sup>Yassukovich, "The Secondary Market in Eurobonds," *op. cit.*, p. 9.

<sup>19</sup>Yassukovich, "The Development of the International Capital Market," *op. cit.*, p. 19.

## ECONOMIC REVIEW

### RATE RELATIONSHIPS

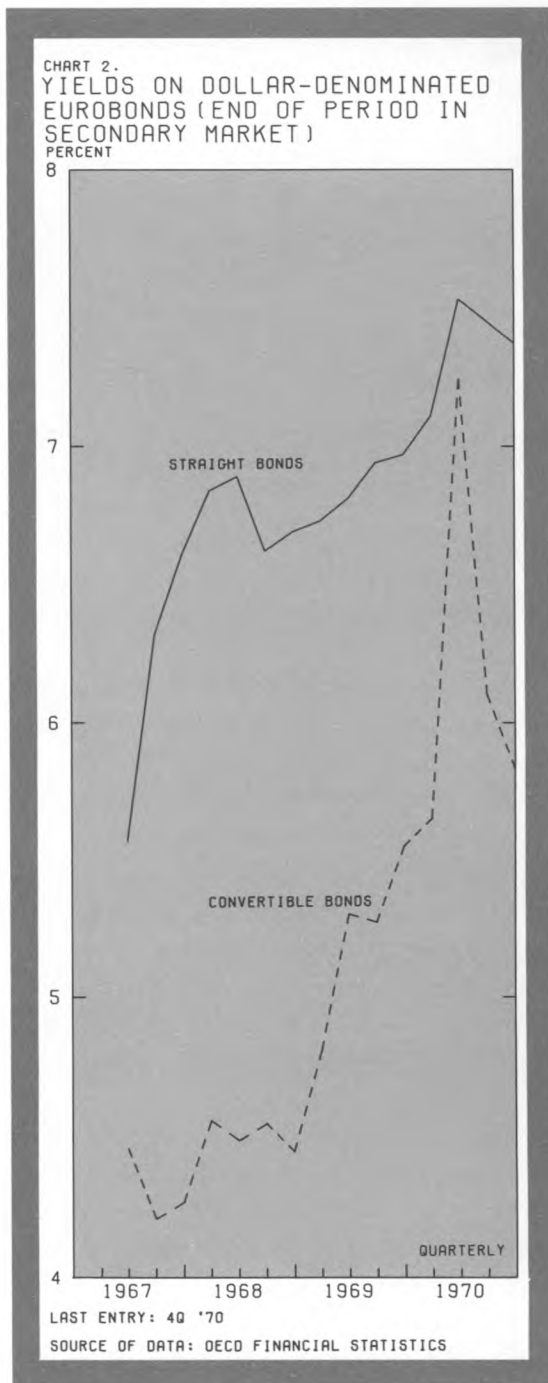
The yields on Eurobonds trended upward after January 1966,<sup>20</sup> but June 1970 may have been a turning point. Eurobond yields have moved downward since that time (see Chart 1).

Over the long run, the trend of Eurobond yields can be expected to be generally parallel to the trends of bond yields in the capital markets of the United States and Europe. Rather than examining in more detail the trend of Eurobond yields alone, the following discussion will look at the relationships between the yield on straight dollar denominated Eurobonds and the yields on three other debt instruments that might be of interest to a United States corporate borrower: United States corporate Aaa bonds, dollar denominated convertible Eurobonds, and Deutschemark denominated straight-debt Eurobonds.

The yield on straight dollar denominated Eurobonds issued by United States corporations has been consistently higher than the yield on Aaa domestic bonds. The spread between the two yields averaged about 103 basis points in 1966-1968, but declined to an average of only 47 basis points in 1969 and 1970 (see Chart 1).

From June 1967 through December 1970 (the period for which data are available), yields on convertible dollar denominated Eurobonds were lower than yields on straight dollar Eurobonds (see Chart 2). Apparently, some lenders have been willing to accept lower yields to obtain the possibility of future gains from the conversion privilege. The spread between the yields on convertibles and straights averaged 224 basis points in

<sup>20</sup> Another series of Eurobond yields, published less regularly than the series used here, shows yields rising since at least March 1964. See *OECD Financial Statistics*, Organization for Economic Cooperation and Development, Supplement 1B, 1970, pp. 64-65.





the period September 1967 through December 1968; in contrast, the spread averaged only 127 basis points in the period June 1969 through June 1970. In the former period, high and rising United States stock prices apparently induced investors to pay higher premiums (over the investment value of the bond as straight debt) for the conversion feature than they were willing to pay in the latter period, when stock prices were low and falling.

