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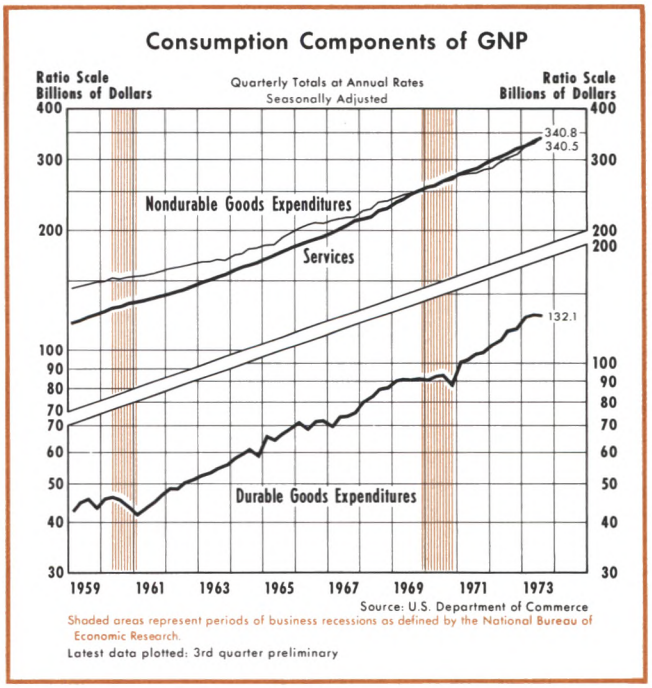
Third Quarter Business Developments

ECONOMIC DEVELOPMENTS in the third quarter failed to provide conclusive answers to two significant questions about the current direction of economic activity. Is the economy headed toward a full-fledged recession or only a temporary slowing in the rate of growth of real output? When will inflationary pressures recede?

Production growth slowed in the third quarter from the rate observed over the first half of the year, but only to about its trend growth rate. The implicit GNP price deflator rose more slowly in the third quarter of 1973 than in the second, but the rate of increase was greater than for any single quarter in the 1951-1972 period. Business fixed investment rose rapidly in the third quarter, suggesting considerable strength in the economy to some analysts; however, weakness in the housing and consumer durable goods' areas provide conflicting evidence. This article reports on recent rates of growth of GNP and its components, production, employment, and prices.



Total Spending and GNP Components

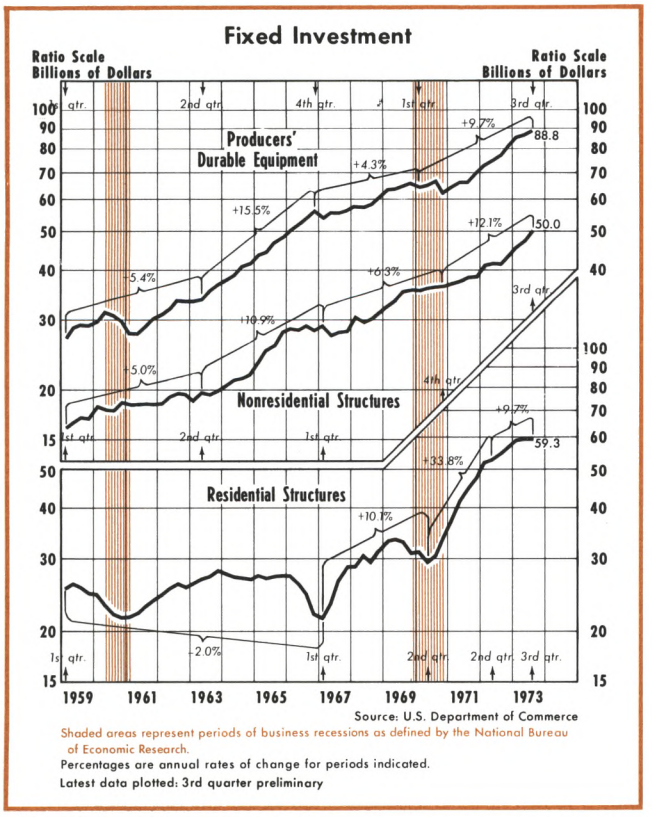
Total spending increased at a 10.4 percent annual rate from the second to the third quarter of 1973, compared to a 9.8 percent rate of increase from the first to the second quarter and a 15.2 percent rate in the preceding quarter. To place the third quarter gain in perspective, it is instructive to note that it was about the same as the ten percent rate of increase from the fourth quarter of 1970 – the quarter in which the latest period of economic expansion began – to the fourth quarter of 1972.

Consumption — Personal consumption expenditures, the largest component of GNP, accounted for 62.6 percent of total spending in 1972. These expenditures rose at a 9.3 percent annual rate from the second to the third quarter of 1973, little changed from the average rate of growth recorded over the past two and one-half years of economic expansion. Expendi-

tures for non-durable consumption goods expanded at a rapid 13.3 percent annual rate in the third quarter, after rising 9.7 percent in the previous year. The growth of expenditures on all durable goods has shown little change since the first quarter of this year, reflecting, in part, the decline in expenditures for new automobiles in the second and third quarters. From fourth quarter 1970 to first quarter 1973, expenditures on durable goods increased at nearly a 20 percent average annual rate.

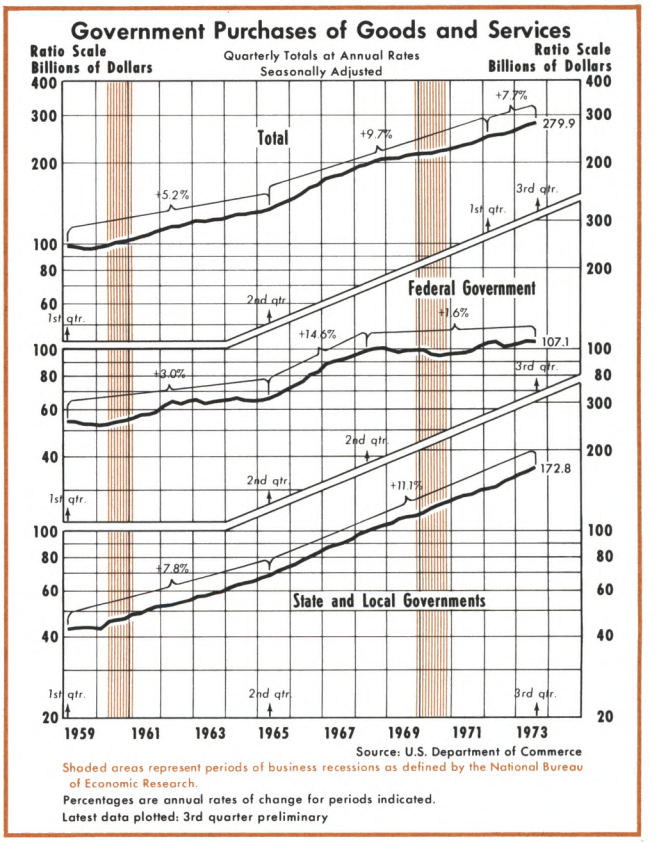
Investment — Gross private domestic investment, which includes total fixed investment and the change in inventories, expanded at an 18.3 percent rate in the third quarter. Investment in residential structures declined for the first time in thirteen quarters, while investment in nonresidential structures continued to expand at a brisk pace.

Investment in residential structures increased by a rapid 40.7 percent from second quarter 1970 to second quarter 1971, but has since decelerated. The growth in residential investment slowed from a 27.2 percent increase for the year ending second quarter 1972 to a 12.9 percent rise in the following year. Residential investment declined slightly from the second to the third quarter of this year.



By way of contrast, investment in nonresidential structures and producers' durable equipment has accelerated since the 1969-70 recession. Investment in nonresidential structures rose 9.6 percent in the year ending fourth quarter 1971, advanced 15.1 percent in 1972, and registered a 15.7 percent rate of increase in the first three quarters of 1973.

Government Spending — Total government purchases of goods and services expanded at a 9.9 percent rate in the first three quarters of 1973, compared to a 7.6 percent increase in 1972 and a trend rate of 9.3 percent from 1965 to 1972. Federal Government purchases declined slightly in the third quarter to a $107.1 billion annual rate, little changed from the magnitude of such expenditures in the second quarter of 1972. Since 1968, a relatively slow rate of growth has been recorded for Federal Government purchases of goods and services.



