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The Role of Euro-Dollars in Financing United States Exports

by

Paul Schnitzel *

The Euro-dollar market, now roughly fourteen years old, has served many functions during its lifetime. For example, Euro-dollars have served in the roles of vehicle or key currency in the finance of foreign trade, a source of liquidity for interest rate arbitrage between national money markets, a source of liquidity for engaging in currency speculation, and a source of credit for real investment for firms around the world. This study will explore the use of Euro-dollars in financing United States exports. First, however, it may be useful to mention briefly what is meant by a Euro-dollar and the Euro-dollar market.

What are Euro-Dollars?

As its name implies, a Euro-dollar is a United States dollar on deposit in a European commercial bank. [1] A Euro-dollar deposit may be either a time or a demand deposit, although the vast majority are time deposits. These deposits are made by both United States citizens and foreigners. Depositors include individuals, businesses, banks, and official institutions. From the standpoint of the depository bank, these deposits represent its Euro-dollar liabilities. These liabilities can, then,

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[1] This is a purist definition, to be sure. A great deal of diverse opinion exists on the scope of the prefix "Euro-". Some writers include in the Euro-dollar market all dollar deposits outside of the United States no matter where they are found. Still others include within the term Euro-dollar those other European currency deposits found outside of their home country. According to this definition, the Euro-dollar and the broader Euro-currency markets are the same. In this study, the eight European countries and also Japan and Canada will be included as part of the Euro-dollar market. Although two are not in Europe, and this would appear to be at odds with the definition of the Euro-dollar market given above, they are included for a number of reasons. Canada and Japan account for a sizeable share of Euro-dollar transactions. On the basis of the most reliable estimates available on the size of the Euro-dollar market, published annually by the Bank for International Settlements, Canada accounted for 7.7 per cent of estimated total sources of funds in the Euro-dollar market at the end of 1969. At the same time, Japan accounted for 1.1 per cent of total sources. When it came to uses of Euro-dollar funds, Canada and Japan accounted for 3.5 and 4.0 per cent respectively in 1969. Again, data on these transactions in the forms of claims (uses) and liabilities (sources) are readily available and comparable with data for the eight reported European countries. It is also in keeping with one essential characteristic of the Euro-dollar market. From its beginnings, it has been associated with economically advanced industrialized countries. To omit Canada and Japan would leave out two nations that have been important to the development of the Euro-dollar market, at least in this writer's opinion.

give rise to Euro-dollar loans to other banks, non-banks or official institutions. Foreign commercial banks, as a result, hold dollar-denominated liabilities and assets or claims. In essence, the Euro-dollar market links borrowers and lenders through the financial institutions that comprise the market.

One of the curious features of the Euro-dollar market, and a cause of considerable difficulty to students of it, is the considerable amount of inter-bank lending that goes on. For instance, having accepted a dollar deposit from a United States corporation, a London bank may utilize it as the basis of a loan to a Paris bank which may, in turn, lend it to a Zurich bank, which may, in turn, make a loan to a Swiss merchant who may wish to finance an import of goods from Britain. This situation creates problems of definition and measurement. For example, in the case of interbank lending, is this mere double counting or a multiple expansion of Euro-dollar deposits? [2]

What Brought the Euro-Dollar Market into Existence?

No single factor can explain the origin of the Euro-dollar phenomenon. In this writer's view, however, at least three crucial factors, taken together, best explain the start: (1) the return to full currency convertibility in 1958; (2) interest rate controls in the United States and the lack thereof in Europe; and (3) the chronic United States balance of payments deficits that began in 1950.

The Euro-dollar market began some time in 1958 – no precise date has ever been identified. It was during 1958, however, that all of the currencies of the major non-Communist trading nations of the world were made fully convertible with one another. Before 1958, a nation that earned foreign exchange through trade with a second country could not utilize the exchange to buy the currency of a third country for the purpose of trading with the third country. For example, France could not convert the dollars that it had earned in trade with the United States into schillings to trade with Austria. The restoration of full currency convertibility signaled an even greater role for the dollar as a vehicle currency, that is, in financing transactions within and among countries other than the United States.

The Euro-dollar market is basically a wholesale money market. Loans are negotiated for sums of one million dollars and over. Given the magnitude of the transactions, banks in the Euro-dollar market can operate on interest margins narrower than those of their American or European counterparts. Depositors and borrowers usually find deposit

[2] At the time of this writing, it does not appear that this question has been satisfactorily answered. See, for example, Fritz Machlup, *Euro-dollar Creation: A Mystery Story*, Reprints in *International Finance*, No. 16 (Princeton: International Finance Section, December 1970).

and lending rates more attractive in the Euro-dollar market than in the United States or other European money markets. What accounts for this situation? In the United States, limits on the amounts that commercial banks can pay on time deposits (in the form of Regulation Q of the Board of Governors of the Federal Reserve System) have brought about a situation in which European banks have been able to offer more attractive rates on dollar deposits. At the same time, the inability and/or unwillingness of European central banks to control short-term dollar flows between their respective countries had aided and, at times, abetted Euro-dollar movements.

Although there is no evidence to prove that the Euro-dollar market would not have materialized in the absence of chronic United States balance of payments deficits, they certainly provided the raw material, "dollars," for it. From 1950 to the begining of 1958, the cumulative United States balance of payments deficit on a liquidity basis totalled slightly over ten billion dollars. [3] Exporters, importers and others found the Euro-dollar market an ideal depository for their idle dollar balances.

The Role Played by Euro-Dollars in Financing United States Exports

The ensuing discussion of the Euro-dollar market and its role in the financing of United States exports considers the following: some general remarks on the nature and characteristics of United States exports; the possible ways in which United States exports can be financed; post-World War II developments in United States export finance; how Euro-dollars came to be used in financing United States exports; the interconnections between Euro-dollars, United States exports, and the international network of financial intermediaries; the relationship between Euro-dollars and the financing of United States exports; sales of foreign affiliates of United States firms as exports; financing exports from the United States mainland; interpretation of the data presented on United States merchandise exports; bankers' acceptances based on United States exports; short-term loans to foreigners by United States banks; and the Euro-dollar claims of London banks. The study concludes with a discussion of the role of Euro-dollars in the financing of plant and equipment expenditure, inventory and receivables investment, and sales by foreign affiliates of United States firms.

Though much has been written about the Euro-dollar market in terms of its general nature and implications, little attention has been paid to some of its narrower functions. Much of what has been written about the Euro-dollar market either ignores or only makes scant reference to the following functions: its role as a mechanism for hedging,

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[3] Raymond F. Mikesell, *Financing World Trade: An Appraisal of the International Monetary System and of Proposals for Reform* (New York: Thomas Y. Crowell company, 1969), p. 43

speculation, and arbitrage; its role as a new addition to the international interest rate structure and its effects on cartelized interest rates. Lest these charges appear overly harsh, it must be noted that the Euro-dollar market is a relatively new (fourteen-years-old) phenomenon. It is still growing; its practices are undergoing continual change, and many of its functions are only begining to be understood.