In comparing the yields on dollar Eurobonds and Deutschmark Eurobonds, a substantial spread can be noted for 1968 and 1969 (see Chart 1). Yields on Deutschmark Eurobonds averaged 111 basis points below the yields on dollar Eurobonds in the period December 1967 through September 1969, and the spread between yields was as wide as 138 basis points in June 1968. Lenders apparently were willing to hold the lower yielding Deutschmark instruments because they were anticipating a revaluation of the mark. That currency was revalued in October 1969, and the spread between average bond yields fell substantially, averaging 28 basis points in the following six months.

## CONCLUDING COMMENTS

A major force in the development of the Eurobond market has been the United States Government's efforts to improve its balance of payments. This raises an interesting question concerning the relationship between the Eurobond market and this country's balance of payments; that is, what are the effects of the Eurobond market on the United States balance of payments? The opportunity for United States firms to raise funds in the Eurobond market has eased the burden placed on them by the restrictions on capital outflows for direct foreign investment. This opportunity has undoubtedly made the balance of payments program less onerous to those American firms that desire to initiate or expand foreign operations and, therefore, has reduced opposition to the program. In this way, the Eurobond market may have helped the balance of payments. In the long run, the direct foreign investment that the Eurobond market has made possible, despite the balance of payments program, may also aid the United States balance of payments, in the form of earnings repatriated after the Eurobond debt has been serviced.



## THE 1972 FEDERAL BUDGET AND ECONOMIC ACTIVITY

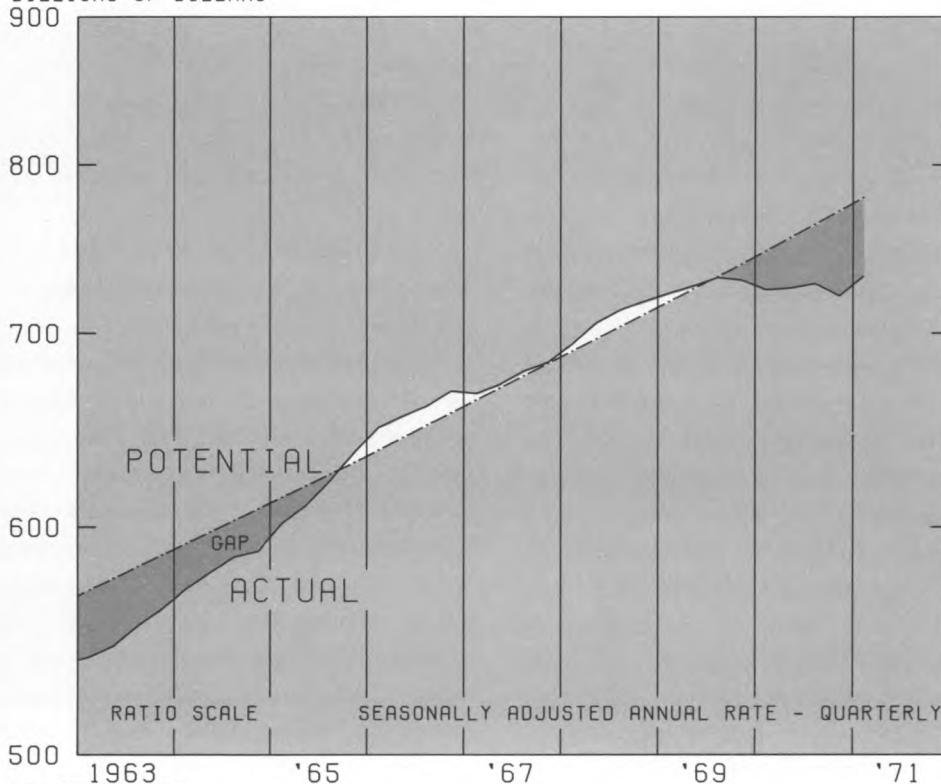
The Federal budget for fiscal year 1972 reflects an attempt to accelerate economic growth sufficiently to bring about a reduction in unemployment and at the same time reduce the overall rate of inflation. These objectives represent the latest phase of a longer-term effort to achieve a more satisfactory, balanced relationship between economic growth, prices, employment, and the balance of payments than has occurred since the mid-1960's. From the fourth quarter of 1965 to the third quarter of 1969, the operation of the economy at or above its productive potential generated the longest inflationary wave in the post-World War II period. Largely as a result of the Revenue and Expenditure Control Act of 1968, the Federal budget posture shifted to restraint to eliminate excess demand and inflationary pressures. The Act, passed in June 1968, held down Federal Government spending while revenues were sharply boosted. On a national income accounts basis, the Federal budget swung from a \$10.5 billion deficit in the second quarter of 1968 to a \$13.4 billion surplus in the second quarter of 1969.