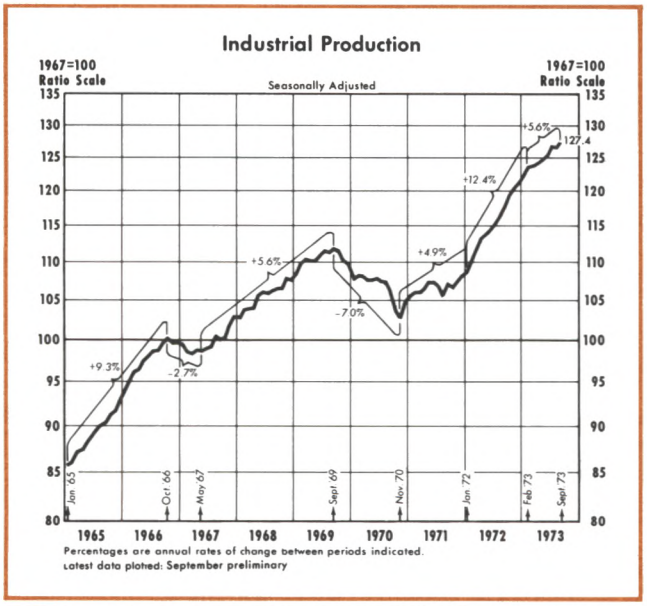
State and local government purchases were at a $172.8 billion annual rate in the third quarter, an 11.9 percent annual rate of gain from the second quarter. These purchases expanded 13.9 percent from second quarter 1972 to second quarter 1973, compared to a trend rate of 11.5 percent from 1965 to 1972.

Net Exports — Net exports of goods and services (exports minus imports) were positive in the first three quarters of 1973, compared with negative balances for the previous five quarters. On balance, net

exports declined during 1971 and 1972, but have been increasing since second quarter 1972. Two official devaluations of the dollar occurred in this time period – one in December 1971 and another in February 1973. From third quarter 1972 to third quarter 1973, exports rose almost 39 percent while imports rose 27.2 percent.

Production and Employment

Real product rose at a 3.5 percent rate in the third quarter of 1973, compared to a 5.5 percent rate of increase in the first two quarters of the year. The pace of real activity in the most recent quarter is little different from the 3.8 percent average rate recorded over the 1957-72 period, but is substantially below the 6.3 percent rate of increase in the two-year period of economic recovery through the fourth quarter of 1972.



The pattern of industrial production growth in recent months has been similar to that of real product. Industrial production growth accelerated to a 6.6 percent rate in the third quarter of 1973, after dropping from a 10.1 percent rate of increase in the first quarter to a 5.9 percent rate in the second quarter. Industrial production increased at a 4.2 percent average annual rate from 1957 to 1972.

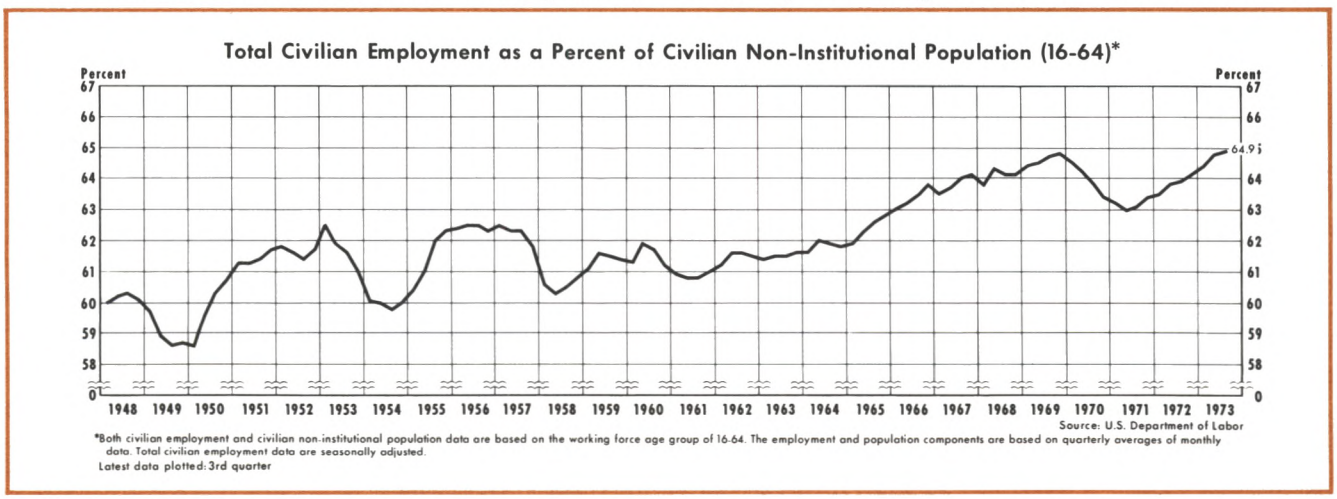
Continuing strength in the economy was also indicated by the rise in employment over the past several months. Total civilian employment rose at a 4.8 percent rate from May 1973 to October, compared to a 3.6 percent rate in the first five months of the year and a 1.6 percent trend rate over the previous 15 years.

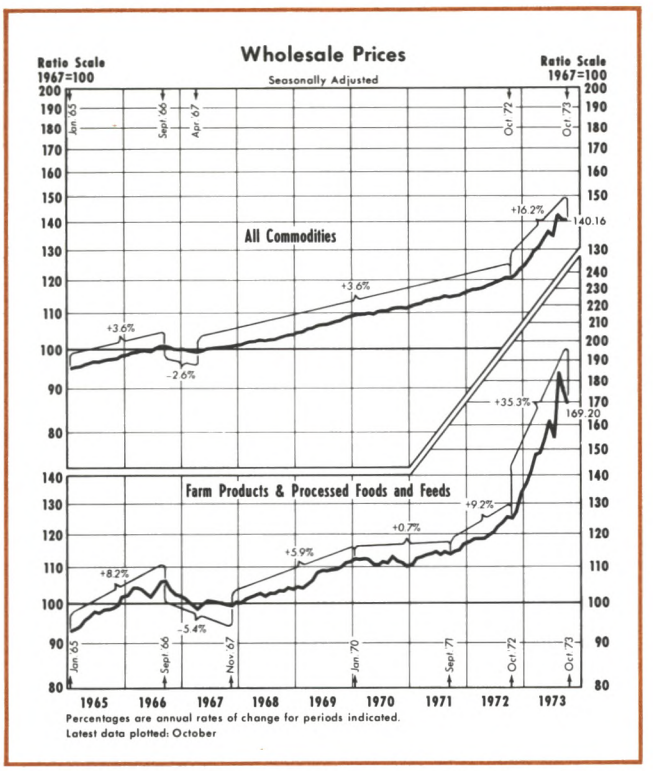
Relatively high rates of labor and capital utilization continued into the third quarter of 1973. Unemployment, which averaged 5 percent of the civilian labor force in the first two quarters of the year, stood at 4.8 percent in the third quarter and 4.5 percent in October. Total civilian employment averaged 64.9 percent of the population of labor force age in the third quarter, the highest percentage attained in the past twenty-five years. The major materials capacity utilization index of the Federal Reserve was also at a 25-year high, averaging 96.3 percent in the third quarter of 1973.

Inflation

Prices continued to increase at a rapid rate in the third quarter. The implicit GNP price deflator rose at a 6.7 percent annual rate from the second to the third quarter, compared with rates of 7.3 and 6 percent in the second and first quarters, respectively.

Wholesale prices have fluctuated sharply in recent months. For the first nine months of the year, however, the net result has been a substantial price rise. Primarily reflecting the movements of wholesale





prices of farm products and processed foods and feeds, wholesale prices of all commodities rose sharply in May and June, declined in July, skyrocketed in August, and declined again in September and October. For the six months ending October, wholesale prices of all commodities have risen at a 15.2 percent annual rate, wholesale prices of farm products and processed foods and feeds have increased at a 30.3 percent rate, and wholesale prices of industrial commodities have risen at a 9.2 percent rate.

Consumer prices have increased at a 10.3 percent rate for the three months ending September. For comparison, these prices rose at an 8 percent rate in the first six months of 1973, 3.4 percent in 1972, and at average rates of 4.6 percent from 1967 to 1972 and 1.7 percent from 1957 to 1967.

Summary

High rates of inflation accompany the current unemployment rate of 4.5 percent. There is concern that rapid price rises will be accompanied in the near future by a higher unemployment rate and sluggish output growth. These conditions, sometimes called "stagflation," occurred as recently as 1970 and 1971.

Business developments in the third quarter of 1973 gave few clues as to the possible re-occurrence of another period of stagflation. While prices have been increasing rapidly in recent months, the unemployment rate has fallen slightly and the rate of growth of production has slowed toward its fifteen-year trend. An accurate assessment of the course of economic activity may not be possible for several months.

Balance-of-Payments Deficits: Measurement and Interpretation

by JOHN PIPPENGER

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UNTIL a few years ago only a few economists and public officials were concerned about our balance of payments. Today balance-of-payments figures are frequently reported and widely discussed. Unfortunately, for most people balance-of-payments terminology is a jungle and balance-of-payments statistics are a mystery.

The first part of this article provides an explanation of terms commonly used in discussions of the balance of payments (BOP). The second part examines three common methods of measuring balance-of-payments deficits and attempts to provide a foundation for a useful interpretation of these and other ways of measuring a deficit.

TERMS AND CONCEPTS

Balance-of-payments terminology, which has evolved over many years, can be misleading. It is therefore useful to examine the terminology in order to understand more fully what we read and hear about our balance of payments.