The aim of the present study is to explore one of the more neglected functions of the Euro-dollar market: the financing of United States exports. The relevant period is from 1958 to 1969. The writer's aim will be twofold: first, to discover how important to the financing of United States exports was the growth of the market; secondly, to determine the extent that Euro-dollar credit replaced the more traditional forms of credit used to finance United States exports. It must be pointed out that the financing of United States exports with Euro-dollars represents one aspect of the important growth of the dollar as an international medium of exchange.

Some General Remarks on United States Exports

In this discussion of the financing of United States exports, a few preliminary remarks are in order concerning the general nature of United States exports. Compared to domestic trade, foreign trade has traditionally been a more risky business. Export sales are usually financed on a cash basis with payment terms of ninety days or less. Indeed, much of the trade of industrial countries is financed by suppliers on an open-book basis. In 1964, 70 per cent of United State manufacturing firms doing business abroad continued to export on a cash basis. Larger enterprises and those with a proportionately higher volume of export sales to total sales were placing more reliance on export financing, short-term and longer term.

The way in which a country finances its exports depends in part on the composition of its exports. Basics products, raw materials, and argricultural commodities tend to be paid for on a cash basis. One estimate for Britain places the proportion of its exports paid for in cash at 60 per cent. The remaining 40 per cent is paid for on credit. The proportion of United States exports accounted for by basic and agricultural products is larger than that for British exports. One might suppose, then, that less than 40 per cent of United States exports actually involve overseas extension of credit. Hence, in discussing the use of Euro-dollars in financing United States exports, one must keep in mind that this method concerns less than half of the United States exports. In 1964, 758 (26 per cent) of 2,869 United States manufacturers reported the extension of direct export credit in the amount of $3.2 billion.[4] The 1963-64 *Annual Report of the Bank for International*

[4] American Bankers Association, *The Cost of World Leadership: An Analysis of the United States Balance-of-Payments Problem* (New York: American Bankers Association, 1968), p. 235.

Settlements shows that the final users of Euro-dollars employed them mostly to finance foreign trade. Again, in 1964, United States firms extending credit accounted for the greater bulk of export sales, $10.8 billion. They extended $2.6 billion in credit, 24 per cent of their exports.[5] Almost all made use of outside sources of credit. An insignificant number of reporting firms relied solely on outside credit facilities.

Various risks are other peculiarities of the export trade. For example, commercial credit risks are involved in that the buyer is unknown and his credit rating suspect. Thus, a buyer who could not ordinarily obtain credit from a top-name United States bank might get the needed dollar credit in the Euro-dollar market. The political risk is still another type present in foreign sales. Usually associated with underdeveloped countries, political risks may involve war, insurrection, revolution, confiscation of a business, and repudiation of private debts. Other risks include cancellation of import licenses, restrictions on imports imposed by a foreign government after shipment by an exporter, and exchange transfer risks that would prevent a buyer from making payment. In these cases, access to the Euro-dollar market may not necessarily insulate either the exporter or the buyer from risks. Witness, for example, the losses incurred in the so-called "salad-oil scandal" in which Euro-dollar credit was obtained by drawing up invoices based on non-existent stocks of salad oil. Currency risks constituted an important deterrent to export financing, especially prior to the return to full currency convertibility in 1958. United States banks were unwilling to make loans in foreign currencies. They were also wary of making loans on a non-recourse basis.

How are United States Exports Financed?

In order to evaluate the importance of Euro-dollars in financing United States exports, one must determine the ways in which United States (or any country's) exports may be financed. These include for the United States: (a) bankers' acceptances involving both letters of credit and cable transfers; (b) short-term bank loans to foreigners; (c) foreign financing; (d) term lending to foreigners. Of course, from the viewpoint of a specific exporter or importer, the least expensive means of financing, other things being equal, is to be preferred. Prior to 1914, the lion's share of United States trade was financed in London. Likewise, British pound sterling predominated as the trade currency of the period. This use of a "key currency" or "vehicle currency" for trade financing rather than the use of many currencies offers a clear advantage to exporters, importers, and banks. It frees them from the need for holding larger operating balances than would have been necessary. For each currency used, a trader would require a balance. The banks that finance the transactions of traders require balances in the currencies

[5] *Ibid.*

involved. Because of opportunity cost considerations, banks want to minimize their holdings of non-interest bearing balances. They find it profitable to hold interest-bearing assets in the countries whose currencies they hold. So, prior to 1914, economic units holding pound sterling balances invested part of their holdings in the London money market, and London banks financed most of the world's trade. Though sterling has declined in its importance in financing trade vis-a-vis the dollar, London continues to remain prominent in the area of trade finance. The growth of the Euro-dollar market in financing international transactions and as a store of international liquidity represents the international use of the dollar as a vehicle currency.

Post-World War II Development in United States Export Finance

The period since World War II has witnessed a great expansion of export financing, although the great bulk of foreign trade financing through normal channels continues to be on a short-term basis. Indications are that United States companies are making increasing use of export credit facilities.[6] Another post-war development which would aid and encourage the use of a vehicle currency in financing exports has been the increasing extent to which financial risks are being shouldered by intermediaries. The mechanism of short-term financing through commercial banks includes documentary sight and time drafts, letters of credit, and collection facilities. Less risk has come to be associated with short-term financing. To a greater extent, banks are turning to medium- and long-term credit financing where risks are comparably greater, but the growth potential is higher.

There has been an increasing demand for medium-term credit facilities in export financing. This is a relatively new innovation. Capital goods, such as heavy machinery and industrial equipment, are now commonly financed through medium-term credit with terms ranging from six months to five years. This potential for the Euro-dollar market with its wide choice of maturities, even to beyond five years, is evident. It stands to reason that one advantage of dollar-use in financing overseas trade is the New York money market. This situation means that holders of dollars can find excellent short-term investment opportunities for their non-interest bearing inventories of dollars. The New York money market is well developed, diversified, and, above all, reasonably safe, unlike other local money markets throughout the world that are not as attractive and, in some cases, that discourage investment by non-residents, for example, West Germany. The appearance and growth of the Euro-dollar market gave further impetus to the use of the dollar as a vehicle currency. Now, holders of dollars in

[6] Guenter Reiman, and E. F. Wigglesworth (eds.), *The Challenge of International Finance* (New York: McGraw-Hill Book Co., 1966), p. 235.

Britain, France, West Germany, Italy, etc., have a dollar deposit market within their own borders. In the greater share of cases, this dollar deposit market offers higher returns than would be found in the New York money market. During the 1950's, most of the dollars that foreign official institutions and others chose to invest were channeled into the hands of private European borrowers through the New York money market banks. The Euro-dollar market, since 1957, has to some degree supplanted the New York banks in supplying dollar credits to Europeans, including those buying United States exports. The use of Euro-dollars has reduced the cost of financing United States exports because no compensating balances are required when one borrows Euro-dollars, whereas United States banks require a certain percentage of a loan, usually 20 per cent, to be kept on deposit, thus raising the effective cost of this loan.

