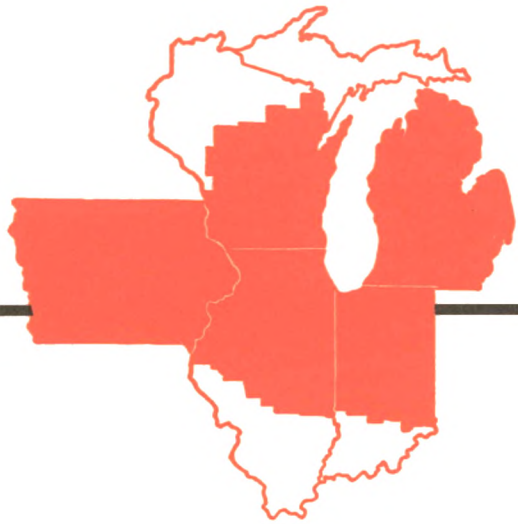
A review by the **Federal Reserve Bank of Chicago**

Business Conditions



1970 June

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Farm equipment prospects

Farm equipment sales were below year-earlier levels in the first half of 1970. At midyear, prospects for a resurgence in the second half of the year remained uncertain. But industry sources continued to expect 1970 sales of farm equipment to approximate last year's $4.4 billion total, which was down 10 percent from the 1968 record. The 1969 decline in farm equipment sales was the first in a decade.

The sluggish performance of farm equipment sales has special significance in the Seventh Federal Reserve District. Farmers in the five district states—Illinois, Indiana, Iowa, Michigan, and Wisconsin—purchase about a fourth of all agricultural tractors and implements. These same states account for two-thirds of the farm equipment manufactured in the United States.

The impact of reduced U. S. sales on major manufacturers of farm equipment is moderated by two factors. First, foreign demand has been maintained better than domestic demand. Second, these firms are diversified and also produce other products, including industrial and construction equipment and motor trucks. Sales of some of these products rose in 1969 and in early 1970.

Tractors and harvesters down

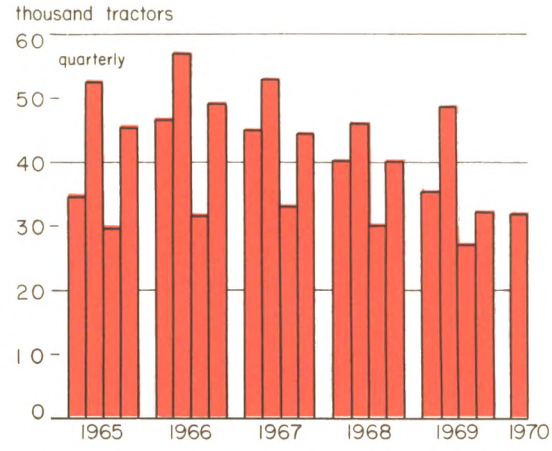
The decline in farm purchases of equipment has been largely in tractors, which account for about two-fifths of the total, and harvesting machinery, principally combines.

The number of farm tractors purchased during the first quarter of 1970 was down about 11 percent from the reduced level of a year earlier, according to the Farm and Industrial Equipment Institute. Tractor sales were off 10 percent last year, following a 12 percent decline in 1968.

Purchases of combines, down 18 percent in the first quarter, had declined by more than 20 percent in both 1968 and 1969. With the introduction of the cornhead attachment for self-propelled combines about 1960, the demand for corn pickers and pull-type combines declined sharply. The accompanying development of new corn drying, handling, and storage methods fostered rapid adoption of the new corn harvesting technology and gave impetus to sales of combines. Before the end of the decade the transition was almost complete.

Unit sales of major types of farm equipment have declined for several years. Until

Sales of farm tractors continue to decline



SOURCE: Farm and Industrial Equipment Institute.

1969, however, the effects of this decline were offset by rising prices and a trend to larger, more expensive units. Sales of farm tractors rated at 100 horsepower or more increased 62 percent in number and comprised 17 percent of total unit sales in 1969. Purchases of smaller tractors, under 100 horsepower, declined 20 percent last year. Total dollar volume declined about 7 percent.

Apparently the boom in sales of big tractors halted in early 1970 when the number of these larger tractors sold dipped 10 percent below the year-earlier period. The drop in sales of large tractors accounted for almost 30 percent of the decline in dollar volume of sales of all tractors.

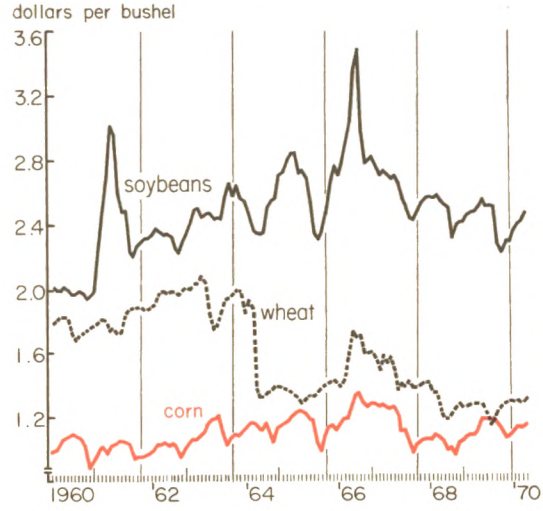
Factors behind the decline

Changes in gross farm cash receipts in the past have been closely related to changes in farm equipment purchases. But this relationship has not proved reliable in the past two years. Gross receipts rose 4 percent in 1968 and 7 percent in 1969. In the first quarter of 1970, receipts were about 10 percent larger than a year earlier. Nevertheless, outlays for farm equipment declined. The changed relationship between farm cash receipts and equipment expenditures may be explained, in part, by examining trends in the two major components of cash receipts—livestock and crops.