In principle, the balance of payments is a record of the value of all transactions between domestic and foreign residents over a given period of time, usually one year. The balance of payments is based on the principle of double entry bookkeeping and the dollar value of every transaction is recorded as both a credit and a debit. In practice, however, many transactions between domestic and foreign residents are only partly recorded, are estimated on the basis of surveys, or are missed entirely. We will discuss later some of the problems caused by incomplete recording of transactions. Here we examine the basic principles of BOP accounting.

Credits and Debits

Partial balance-of-payments statistics probably were first collected during mercantilist days. Under crude mercantilist doctrine the immediate goal of international trade was the accumulation of treasure, that is gold and silver. Since exports normally were paid for with gold or silver (or currencies convertible into gold or silver), exports were viewed as desirable and the export of anything was entered in the balance of payments as a plus or credit item. Imports normally required payment in gold or silver. They were viewed as something bad and were entered in the balance of payments as a negative or debit item. Following this approach, when we export more goods than we import we call that a *favorable* balance of trade. Today, as in 1750, the purchase or import of anything from a foreign resident is recorded as a debit or minus entry in the balance of payments while the sale or export of anything to a foreign resident is recorded as a plus or credit item.

Since exports are recorded as credits and balance-of-payments statistics follow the principle of double entry bookkeeping, the payment we receive for our exports must be recorded as a debit. Since imports are debits, it follows that the payment we make on imports must be recorded as a credit. That is, what we give up in every transaction is recorded as a credit and what we get is recorded as a debit.

For example, brush aside the "veil of money" and think of the United States as importing Japanese radios and paying for those radios by exporting wheat. The value of the radios we receive from Japan is entered on the debit side of the U.S. balance of payments and the value of the wheat we give up in order to obtain the radios is entered on the credit side of the balance of payments.

If debits and credits are shown independently in the form of a T-account as in Table I, then debits are usually shown on the right-hand side and credits on the left-hand side. This, of course, is the reverse of standard accounting procedure. In addition, although crediting sales and debiting purchases is consistent with standard accounting procedures, this approach conflicts with basic economic theory. From the point of view of economics, what we get (import) is the good or plus side of a transaction, while what we give up (export) is the bad or minus side.

Subdivisions

Debits and credits in the balance of payments are collected into groups on the basis of what is exported or imported. The precise partitioning of these groups varies between countries and over time. As an introduction, we divide the balance of payments into four traditional subdivisions: (1) current account, (2) unilateral account, (3) capital account, and (4) gold account.[1]

The *current account* shows the value of all the goods and services we import or export as well as the payment and receipt of dividends and interest.

A *unilateral account* is necessary because a gift is a one-sided transaction. If we export something as a gift, there is no payment. In order to meet the requirement of double entry bookkeeping, we create a unilateral account and enter in that account what would have been the payment for the gift. In addition to a purely accounting function, a unilateral or gift account also helps separate gifts from other transactions. It should be understood, however, that a unilateral account does not record what we give or receive as a gift, but what would have been the payment. Thus, a debit entry in a unilateral account indicates that we gave a gift, not that we received one.

The *capital account* records the import and export of assets such as bonds and common stocks. More precisely, if the import or export of anything represents a change in claims, then its value is entered in the capital account.

All official purchases or sales of gold are recorded in the *gold account*. The import and export of gold for commercial purposes, however, are entered in the current account.

Capital Flows

Short Term and Long Term — The capital account traditionally is divided into two parts, short term and long term. Claims such as demand deposits, bonds, and certificates of deposit whose maturity *at time of issue* is one year or less are considered short term, and any change in those claims is entered in the short-term category. Claims in the form of direct investments, corporate stocks, and bonds of over one-year maturity at time of issue, are considered long term. Any changes in these claims are entered in the long-term category.

Inflows and Outflows — In discussing accounts other than the capital account, the tradition is to concentrate on what is bought or sold. In discussing the capital account, however, the tradition is to concentrate not on the bond or other asset bought or sold, but on the payment.

The import of a bond or any other similar asset is a debit item in the capital account. Since its purchase results in U.S. residents paying out money or capital, the *import* of a bond, like any other debit entry in the capital account, is called a capital *outflow*. On the other hand, the export of a bond means U.S. residents receive money or capital; thus, the *export* of a bond, like any other credit entry in the capital account, is called a capital *inflow*.

If an entry appears as part of the short-term capital account, then the transaction is referred to as a short-term capital flow. Similarly, if an entry appears as part of the long-term capital account, it is called a long-term capital flow. For example, the export of a three-month U.S. Treasury bill is called a short-term capital inflow and the import of common stock is referred to as a long-term capital outflow.

[1]The Department of Commerce includes the unilateral account as part of the current account under remittances, pensions, and other transfers as well as U.S. government grants. See Table II.

The following rule determines whether a capital flow is a credit or debit. If an entry in the balance of payments is due to an increase in foreign claims on the United States or a decrease in U.S. claims on foreigners, then it is a credit. If an entry is due to an increase in U.S. claims on foreigners or a decrease in foreign claims on the United States, it is a debit.

This rule is difficult enough to follow when it is read, and even more difficult to remember. Fortunately, the rule follows directly from the basic principle that all imports are debits and all exports are credits. Consider the import of a bond. It must be a debit. If it is a foreign bond, the import of the bond represents an increase in U.S. claims on foreigners. If it is a domestic bond, the import of the bond represents a reduction in foreign claims on the United States. Therefore, an increase in U.S. claims on foreigners, or a decrease in foreign claims on the United States must be debit entries since they are the result of the import of a bond.

Consider the export of a bond. It must be a credit. If it is a foreign bond, the export of the bond represents a decrease in U.S. claims on foreigners. If it is a domestic bond, the export of the bond represents an increase in foreign claims on the United States. An increase in foreign claims on the United States, or a decrease in U.S. claims on foreigners, therefore, must be credit entries since they are the result of exporting bonds.

Illustrations

Some illustrations can help us understand how transactions are recorded in the balance of payments. Each transaction considered here appears in Table I beside the number of the example. In example (1) a ten-year loan of $1 million is made to Russia; that is, some U.S. resident, or the U.S. Government, buys a ten-year Russian bond for $1 million. Normally this would be paid for with a check which, again for simplicity, we assume is deposited by the Russian Government in a New York bank. The import of the bond represents an increase in U.S. long-term claims on foreigners and appears as a $1 million debit in the long-term capital account. This side of the transaction is called a long-term capital outflow.

The other side of the transaction, the payment for the bond, takes the form of an increase in foreign short-term claims on the United States (the increase in foreign short-term claims on the United States is also referred to as an increase in U.S. short-term liabilities to foreigners). The payment side of this transaction appears as a $1 million credit entry in the short-term capital account and is called a short-term capital inflow.

Table I

U.S. BALANCE-OF-PAYMENTS ACCOUNTS

	Credits (+)	Debits (−)	Net Balance
Current Account	$1,000,000 (2)		
	$ 2,000 (3)	$ 2,000 (4)	$1,010,000
	$ 10,000 (5)		
Unilateral Account		$ 10,000 (5)	−10,000
Capital Account			
Short-term	$ 2,000 (4)	$ 2,000 (3)	
	$1,000,000 (1)	$1,000,000 (2)	
Long-term		$1,000,000 (1)	−1,000,000
Gold Account			
Total	$2,014,000	$2,014,000	0

In example (2) consider a $1 million sale of wheat to Russia by a U.S. corporation, where the Russian Government uses the money it borrowed in example (1). The export of wheat appears as a one million dollar entry on the credit side of the current account. The payment for the wheat reduces Russian demand deposits in U.S. banks (that is foreign short-term claims on the United States decline), and the payment side of the transaction appears as a debit entry of $1 million in the short-term capital account. The payment side of the transaction is called a short-term capital outflow.

It might be instructive before going on with other examples to consider the net effect on the balance of payments of examples (1) and (2). Since the $1 million short-term capital inflow in example (1) is just offset by a $1 million short-term capital outflow in example (2), the net result of examples (1) and (2) is that the United States has a current account credit and long-term capital debit of $1 million. That is, these two transactions taken together generate a $1 million credit on current account that is financed or offset by a $1 million long-term capital outflow.

In example (3) a U.S. resident receives $2,000 in dividends from common stock he owns in a French corporation. For simplicity we assume he deposits the funds in a French bank. The dividends are recorded as a credit item in the current account. This makes sense since dividends essentially represent payment for the services of capital. The payment he receives for these services takes the form of an increase in short-term claims on foreigners and it is recorded as a debit item in the short-term capital account.

In example (4) the U.S. resident uses the $2,000 to finance a holiday in the south of Spain. His tourist expenditures represent purchases of goods and services from nonresidents and they are entered as a debit item in the current account. The reduction in his demand deposit at a French bank is a short-term capital inflow and it is recorded as a credit item under short-term capital.

It is useful to consider the combined effects of examples (3) and (4). The short-term capital flows cancel each other and there is no net effect on the short-term capital account. There is a debit entry under tourist expenditures and a credit entry under interest payments, but there is no net effect on the current account.