Since mid-1969, economic activity has been marked by a growing margin of underutilized resources and sustained upward price pressures. The gap between the nation's actual and potential

output widened progressively during 1970 and was reduced only slightly in the first quarter of 1971 (see chart). Although the overall rate of inflation has moderated only gradually, increasing attention is being focused on accelerating economic growth and reducing unemployment. Proposed budget policy, supported by a "complementary monetary policy," would presumably lead to achievement of the Administration's economic goals for fiscal year 1972.<sup>1</sup> Budget policy in this economic plan centers largely on implications of the full-employment budget, which was adopted by the Administration for the coming fiscal year as the appropriate framework for overall economic objectives.

<sup>1</sup>A "complementary" monetary policy is not explicitly defined, but the *1971 Annual Report* of the Council of Economic Advisers states that as "a basis for considering what the outcome for the year would be with a specified combination of policies, it is convenient to assume that the money stock will continue to grow at about the rate that has prevailed since the turn early last year." See Council of Economic Advisors, *1971 Annual Report*, (Washington, D. C.: U. S. Government Printing Office, 1971), p. 84. The narrowly defined money supply, which includes currency plus demand deposits, rose at a 5.4 percent rate in 1970, after a 3.1 percent increase in 1969. The money supply expanded at an 8.9 percent annual rate in the first quarter of 1971, following a sluggish 3.4 percent rate of expansion in the final quarter of 1970.

## GROSS NATIONAL PRODUCT, ACTUAL AND POTENTIAL

IN 1958 PRICES  
BILLIONS OF DOLLARS

LAST ENTRY: 1Q '71

SOURCES OF DATA: U.S. DEPARTMENT OF COMMERCE AND COUNCIL OF ECONOMIC ADVISERS

**Federal Budget Concepts.** There are several budget concepts that describe Government fiscal activities, and each budget concept has specific uses. The unified budget, which consists of a comprehensive set of accounts that includes the total spending, lending, and financing activities of the Federal Government, is the Government's financial operating plan. However, for most analytical purposes, economists generally refer to the

national income accounts budget (NIA) and the full (high)-employment budget.

The NIA budget, which includes Federal expenditure and revenue activities consistent with the overall national income and product accounting framework, differs from the unified budget both in concept and in accounting procedures. For example, lending activity and financial transactions of the Federal Government (i.e., loan

## ECONOMIC REVIEW

disbursements and loan repayments) are excluded from the NIA budget because they do not contribute directly to national income and product. Moreover, in national income accounts, Government receipts are generally recorded on an accrual basis (i.e., when the tax liability is incurred). The only exception is personal income taxes, which are recorded when payment is received. On the expenditure side of the NIA budget, most purchases of goods and services are recorded when delivery is made; other expenditures (such as transfer payments) are recorded on a cash basis. In the unified budget, all receipts and expenditures are recorded on a cash basis (i.e., when receipts are collected and expenditures are paid). Because of these differences in accounting procedures, the overall budget surplus or deficit can vary by several billion dollars annually between the two budgets. The level of Federal revenues in both conventional budgets, however, reflects changes in the level of economic activity. The full-employment surplus budget was developed in an effort to separate discretionary changes in Federal expenditures and revenues from the effects of fluctuations in economic activity on the budget.

The full-employment surplus is an estimate of the budget balance that would be generated if the economy were operating at a hypothetical level of full employment. By linking revenues with a prescribed level of potential Gross National Product (GNP) instead of actual levels of GNP, the influence of the economy on the budget is separated from the influence of the budget on the economy. The main difference between the full-employment budget and the NIA budget is in computations of revenues, which in the former concept are estimated on the assumption of a full-employment economy. Full-employment expenditures are the same in both budgets except

for unemployment compensation, which is adjusted to reflect the difference between actual and full-employment estimates of unemployment compensation. Because of different assumptions used in estimating techniques—especially revenues and prices—estimates of the level of the full-employment surplus can vary considerably.<sup>2</sup> This article reviews Federal Government fiscal activities as reported in the unified budget and the budgetary impact as measured by the full-employment budget.