Almost all of the increase in total farm receipts since 1968 has resulted from sharply higher livestock prices. Wheat prices in the 1967-69 period averaged 12 percent below those of the 1964-66 period. Corn prices averaged 5 percent less in this comparison.

Farmers in the Corn Belt and Plains states specializing in grain production are the major purchasers of farm equipment. In the mid-1960s, these farmers were buying new tractors and harvesting equipment at a record

Lower crop prices a factor in dampening equipment sales



rate. At that time, a surge in demand for United States grains was expected because of an Asian drought. The Asian food shortage was short-lived, however. Partly for this reason, grain prices dropped sharply in 1967 and have since remained at relatively low levels.

The trend toward specialized cash-grain farming in the Corn Belt, along with lower grain prices, worked to reduce farm equipment sales. Greater dependence on field crops as a source of income is shown by the rise in the proportion of cash receipts derived from crops in Illinois, Indiana, and Iowa from 30 percent in 1959 to 36 percent last year.

Increased participation in government programs that idled additional acreage also slowed the demand for farm equipment. Acreage planted in corn and wheat was reduced 9 percent in 1968 and 8 percent in 1969. Reduced planted acreage, of course, lessens the need for mechanical power.

Farm machinery outlays are affected more by high interest rates and limited availability of funds than are other types of production expenditures. Such loans usually are for three to five years. General operating loans or feeder animal loans, on the other hand, usually mature within a year. Farm equipment financing by manufacturers has increased markedly in recent years, partly because of curtailed credit availability from other sources.

The slowdown in the farm real estate market, associated with reduced credit availability, tended to depress equipment purchases. Because farm equipment and farmland are joint inputs, it is likely that the slowdown in real estate sales had some dampening effect on the demand for farm equipment.

Many farms are too small to utilize newer, larger, more efficient machines. To be profitable, costs of modern equipment must be spread over a sufficiently large volume of production. This requires the acquisition of additional land in many cases. When land transfers are hampered by limited credit availability, machinery purchases may be delayed.

Higher labor and material costs are pushing equipment prices up further, thereby discouraging some purchases. In addition, the 7 percent investment tax credit, an incentive for equipment purchases, was repealed at the end of last year. Finally, the uncertain economic atmosphere creates an unfavorable climate for new investments.

Improvement ahead?

Despite recent pessimism, several factors suggest an improvement in farm equipment sales later in 1970, at least in the Midwest. Grain prices improved in recent months. Planted acreage is somewhat higher this year. Crop prospects are excellent.

Corn prices averaged about 5 cents per bushel higher in the first half of 1970 than a year earlier. September and December futures contracts for corn currently are selling for more than 10 cents a bushel above last year's cash price.

Soybean prices, too, are above year-ago levels, despite a reduction in the government support rate. September-November soybean futures contracts at Chicago currently are more than 15 cents per bushel above cash prices for the same months last year.

Total feed grain acreage is estimated to be 4 percent greater than last year. Machinery and equipment purchases may increase as farmers prepare for a larger harvest.

Clarification of the new government support programs is expected soon. If farm price supports are continued near the levels of recent years, risks will be reduced and investments encouraged.

In summary, farm equipment sales may improve from the depressed level of the past 18 months. Any increase, however, is likely to be modest. Major depressing influences—tight credit, higher equipment prices, and general economic uncertainties—will tend to offset the favorable effect of higher grain prices and larger crops.

Perspective on the Seaway

On April 1, 1970, a few days earlier than usual, the St. Lawrence Seaway opened for its twelfth season of operation. As in other recent years, the Seaway is encountering special problems in 1970.

This international waterway, consisting of locks and canals bypassing the rapids of the St. Lawrence and Niagara Rivers, carried 61 million tons of cargo in 1969—nearly double the total of 1960. But since it opened in 1959, its traffic has not grown steadily. In fact, tonnage declined 8 percent from 1968 to 1969. The peak, reached in 1966, was slightly above the 1968 total.

In the past several years, shipping, operational, and industrial strikes hampered growth of the Seaway. In the second quarter of 1970, a Chicago area truckers' strike seriously affected general cargo traffic at the Port of Chicago. Currently, the Seaway's future is clouded by technological developments in land and sea transportation that may jeopardize its competitive advantages.