How Euro-Dollars Came to Finance United States Exports

Briefly, what is the explanation of how Euro-dollars came to be used to finance United States exports from 1958? One of the original factors in the early development of the Euro-dollar market was the deposit by certain Soviet bloc banks of dollars in certain Western European banks. One of these depository banks was the Banque Commerciale pour l'Europe du Nord in Paris, which in turn, lent these deposits to finance foreign trade, at first on a local basis in the early 1950's. Other European banks soon followed the lead, and most Euro-dollar loans were made to finance international trade. Trade was considered to be the natural domain of the Euro-dollar. This attitude applied not only to the many borrowers outside of the United States who used it as a trading currency, but also to a number of United States businesses which have been borrowing in the Euro-dollar market instead of in New York; for example, cotton and wheat exporters. As late as 1967, the London *Economist* stated that the most important single use of Euro-dollars was in foreign trade finance. [7]

Euro-Dollars, United States Exports, and an International Network of Banks

The use of Euro-dollars in helping to finance United States exports can also be viewed as part of another world-wide development, namely the financing of world trade through financial intermediaries. Here interbank loans play a major role. An international network of finance that includes banks all over the world has evolved. Local banks are thereby linked together. They are able to gain access to the financial resources of this network, as well as contributing to it. The latter is accomplished by holding deposits in the large financial institutions of

[7] "Decade of the Euro-Dollar," *Economist* CCXXV (July 8, 1967), 126-27.

the world's financial centers, i.e., New York and, to a smaller extent, London. The opening of credit lines allows traders to obtain letters of credit and banks to get their acceptances financed. Thus, the burden of financing foreign trade is shifted from importers and exporters to the banks and the money market. Over the years, more refined methods of financing are giving rise to a more diversified system of finance through the money markets. More specifically, commercial banks redeposit Euro-dollars with other banks. Banks, especially in countries lacking well developed money markets, turn to the Euro-dollar market as an outlet for their idle funds. Exporters who require dollars financing in large blocks have turned to this wholesale dollar deposit market. Firms engaged in overseas trade use Euro-dollars in preference to the usual acceptance credit because of lower interest charges and the convenience of borrowing, meaning a wide range of maturities and a ready supply of funds in the market. In paying for United States exports with Euro-dollars, a foreign importer simply shifts the ownership of a dollar deposit in a United States bank from himself to a United States exporter. Since an American exporter is likely to want payment only in the dollar, no conversions will be made. This avoids exchange risks and saves the cost of conversion from another currency. For financing transactions between third countries, Euro-dollars are often converted into other currencies to finance imports, exports, and pre-export operations. Importers use Euro-dollars to finance shipments from the United States or from any other country if the invoice calls for dollar payment. They may do this directly or through their bank. Where a currency conversion occurs, importers cover their exchange risk through a foreign exchange futures contract. Exporters use Euro-dollars for covering the actual shipment or for pre-export finance. A forward exchange contract might be involved, particularly if Euro-dollars are borrowed to prefinance exports to an importer who will not pay in Euro-dollars.

Exports of goods and services may be financed in a variety of ways. This financing may or may not give rise to a foreign exchange transaction. Exports that do not give rise to a foreign exchange transaction include (a) those made available under long-term credit arrangement; (b) government grants or gifts or private gifts; (c) goods sold under open account or on consignment; (d) exports of goods and services by a firm in one country to its branch or a foreign affiliate in another country. A large volume of commercial exports are shipped under credit terms ranging from three to five years or more. It has been estimated that some 25 per cent of United States exports of manufactured goods represent shipments from American firms to their branches or affiliates abroad.

The Relationship Between Euro-Dollars and the Financing of United States Exports

A number of difficulties obstruct a clear picture of the extent to which Euro-dollars have financed United States exports. In this writer's

thinking, the most important problem is the fact that the data reported as Euro-dollar claims by overseas banks are not segregated as to the particular use to which the loan is put. One does not know, for example, whether a given Euro-dollar loan will be redeposited at another Euro-bank or be put to some final use. If the latter is the case, one is ignorant as to whether the loan will go to finance plant and equipment, inventory, a broker's loan, or a given country's exports.

One finds another problem in observing other financial instruments used to finance United States exports, namely bankers' acceptances and short-term claims on foreigners reported by United States banks. Clearly, bankers' acceptances are not always issued to finance exports. Some may serve to finance imports or the storage of goods. The proportion of bankers' acceptances in the total volume of foreign trade transaction was smaller in 1963 as compared to 1929.[8] However, the problem is not severe because data are available for bankers' acceptances based on United States exports. This situation is not the case for short-term loans to foreigners from United States banks. Though they are used to finance United States exports, one cannot from the data determine the extent.

Still another difficulty rests in the fact that not all United States exports are nor even can be financed with a short-term financial instrument such as a Euro-dollar loan. Some, probably the majority of United States exports, are sold on a cash basis (over 60 per cent). Long-term credit may be used. Medium-term credits (three to five years) are used in the case of shipments from American firms to their foreign affiliates. Some of the sales of these foreign affiliates find their way back to the United States, though the proportion that is sold to the United States is very small (less than 10 per cent).

What this means for the present study is that one must proceed inferentially and not directly. An attempt will be made to relate movements in Euro-dollar claims reported by European banks to movements in United States exports, bankers' acceptances based on United States exports, short-term loans, and sales and equipment expenditures by foreign affiliates of United States firms.

Sales of Foreign Affiliates of United States Firms as Exports

In talking about the role of Euro-dollars in financing United States exports, one must consider not only goods shipped from the United States itself, but also another form of export: sales made by foreign affiliates of United States companies. It is not asserted, here, that the latter has eclipsed the former in importance. It is simply suggested that United States firms have increasingly turned to this mode

[8] Federal Reserve Bank of Cleveland, *Money Market Instruments* (2nd ed.; Cleveland: Federal Resrve Bank of Cleveland, 1967), p. 48.

of sale to avoid shipping costs, especially in a period of rising prices (1964-68), and to deflect the demand for export financing from the United States to foreign sources. The latter has been especially important since the voluntary credit restraint program, aimed at reversing chronic United States balance of payments deficits, was instituted in 1965. Furthermore, export sales of foreign affiliates of United States firms in 1964 accounted for 10 per cent of total exports of manufactured goods of countries other than the United States.[9] Since 1957, sales of foreign affiliates of United States firms have shown tremendous gains, doubling between 1957 and 1964 (see Table 1). This has been associated with a rapid growth in the markets of Western European nations. Indeed, Table 3, based on Tables 1 and 2, reveals that, for most of the years since 1957, sales of foreign manufacturing affiliates of United States firms have grown faster than United States merchandise exports.

Financing Exports from the United States

Table 2 presents data for merchandise exports from the United States for 1957 through 1969. Table 4 presents data on bankers' acceptances based on exports from the United States for 1957 through 1969. Table 5 presents data on short-term claims on foreigners reported by banks in the United States from 1957 through 1969.