### FEDERAL FISCAL ACTIVITIES: THE UNIFIED BUDGET

The annual budget documents, in conjunction with the Annual Report of the Council of Economic Advisers, reveal the stabilization objectives, priorities, and economic assumptions of an Administration. The basic stabilization objectives for fiscal year 1972 are to reduce the unemployment rate to about 4.5 percent and to slow the overall rate of inflation (i.e., as reflected in the GNP implicit price deflator) to about 3.0 percent by mid-1972. An overview of the financial plan of the Federal Government for fiscal year 1972 is shown in Table I.

The two major components of the unified budget are the "expenditure account" and the "loan account." The expenditure account includes

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<sup>2</sup>For a description of the mechanics and problems involved in estimating the full-employment surplus, see Nancy H. Teeters, "Estimates of the Full-Employment Surplus, 1966-1964," *Review of Economics and Statistics*, Vol. 47 (August 1965), pp. 309-321; Michael E. Levy, *Fiscal Policy, Cycles, and Growth*, (New York: Conference Board, 1963); "Estimates of the High-Employment Budget: 1947-1967," *Review*, Federal Reserve Bank of St. Louis, June 1967; Arthur M. Okun and Nancy H. Teeters, "The Full-Employment Surplus Revisited," *Brookings Papers on Economic Activity* 1, 1970.

TABLE I

Budget Receipts, Outlays, and Financing  
Unified Budget  
Fiscal Years 1969–1972  
(bil. of \$)

	1969 Actual	1970 Actual	1971 Estimated	1972 Projected
Receipts, expenditures, and net lending:				
Expenditure account:				
Receipts	\$187.8	\$193.7	\$194.2	\$217.6
Expenditures (excludes net lending)	183.1	194.5	211.1	228.3
Expenditure account surplus or deficit	4.7	- 0.7	- 17.0	- 10.7
Loan account:				
Loan disbursements	13.1	8.3	8.8	9.4
Loan repayments	11.6	6.2	7.2	8.5
Net lending	1.5	2.1	1.6	0.9
Total budget:				
Receipts	187.8	193.7	194.2	217.6
Outlays (expenditures plus net lending)	184.5	196.6	212.8	229.2
Budget surplus or deficit	3.2	- 2.9	- 18.6	- 11.6
Budget financing:				
Net borrowing from public or repayment of borrowing	- 1.0	3.8	17.6	10.6
Other means of financing	- 2.2	- 0.1	1.0	1.0
Total means of financing	- 3.2	2.8	18.6	11.6

Source: The Office of Management and Budget

both Federal Government receipts and expenditures. The unified budget identifies the lending activity (the loan account) of the Federal Government by recording loan disbursements and repayments separately from other expenditures. Thus, the loan account includes financial transactions, such as Federal Government purchases of mortgages, financing of farm credit, and financing of urban renewal programs. This account is identified separately because loans and loan repayments presumably have a different economic impact than the expenditure account.

In general, the expenditure account of the proposed 1972 budget is marked by a strong projected growth in Federal revenues (up 12 percent from fiscal year 1971), a continued growth in Federal expenditures at a rate nearly as

rapid as in fiscal year 1971 (8.1 percent and 8.5 percent, respectively), and another sizable budget deficit (\$10.7 billion) (see Table I). One of the main underlying assumptions affecting projections of revenues and the size of the budget deficit is that GNP will expand at an average annual rate of about 11 percent per quarter during fiscal year 1972.

The loan account of the unified budget shows a continued reduction in the Federal Government's net lending activity for fiscal year 1972. The transfer of several Government lending agencies to private, Government-sponsored enterprises, however, understates the real impact of the budget, particularly on financial markets. Until fiscal year 1968, loan disbursements and net lending activity of the Federal Government rose year-by-year.

## ECONOMIC REVIEW

Although loan disbursements constituted a relatively small portion of total outlays, deficits in the loan account contributed significantly to the total budget deficits during 1965-1968.

For fiscal year 1972, net lending is projected to decline to \$0.9 billion, compared with \$6.0 billion in fiscal year 1968. This reflects the elimination from the Federal budget of former Government agencies, notably the Federal National Mortgage Association and Farm Credit Administration, as a result of their conversion into Government-sponsored private corporations. The borrowing activity of these and other Government-sponsored enterprises has grown and is projected to grow through fiscal year 1972, especially in support of the housing market. This means that nearly \$9.2 billion of net lending activity by Government-sponsored agencies will be outside the 1972 fiscal year budget, a factor which tends to minimize the real impact of the Federal budget. Thus, although Federal borrowing from the public is projected to decline by \$7.0 billion from fiscal year 1971 (reflecting a smaller overall budget deficit), net borrowing from extra-budgetary, Federally-sponsored enterprises is expected to increase. When both the Federal and Federally-assisted borrowing is taken into account, total borrowing is projected to increase \$2.3 billion during fiscal year 1972.<sup>3</sup> In effect, if the lending transactions of