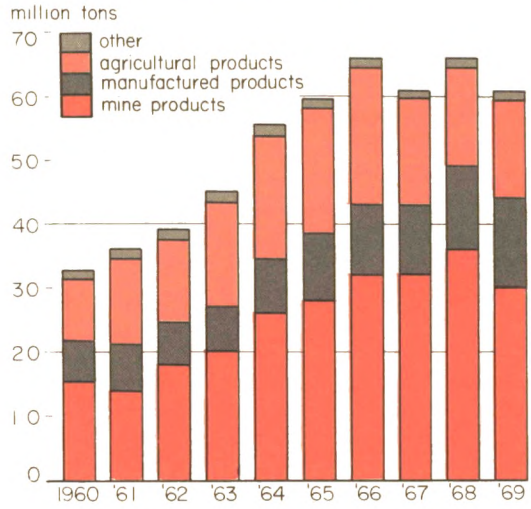
"The fourth seacoast"

The opening of the Great Lakes to ocean-going freighters (730-feet long, 75-foot beam, 26-foot draft maximum) had the effect of converting the shores of the Great Lakes into the nation's "fourth seacoast." To accommodate overseas traffic, lake port cities had to expand and renovate port facilities extensively. Channels and harbors were deepened; additional land was acquired. New facilities were constructed to handle a larger volume of general cargo. Bulk cargo handling facilities had been fairly well developed in earlier years because of the extensive ore and grain traffic within the Great Lakes system.

Bulk cargo provides the major source of tonnage carried on the Lakes and through the Seaway. Almost all mine and agricultural products and about half of the tonnage of manufactured products—primarily fuel oil and scrap iron—are classified as bulk cargo. In 1969, 83 percent of all cargo carried on the St. Lawrence River section of the Seaway was bulk cargo, down from an average of almost 90 percent in previous years.

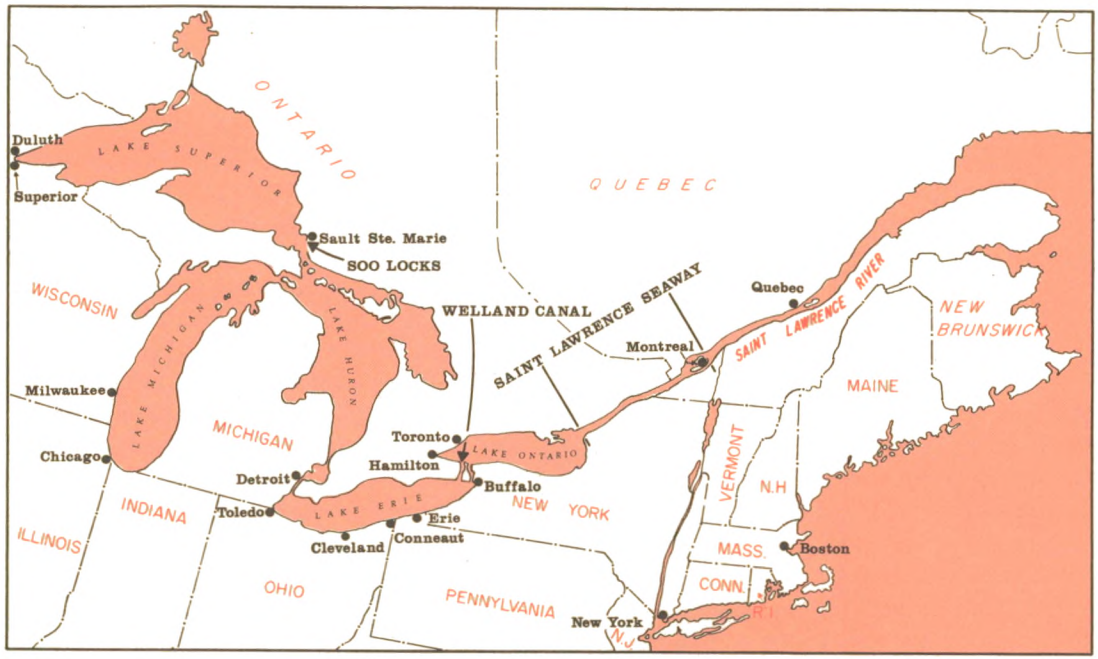
General cargo—goods which are boxed, bagged, crated, or bound; or uncrated but identified by markings and number of pieces —is of higher value per ton than bulk cargo,

Seaway traffic peaked in 1966 but shipments of manufactured goods continued to rise



SOURCE: The St. Lawrence Seaway Authority and the Saint Lawrence Seaway Development Corporation.

The St. Lawrence Seaway and Great Lakes waterways



The Seaway proper consists of a series of waterways and locks spanning 182 miles and the 225-foot differential between Montreal and Lake Ontario. Seven locks, two in the United States and five in Canada, facilitate deep draft shipping over the distance. More broadly defined, the Seaway also includes Canada's 27-mile long Welland Canal, incorporating eight locks that raise ships 326 feet from Lake Ontario to Lake Erie. The Welland Canal Section of the Seaway, like the Canadian portion of the St. Lawrence River section, is administered by Canada's St. Lawrence Seaway Authority. The U. S. Saint Lawrence Seaway Development Corporation operates the Eisenhower and Snell locks of the St. Lawrence River.

The five Soo locks located at Sault Ste. Marie between Lake Superior and Lake Huron are not ordinarily considered a part of the Seaway. Except for the one Canadian lock operated by the St. Lawrence Seaway Authority, the Soo locks are operated by the U. S. Army Corps of Engineers. These locks allow ocean-going traffic to travel more than 2,300 miles from the Atlantic to head of the Lakes at Duluth-Superior.

but each category includes a wide range of values. Traffic is measured in tons in this article, not by value.