In example (5) the U.S. Government sends $10,000 worth of grain to a drought-stricken foreign country as a gift. The export of grain appears as a $10,000 entry on the credit side of the current account, but in this case there is no payment. In order to maintain the system of double entry bookkeeping, an entry of $10,000 is recorded on the debit side of the unilateral account. The wheat, of course, is the gift, but since there is no payment for a gift, the unilateral account is needed to maintain the rule that every transaction must appear on both the debit and credit sides of the balance of payments.

In published BOP statistics, credits and debits for each category usually are not shown separately. The normal practice is to subtract debits from credits and show only the net balance for each category. The far right column of Table I shows the net balance for the five examples.

Reported Data

The discussion up to this point has been concerned with the balance of payments in principle rather than in practice. BOP statistics reported by the Department of Commerce differ in several important ways from the form discussed above.[2]

As mentioned above, all transactions are not reported and in some cases only one side of a transaction is reported. If neither side of a transaction is reported, the published BOP figures are simply incomplete. If only one side of a transaction is reported, then the total of reported debits does not equal the total of reported credits and the principle of double entry bookkeeping is violated.

In order to maintain the principle of double entry bookkeeping, another account is created called "errors and omissions." If, after all the numbers have been collected, the sum of debit items does not equal the sum of credit items (as is always the case), then the difference between debits and credits is entered on the appropriate side of the account for errors and omissions, making total debits and credits including errors and omissions equal.

A second difference between the balance of payments discussed earlier and the data reported by the Department of Commerce is that the reported figures distinguish between liquid and nonliquid as well as between short-term and long-term capital flows. Except for certain long-term U.S. Treasury bonds held by foreign official reserve agencies, long-term claims are considered nonliquid. In addition, short-term claims on foreigners of U.S. banks and nonbanking concerns that are not readily marketable or transferable, such as trade credits and cash items in process of collection, are considered nonliquid. Other short-term claims on foreigners, such as demand deposits, time deposits, and negotiable securities, are considered liquid. All short-term liabilities to foreign residents of U.S. nonbanking concerns are considered nonliquid and, in practice, all short-term liabilities to foreign residents reported by U.S. banks are considered liquid.

In addition to the liquid versus nonliquid distinction, published BOP statistics also identify capital flows according to whether the holder of the claim is a private organization or individual, an official agency, or an official reserve agency. Treasuries, finance ministries of national governments, and recognized central banks are viewed as official reserve agencies. Official agencies include official reserve agencies plus diplomatic and consular establishments as well as other agencies of national governments.

INTERPRETATION

As emphasized above, BOP accounting is based on the principle of double entry bookkeeping. Total debits must equal total credits, and it is impossible for the entire balance of payments to show either a deficit or a surplus. The only way we can observe a difference between credits and debits is to select certain items out of the balance of payments and compare credits and debits for the given subset of items. Whatever subset we choose, the deficit (surplus) on that set of items must be matched by an identical balance with opposite sign on the remaining items. According to current usage, a line is drawn through the balance of payments and the items selected are said to be

[2]For a more detailed explanation of the statistics reported by the Department of Commerce, see David T. Devlin, "The U.S. Balance of Payments: Revised Presentation," *Survey of Current Business* (June 1971), pp. 24-57, 64.

"above the line" and the remaining items are said to be "below the line."

Over the years the line has been drawn at many different places and several different measurements currently are reported by the Department of Commerce. At least three of these are commonly cited and discussed. They are (1) the balance on current account plus long-term capital, (2) the net liquidity balance, and (3) the official reserve transactions balance.[3]

Enumerating in great detail the items that go above and below the line for each of these measures is tedious and not very useful for our purposes. Instead this section gives a general description of the items above and below the line for each of the three ways of measuring a deficit and suggests a way to interpret these deficits.[4]

By placing certain items above and below the line we define a deficit. Since all such definitions are, in a trivial sense, correct, we must select between alternative measurements on the basis of their usefulness. No way of measuring a deficit is useful in isolation. In order to be meaningful a deficit must be related through some theory to a relevant problem.

In interpreting a given deficit, it is helpful to ask two questions. First, what problem is this measurement supposed to help me understand? Second, what explicit (or implicit) theory underlies this particular definition of a deficit? Although we consider only one relevant problem and appropriate theory for each deficit, there are other reasonable interpretations.

Current Account and Long-Term Capital

Measurement – As suggested by the heading, under this approach long-term capital flows (other than certain official long-term flows) and the balance on current account go above the line (see Table II). The remaining items, errors and omissions, short-term capital flows, and changes in official claims, all go below the line as financing items.

Table II

U.S. BALANCE-OF-PAYMENTS SUMMARY FOR 1972
(millions of dollars)

Item	Net Credit (+) or Debit (−)
Merchandise Trade balance	$ −6,912
Military transactions, net	−3,558
Travel and transportation, net	−2,853
Investment income, net	7,862
Other services, net	850
Balance on goods and services	−4,609
Remittances, pensions and other transfers	−1,570
Balance on goods, services and remittances	−6,179
U.S. Government grants (excluding military)	−2,174
Balance on Current Account	−8,353
U.S. Government capital flows excluding nonscheduled repayments, net	−1,714
Nonscheduled repayment of U.S. Government assets	137
U.S. Government nonliquid liabilities to other than foreign official reserve agencies	238
Long-term private capital flows, net	−151
Balance on current account and long-term capital	−9,842
Nonliquid short-term private capital flows, net	−1,637
Allocations of special drawing rights	710
Errors and omissions, net	−3,112
Net liquidity balance	−13,882
Liquid private capital flows, net	3,542
Official Reserve transactions balance	−10,340
Financed by changes in:	
Liquid liabilities to foreign official agencies	9,720
Other readily marketable liabilities to foreign official agencies	399
Nonliquid liabilities to foreign official reserve agencies reported by U.S. Government	189
U.S. official reserve assets, net	32

Source: *Survey of Current Business* (June 1973).

Problem and Theory – The balance on current account and long-term capital is intended to serve as an indicator of basic or long-term trends in U.S. balance of payments. For this reason it is sometimes referred to as the basic balance. The problem relevant to this approach is whether or not the balance of payments is in equilibrium in the sense that a given situation can persist through time.

The following ideas appear to underlie this approach. It is generally considered both proper and possible to finance a current account deficit by incurring long-term debt or to make long-term foreign investment by running a current account surplus. But it is generally considered neither possible nor proper to finance a persistent long-term capital outflow and/or a current account deficit by incurring short-term debt or reducing international reserves. This view apparently assumes that there is a limited pool of internationally mobile short-term capital that can-

[3]For a discussion of these and other ways of measuring a deficit, see the following: *The Balance of Payments Statistics of the United States: A Review and Appraisal*, Report of the Review Committee for Balance of Payments Statistics to the Bureau of the Budget (April 1965); Hal B. Lary, *Problems of the United States as World Trader and Banker* (New York: NBER, 1963); Richard N. Cooper, "The Balance of Payments in Review," *Journal of Political Economy* (August 1966), pp. 379-95; Walter R. Gardner, "An Exchange-Market Analysis of the U.S. Balance of Payments," IMF Staff Papers (May 1961), pp. 195-211; Anne O. Krueger, "Balance-of-Payments Theory," *Journal of Economic Literature* (March 1969), pp. 1-26; Walther Lederer, *The Balance of Foreign Transactions: Problems of Definition and Measurement*, Special Papers in International Economics, Princeton University, September 1963; and Devlin, *U.S. Balance of Payments: Revised.*

[4]For a detailed description, see Devlin, *U.S. Balance of Payments: Revised.*

not be relied upon because it moves from country to country in response to expectations as well as to modest and temporary advantages in net yields.

Given this view of the world, a deficit or surplus on current account plus long-term capital financed by a short-term capital inflow is only temporary. The short-term capital inflow financing the net debit balance above the line will disappear and perhaps turn into a capital outflow in response to changing international financial conditions, especially changes in relative short-term yields between countries. A net balance on current account plus long-term capital therefore represents a disequilibrium in the sense that this situation cannot be expected to continue.