TABLE 1.

SALES OF
FOREIGN MAUFACTURING AFFILIATES OF U.S. FIRMS
(IN MILLIONS OF DOLLARS)

1957	18,331
1958	19,483
1959	20,634
1960	22,848
1961	25,061
1962	27,923
1963	31,809
1964	37,438
1965	42,377
1966 *	——
1967	53,151
1968	59,676

* Not available.

Source: *Survey of Current Business*, 11/66 and 10/70.

[9] Fred Cutler and Samuel Pizer, "U.S. Firms Accelerate Capital Expenditures Abroad," *Survey of Current Business* (October 1964), p. 8.

TABLE 2.

U.S. MERCHANDISE EXPORTS **
(SEASONALLY ADJUSTED IN MILLIONS OF DOLLARS)

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Jan.	1,681	1,397	1,287	1,561	1,623	1,668	986	2,040*	1,228	2,298*	2,639	2,814*	2,161
Feb.	1,616	1,246	1,182	1,566	1,712	1,809	2,124	2,058*	1,623	2,353*	2,582	2,775*	2,266
Mar.	2,154	1,440	1,378	1,518	1,751	1,672	1,958	2,075*	2,739	2,530*	2,525	2,439*	3,188
Apr.	1,866	1,408	1,345	1,622	1,662	1,795	1,914	2,061*	2,406	2,317*	2,608	2,855*	3,318
May	1,817	1,507	1,418	1,659	1,585	1,762	1,895	2,047	2,299	2,416*	2,549	2,740*	3,268
June	1,790	1,309	1,351	1,634	1,582	1,836	1,803	2,077	2,235	2,485*	2,582	2,870*	3,179
July	1,697	1,289	1,356	1,707	1,689	1,748	1,748	2,119	2,300	2,469	2,601	2,858	3,182
Aug.	1,681	1,287	1,313	1,625	1,689	1,703	1,703	2,100	2,329	2,460	2,566	2,950	3,366
Sept.	1,544	1,242	1,407	1,647	1,678	1,908	1,908*	2,261	2,291	2,503	2,597	3,211	3,341
Oct.	1,680	1,426	1,399	1,668	1,780	1,523	1,523*	2,156	2,349	2,616	2,415	2,631	3,342
Nov.	1,688	1,410	1,380	1,681	1,733	1,725	1,725	2,206	2,378	2,491	2,671	2,972	3,398
Dec.	1,636	1,389	1,580	1,645	1,725	1,839	1,839*	2,426	2,362	2,467	2,677	2,977	3,280

* Significantly affected by strikes.

** Exports of domestic and foreign merchandise. Excludes Department of Defense shipments of grant-aid military equipment and supplies under Mutual Security Program.

Source: *Federal Reserve Bulletin.*

TABLE 3.

ANNUAL GROWTH RATES OF SALES OF FOREIGN MANUFACTURING AFFILIATES * AND U.S. MERCHANDISE EXPORTS **

	Percentage Growth of Sales of Foreign Manufacturing Affiliates	Percentage Growth of U.S. Merchandise Exports
1958	6.3	-21.6
1959	5.9	0.3
1960	10.7	19.1
1961	9.7	3.5
1962	11.4	3.9
1963	13.9	6.8
1964	17.7	14.3
1965	13.2	3.5
1967	25.4	16.8
1968	12.2	9.8

* Source: *Survey of Current Business.*
** Source: *Federal Reserve Bulletin.*

TABLE 4.

BANKERS' ACCEPTANCES BASED ON EXPORTS FROM THE U.S.
(IN MILLIONS OF DOLLARS)

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Jan.	363	461	346	337	677	946	730	962	956	933	829	1,013	906
Feb.	389	447	339	336	702	915	703	983	916	920	851	1,029	859
Mar.	425	432	329	413	821	889	730	990	924	887	921	1,032	872
Apr.	471	416	348	461	863	829	750	963	936	875	971	1,025	875
May	501	396	350	474	864	787	808	941	965	847	998	1,007	910
June	502	375	327	501	896	751	807	929	960	833	1,007	944	967
July	507	380	334	545	926	705	791	949	949	790	1,040	917	1,006
Aug.	524	385	322	594	964	667	772	922	933	781	989	932	1,084
Sept.	483	355	301	632	964	674	775	918	942	760	991	945	1,063
Oct.	465	354	290	633	949	679	807	935	919	756	956	921	1,061
Nov.	450	348	283	647	939	719	842	955	917	781	975	922	1,063
Dec.	456	349	309	669	969	778	908	999	874	829	989	952	1,153

Source: *Federal Reserve Bulletin.*

TABLE 5.

SHORT-TERM CLAIMS ON FOREIGNERS REPORTED BY BANKS IN THE U.S.
(AMOUNTS OUTSTANDING IN MILLIONS OF DOLLARS)

	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Jan.	2,038	2,238	2,432	2,700	3,609	4,675	4,952	6,158	7,768	7,557	7,692	8,434	8,371
Feb.	2,060	2,222	2,379	2,680	3,691	4,788	5,080	6,265	7,887	7,471	7,686	8,528	8,413
Mar.	2,150	2,274	2,419	2,728	3,967	4,970	5,115	6,386	7,934	7,590	7,871	8,387	8,634
Apr.	2,140	2,409	2,399	2,707	4,150	4,959	5,306	6,493	7,800	7,474	7,957	8,395	8,734
May	2,173	2,479	2,427	2,691	4,124	4,943	5,345	6,557	7,775	7,560	8,111	8,331	9,018
June	2,203	2,446	2,451	2,764	4,123	4,880	5,529	6,897	7,758	7,649	8,261	8,244	9,222
July	2,137	2,489	2,394	3,062	4,189	4,877	5,469	6,727	7,570	7,503	8,232	8,179	9,025
Aug.	2,158	2,562	2,353	3,117	4,122	4,833	5,434	6,775	7,541	7,411	8,282	8,230	8,947
Sept.	2,154	2,540	2,383	3,160	4,156	4,811	5,458	6,806	7,498	7,420	8,349	8,323	8,967
Oct.	2,250	2,577	2,387	3,374	4,347	5,007	5,590	6,912	7,392	7,445	8,261	8,428	9,092
Nov.	2,201	2,487	2,473	3,338	4,384	4,925	5,759	6,964	7,486	7,547	8,346	8,547	9,046
Dec.	2,199	2,542	2,623	3,614	4,746	5,163	5,975	7,469	7,632*	7,819*	8,583*	8,711	9,667

* The figures given are not comparable with the succeeding data because of changes in the reporting coverage. In order to compare the months of Dec., 1965, 1966, 1967 and 1969 with succeeding data use the following figures for the above months: 12/65 – 7,734; 12/66 –7,853; 12/67 – 8,606; 12/69 – 9,578.

Source: *Federal Reserve Bulletin.*

TABLE 6.