The composition of Seaway traffic has fluctuated considerably in the past decade. Grains and grain products declined from 41 percent in the first half of the Sixties to 31 percent in 1969. The decline was associated with a weakening in world grain markets.

Large amounts of Labrador ore are shipped through the Seaway to mid-American smelters. Traffic in basic ores continued

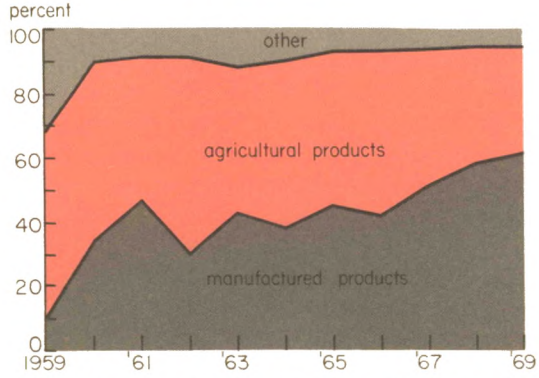
strong through 1968, accounting for 44 percent of total traffic that year. In 1969, mine products declined to 35 percent of Seaway traffic, primarily because of a long strike in the Labrador iron mines.

Manufactured products shipped through the Seaway have accounted for about one-fifth of total tonnage. In 1969, the share of tonnage represented by manufactured products jumped to more than 30 percent, principally reflecting the drop in ore shipments.

Prior to the Seaway's opening, U. S. overseas exports and imports carried through the earlier St. Lawrence waterway averaged about 600 thousand tons per year. Exports and imports jumped to 3.9 million tons in the Seaway's first year of operation, and reached almost 12 million tons in 1969. But these gains fell short of anticipations.

During the period, the composition of this traffic changed dramatically. Manufactured goods increased from 10 percent in 1959 to 63 percent in 1969 in a generally steady trend. Agricultural products (mainly grains) declined from 58 percent to 31 percent. Mine products have been relatively unimportant in the U. S.-overseas traffic.

Manufactured goods an increasing share of U. S. overseas traffic



SOURCE: The St. Lawrence Seaway Authority and the Saint Lawrence Seaway Development Corporation.

Bulk cargo shipments on the Seaway far exceed general cargo shipments

	1966	1967	1968	1969
	(percent of tonnage)			
General Cargo				
Inbound	9	11	14	13
Outbound	2	2	2	4
Bulk Cargo				
Inbound	43	50	49	42
Outbound	46	37	35	41
TOTAL	100	100	100	100

SOURCE: The St. Lawrence Seaway Authority and the Saint Lawrence Seaway Development Corporation, (St. Lawrence River section).

The Midwest and the Seaway

The Port of Chicago has been a prime beneficiary of the Seaway. From 1959 to 1969, total Seaway traffic into and out of Chicago expanded nearly four times to 8.3 million tons, with nearly one-half of that total in the general cargo category. Nearly 11 percent of total Seaway traffic originated or terminated at Chicago in 1959. This share declined in subsequent years to the 6 to 7 percent range, but in 1969, rose to nearly 14 percent, exceeding the 1959 proportion for the first time.

Unlike most lake ports, Chicago's tonnage now is almost evenly divided between incoming and outgoing traffic. General cargo traffic expanded rapidly and steadily throughout the decade and nearly doubled in the 1967-69 period. Most of the recent increase was in imports, with steel in a leading role.

The ports of Detroit and Milwaukee have experienced increasing volumes of traffic since the opening of the Seaway, and their shares of total traffic have remained general-

ly steady. Both general and bulk cargo are important to these ports.

Detroit handled about 4 percent of all Seaway traffic last year. Almost 50 percent of this was in general cargo—up substantially from 17 percent in 1959. In recent years, Detroit's traffic has been mainly incoming: over 60 percent in 1969, and as much as 90 percent in the mid-Sixties.

Milwaukee has accounted for slightly more than one percent of Seaway tonnage. About 27 percent of Milwaukee's traffic was in general cargo in 1969, near the average for the decade. Milwaukee is primarily an exporting port, with outgoing tonnage averaging about 80 percent of its total.

The Seaway and its competition

Waterborne transportation historically has been cheaper than rail or highway transportation. The Seaway offers mid-continent exporters certain cost advantages over East and Gulf Coast ports on shipments to European markets. However, the cost differentials are narrower now than when the Seaway opened. The differential may narrow further as unit trains, cargo containers, larger trucks, and more efficient barge handling techniques are used more extensively to move inland cargo to coastal ports.

Another factor affecting the competitive position of Seaway ports is the through-rate structure used by the railroads. Rail rates per ton-mile may be lower from Minneapolis to New York, for example, than from Minneapolis to Chicago. In some cases, the differential is sufficient to cause Minneapolis firms to use rail transportation all the way, rather than transferring to ships at Chicago. Recent studies have suggested the Seaway will face stiffer competition from overland carriers in the next decade.