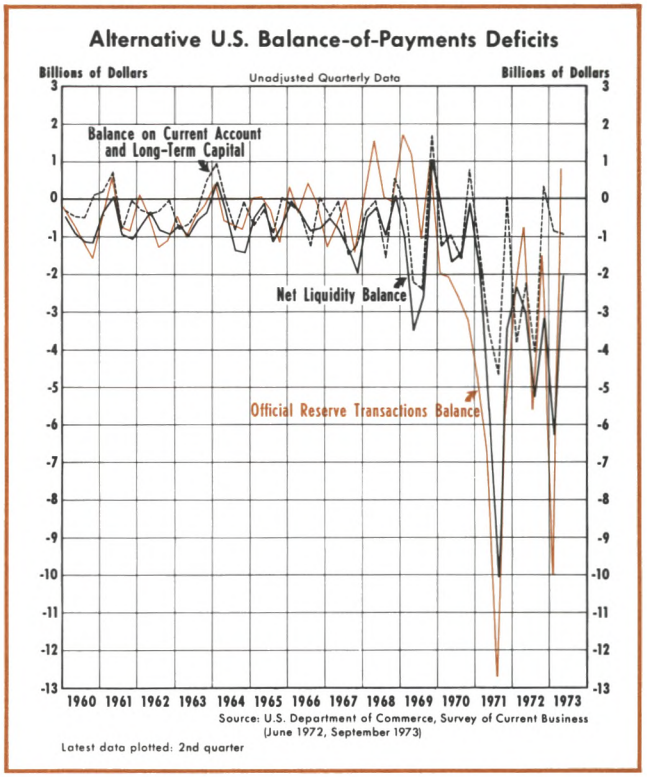
The quarterly balance on current account and long-term capital from 1960 through the second quarter of 1973 is shown in the accompanying chart. Although deficits were posted generally throughout the 1960s, they were relatively small and did not show any clear signs of increasing until late in the decade. By 1969 the deficits became substantial and then in the second and third quarters of 1971 they rose sharply. Toward the end of 1972 the deficit on current account and long-term capital fell sharply and remained relatively small through early 1973.

Without some additional theory, a deficit on current account and long-term capital, such as the $4 billion deficit in the third quarter of 1971, does not convey much information.[5] Knowing that a given situation is likely to change is not very revealing unless we also have at least some indication of how it is going to change and what that change means for the problem with which we are concerned.

Net Liquidity Basis

Measurement – The Department of Commerce now reports the deficit on a "net liquidity" basis rather than a "gross liquidity" basis. As shown in Table II, in going from the balance on current account plus long-term capital to the net liquidity balance, errors and omissions, allocations of Special Drawing Rights, and nonliquid short-term capital flows are moved above the line. This leaves primarily liquid capital flows, changes in nonliquid liabilities to official reserve agencies, and changes in U.S. official reserve assets below the line to finance the deficit or surplus on the items above the line.

Problem and Theory – The relevant problem for this approach is again whether a given situation can



persist. The theory underlying the approach appears to be that entries below the line represent largely transitory items that cannot be relied on to finance a persistent deficit or surplus on the entries above the line.

If trade credit and other nonliquid short-term claims grow essentially automatically with the volume of trade, and errors and omissions are not dominated by unreported short-term capital flows, then the net liquidity measurement would appear to be a more useful indicator of basic or long-term trends in U.S. balance of payments. If, on the other hand, nonliquid short-term capital behaves essentially like liquid short-term capital and errors and omissions are dominated by unreported liquid short-term capital, then the balance on current account and long-term capital would be a more appropriate measure of basic balance.

The chart presented above shows the quarterly balance on a net liquidity basis from 1960 through the second quarter of 1973. The pattern suggests that, at least in times of crises, errors and omissions as well as trade credit behave very much like liquid short-term capital flows. During the third quarter of 1971 a deficit of about $4.6 billion on current account and long-term capital was expanded to about a $10 billion deficit on a net liquidity basis by the inclusion of about a $5 billion deficit in errors and omissions. During the

[5]All deficits cited in this paper refer to non-seasonally adjusted data.

first quarter of 1973 a relatively modest deficit of less than $1 billion on current account and long-term capital became a deficit of over $6 billion on a net liquidity basis. This was primarily the result of an increase in nonliquid claims on foreigners reported by U.S. banks of over $1.5 billion dollars and a debit entry of almost $4 billion in errors and omissions. Given the recent behavior of nonliquid short-term capital flows as well as errors and omissions, it does not seem appropriate to place these items above the line.

If we view both the balance on current account plus long-term capital and the net liquidity balance as measures of fundamental or long-term trends in the balance of payments, then the choice between these two approaches depends on what theory we accept. If we believe errors and omissions and nonliquid short-term capital respond to exchange rate speculation and interest rate differentials in essentially the same way as liquid short-term capital, then we should place these items below the line and use the balance on current account plus long-term capital. If, on the other hand, we believe nonliquid capital flows and errors and omissions reflect essentially the same forces that determine the volume of trade and long-term capital flows, then we should place nonliquid capital flows and errors and omissions above the line and use the net liquidity balance.

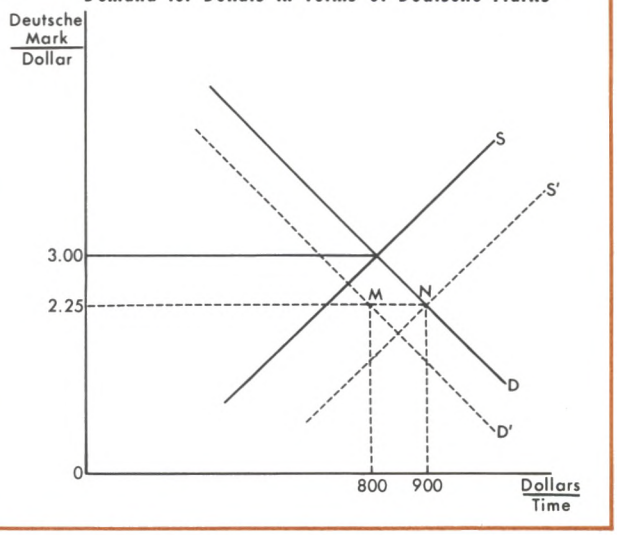
If we believe the relevant problem is different for the balance on current account plus long-term capital and the net liquidity balance, then the choice between these two approaches should depend primarily on our belief about which problem is more important. Explicit separation of the appropriate *problem* from the appropriate *theory* would go a long way toward resolving the continuing debate over how to measure a balance-of-payments deficit.

Official Reserve Transactions

Measurement – In going from the net liquidity basis to the balance on official reserve transactions, liquid private capital flows are moved above the line. This leaves changes in official U.S. reserve assets (holdings by the Federal Reserve and U.S. Treasury of gold, SDRs, gold tranche position at the International Monetary Fund, and foreign currencies), changes in U.S. liquid liabilities to foreign official agencies, and changes in nonliquid liabilities to official reserve agencies as the financing items below the line (see Table II).

Problem and Theory – Under a fixed exchange rate, the problem relevant to the official reserve transactions balance is the amount of pressure on the pegged rate in the foreign exchange market. Under a "dirty" float (flexible rates with official intervention) the relevant problem is the direction and magnitude of official intervention. The theory underlying this approach is simple supply and demand.

Figure I
Demand for Dollars in Terms of Deutsche Marks



Suppose there is a dirty float between the dollar and most of our major trading partners. Initially an exchange rate of 3 Deutsche marks per dollar just equates demand and supply for dollars in terms of D-marks without official intervention, as shown in Figure I by the lines D and S. There is then additional downward pressure on the dollar as private demand and supply shift to D′ and S′, respectively. If the Bundesbank (German central bank) intervenes and partially offsets this downward pressure by buying MN dollars, as shown in Figure I, then the Bundesbank acquires claims worth $100,000 which go below the line. This $100,000 appears as a credit below the line reflecting a deficit on the items above the line. This intervention therefore generates a deficit of $100,000 on the official reserve transactions basis. If private demand and supply then shift so as to raise the D-mark price of the dollar and the Bundesbank partially offsets that movement, the Bundesbank would sell dollars and this would contribute to a surplus on the official reserve transactions basis.

If, over a given period of time, the official reserve transactions basis shows a surplus, then this is an indication that over the period as a whole central banks have been selling dollars and, on balance, moderating a rise or contributing to a fall in the price of the dollar in terms of foreign currencies. A deficit on the official reserve transactions basis indicates that cen-

tral banks have been buying dollars in foreign exchange markets and thereby moderating the fall or adding to the rise in the price of dollars in terms of foreign currencies.

Although the balance on official reserve transactions is positive for some quarters during the 1960s, in most quarters there was a deficit (see chart). Throughout the 1960s the deficits were not large by recent standards and, perhaps even more important, deficits did not tend to grow.

Looking back we can now see that the deficit on an official reserve transactions basis began to grow rapidly in 1970. By the first quarter of 1971 the deficit was larger than it had ever been in the 1960s. We can interpret the growth in this deficit from slightly less than $2 billion in the first quarter of 1970 to over $6 billion by the second quarter of 1971 as an indication of large and growing market pressure against the fixed price of the dollar.

With the floating of the German mark and Netherlands guilder in May 1971, the structure of fixed exchange rates began to crumble. Widespread anticipation of a general breakdown apparently generated massive pressure against the dollar in foreign exchange markets. This pressure is reflected in a third quarter deficit for 1971 of over $12 billion.

With the realignment of exchange rates worked out at the Smithsonian Meetings in December 1971, pressure against the dollar slowly declined through early 1972, but then began to increase. In early 1973 there was strong pressure against the new structure of exchange rates. The magnitude of the official intervention required to protect the rate structure adopted at the Smithsonian Meetings is reflected in a deficit for the first quarter of 1973 of over $9 billion.

By the end of March 1973, most industrialized countries had stopped pegging the dollar and had adopted a dirty float. The relatively small surplus in the second quarter of 1973 for the balance on official reserve transactions suggests that, on balance, central banks sold dollars and tended to accentuate the depreciation of the dollar. If speculators had followed the same policy, their actions probably would have been described as destabilizing.