LIABILITIES AND CLAIMS ON NON-RESIDENTS OF BRITISH OVERSEAS BANKS, AMERICAN BANKS, FOREIGN BANKS AND AFFILIATES, AND ACCEPTING HOUSES IN LONDON (CONVERTED FROM POUNDS INTO MILLIONS OF DOLLARS)

	Liabilities	Claims
12/56	1,569	542
12/57	1,581	688
12/58	2,056	754
12/59	2,580	1,051
6/60	3,254	1,691
12/60	3,768	1,853
3/61	3,913	2,091
6/61	3,946	2,367
9/61	3,937	2,325
12/61	3,953	2,218
3/32	4,325	2,375
6/62	4,256	2,571
9/62	4,783	2,742
12/62	5,756	3,216
3/63	6,073	3,641
6/63	6,318	3,972
9/63	6,743	3,970
12/63	6,646	4,446
9/64	8,339	5,242
12/64	8,498	5,731
3/65	8,579	5,582
6/65	8,498	5,686
9/65	8,945	6,169
12/65	9,512	6,608
3/66	9,834	6,766
6/66	10,526	7,608
9/66	10,706	8,152
12/66	11,319	9,115
12/67	12,592	10,854
9/68	16,902	15,797
12/68	18,257	17,422
3/69	20,291	19,841
6/69	25,316	25,459
9/69	27,391	27,983
12/69	27,754	28,746
3/70	28,308	29,112

Source: *Bank of England Quarterly Bulletin.*

Table 7 compares the annual growth rates for the four time series shown in Tables 2, 3, 4, 5, and 6.

Interpretation of these Data

Before a complete discussion of the implications gained from the above tables, it may serve to restate the aim of this study, namely, to ascertain the extent to which Euro-dollars have financed United States exports. Table 7 shows time series for three alternative ways of financing United States exports in addition to a series for United States merchandise exports. Bankers' dollar acceptances based upon United States exports are obvious enough. But, to some extent, United States exports are also financed by means of short-term loans granted to foreign importers by United States banks. This writer has included the series on short-term loans to foreigners, because Table 7 shows that the annual growth rates for these short-term loans and those for bankers' acceptances based on United States exports move to some extent in sympathy with one another. This could not have been an accident,

TABLE 7.

ANNUAL GROWTH RATES FOR: (1) BANKERS' ACCEPTANCES BASED ON EXPORTS FROM THE U.S., (2) SHORT-TERM CLAIMS ON FOREIGNERS REPORTED BY BANKS IN THE U.S., (3) U.S. MERCHANDISE EXPORTS, (4) CLAIMS ON NON-RESIDENTS OF BRITISH BANKS ETC., (5) EURO-DOLLAR CLAIMS

	(1)	(2)	(3)	(4)	(5)
1958	-15.3	15.6	-21.6	9.7	(35.3)
1959	-17.5	3.2	0.3	39.3	(46.4)
1960	61.0	37.8	19.1	76.3	(61.1)
1961	68.8	31.3	3.5	19.7	(26.5)
1962	-11.3	8.8	3.9	17.9	(47.9)
1963	1.0	15.7	6.8	38.2	(5.4)
1964	21.5	25.0	14.3	28.9	(29.1)
1965	-2.2	3.5	3.5	15.3	(7.1)
1966	-10.7	2.9	10.8	37.9	(28.7)
1967	15.3	10.1	5.5	19.1	(23.0)
1968	1.1	1.5	9.9	60.5	(48.0)
1969	1.6	1.0	9.5	64.9	(44.9)

although in 1961, 1966, and 1969 the growth rates moved in opposite directions.

The use of claims on non-residents generated by London banks calls for some explanation in order to avoid confusion. To be sure, part of these claims, namely the dollar denominated ones, are part of the Euro-dollar market. But, some of them, that is, those denominated in marks, francs, and lire, represent respectively the Euro-mark, Euro-franc and Euro-lire market. Altogether, these short-term claims of London banks are a part of the Euro-currency market. Indeed, even this portion is only part of the Euro-currency market, because one has not included that part of the market found in other continental European financial centers.

Thus, the data shown in Table 6 is not in a strict sense to be construed as the Euro-dollar market. But, together, the British overseas banks, the foreign banks and affiliates, and the accepting houses in London account for 50 per cent of total Euro-currency business, and 85 per cent of total Euro-currency business is denominated in dollars. To that extent, this series does represent the Euro-dollar market. In the absence of any other estimates of the Euro-dollar market, one must utilize the best estimates available. The Bank for International Settlements' series only goes back to 1963. Although Oscar Altman presented an estimate of the growth of the Euro-dollar market for the period 1960-62 in the International Monetary Fund's *Staff Papers*, it is not directly comparable with either the Bank of England's or the Bank for International Settlements' series. [10]

The main burden of what this part of the study has to say about the Euro-dollar market and the financing of United States exports is contained in Table 7. Therein a noteworthy pattern can be seen. The annual growth rates for bankers' acceptances and short-term claims on foreigners of United States banks move in sympathy with growth rates for United States merchandise exports, but with a one-year lag. The pattern failed to materialize in the case of short-term claims on foreigners and exports for the three two-year sequences: 1960-61, 1964-65 and 1968-69. Again, the pattern failed to materialize in 1964-65 for exports and acceptances. Growth rates for claims on non-residents of London banks (the Euro-dollar market, here) rose and fell with the growth rates for United States merchandise exports, but unlike the case with acceptances and short-term loans, the movement occurred in the same year. This pattern occurred in all of the years from 1958 to 1969, with the exception of 1962, 1964, and 1969.

It would be difficult, indeed, to argue that movements in London banks' claims on non-residents and United States banks' short-term

[10] Oscar Altman, "Recent Developments in Foreign Markets for Dollars and Other Currencies," *IMF Staff Papers*, X (1963), 48-96. See also, Oscar Altman, "Euro-Dollars: Some Further Comments," IMF Staff Papers, XII (1965), 100-08.

claims and acceptances were due solely to shifts in United States merchandise exports. Nevertheless, Euro-dollars helped to finance United States exports, and one can argue that movements in United States exports affected the growth of the market. In 1957, United Kingdom restrictions on the use of sterling credits in financing transactions between third countries fostered the growth of the Euro-dollar market. London banks began to substitute Euro-dollar credits to finance these foreign trade transactions. Again, the Bank for International Settlements' *Annual Report* stated in 1964 that final users of Euro-currencies use them mostly to finance foreign trade. The London *Economist*, again, in 1967 states that the most important single use of Euro-dollars was in foreign trade. But, neither the Bank for International Settlements nor the *Economist* indicated to what extent Euro-dollar loans financed foreign trade, nor to what extent countries' exports were involved. American banks account for 50 per cent of the London Euro-dollar market. The activity of these American Banks is limited to dealing with their head offices in the United States. More recently, they have financed the capital requirements of the United Kingdom-based affiliates of United States corporations. (More will be said about this matter, later.)