Newer and larger ships (including container ships), too large to traverse Seaway locks and channels, will strengthen the competition from coastal ports. Increases in Seaway tolls, of course, would weaken further the Seaway's competitive position. Lower

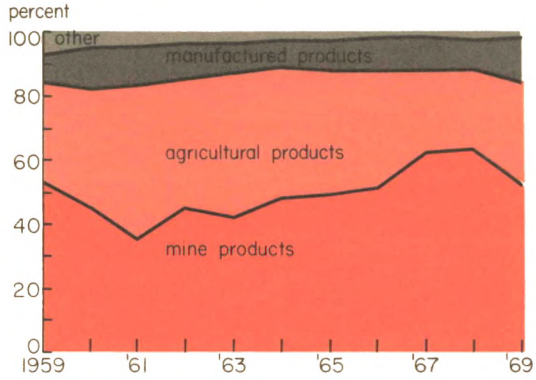
Most Seaway traffic is between North American ports

	1966	1967	1968	1969
	(percent of tonnage)			
U. S. and Canada	36	39	41	38
Between Canadian Ports	35	30	27	26
TOTAL—Intra-North America[1]	71	69	68	64
Between U. S. and overseas ports	22	23	26	29
Between Canadian and overseas ports	6	8	6	7
TOTAL overseas	29	31	32	36
TOTAL	100	100	100	100

SOURCE: The St. Lawrence Seaway Authority and the Saint Lawrence Seaway Development Corporation, (St. Lawrence River section).

[1]Trade between U. S. ports through the Seaway is less than 1 percent of total.

Non-manufactured products dominate intra-North American traffic*



*St. Lawrence River section, based on tonnage.

SOURCE: The St. Lawrence Seaway Authority and the Saint Lawrence Seaway Development Corporation.

Seaway tolls or reduced rail rates to lake ports would help to maintain the competitive position of lake ports.

Some disadvantages

The Great Lakes/Seaway system operates with a number of handicaps. Ice closes it from mid-December to early April. Also, transit time is greater than for rail shipments. While it may take 15 to 17 days for a ship to travel between Chicago and Antwerp via the Seaway, the same trip via rail to New York and ship to Antwerp may require only ten days—plus cargo transfer time. As overland transportation becomes more rapid, and as cargo transfer time is cut by increased use of containers, the time differential between overland and Seaway transportation will widen.

The trend toward containerization of general cargo poses a special problem for Great Lakes ports. Some specialized ships now being built to handle containerized cargo are too large for present Seaway locks and channels. These ships with lower operating costs, of course, will not be able to reach lake ports.

The Port of Chicago and several other Great Lakes ports have been handling cargo containers. The sharp gain in general cargo in 1969 at Chicago was, in large part, attributable to containerization. But lake ports, including Chicago, do not have facilities capable of handling a large volume of container traffic efficiently. Prospects for the construction of such facilities are not bright. The trend toward containerization, therefore, limits the expansion of general cargo traffic on the Seaway.

Financial problems

Seaway financing is a continuing problem to the U. S. and Canadian Seaway authorities and governments. The Seaway Development Corporation estimated that U. S. toll revenues would reach $7.5 million by 1968. Actual revenues were $6.8 million. Seaway revenues, consisting mainly of tolls, have exceeded direct operating costs, but have not covered all interest costs or provided for debt repayment.

Construction of the St. Lawrence Seaway was financed by the U. S. Saint Lawrence Seaway Development Corporation and the Canadian St. Lawrence Seaway Authority through the sale of revenue bonds to their respective national treasuries. Revenue bond financing of federally constructed waterways was a new development for both Canada and the United States. Bonds issued to the U. S. Treasury total nearly $130 million of a $140 million total authorized by Congress. Deferred interest has increased the current debt of the U. S. Seaway Corporation to approximately $156 million. Only in 1966 were U. S. Seaway revenues adequate to cover the year's interest charges in addition to operating costs.

Canada's Seaway bonded debt has grown from approximately $330 million to nearly $400 million (Canadian dollars) because of deferred interest. This does not include improvements of the Welland Canal.

Initially, Seaway tolls were divided between Canada and the United States at 71 and 29 percent respectively, approximating the two countries' investments in the St. Lawrence River section of the Seaway. In 1967, the proportion was changed to 73 and 27 percent as an alternative to Canada's request for higher tolls. All lockage fees applied on traffic through the Welland Canal go to Canada.

Decisions ahead

Adjustment of the Seaway debt must be faced soon. Currently under consideration in the U. S. Senate is a bill that would "write

off" the U. S. portion of the Seaway debt, thereby opening the possibility of lower tolls. Also under consideration are proposals for raising tolls—with the intention of increasing revenues to permit payment of interest and retire debt incurred for construction of the Seaway.

Decisions of major significance to the Seaway's future are under consideration. Adjustment of debts and tolls are of immediate importance. Competition with increasingly efficient overland transportation, of course, is related to toll levels. These basic decisions to be made by U. S. and Canadian Governments will largely determine the future traffic of North America's fourth seacoast.

Measuring the U. S. Balance of Payments

Large deficits in U. S. international accounts are indicated for the first quarter of 1970. The Liquidity Balance, which measures changes in the U. S. external liquidity position in relation to all foreigners, shows a deficit at a seasonally-adjusted annual rate of almost $7 billion. On the Official Reserve Transaction Balance, which measures changes in the U. S. external liquidity in relation to foreign official institutions only, the deficit appears to have been at a rate of more than $12 billion. In 1969, the Liquidity deficit was recorded at $7 billion, while on the Official Reserve Transaction basis there was a surplus of $2.7 billion.