Although there are problems associated with every definition of a deficit, under most circumstances the balance on official reserve transactions does give at least a general idea of the direction and magnitude of official intervention in foreign exchange markets. Whether or not the balance on official reserve transactions is the appropriate deficit to consider depends primarily on whether or not you consider conditions in the foreign exchange market as the appropriate problem.

Caveats

Even if the problem and supporting theory for a given definition of a deficit are reasonably well spelled out, using that definition can be misleading.[6] There are at least four reasons for this.

First, classification of items is highly arbitrary and accounts often do not accurately reflect the corresponding theoretical concept. For example, long-term capital flows include the import and export of long-term bonds with only three months left until maturity. From a conceptual point of view, a three-month Treasury bill and a 20-year bond with three months left until maturity are essentially equivalent assets.

Second, the collection of BOP statistics is a very difficult and complex task. Many transactions are only partially reported, estimated on the basis of surveys, or missed entirely. As a result, balance-of-payments statistics should be taken with a grain of salt.

Third, in measuring a deficit there is a tendency to think that the balance should be zero. In most cases, however, there is nothing inherently good about a zero balance. For example, a deficit on the official transactions balance presumably would be preferable to a zero balance enforced by strong trade and capital controls.

Fourth, in addition to all the unavoidable problems, governments often engage in practices (both deliberately and accidentally) that distort the statistics. For example, suppose a foreign central bank bought $1 billion in the foreign exchange market, but deposited the dollars in a Eurodollar account in a London bank rather than depositing them in the United States or buying U.S. Treasury bills. The effect of this intervention in the foreign exchange market would not appear in the balance on official reserve transactions because the $1 billion would not be reported as an increase in U.S. liabilities to foreign official reserve agencies. Instead, it would be reported as a $1 billion increase in U.S. liabilities to foreign commercial banks and the $1 billion entry would go above the line when measuring the deficit as the balance on official reserve transactions.

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[6]For a more detailed discussion of some of these problems, see Devlin, *U.S. Balance of Payments: Revised,* and Cooper, *Balance of Payments in Review.*

SUMMARY

The first part of this article discusses balance-of-payments terminology. At least three basic points are made in that discussion. First, the balance of payments is a product of double entry bookkeeping and total debits must equal total credits. Second, what we receive in every transaction (import) is recorded as a debit and what we give up in every transaction (export) is recorded as a credit. Third, imports and exports of assets or claims, such as stocks and bonds, are referred to as capital flows; the import of stocks and bonds is called a capital outflow and the export of these assets is called a capital inflow.

The second part discusses how we can interpret balance-of-payments statistics. Since the balance of payments must balance, a particular way of measuring a deficit or surplus is a definition. Like all definitions, a definition of what is a deficit must be judged on its usefulness. In order to be useful, a particular way of measuring a deficit must be linked through some kind of theory to a relevant problem.

Without reference to a problem and supporting theory, a simple statement that the U.S. balance of payments is in deficit is meaningless. Even with a complete specification, a balance-of-payments deficit should not necessarily generate a call for action to eliminate this deficit. Suggestions or demands for action can be based *only* on a specification of the deficit and an argument as to why *this* particular deficit is detrimental.

Letter on Monetary Policy

To SENATOR WILLIAM PROXMIRE

From ARTHUR F. BURNS

Senator William Proxmire, Wisconsin, is Vice Chairman of the Joint Economic Committee. Arthur F. Burns is Chairman of the Board of Governors of the Federal Reserve System.

The Honorable William Proxmire
United States Senate
Washington, D. C.

DEAR SENATOR PROXMIRE:

I am writing in further response to your letter of September 17, 1973, which requested comments on certain criticisms of monetary policy over the past year.

As stated in your letter, the criticisms are: (1) "that there was too much variation from time to time in the rate of increase in the money supply, that monetary policy was too erratic, too much characterized by stops and starts"; and (2) "that the money supply had increased much too much last year, in fact that the increase would have been too much even if we had been in the depths of a recession instead of enjoying a fairly vigorous economic expansion."

These criticisms involve basic issues with regard to the role of money in the economy, and the role that the money supply should play in the formulation and execution of monetary policy. These issues, along with the specific points you raise, require careful examination.

Criticism of Our Public Policies

During the past two years the American economy has experienced a substantial measure of prosperity. Real output has increased sharply, jobs have been created for millions of additional workers, and total personal income – both in dollars and in terms of real purchasing power – has risen to the highest levels ever reached.

Yet the prosperity has been a troubled one. Price increases have been large and widespread. For a time, the unemployment rate remained unduly high. Interest rates have risen sharply since the spring of 1972. Mortgage money has recently become difficult to obtain in many communities. And confidence in the dollar at home and abroad has at times wavered.

Many observers have blamed these difficulties on the management of public economic policies. Certainly, the Federal budget – despite vigorous efforts to hold expenditures down – continued in substantial deficit. There has also been an enormous growth in the activities of Federally-sponsored agencies which, although technically outside the budget, must still be financed. The results of efforts to control wages and prices during the past year have been disappointing. Partial decontrol in early 1973 and the subsequent freeze failed to bring the results that were hoped for.

Monetary policy has been criticized on somewhat contradictory counts – for being inflationary, or for permitting too high a level of interest rates, or for failing to bring the economy back to full employment, or for permitting excessive short-term variations in the growth of the money supply, and so on.

One indication of dissatisfaction with our public policies was provided by a report, to which you refer in your letter, on a questionnaire survey conducted by the National Association of Business Economists. Of the respondents, 38 per cent rated fiscal policy "over the past year" as "poor"; 41 per cent rated monetary policy "over the past year" as "poor"; only 14 per cent felt that the wage-price controls under Phase IV were "about right." If this sampling is at all indicative, the public policies on which we have relied are being widely questioned. Many members of the above group, in fact, went on record for a significant change in fiscal policy. In response to a question whether they favored a variable investment tax credit, 46.5 per cent said "yes," 40 per cent said "no," and 13.5 per cent expressed "no opinion."

Let me turn now to the questions raised in your letter and in some other recent discussions about monetary policy. I shall discuss, in particular, the role of money supply in the conduct of monetary policy; the extent and significance of variability in the growth of the money supply; and the actual behavior of the money supply during 1972-73.

Role of Money Supply

For many years economists have debated the role of the money supply in the performance of economic systems. One school of thought, often termed "monetarist," claims that changes in the money supply influence very importantly, perhaps even decisively, the pace of economic activity and the level of prices. Monetarists contend that the monetary authorities should pay principal attention to the money supply, rather than to other financial variables such as interest rates, in the conduct of monetary policy. They also contend that fiscal policy has only a small independent impact on the economy.

Another school of thought places less emphasis on the money supply and assigns more importance to the expenditure and tax policies of the Federal Government as factors influencing real economic activity and the level of prices. This school emphasizes the need for monetary policy to be concerned with interest rates and with conditions in the money and capital markets. Some economic activities, particularly residential building and state and local government construction, depend heavily on borrowed funds, and are therefore influenced greatly by changes in the cost and availability of credit. In other categories of spending – such as business investment in fixed capital and inventories, and consumer purchases of durable goods – credit conditions play a less decisive role, but they are nonetheless important.

Monetarists recognize that monetary policy affects private spending in part through its impact on interest rates and other credit terms. But they believe that primary attention to the growth of the money supply will result in a more appropriate monetary policy than would attention to conditions in the credit markets.

Needless to say, monetary policy is – and has long been – a controversial subject. Even the monetarists do not speak with one voice on monetary policy. Some influential monetarists believe that monetary policy should aim strictly at maintaining a constant rate of growth of the money supply. However, what that constant should be, or how broadly the money supply should be defined, are matters on which monetarists still differ. And there are also monetarists who would allow some – but infrequent – changes in the rate of growth of the money supply, in accordance with changing economic conditions.

It seems self-evident that adherence to a rigid growth rate rule, or even one that is changed infrequently, would practically prevent monetary policy from playing an active role in economic stabilization. Monetarists recognize this. They believe that most economic disturbances tend to be self-correcting, and they therefore argue that a constant or nearly constant rate of growth of the money supply would result in reasonably satisfactory economic performance.

But neither historical evidence, nor the thrust of explorations in business-cycle theory over a long century, give support to the notion that our economy is inherently stable. On the contrary, experience has demonstrated repeatedly that blind reliance on the self-correcting properties of our economic system can lead to serious trouble. Discretionary economic policy, while it has at times led to mistakes, has more often proved reasonably successful. The disappearance of business depressions, which in earlier times spelled mass unemployment for workers and mass bankrupt-

cies for businessmen, is largely attributable to the stabilization policies of the last thirty years.