It is in the area of trade finance that the non-American London overseas banks are more important than their one-half-share of total Euro-dollar business in London.[11] Table 7 shows a bracketed set of growth rates placed beside those for claims on non-residents of London overseas banks. These bracketed growth rates (column 5) represent the annual growth rates of claims vis-a-vis non-residents of London banks excluding the claims against non-residents of American banks in London. Now, if one were to subtract from the overseas claims of London overseas banks the claims of American banks in London vis-a-vis non-residents, he would obtain a truer picture of the Euro-dollar market's contribution to the financing of United States exports. Again, the claims of American banks in London largely represent Euro-dollar borrowings by their head offices in the United States. From 1958 on, United States banks were setting up offices in London at an accelerating pace. Their share of London's Euro-dollar business grew accordingly. So to include the claims of American banks in London along with other London banks would render the series less useful, as time went on, as a gauge of the relationship between the Euro-dollar market and United States exports. The Bank of England *Quarterly Bulletin* in September 1961 stated:

> Much of the overseas and foreign banks lending by way of commercial bills and advances to United Kingdom residents – not to mention their advances to overseas residents – will have been closely

[11] Benjamin Cohen, "Sterling and the City," *The Banker*, CXX, No. 528 (February 1970), 186.

> connected with the finance of international trade. This was their original function; and it is still a main function.[12]

These banks use a number of means to finance United States exports: an exporter may draw up a bill of exchange based on shipments from the United States, or the bill may be drawn on the overseas or foreign bank in London, or upon the consignee of the shipment and discounted by the bank. In the former case, after acceptance by the London office of the bank on which it was drawn, the bill can be discounted with other banks and discount houses. Also, at times, cash loans are made. Overseas and foreign banks in London try to restrict their finance to the time between shipment of the goods from the United States and their arrival at the importer's country.

The elimination of American overseas banks' claims provides a more useful series. In late 1957, the United Kingdom restricted the overseas use of sterling. Total advances to overseas residents by London overseas banks and accepting houses in non-sterling currencies grew by only four per cent in 1957. In 1958, this set of claims grew by 35.3 per cent. United States merchandise exports fell in 1958 by 21.6 per cent, so that the growth in advances must have been due to the continuing demand for sterling finance seeking other sources of supply and the vigorous employment by London overseas banks of Euro-dollars to supply this demand. United States merchandise exports grew in 1959 and 1960 as did London banks' claims. Meanwhile, United States bankers' acceptances and short-term claims on foreigners showed divergent movements with respect to United States merchandise exports. The one-year lagged relationship showed up between exports and acceptances in all years up to the 1963-64 sequence. It failed to show up, in this case, during 1964-65. Up to the 1968-69 sequence, the relationship appeared in all years, except 1965-66. The one-year lagged relationship did not show up as often in the case of United States merchandise exports and short-term claims on foreigners. It failed to show up during the following sequences over the twelve-year period for which data are shown: 1958-59, 1960-61, 1964-65, and 1968-69.

The lack of comparable data for the years prior to 1958 makes it difficult to document the fact that Euro-dollars were used by London banks to finance foreign trade in the face of restrictions placed upon the use of sterling in 1957. Growth rates for United States merchandise exports correlate fairly well with growth rates for the non-resident claims of London banks (column 4). The correlation is even better when one eliminates the claims of American banks in London (column 5).

Over the entire period from 1958 to 1969 a cost advantage existed from time to time for Euro-dollar loans over United States short-term

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[12] The Bank of England, "The Overseas and Foreign Banks in London," *Bank of England Quarterly Bulletin* (September 1961), p. 220.

loans and dollar acceptances. This was especially the case from 1958 to 1965. After 1965 the situation was reversed. Table 8 compares short-term Euro-dollar lending rates with rates for 90-day prime bankers' acceptances in the United States adjusted upward to reflect the 1.5 per cent commission that a bank charges for the use of its name and credit when dealing in acceptances. The 1.5 per cent rate is a minimum.

TABLE 8.

RATES FOR SHORT TERM EURO-DOLLARS AND PRIME BANKERS' ACCEPTANCES

Year	1961	1962	1963	1964	1965	1966	1967	1968	1969
Euro-dollar	4.76	4.82	5.13	5.38	6.19	7.19	6.55	7.44	11.53
Acceptances	4.31	4.51	4.86	5.27	5.72	6.86	6.25	7.25	9.11

Source: *Federal Reserve Bulletin*, and Morgan Guaranty Trust Company, *Financing of Business with Euro-dollars* and *World Financial Markets.*

Even after 1965, United States firms continued to tap the Euro-dollar market in spite of the shift in cost differentials against short-term Euro-dollar loans. The United States Department of Commerce instituted its investment restraint program in 1965. This action became the more important reason why United States firms continued to rely on the Euro-dollar market for some of their needs, including the finance of their exports. This program has induced United States firms to borrow from foreign sources even where rates have been above those found in the United States.

To further illustrate the case that movements in United States merchandise exports can explain much of the movement in Euro-dollar claims, one should consider the following points. The greatest number of short-term loans by United States banks to foreigners has been made to Japan and to less developed countries where credit has been scarce and costly. Such loans to other industrial countries, the chief buyers of United States exports, have been small. Here, the Euro-dollar market has financed the trade carried on among these industrial countries, namely, the United States, the United Kingdom, Germany, France, Italy, the Netherlands and Belgium.[13] Of even more importance is the fact that although the volume of dollar acceptances financing international commerce has more than doubled from 1960 to 1966 the volume of export acceptances has been relatively stable since 1961. The volume of acceptances covering trade between third countries has tripled between 1960 and 1966, accounting for much of the growth in acceptances. The volume of acceptances against United States exports

[13] "Bank Credits of Foreigners," *Federal Reserve Bulletin* (March 1965), p. 368.

has grown steadily, but at a much slower pace. Finally, the volume of dollar acceptances used by Europeans has been relatively small and reflects more active use of the Euro-dollar market. Whether an importer or an exporter uses acceptance credit to finance United States exports depends upon the cost of such credit vis-a-vis alternative sources. The amount of acceptance credit outstanding, therefore, would tend to rise if its cost were lower compared to other ways of financing exports, and would tend to shrink as acceptance credit became more costly. However, one faces a problem if he simply views the volume of bankers' acceptances based on United States exports as directly related to the cost of alternative financing (namely Euro-dollar rates in this case). United States commercial banks may actively abet traders in the use of acceptances when they come under reserve pressure. The banks can, then, in turn sell their acceptances on the open market and bolster their cash supply. In encouraging traders to use acceptances instead of other instruments, banks demonstrate that financial instruments, like automobiles and beer, are sold and not bought.

It is necessary, now, to consider the role of the Euro-dollar market in financing still another portion of United States exports. According to estimates, about 25 per cent of United States exports of manufactured goods are shipments from American firms to their overseas affiliates. These credit terms range from six months to five years. It was noted earlier that a growing share of international trade financing falls into the medium-term category, a relatively new phenomenon in export financing. The main items of manufacturing export are heavy machinery and industrial equipment. Here, again one cannot make any hard quantitative statements on the extent of Euro-dollar financing, but Andrew Brimmer of the Board of Governors of the Federal Reserve System pointed out in 1967 that the overseas affiliates of United States corporations have persuaded many banks to grant them Euro-dollar credit with longer maturities.[14] The Bank for International Settlements reports a tendency in the Euro-dollar market toward the granting of loans with longer maturities.