Recent balance-of-payment deficits, in part, reflect deeply rooted adverse developments. Continuation of inflationary pressures in the U. S. economy left a mark on the U. S. trade balance, which has deteriorated in the past several years.[1] Moreover, the decline of U. S. stock prices since late 1968 has been a major factor in the reversal in the flow of foreign funds into U. S. securities.

But U. S. Balance of Payments statistics in recent months, and also last year, have been affected by developments that had little real significance in the country's overall international position. Consequently, recently recorded deficits fail to convey accurately changes in the U. S. external position.

Distortions have resulted from bookkeeping methods used in computing the U. S. Balance of Payments deficits or surpluses. In order to shed some light on the nature of the problems involved, this article examines recent developments within the context of the accounting procedures.

Balance-of-payments bookkeeping

Statistics incorporated in the U. S. Balance of Payments accounts attempt to measure the value of flows of goods, services, credits, and equity investments to and from foreigners

[1]See "Foreign trade—the uneasy surplus," **Business Conditions,** April 1970.

over a period of time. Such flows include exports and imports of goods and services, tourist expenditures, investment income, government grants and loans, military expenditures abroad, and flows of private credits and investments of both U. S. residents abroad and foreigners in this country.

By convention, balance-of-payments statistics follow the concept of double-entry bookkeeping. Transactions are represented as credits or debits. All such transactions reported by U. S. residents during a given period are compiled by the U. S. Department of Commerce.

Data that enter the compilation of the balance-of-payments statistics come from many sources. Moreover, unlike business bookkeeping, debit and credit entries for individual transactions usually come from separate reports.

Because of incomplete reporting, some international transactions are not recorded. For any accounting period, therefore, recorded debits do not match credits exactly. As a result, a balancing item "errors and omissions," on the deficient side of the ledger, is necessary to reconcile the accounts. (See Table I).

Computing the balance

As an accounting statement, the U. S. Balance of Payments is always in balance. The criteria used in defining deficits or surpluses reflect the special position of the United States in world finance.

The U. S. dollar serves as a medium of exchange in international transactions, as a reserve currency for foreign central banks, and as liquid assets held by private foreigners. These roles are predicated on confidence in the stability of the dollar relative to other currencies, plus its convertibility into gold. Maintenance of these objectives requires continual assessment of: first, changes in liquid assets available to meet the commitment; and second, changes in liquid liabilities that can be converted. Concepts of the U. S.

Table I

International ledger of the United States for the year 1969

Transactions	Debits	Credits
	(million dollars)	
(1) Goods and services		
Merchandise exports		36,487
Merchandise imports	35,797	
Transportation (net)	342	
Travel (net)	1,320	
Royalties and income on investment (net)		5,806
Pensions, remittances, and other payments (net)	546	
(2) U. S. Government (net)		
Military sales		1,504
Grants and loans	3,866	
Military expenditures	4,882	
(3) U. S. private capital (net)		
Direct investment	3,060	
Other long-term	1,397	
Short-term	552	
(4) Foreign capital (net)		
Direct investment		749
Other long-term		
Private foreigners		4,119
Official institutions	998*	
Short-term (reported by U. S. banks)		
Foreign banks		9,272
Other private foreigners	500*	
Official institutions	527*	
(5) U. S. official reserves		
Gold	967†	
Other assets	220†	
(6) Errors and omissions	2,963	
TOTAL	57,937	57,937

SOURCE: Compiled from data published by U. S. Department of Commerce.

*Debit entries in the "Foreign Capital Inflow" accounts represent a net foreign disinvestment (i.e., net reduction in the holding of claims on the U. S. by foreigners).

†The "Gold" and "Other assets" debit entries represent increases in the official reserves during 1969.

Balance of Payments deficit or surplus were developed to measure these items.

The Liquidity Balance

A deficit or surplus calculated on the Liquidity Balance basis is determined by segregating those items from the balance-of-payments accounting statement that measure changes in the U. S. external liquidity position, i.e., changes in U. S. official reserve assets and changes in liquid liabilities to all foreigners. This segregation creates a "deficit" or a "surplus" in the balance-of-payments statement. (See Table II.)

The U. S. official reserve assets include:

- the monetary gold stock
- holdings of convertible foreign currencies
- U. S. "gold tranche" position with the International Monetary Fund (IMF)
- Special Drawing Rights (SDRs)

Inclusion of assets other than gold stock is predicated on Article VIII of the IMF agreement, which authorizes the United States to discharge its commitment to convert dollars either through payment of gold or payment of convertible currencies. Readily available sources of convertible currencies, such as the IMF's gold tranche position and the country's SDRs allocation, therefore are included as part of U. S. reserves.[2]

Liquid liabilities to foreigners are defined as:

- liabilities to all foreigners (both private and official), maturing in one year or less, reported by U. S. banks;
- U. S. Government securities held by foreigners (both private and official) of any maturity, marketable as well as non-marketable but convertible.[3]

The Official Reserve Transaction Balance

In addition to the Liquidity Balance, the U. S. Department of Commerce computes and publishes an alternative measure of U. S. Balance of Payments deficits or surpluses—the Official Reserve Transaction Balance. This measure focuses on changes in the U. S. external liquidity that signal direct pressures on the dollar.