The fact is that the internal workings of a market economy tend of themselves to generate business fluctuations, and most modern economists recognize this. For example, improved prospects for profits often spur unsustainable bursts of investment spending. The flow of personal income in an age of affluence allows ample latitude for changes in discretionary expenditures and in savings rates. During a business-cycle expansion various imbalances tend to develop within the economy – between aggregate inventories and sales, or between aggregate business investment in fixed capital and consumer outlays, or between average unit costs of production and prices. Such imbalances give rise to cyclical movements in the economy. Flexible fiscal and monetary policies, therefore, are often needed to cope with undesirable economic developments, and this need is not diminished by the fact that our available tools of economic stabilization leave something to be desired.

There is general agreement among economists that, as a rule, the effects of stabilization policies occur gradually over time, and that economic forecasts are an essential tool of policy making. However, no economist – or school of economics – has a monopoly on accurate forecasting. At times, forecasts based largely on the money supply have turned out to be satisfactory. At other times, such forecasts have been quite poor, mainly because of unanticipated changes in the intensity with which the existing money stock is used by business firms and consumers.

Changes in the rate of turnover of money have historically played a large role in economic fluctuations, and they continue to do so. For example, the narrowly-defined money stock – that is, demand deposits plus currency in public circulation – grew by 5.7 per cent between the fourth quarter of 1969 and the fourth quarter of 1970. But the turnover of money declined during that year, and the dollar value of GNP rose only 4.5 per cent. In the following year, the growth rate of the money supply increased to 6.9 per cent, but the turnover of money picked up briskly and the dollar value of GNP accelerated to 9.3 per cent. The movement out of recession in 1970 into recovery in 1971 was thus closely related to the greater intensity in the use of money. Occurrences such as this are very common because the willingness to use the existing stock of money, expressed in its rate of turnover, is a highly dynamic force in economic life.

For this as well as other reasons, the Federal Reserve uses a blend of forecasting techniques. The behavior of the money supply and other financial variables is accorded careful attention. So also are the results of the most recent surveys on plant and equipment spending, consumer attitudes, and inventory plans. Recent trends in key producing and spending sectors are analyzed. The opinions of businessmen and outside economic analysts are canvassed, in part through the nationwide contacts of Federal Reserve Banks. And an assessment is made of the probable course of fiscal policy, also of labor-market and agricultural policies, and their effects on the economy.

Evidence from all these sources is weighed. Efforts are also made to assess economic developments through the use of large-scale econometric models. An eclectic approach is thus taken by the Federal Reserve, in recognition of the fact that the state of economic knowledge does not justify reliance on any single forecasting technique. As economic research has cumulated, it has become increasingly clear that money does indeed matter. But other financial variables also matter.

In recent years, the Federal Reserve has placed somewhat more emphasis on achieving desired growth rates of the monetary aggregates, including the narrowly-defined money supply, in its conduct of monetary policy. But we have continued to give careful attention to other financial indicators, among them the level of interest rates on mortgages and other loans and the liquidity position of financial institutions and the general public. This is necessary because the economic implications of any given monetary growth rate depend on the state of liquidity, the attitudes of businessmen, investors, and consumers toward liquidity, the cost and availability of borrowed funds, and other factors. Also, as the nation's central bank, the Federal Reserve can never lose sight of its role as a lender of last resort, so that financial crises and panics will be averted.

I recognize that one advantage of maintaining a relatively stable growth rate of the money supply is that a partial offset is thereby provided to unexpected and undesired shifts in the aggregate demand for goods and services. There is always some uncertainty as to the emerging strength of aggregate demand. If money growth is maintained at a rather stable rate, and aggregate demand turns out to be weaker than is consistent with the nation's economic objectives, in-

terest rates will tend to decline and the easing of credit markets should help to moderate the undesired weakness in demand. Similarly, if the demand for goods and services threatens to outrun productive capacity, a rather stable rate of monetary growth will provide a restraining influence on the supply of credit and thus tend to restrain excessive spending.

However, it would be unwise for monetary policy to aim at all times at a constant or nearly constant rate of growth of money balances. The money growth rate that can contribute most to national objectives will vary with economic conditions. For example, if the aggregate demand for goods and services is unusually weak, or if the demand for liquidity is unusually strong, a rate of increase in the money supply well above the desirable long-term trend may be needed for a time. Again, when the economy is experiencing severe cost-push inflation, a monetary growth rate that is relatively high by a historical yardstick may have to be tolerated for a time. If money growth were severely constrained in order to combat the element of inflation resulting from such a cause, it might well have seriously adverse effects on production and employment. In short, what growth rate of the money supply is appropriate at any given time cannot be determined simply by extrapolating past trends or by some preconceived arithmetical standard.

Moreover, for purposes of conducting monetary policy, it is never safe to rely on just one concept of money – even if that concept happens to be fashionable. A variety of plausible concepts merit careful attention, because a number of financial assets serve as a convenient, safe, and liquid store of purchasing power.

The Federal Reserve publishes data corresponding to three definitions of money, and takes all of them into account in determining policy. The three measures are: (a) the narrowly-defined money stock (M_1), which encompasses currency and demand deposits held by the nonbank public; (b) a more broadly-defined money stock (M_2), which also includes time and savings deposits at commercial banks (other than large negotiable time certificates of deposit); (c) a still broader definition (M_3), which includes savings deposits at mutual savings banks and savings and loan associations. A definition embracing other liquid assets could also be justified – for example, one that would include large-denomination negotiable time certificates of deposit, U.S. savings bonds and Treasury bills, commercial paper, and other short-term money market instruments.

There are many assets closely related to cash, and the public can switch readily among these assets. However money may be defined, the task of determining the amount of money needed to maintain high employment and reasonable stability of the general price level is complicated by shifting preferences of the public for cash and other financial assets.

Variability of Money Supply Growth

In the short run, the rate of change in the observed money supply is quite erratic, and cannot be trusted as an indicator of the course of monetary policy. This would be so even if there were no errors of measurement.

The record of hearings held by the Joint Economic Committee on June 27, 1973 includes a memorandum which I submitted on problems encountered in controlling the money supply. As indicated there, week-to-week, month-to-month, and even quarter-to-quarter fluctuations in the rate of change of money balances are frequently influenced by international flows of funds, changes in the level of U.S Government deposits, and sudden changes in the public's attitude towards liquidity. Some of these variations appear to be essentially random – a product of the enormous ebb and flow of funds in our modern economy.

Because the demands of the public for money are subject to rather wide short-term variations, efforts by the Federal Reserve to maintain a constant growth rate of the money supply could lead to sharp short-run swings in interest rates and risk damage to financial markets and the economy. Uncertainties about financing costs could reduce the fluidity of markets and increase the costs of financing to borrowers. In addition, wide and erratic movements of interest rates and financial conditions could have undesirable effects on business and consumer spending. These adverse effects may not be of major dimensions, but it is better to avoid them.

In any event, for a variety of reasons explained in the memorandum for the Joint Economic Committee, to which I have previously referred, the Federal Reserve does not have precise control over the money supply. To give one example, a significant part of the money supply consists of deposits lodged in nonmember banks that are not subject to the reserve

requirements set by the Federal Reserve. As a result there is some slippage in monetary control. Furthermore, since deposits at nonmember banks have been reported for only two to four days in a year, in contrast to daily statistics for member banks, the data on the money supply – which we regularly present on a weekly, monthly, and quarterly basis – are estimates rather than precise measurements. When the infrequent reports from nonmember banks become available, they often necessitate considerable revisions of the money supply figures. In the past two years, the revisions were upward, and this may happen again this year.

Some indication of the extent of short-term variations in the recorded money supply is provided below. Table I shows the average and maximum deviations (without regard to sign) of M_1 from its average annual growth rate over a three and a half year period. As would be expected, the degree of variation diminishes as the time unit lengthens; it is much larger for monthly than for quarterly data, and is also larger for quarterly than for semi-annual data.

Table I

DEVIATIONS IN M_1 FROM ITS AVERAGE RATE OF GROWTH, 1970 THRU MID-1973

	Annual Rates of Change	
Form of Data	Average Deviation	Maximum Deviation
Monthly	3.8%	8.8%
Quarterly	2.4	5.5
Semi-annual	1.8	4.1

In our judgment, there need be little reason for concern about the short-run variations that occur in the rate of change in the money stock. Such variations have minimal effects on the real economy. For one thing, the outstanding supply of money is very large. It is also quite stable, even when the short-run rate of change is unstable. This October the average outstanding supply of M_1, seasonally adjusted, was about $264 billion. On this base, a monthly rise or fall in the money stock of even $2.5 billion would amount to only a 1 per cent change. But when such a temporary change is expressed as an annual rate, as is now commonly done, it comes out as about 12 per cent and attracts attention far beyond its real significance.

The Federal Reserve research staff has investigated carefully the economic implications of variability in M_1 growth. The experience of the past two decades suggests that even an abnormally large or abnormally small rate of growth of the money stock over a period up to six months or so has a negligible influence on the course of the economy – provided it is subsequently offset. Such short-run variations in the rate of change in the money supply may not at all reflect Federal Reserve policy, and they do not justify the attention they often receive from financial analysts.