<sup>3</sup>Federally-assisted borrowing is carried on by seven Federal departments (mainly Agriculture, Health, Education and Welfare, and Housing and Urban Development) and seven agencies (mainly Veterans Administration, Import-Export Bank, and Small Business Administration) that guarantee objectives of private lenders, primarily for mortgage loans. Federally-assisted borrowing is expected to make up \$20.8 billion of the \$40.6 billion total Federal borrowing projected for fiscal year 1972. *Special Analysis: Budget of the U. S. Government, Fiscal Year 1972*, (Washington, D. C.: U. S. Government Printing Office, 1971), pp. 38-40.

Federally-sponsored agencies were not removed from the budget, total Government outlays (i.e., expenditures plus net lending) would be larger than indicated, net lending activity would be well above projections for fiscal year 1972, and the total budget deficit would be considerably larger than the projected \$11.6 billion for fiscal year 1972.

**Expenditure Patterns.** The 1972 budget incorporates a continued, gradual shift in allocation of resources from national security and space programs to social services. The proposed \$16.5 billion expenditure increase in the budget is just slightly larger than the \$16.2 billion increase estimated for fiscal year 1971, although the percent increase in the 1972 budget amounts to 7.7 percent, compared with an 8.2 percent gain estimated for the 1971 budget. The bulk of the proposed increase in fiscal 1972 outlays is for domestic programs, comprised mainly of income security (up \$5.2 billion), revenue sharing (up \$4.0 billion), natural resources (up \$1.2 billion, of which \$0.6 billion is for water pollution control), and health programs (up \$1.4 billion) (see Table II). Most of the increase in income security programs represents retirement and social insurance payments, a result of both higher social security benefit payments and a larger number of recipients. The remainder of the proposed increase in outlays for income security programs primarily involves higher spending for low-income families and aid to aged, blind, and disabled persons. The proposed increase in spending for national security in fiscal year 1972 (\$1.1 billion) would bring total expenditures in this area up to the 1969-1970 levels, following a decrease in fiscal year 1971. The proposed increase, however, reflects a 279,000 reduction in the size of the armed forces (compared with an estimated 406,000 decrease in fiscal

TABLE II

Distribution of Federal Government Outlays  
Unified Budget  
Fiscal Years 1969–1972

	1969		1970		1971		1972	
	Bil. of \$	Percent of total	Bil. of \$	Percent of total	Bil. of \$	Percent of total	Bil. of \$	Percent of total
<b>TOTAL OUTLAYS</b>	<b>\$184.6</b>	<b>100.0%</b>	<b>\$196.6</b>	<b>100.0%</b>	<b>\$212.8</b>	<b>100.0%</b>	<b>\$229.2</b>	<b>100.0%</b>
National security	92.6	50.2	92.6	47.1	90.0	42.3	92.1	40.2
National defense	81.2	44.0	80.3	40.8	76.4	35.9	77.5	33.8
International affairs and finance	3.8	2.1	3.6	1.8	3.6	1.7	4.0	1.7
Veterans benefits and services	7.6	4.1	8.7	4.3	10.0	4.7	10.6	4.6
Total Government outlays less national security	92.0	49.8	104.0	52.9	122.8	57.7	137.1	59.8
Social services	55.9	30.3	64.1	32.5	78.7	37.0	85.5	37.3
Education and manpower	6.5	3.5	7.3	3.8	8.3	3.9	8.8	3.8
Health	11.7	6.3	13.0	8.1	14.9	7.0	16.0	7.0
Income security	37.7	20.4	43.8	20.7	55.5	26.1	60.7	26.5
Physical resources	18.2	9.9	21.0	10.7	23.2	10.9	25.4	11.1
Agriculture and rural development	6.2	3.4	6.2	3.3	5.3	2.5	5.8	2.5
Natural resources	2.1	1.1	2.5	1.3	2.6	1.2	4.2	1.8
Commerce and transportation	7.9	4.3	9.3	4.7	11.4	5.4	10.9	4.8
Community development and housing	2.0	1.1	3.0	1.6	3.9	1.8	4.5	2.0
Interest	15.8	8.6	18.3	9.3	19.4	9.1	19.7	8.6
General government	2.9	1.6	3.3	1.7	4.4	2.1	5.0	2.2
Space, research and technology	4.2	2.3	3.7	1.9	3.4	1.6	3.2	1.4
Allowances	—0—	—0—	—0—	—0—	0.8	0.4	6.0	2.6
Revenue sharing	—0—	—0—	—0—	—0—	—0—	—0—	4.0	1.7
Pay increase	—0—	—0—	—0—	—0—	0.5	0.2	1.0	0.4
Contingencies	—0—	—0—	—0—	—0—	0.3	0.1	1.0	0.4
Deductions and unallocable	—5.1	—2.8	—6.4	—3.3	—7.2	—3.4	—7.8	—3.4

NOTE: Details may not add to totals because of rounding.