The conceptual basis of the Official Transaction Balance measure is the commitment of foreign monetary authorities to maintain stable exchange rates of their currencies relative to the dollar by purchases and sales of dollars in the foreign exchange markets, and of the U. S. monetary authorities to convert into gold or convertible currencies the dollar balances acquired by foreign official monetary authorities. This measure takes into consideration only changes in U. S. liabilities

[2]The "Gold Tranche" position of a nation in the IMF is defined as the nation's contribution to the Fund (its quota) less the Fund's holding of its currencies. The gold tranche of each member initially consisted of its gold subscription, 25 percent of its quota. Over time the tranche may increase as that member's currency is "purchased" (drawn) by other members. Members have the automatic right of drawing on the gold tranche, unlike the other drawings of the IMF. The SDRs, described in some detail in the October 1969 issue of **Business Conditions,** are a new form of international reserve assets introduced at the beginning of this year. Monetary authorities are free, within the constraints underlying the distribution of those assets by the IMF, to use their allocation of SDRs to purchase convertible currencies.

[3]The "non-marketable but convertible" securities are sold by the U. S. Treasury only to foreign official monetary institutions. Their original maturity usually is more than one year, but they are convertible into certificates and then into cash on short notice.

to foreign official institutions, liquid as well as nonliquid. (See Table III.) The Liquidity Balance measure, by contrast, views changes in liquid liabilities to all foreigners as affecting potential pressures on the dollar. The rationale is that privately held short-term claims on the United States can be quickly channeled through the mechanism of the foreign exchange markets into official institutions, and thus become a direct claim on U. S. reserves.

Recent distortions

Published balance-of-payments statistics show that in 1969 and again during the first quarter of this year the United States experienced record-high deficits on the Liquidity basis. After deficits that averaged $2.6 billion annually in the preceding decade, the 1969 Liquidity deficit was recorded at $7.0 billion. For the first quarter of 1970, preliminary data show a deficit of about the same size on a seasonally-adjusted annual rate basis.

The balances on the Official Reserve Transaction basis showed a very different picture in these periods. After a surplus of $2.7 billion in 1969, a deficit at a seasonally-adjusted annual rate of $12.4 billion was estimated for the first quarter of 1970.

Unusual flows of funds in 1969 were associated with speculative activities in the German mark and French franc. These developments, combined with flows of funds

Table II

U. S. Balance of Payments Liquidity Basis, 1969

	Net balance	Balancing items
	(million dollars)	
Goods and services (Table I, item (1))	+4,288	
U. S. Government (Table I, item (2))	−7,244	
U. S. capital outflow (Table I, item (3))	−5,009	
Foreign capital (Table I, item (4))		
Long-term	+3,870	
Short-term		
Foreign banks		+9,272
Other foreigners		− 500
Official institutions		− 527
U. S. official reserves (Table I, item (5))		−1,187
Errors and omissions (Table I, item (6))	−2,963	
	−7,058	7,058

SOURCE: Computed from Table I.

Table III

U. S. Balance of Payments Official Reserve Transactions Basis, 1969

	Net balance	Balancing items
	(million dollars)	
Goods and services (Table I, item (1))	+4,288	
U. S. Government (Table I, item (2))	−7,244	
U. S. capital outflow (Table I, item (3))	−5,009	
Foreign capital inflow (Table I, item (4))		
Direct investment	+ 749	
Other long-term		
Private	+4,119	
Official		− 998
Short-term		
Private (net)	+8,772	
Official		− 527
U. S. official reserves (Table I, item (5))		−1,187
Errors and omissions	−2,963	
	+2,712	−2,712

SOURCE: Computed from Table I.

associated with the activities of U. S. banks in the Eurodollar market, account for most of the deterioration, as well as for the sharp divergence in the two measures of our external balance.

Faced with strong demands for credit and limited in their ability to obtain funds in the U. S. markets because of legal limitations on the rate of interest they could pay, U. S. banks turned heavily to the Eurodollar market as a source of loanable funds during 1969.[4] U. S. banks bidding for funds abroad, through their foreign branches, obtained almost $7 billion from Eurodollar sources last year.

To the extent that Eurodollars were supplied out of the existing private foreign holdings of short-term dollar assets, neither measure of the payments balance was affected. Liquid claims of private foreigners on the United States were transformed into liquid claims on U. S. banks by their foreign branches. Because foreign branches of U. S. banks are considered foreign entities, these transactions merely resulted in change in ownership of short-term claims reported by U. S. banks on the United States, without any impact on the totals of such claims outstanding. The change in ownership of private foreign claims is reflected in the tables in the $500 million reduction in the "Short-Term Claims of Other Foreigners" item and in the $9,272 million increase in "Short-Term Claims of Foreign Banks."