Sales and Investment by Subsidiaries of United States Firms

The preceeding discussion of the role of Euro-dollars in financing the export of United States firms to their foreign affiliates not only illustrates where Euro-dollars have had an impact on the finance of United States exports, but serves as a transition to a topic related to the financing of United States exports, i.e., the role of Euro-dollars in financing the sales and investments of the overseas affiliates of United States firms, important as a subject for a number of reasons. First, the

[14] Andrew F. Brimmer, *International Capital Markets and the Financing of United States Foreign Trade and Investment*, Remarks at the 30th Chicago World Trade Conference (February 16, 1967), p. 10.

sales of these foreign affiliates are in one sense exports from the United States (only ten per cent or less are sold back to the United States). To the extent that these overseas affiliates represent the internationalization of American business, their sales abroad represnt the export of American technology. This development leads to the second reason for the importance of this topic, i.e., investments of these foreign affiliates in plant and equipment that are related to their sales. Larger plant capacities mean the wherewithal for larger outputs and, hence, larger sales. Secondly, the prospect for larger sales prompts the firms to build larger plant capacity (the accelerator effect). Thirdly, it has already been stated that, since 1964, the voluntary restraint program as well as the Interest Equalization Tax (IET) have encouraged foreigners to utilize foreign sources of finance wherever feasible in order to bolster the United States balance of payments. Firms in the United States would, then, be urged to finance the plant and equipment needs as well as the sales of their foreign affiliates from foreign sources. Table 3 shows that since 1957 the annual growth rates for sales of United States overseas manufacturing affiliates was higher than that for United State merchandise exports. Indeed, sales of these foreign affiliates have become an important channel of distribution for United States exports. Table 9 presents annual growth rates for plant and equipment expenditures by foreign affiliates of United States corporations. The plant and equipment expenditures of manufacturing, petroleum, and mining industry affiliates are included, here. These are the major areas for United States foreign investments. The industries *not* covered by the data in Table 9 account for less than ten per cent of overseas affiliates' plant and equipment expenditures.

Since 1957-59, the great upsurge in plant and equipment expenditure by United States firms' foreign affiliates formed the basis of their increase in sales. Also, the main contention is that these two related activities were financed by Euro-dollar borrowing whenever institutional and money market conditions rendered other sources of finance less attractive.

If one uses the data on the uses of Euro-dollars presented by the Bank for International Settlements, however, he does not get a clear picture of the extent to which United States overseas business affiliates borrowed in the Euro-dollar market. The Bank for International Settlements has published annually a series on the uses of Euro-dollars by non-banks (individuals and businesses) within the eight reporting European countries whose banks account for the lion's share of the Euro-dollar market. [15] But, one finds no clues as to what share of the annual totals are accounted for by the borrowings of foreign affiliates

[15] The series in question began in 1964. The eight European countries included are Belgium, France, West Germany, Italy, the Netherlands, Sweden, Switzerland, and the United Kingdom.

TABLE 9.

PLANT AND EQUIPMENT EXPENDITURES BY FOREIGN AFFILIATES OF U.S. FIRMS; MANUFACTURING, PETROLEUM AND MINING INDUSTRIES IN ALL AREAS INCLUDING GROWTH RATES (IN BILLIONS OF DOLLARS)

	Expenditures	Growth Rates
1967	4.1	—
1958	3.5	-15.6
1959	3.1	-9.0
1960	3.2	2.8
1961	3.5	9.7
1962	4.1	15.9
1963	4.5	10.5
1964	5.5	22.1
1965	7.4	25.7
1966	8.6	16.0
1967	9.3	7.0
1968	9.4	1.0
1968	10.8	15.0
1970	13.1	21.0

Source: *Survey of Current Business.*

of United States firms. One does know, of course, that international corporations especially those in petroleum, chemicals, minerals and other commodities widely traded internationally are counted among some of the most important borrowers in the Euro-dollar market. United States firms abroad utilize the market as a means of acceding to the requirements of the United States balance of payments control program. Table 10 shows the Bank for International Settlements' data on Euro-dollar borrowings 1964-69 for non-banks within the eight reporting European countries and annual figures as a percentage of total (bank and non-bank) borrowings of Euro-dollars within the eight reporting European countries.

TABLE 10.

NON-BANKS' USES OF EURO-DOLLARS AS A PERCENTAGE OF TOTAL USES OF EURO-DOLLARS

	1964	1965	1966	1967	1968	1969
	BILLIONS OF DOLLARS					
Non-bank uses of Euro-dollars	2.3	3.3	3.7	4.1	4.7	5.6
	PER CENT					
As a percentage of total Euro-dollar	46.0	52.4	58.7	59.4	59.5	47.0

Source: Bank for International Settlements *Annual Report.*

However, these data exclude United States foreign affiliates' Euro-dollar borrowings within Canada and Japan and thus provide only an extremely rough indication of Euro-dollar borrowing by United States firms' overseas affiliates. The Bank for International Settlements in its *40th Annual Report*, for 1969-70, revealed that the relatively small increase in Euro-dollar borrowing by non-banks, within the eight European countries, was due principally to the high cost of Euro-dollar credit in 1969. In order to obtain a better picture of Euro-dollar borrowings of these overseas affililiates, one must turn to the *Survey of Current Business.* Strong demand in European markets spurred United States firms to build new plants abroad between 1958 and 1966 as well as acquire existing facilities from European and foreign owners in order to step up sales in foreign markets. The years 1964 and 1965 were especially strong for plant construction by overseas affiliates of United States firms.

The accelerated investments and sales of these affiliates could not have come about without a spectacular increase in the amount of funds used by these firms. The same would, therefore, hold true for the total source of funds available to these affiliates. For the data that is available on total sources and uses of funds by United States overseas affiliates for the years 1961-68, one finds that anual growth rates accelerated from 5.5 per cent in 1962 to a high of 23.3 per cent in 1965 and finaly to 15.5 per cent in 1968, the last year for which this series is presently available. The sources of funds available to foreign affiliates of United States firms included (a) their own net income, (b) funds from the United States, (c) funds obtained abroad, and (d) depreciation and depletion. For these same firms, the uses of funds included (a) property, plant, and equipment, (b) inventories, (c) accounts receivable, (d) income paid out, and (e) miscellaneous uses. In order to have some notion of the extent to which the Euro-dollar market helped to finance the sales and investments of these overseas

affiliates, one must look to that category of sources of funds called "funds obtained abroad," aside from depreciation and depletion. It appears, from what data can be obtained on this matter, that in terms of total sources of funds made available to overseas affiliates, funds obtained abroad did not appear to change in importance. Table 11 shows that funds obtained abroad rose from 24.9 per cent of all sources of funds available to overseas affiliates to 29.9 per cent in the years 1961-69 (that is, after income distributions).