Source: The Office of Management and Budget

year 1971) that is more than offset by civilian and military pay increases and the initial phases of the proposed all-volunteer armed force. Defense procurement outlays are expected to decline slightly in fiscal year 1972, although a sizable increase for future obligations will be requested of Congress.

Despite the proposed \$16.5 billion total increase in Federal outlays, the composition of the 1972 budget is not significantly different from fiscal year 1971, which suggests little further progress in the reallocation of resources to meet pressing social needs. The portion of the budget that is being allocated for social services, although

larger than for national security for the first time in recent history, is not materially different from fiscal year 1971 (37.3 percent and 37.0 percent, respectively). The only sizable increase in the fiscal 1972 budget allocations shows up in physical resources and centers largely on pollution control. (Proposed outlays for natural resources are up from 1.2 percent of the total fiscal year 1971 budget to 1.8 percent of the fiscal year 1972 budget.) Thus, despite the continued reductions in allocations for defense outlays and space, budget leeway remains limited. "Relatively uncontrollable" outlays—such as insurance programs,

## ECONOMIC REVIEW

interest on the national debt, public assistance grants, and farm price supports—account for about 70 percent of the total budget and contribute significantly to the difficulty of re-ordering national priorities. Stated differently, the amount of funds being allocated to meet social needs of the county—such as public mass transit, housing and community development, education and manpower training—is still relatively small. For example, of the proposed \$229.2 billion in total spending for fiscal year 1972, \$13.6 billion, or 5.9 percent of total outlays, is for these purposes.

**Projected Revenues.** Total Federal Revenues are projected to rise \$23.4 billion (or 12 percent) in fiscal year 1972, following an estimated \$0.5 billion increase in fiscal year 1971. This sharp growth in revenues would generally be appropriate if the aim of fiscal policy were restraint rather than stimulus to achieve growth and employment objectives. In fact, however, little fiscal stimulus is forthcoming from the revenue side of the budget. The projected gain for fiscal year 1972 is nearly as large as the record gain in fiscal year 1969 when the income tax surcharge was imposed. The depressed level of revenues in fiscal year 1971 reflected the slowdown in economic activity, the expiration of the income tax surcharge in mid-1970, and the continuing effects of the Tax Reform Act of 1969 that raised the personal tax exemption from \$600 to \$650 as of July 1, 1970.

All of the projected gain in revenues for fiscal year 1972 is associated with economic expansion, while little growth is expected from changes in tax rates (see Table III). Economic assumptions accompanying revenue projections include a 9 percent year-to-year increase in GNP, an 8 percent rise in personal income, and a 20 percent gain in corporate profits before taxes. As a result, Federal receipts from both individual and corporate taxes

TABLE III

Estimated Changes in Federal Tax Receipts  
Unified Budget  
Fiscal Year 1972  
(bil. of \$)

	Estimated Change From Fiscal Year 1971	
	<u>Gain</u>	<u>Loss</u>
Estimated revenue changes under existing legislation:		
Income tax surcharge	—0—	—\$1.1
Repeal of investment tax credit	\$0.7	—0—
Reform and relief provisions—		
Tax Report Act of 1969	—0—	— 3.0
Social security rate increase (1/1/71)	1.9	—0—
Unemployment tax increase	0.1	—0—
Acceleration of estate and gift tax payments	1.4	—0—
Total changes under existing legislation	4.1	— 4.1
Estimated proposed revenue changes:		
Social security base increase (1/1/71)	2.7	—0—
Other net changes	0.1	—0—
Acceleration of tax payments	—0—	— 1.2
Acceleration of depreciation writeoff	—0—	— 2.0
Total changes proposed	2.8	— 3.2
Total changes in revenues due to existing and proposed tax legislation	\$6.9	—\$7.3

Source: The Office of Management and Budget

are projected to rise rapidly in fiscal year 1972. The proposed increase in the social security tax base and tax rate would also add substantially to receipts from social insurance taxes.