To the extent that Eurodollars were supplied by foreign private investors through sale of existing holdings of long-term claims on the United States, or through the diversion of flows of foreign savings from U. S. securities to liquid claims, the Liquidity Balance deficit deteriorated. High rates in the Eurodollar market, combined with the sagging U. S. stock market, provided an incentive for such switching in the course of 1969. Unfortunately, it is impossible to determine the extent to which the Liquidity Balance was adversely affected by such transactions. Available data show only net purchases of long-term securities by foreigners as being considerably lower than in 1968.

A substantial portion of the dollar funds supplied to the Eurodollar market or invested by foreigners in other short-term dollar assets was obtained by conversion of foreign currencies into dollars. To the extent that funds for the conversion were provided out of the existing holdings of liquid dollar claims, either private or official, the Liquidity Balance measure was not affected. The conversion merely represented a change in the ownership of liquid claims on the United States. But the Official Reserve Transaction Balance improved to the extent that the funds for conversion were supplied from reserves held by the foreign monetary authorities.

The surplus on the Official Reserve Transaction basis in 1969 largely resulted from such conversions. As Table III shows, foreign official institutions reduced holdings of short-term dollar assets by $527 million, and holdings of long-term assets by $998 million. In addition, they provided the market with $967 million dollars obtained by sale of gold to U. S. monetary authorities and $220 million obtained by net purchases of dollars from the IMF.[5]

[4]For a description of the Eurodollar market and of the activities of U. S. banks in that market, see "Eurodollars—an important source of funds for American banks," **Business Conditions,** June 1969.

[5]The $200 million net increase in "Other Assets" in Item (5) of Table I is the product of $1,034 million increase in the U. S. gold tranche position in the IMF (due to purchases of dollars by foreigners) and a $814 million decrease in U. S. holdings of foreign currencies.

U. S. residents—individuals and corporations—appear to have placed a large volume of funds in deposits in the Eurodollar market last year to obtain higher interest rates. A substantial portion of deposits transferred abroad by U. S. residents was returned to the United States in the form of borrowing by the home offices from foreign branches of U. S. banks. Nevertheless, these transactions significantly contributed to the size of the 1969 deficit in the Liquidity Balance because of the accounting framework. The transfers of funds abroad led to increases of short-term claims of U. S. residents on foreigners, while the return of these funds by foreign branches of U. S. banks was recorded as an increase in short-term liabilities to foreigners.

In the computation of the Liquidity deficit, transfers of funds abroad by U. S. residents are considered capital outflows. But the return flows of these funds are not counted as capital inflows. The Liquidity measure treats increases in liquid liabilities to foreigners, including increases in liabilities of U. S. banks to their foreign branches, as contributing to the deficit.

Asymmetric treatment of short-term capital flows in the Liquidity Balance has been justified on the grounds that, while privately held foreign liquid claims represent a potential drain on the U. S. gold stock, privately held U. S. short-term claims on foreigners are not available to U. S. monetary authorities. But outflows of funds from the United States through Eurodollar deposits of U. S. residents and subsequent reflows into the United States were two sides of a coin. The fundamental liquidity position of the United States in relation to foreigners was not affected.

The quantitative impact of circular flows of funds on the U. S. Balance of Payments in 1969 is difficult to estimate. Many analysts believe that large portions of the funds flowing abroad were placed there by individuals and corporations that do not submit regular reports from which the U. S. Balance of Payments data are compiled. Entries in the accounts showing short-term investments by U. S. residents abroad, therefore, were incomplete. Only the entries on the other side of the ledger, showing increases in short-term liabilities to foreign commercial banks (including the foreign branches of U. S. banks), were recorded on the basis of reports regularly submitted by U. S. banks. As a result of the transfers of funds, an unusually large $3 billion "Errors and Omissions" entry was recorded in the U. S. Balance of Payments.

Developments in early 1970

The sharp swing in the Official Transaction Balance from a surplus in 1969 to a large deficit in the first quarter of this year was associated with a reversal of flows of funds that took place in 1969. Restoration of stable conditions in the foreign exchange markets following the French devaluation and German revaluation of their currencies and large repayments of Eurodollar borrowing by U. S. banks facilitated the reflux of dollars to foreign official institutions. The Liquidity Balance was unaffected by these transactions. A deterioration in the Official Transaction Balance occurred, however, as privately held short-term claims on the United States became official holdings.

In addition to the adverse effect of further reduction in foreign purchases of U. S. securities, the Liquidity Balance was unfavorably influenced during the first quarter of 1970 by a reversal of flows associated with activities of U. S. corporations under the Foreign Direct Investment Program. This program, implemented by the U. S. Government in 1968, seeks to hold foreign investments of U. S.

corporations within certain limits. Corporations that exceeded assigned limits during 1969 compensated for the excess by repatriating funds in the closing weeks of the year. This contributed to the improvement of the Liquidity Balance deficit during the last quarter of 1969. As portions of these funds were returned abroad in the early part of 1970, however, a deterioration of the Liquidity Balance resulted.

Conclusion

Problems of measurement of the United States Balance of Payments deficits and surpluses are continuously under debate. Given the significance attached to the data in policy decisions both in this country and abroad, proper concepts and accurate measurements are essential. Recent developments underscore inadequacies of the measures now used. Government agencies charged with the task of preparing data are attempting to improve the U. S. Balance of Payments accounting framework. Meanwhile, interpretations of published balance-of-payments data should take existing defects into consideration.

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