TABLE 11.

FUNDS OBTAINED ABROAD AS A PERCENTAGE OF ALL SOURCES OF FUNDS FOR FOREIGN AFFILIATES OF UNITED STATES FIRMS (1961-68)

1961	1962	1963	1964	1965	1966 *	1967	1968
24.9	25.6	30.2	31.4	33.6	—	26.1	29.9

* Not available.

Source: *Survey of Current Business.*

This brings one back to a consideration of the uses of funds. Shifts in the amounts of externally obtained foreign funds appear to be closely related to changes in the volume of inventories and accounts receivable held by foreign affiliates of United States firms.[16] The *Survey of Current Business* also pointed out that a rising share of total financing by these foreign affiliates was required for growing accumulations of inventory and receivables. Traditionally, movements in holdings of inventory and accounts receivable are directly related to movements in sales, as has been the case with foreign affiliates of United States firms. The point is that the increased use of foreign external sources of funds by foreign affiliates was aimed at the building up of inventories and receivables directly related to increased sales by these affiliates. Table 12 shows that holdings of inventories and receivables of foreign affiliates of United States firms in the manufacturing, mining, and petroleum industries for the years 1961-68. Table 13 shows, for foreign affiliates in the same three industry groupings, financing from external sources abroad, namely: (a) borrowing from financial institutions, (b) funds from foreign affiliates, (c) other increases in foreign liabilities, (d) issues of equity securities, and (e) others. Table 13 covers the years 1962-68. Table 13 reveals that for the years 1962-65, borrowing from financial institutions as a percentage of the financing of foreign affiliates from external sources abroad grew from 20.6 per cent to 37.5 per cent.

[16] Samuel Pizer and Frederick Cutler, "Financing and Sales of Foreign Affiliates of United States Firms," *Survey of Current Business* (November 1965), 16.

TABLE 12.

INVENTORIES AND RECEIVABLES OF FOREIGN AFFILIATES OF U.S. FIRMS: MANUFACTURING, PETROLEUM, AND MINING INDUSTRIES IN ALL AREAS INCLUDING GROWTH RATES (IN MILLIONS OF DOLLARS)

	Inventories	Receivables	Total	Growth Rates
1961	491	780	1,271	—
1962	655	740	1,395	9.8
1963	505	923	1,428	2.3
1964	938	793	1,731	21.2
1965	1,203	1,303	2,506	44.8
1966 *	—	—	—	—
1967 **	224	918	1,142	-54.4
1968	834	1,467	2,301	101.5

* Not available.
** The data for 1967 shows growth over the two-year period 1965-1967.

Source: *Survey of Current Business.*

From 1965 to 1968, borrowing by overseas affiliates from financial institutions fell dramatically as a percentage of external sources of funds abroad from 37.5 to 19.2 per cent. Not all of this activity was short-term borrowing, although it represents Euro-dollar borrowing. By and large, it can be said that this growth in Euro-dollar borrowing by foreign affiliates of United States firms occurred in response to the United States voluntary credit restraint program of 1965.

Prior to 1965, one must search for another reason or reasons. From time to time, during the 1962-65 period, a cost advantage did exist for short-term Euro-dollar credit. Indeed, from 1962 to 1965 Euro-dollar borrowing by foreign affiliates of United States firms grew by over 300 per cent.

One can go a long way in answering the question raised above for the period prior to 1965 by inspecting Tables 1, 9, 12 and 13. In the case of sales of foreign affiliates of United States firms (Table 1), the four-year period 1962-65 saw the highest growth rates (with the exception of 1963) for the entire fourteen-year-period. Euro-dollar borrowing by these same affiliates, during the same four-year period, grew tremendously (see Table 13). Table 12 shows that inventories and receivables held by the same foreign affiliates grew by 9.8 per cent in 1962, 21.2 per cent in 1964, and 44.8 per cent in 1965. Euro-

TABLE 13.

FINANCING OF AFFILIATES FROM EXTERNAL SOURCES ABROAD; MANUFACTURING, PETROLEUM AND MINING INDUSTRIES IN ALL AREAS *
(IN MILLIONS OF DOLLARS)

1962	319	21	701	364	14	1,546
1963	276	90	1,062	312	—	1,741
1964	582	103	1,222	287	—	2,193
1965	1,183	248	1,491	232	—	3,154
1966 **	—	—	—	—	—	—
1967	942	431	786	225	—	2,384
1968	642	182	2,259	256	—	3,339

* Though the above data present a fairly consistent set of series for larger firms, the coverage does not exhaust the universe of overseas affiliates of U.S. firms. The source of these above data is a series of two articles that appeared in the *Survey of Current Business*. Both are entitled "Sources and Uses of Funds of Foreign Affiliates of U.S. Firms." These were, in turn, based upon the annual reports of about 450 parent U.S. companies covering about 4,000 overseas affiliates. Compared to the balance of payments reports which cover about twice as many parent companies, as well as affiliates, these above data leave out many overseas affiliates. They do represent an accurate impression of the trend of foreign affiliates sources of funds. Compared to the rest of the years covered, 1962 is based upon a different benchmark.

** Not available.

dollar borrowings by foreign affiliates of United States firms financed, in part, all three of these activities engaged in by these affiliates: sales, inventories, and accounts receivable, and plant and equipment expenditure. Prior to 1965, these firms could have had no other reason to turn to the Euro-dollar market except the cost incentive. Euro-dollar lending rates were lower than alternative lending rates, and the foreign affiliates of United States firms simply began to tap this source of low-cost credit to a greater extent as time went on. As Table 8 reveals, the short-term Euro-dollar lending rate rose continually from 1960 to 1968. Withall, Euro-dollar borrowing by United States firms' foreign affiliates grew tremendously. These overseas affiliates seemed especially loathe to finance their operations through the sale of common stock. This fact was noted in 1967 by Andrew Brimmer during a conference in Chicago on world trade.

The period 1965 to 1968 saw continued, though slightly diminished, growth in overseas affiliates sales and plant and equipment expenditures. However, for these same affiliates, trends that were set up to 1965 with reference to the use of external sources of funds did not continue after

1965 (see Table 13). From what data are available, less reliance was placed on the Euro-dollar market as an external source of funds after 1965. From 1965 to 1968, there was a decrease in the amount of funds borrowed by United States firms' foreign affiliates from overseas banks from $1.2 billion to less than $650 million. The slack appeared to be taken up by the increased use of what the *Survey of Current Business* called "other foreign liabilities" and, to a lesser extent, issues of equity securities. No clear definition of "other foreign liabilities" was attempted, and it may be that some Euro-dollar borrowings by these foreign affiliates could have been entered under this catch-all phrase. Again, the data presented in Table 13 for United States firms' foreign affiliates do not cover all overseas affiliates, and any conclusion based upon that data are necessarily tentative. It is this writer's considered opinion that more complete data than that shown in Table 13 would reveal a greater reliance upon the Euro-dollar market, both short- and longer-term, by the overseas affiliates of United States firms.