On the other hand, revenue gains and losses from existing and proposed changes in tax legislation just about offset each other (see Table III). Acceleration of estate and gift tax payments, repeal of the investment tax credit, and an increase in social security tax rates would boost estimated revenues by about \$4.1 billion for fiscal year 1972. Estimated revenue loss would also amount to about \$4.1 billion, chiefly as a result of the Tax Reform Act of 1969, which provides further tax



relief for individuals. Among the changes proposed by the Administration, the only major tax increase is on the social security tax base; the only major tax relief is the accelerated depreciation writeoff. The effect of these proposed changes amounts to only a \$0.4 billion revenue loss. In summary, the net effect of existing and proposed legislation amounts to about a \$0.4 billion loss in revenues for fiscal year 1972.

**Projected Deficit.** On balance, if proposed outlays and revenues materialize, the Federal budget would be in deficit by \$11.6 billion in fiscal year 1972, or \$7.0 billion less than the estimated deficit for fiscal year 1971. However, the Federal budget is not only the product of the Administration's program, but also of the economy operating on the budget to produce revenues above or below Administration estimates. For example, on the expenditure side of the budget, interest payments on the public debt will apparently amount to about \$0.9 billion less than the \$19.7 billion projected in the budget, a reduction that the Treasury Department attributes to lower rates of interest than were assumed when the expenditure estimates for fiscal year 1972 were developed. Of greater significance, a shortfall in economic growth from the Administration's GNP target of \$1,065 billion would enlarge the deficit by several billion dollars. For example, if the economy grows only in line with the "standard" forecast of \$1,045 billion, the \$20 billion shortfall in GNP would add about \$5 billion to the projected deficit for fiscal year 1972.<sup>4</sup>

<sup>4</sup>According to Herbert Stein, Member, Council of Economic Advisers, "...the deficit will be \$11.6 billion plus about 25 percent of any shortfall of the GNP from \$1,065 or minus about 25 percent of any excess of the GNP above \$1,065..." See Herbert Stein, *Remarks at the Annual Financial Outlook Conference*, (New York: Conference Board, February 17, 1971).

The Federal budget also reflects Congressional action or inaction on proposals of each Administration. Congressional action has already altered both the spending and revenue estimates for fiscal year 1972. Congress passed—and the President signed—a bill increasing social security benefit payments by 10 percent instead of the proposed 6 percent increase and deferred (until 1972) consideration of the proposal to increase the social security tax base (from \$7,800 to \$9,000 annually). By these actions alone, Federal spending estimates were increased by nearly \$0.7 billion for fiscal year 1972, and estimated Federal revenues were reduced by about \$2.7 billion. If growth of the economy falls short of the GNP target and Congressional actions in the budget-making process continue on the expansionary side, the deficit in the Federal budget would equal, if not exceed, the deficit for fiscal year 1971. In fact, as of May 6, "by the various actions taken to date the Congress has increased estimated outlays for fiscal 1971 and 1972 by about \$610 million and \$1,370 million, respectively, and has decreased estimated receipts for these two fiscal years by \$157 million and \$2,657 million, respectively."<sup>5</sup> The cumulative effect of Congressional actions is to boost the unified budget deficit for fiscal year 1971 to \$19.3 billion; and for fiscal year 1972, to \$15.7 billion. According to estimates of the staff of the Joint Committee on Internal Revenue Taxation, however, projected deficits would be \$20.3 billion for fiscal year 1971 and \$21.7 billion for fiscal year 1972. The Joint Committee based their figures on both Congressional actions to date and an assumption of slower

<sup>5</sup>Joint Committee on Reduction of Federal Expenditures, Congress of the United States, *1972 Budget Scorekeeping Report*, (Washington, D. C.: U. S. Government Printing Office, 1971), p. 2.

economic growth than is assumed in the official budget.<sup>6</sup>

## BUDGETARY IMPACT:

### THE FULL-EMPLOYMENT BUDGET

A large budget deficit is appropriate if the economy falls short of the target path for real growth. Because a deficit in the Federal budget can reflect the effects of an economic slowdown (which in turn contributes to a shortfall in revenues) or of discretionary changes in spending and/or in tax rates, a deficit is not necessarily an indication of the posture of fiscal policy. For example, a major portion of the budget deficit in calendar year 1970 was the result of the drop in revenues associated with the economic slowdown and the strike in the automotive industry in the fourth quarter. Therefore, neither the unified budget nor the NIA budget is considered an appropriate indicator of fiscal policy; both budgets reflect changes in the levels of economic activity as well as changes in spending and in tax legislation.

The concept of the full-employment surplus was developed to overcome the limitations in conventional budgets. Because the effects of changes in the level of economic activity are removed, behavior of the full-employment budget will frequently diverge from conventional budgets, particularly in periods of economic slack when conventional budgets show substantial deficits. Estimates of the full-employment budget surplus or deficit, however, are not precise. Economists generally follow changes rather than levels as an indicator of the posture of fiscal policy, although simply tracing out movements in the full-employment budget is not always adequate on several counts. The impact of a surplus or deficit

will be different as the economy grows over time. A way of accounting for this difference is by expressing the surplus or deficit as a percent of potential GNP. The full-employment budget, like conventional budgets, also provides little indication of the different economic impacts that could result from changes in the composition of spending and revenues. Despite limitations, the full-employment budget is still considered to be a useful measure of both discretionary fiscal policy and of fiscal impact. For example, the \$15.8 billion swing from a surplus to a deficit in the NIA budget from fiscal year 1970 to fiscal year 1971, which was largely the result of the economic slowdown, suggests more stimulus from the Federal budget than actually occurred. On the other hand, various published estimates of the full-employment budget show only a nominal reduction in the surplus from fiscal year 1970 to fiscal year 1971.<sup>7</sup> Similarly, the proposed \$10.8 billion reduction in the deficit (NIA basis) for fiscal year 1972 is actually a product of a projected recovery in economic activity, rather than a shift in the posture of fiscal policy. In contrast, official Administration estimates show little change in the full-employment budget position on either a fiscal or calendar year basis. For example, the Administration projects a full-employment surplus of \$0.1 billion for fiscal year 1972, compared with an estimated \$1.4 billion surplus for fiscal year 1971. These year-to-year changes are rather insignificant and suggest little additional thrust to overall economic activity, especially when measured against a trillion dollar economy. Some private estimates also show little quarterly movement in the full-employment

<sup>7</sup>Nancy H. Teeters, "Budgetary Outlook at Mid-Year 1970," *Brookings Papers on Economic Activity* 2, 1970, pp. 303-312.

<sup>6</sup>*Ibid.*, p. 2.

TABLE IV  
 Percent Distribution of Federal Government Expenditures  
 National Income Accounts Budget  
 Fiscal Years 1969–1972

	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>
Purchases of goods and services	53.0%	48.3%	45.5%	44.4%
Defense	41.2	37.1	34.4	32.2
Nondefense	11.8	11.2	11.1	12.2
Transfer payments	27.2	30.1	32.2	32.6
Grants-in-aid to state and local governments	10.6	11.9	12.6	15.0
Net interest paid	6.8	7.0	6.8	6.2
Subsidies less current surplus of government enterprises	<u>2.4</u>	<u>2.7</u>	<u>2.9</u>	<u>1.8</u>
Total	100.0%	100.0%	100.0%	100.0%

Sources: U. S. Department of Commerce and The Office of Management and Budget

budget surplus from mid-1970 through mid-1971.<sup>8</sup>

The composition of spending and of revenues does not reveal much new stimulus from the proposed budget for fiscal year 1972. As indicated in the NIA budget, Federal government purchases of goods and services have been accounting for a declining share of the budget in recent years, and a continuation of this trend is projected for fiscal year 1972 (see Table IV). In absolute terms, Government purchases will increase again, but all of the pickup is associated with the proposed increases in Federal civilian and military pay and the costs of the volunteer armed force. Thus, defense purchases, which are presumed to have a relatively large multiplying effect on overall output, income and employment, have been declining. On the other hand, transfer payments (such as retirement and disability benefits, veterans' insurance, and hospital and medical insurance) and Federal grants-in-aid to state and local governments, have been growing in both

<sup>8</sup>*Ibid.*, p. 306.

absolute and relative terms. In part, the increase in transfer payments is nullified by higher taxes. As mentioned earlier in this article, the net effect of changes in existing and proposed tax changes will be offsetting; reductions in tax rates exceed tax increases by a negligible amount.

## CONCLUDING COMMENTS

The proposed Federal budget for fiscal year 1972, in conjunction with a complementary monetary policy, was presumed to provide the stimulus needed to achieve the Administration's output and manpower objectives, while permitting further progress toward reducing the rate of inflation. The discretionary changes proposed in the budget, however, may not be sufficient to achieve these objectives. Spending is estimated to rise less than in fiscal year 1971, and tax changes under existing and proposed legislation are largely offsetting. It may be necessary, therefore, to consider the use of additional expansive fiscal measures to promote achievement of output and employment goals.