The thrust of monetary policy and its probable effects on economic activity can only be determined by observing the course of the money supply and of other monetary aggregates over periods lasting six months or so. Even then, care must be taken to measure the growth of money balances in ways that temper the influence of short-term variations. For example, the growth of money balances over a quarter can be measured from the amount outstanding in the last month of the preceding quarter to the last month of the current quarter, or from the average amount outstanding during the preceding quarter to the average in the current quarter. The first measure captures the latest tendencies in the money supply, but may be distorted by random changes that have no lasting significance. The second measure tends to average out temporary fluctuations and is comparable to the data provided on a wide range of non-monetary economic variables, such as the gross national product and related measures.

A comparison of these two ways of measuring the rate of growth in M_1 is shown in Table II for successive quarters in 1972 and 1973. The first column, labeled M, shows annual rates calculated from end-months of quarters; the second column, labeled Q, shows annual rates calculated from quarterly averages.

Table II

GROWTH RATES OF MONEY SUPPLY ON TWO BASES

		Annual Rates of Change	
		M	Q
1972	I	9.2%	5.3%
	II	6.1	8.4
	III	8.2	8.0
	IV	8.6	7.1
1973	I	1.7	4.7
	II	10.3	6.9
	III	0.3	5.1

As may be seen, the quarterly averages disclose much more clearly the developing trend of monetary restraint – which, in fact, began in the second quarter of 1972. Also, the growth of M_1, which on a month-

end basis appears very erratic in the first three quarters of 1973, is much more stable on a quarterly average basis. For example, while the level of M_1 did not expand significantly between June and September, the quarterly average figures indicate further sizable growth in the third quarter. For purposes of economic analysis, it is an advantage to recognize that the money available for use was appreciably larger in the third quarter than in the second quarter.

Experience of 1972-73

During 1972, it was the responsibility of the Federal Reserve to encourage a rate of economic expansion adequate to reduce unemployment to acceptable levels. At the same time, despite the dampening effects of the wage-price control program, inflationary pressures were gathering. Monetary policy, therefore, had to balance the twin objectives of containing inflationary pressures and encouraging economic growth. These objectives were to some extent conflicting, and monetary policy alone could not be expected to cope with both problms. Continuation of an effective wage-price program and a firmer policy of fiscal restraint were urgently needed.

The narrowly-defined money stock increased 7.4 per cent during 1972 (measured from the fourth quarter of 1971 to the fourth quarter of 1972). Between the third quarter of 1972 and the third quarter of 1973, the growth rate was 6.1 per cent. By the first half of 1973, the annual growth rate had declined to 5.8 per cent, and a further slowing occurred in the third quarter.

Evaluation of the appropriateness of these growth rates would require full analysis of the economic and financial objectives, conditions, and policies during the past two years, if not longer. Such an analysis cannot be undertaken here. Some perspective on monetary developments during 1972-73 may be gained, however, from comparisons with the experience of other industrial countries, and by recalling briefly how domestic economic conditions evolved during this period.

Table III compares the growth of M_1 in the United States with that of other industrial countries in 1972 and the first half of 1973. The definitions of M_1 differ somewhat from country to country, but are as nearly comparable as statistical sources permit. It goes without saying that each country faced its own set of economic conditions and problems. Yet it is useful to note that monetary growth in the United States was much lower than in other major industrial countries, and that it also was steadier than in the other countries.

Table III

ANNUAL PERCENT RATES OF GROWTH IN MONEY SUPPLY

	4th Quarter 1971 to 4th Quarter 1972	4th Quarter 1972 to 2nd Quarter 1973
United States	7.4%	5.8%
United Kingdom	14.1	10.0
Germany	14.3	4.2
France	15.4	8.7
Japan	23.1	28.2

The next table shows, in summary fashion, the rates of change in the money supply of the United States, in its total production, and in the consumer price level during 1972 and 1973. The table is based on the latest data. It may be noted, in passing, that, according to data available as late as January 1973, the rate of growth of M_1 during 1972 was 7.2 percent, not 7.4 percent; and that the rate of increase in real GNP was 7.7 percent, not 7.0 percent. In other words, on the basis of the data available during 1972, the rate of growth of M_1 was below the rate of growth of the physical volume of over-all production.

Table IV

MONEY SUPPLY, GNP, AND PRICES IN THE U.S.

(Per cent change at annual rates)

	4th quarter 1971 to 4th quarter 1972	4th quarter 1972 to: 2nd quarter of 1973	4th quarter 1972 to: 3rd quarter of 1973
Money supply (M_1)	7.4%	5.8%	5.6%
Gross National Product			
Current dollars	10.6	12.1	11.7
Constant dollars	7.0	5.4	4.8
Prices			
Consumer price index (CPI)	3.4	7.1	7.8
CPI excluding food	3.0	4.0	4.1

The table indicates that growth in M_1 during 1972 and 1973 approximately matched the growth of real output, but was far below the expansion in the dollar value of the nation's output. Although monetary policy limited the availability of money relative to the growth of transactions demands, it still encouraged a substantial expansion in economic activity; real output rose by about 7 per cent in 1972. Even so, unemployment remained unsatisfactorily high throughout the greater part of the year. It was not until November that the unemployment rate dropped below 5.5 per cent. For the year as a whole, the unemployment rate averaged 5.6 per cent. It may be of interest to recall that unemployment averaged 5.5 per cent in

1954 and 1960, which are commonly regarded as recession years.

Since the expansion of M_1 in 1972 was low relative to the demands for money and credit, it was accompanied by rising short-term interest rates. Long-term interest rates showed little net change last year, as credit demands were satisfied mainly in the short-term markets.

In 1973, the growth of M_1 moderated while the transactions demands for cash and the turnover of money accelerated. GNP in current dollars rose at a 12 per cent annual rate as prices rose more rapidly. In credit markets, short-term interest rates rose sharply further, while long-term interest rates also moved up, though by substantially less than short-term rates.

The extraordinary upsurge of the price level this year reflects a variety of special influences. First, there has been a world-wide economic boom superimposed on the boom in the United States. Second, we have encountered critical shortages of basic materials. The expansion in industrial capacity needed to produce these materials had not been put in place earlier because of the abnormally low level of profits between 1966 and 1971 and also because of numerous impediments to new investment on ecological grounds. Third, farm product prices escalated sharply as a result of crop failures in many countries last year. Fourth, fuel prices spurted upward, reflecting the developing shortages in the energy field. And fifth, the depreciation of the dollar in foreign exchange markets has served to boost prices of imported goods and to add to the demands pressing on our productive resources.

In view of these powerful special factors, and the cyclical expansion of our economy, a sharp advance in our price level would have been practically inevitable in 1973. The upsurge of the price level this year hardly represents either the basic trend of prices or the response of prices to previous monetary or fiscal policies – whatever their shortcomings may have been. In particular, as the above tables show, the explosion of food prices that occurred this year is in large part responsible for the accelerated rise in the over-all consumer price level.

The severe rate of inflation that we have experienced in 1973 cannot responsibly be attributed to monetary management or to public policies more generally. In retrospect, it may well be that monetary policy should have been a little less expansive in 1972. But a markedly more restrictive policy would have led to a still sharper rise in interest rates and risked a premature ending of the business expansion, without limiting to any significant degree this year's upsurge of the price level.

Concluding Observations

The present inflation is the most serious economic problem facing our country, and it poses great difficulties for economic stabilization policies. We must recognize, I believe, that it will take some time for the forces of inflation, which now engulf our economy and others around the world, to burn themselves out. In today's environment, controls on wages and prices cannot be expected to yield the benefits they did in 1971 and 1972, when economic conditions were much different. Primary reliance in dealing with inflation – both in the near future and over the longer term – will have to be placed on fiscal and monetary policies.

The prospects for regaining price stability would be enhanced by improvements in our monetary and fiscal instruments. The conduct of monetary policy could be improved if steps were taken to increase the precision with which the money supply can be controlled by the Federal Reserve. Part of the present control problem stems from statistical inadequacies – chiefly the paucity of data on deposits at nonmember banks. Also, however, control over the money supply and other monetary aggregates is less precise than it can or should be because nonmember banks are not subject to the same reserve requirements as are Federal Reserve members.

I hope that the Congress will support efforts to rectify these deficiencies. For its part, the Federal Reserve Board is even now carrying on discussions with the Federal Deposit Insurance Corporation about the need for better statistics on the nation's money supply. The Board also expects shortly to recommend to the Congress legislation that will put demand deposits at commercial banks on a uniform basis from the standpoint of reserve requirements.

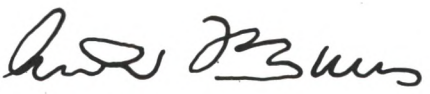
Improvements in our fiscal policies are also needed. It is important for the Congress to put an end to fragmented consideration of expenditures, to place a firm ceiling on total Federal expenditures, and to relate these expenditures to prospective revenues and the nation's economic needs. Fortunately, there is now widespread recognition by members of the Congress of the need to reform budgetary procedures along these broad lines.

It also is high time for fiscal policy to become a more versatile tool of economic stabilization. Particularly appropriate would be fiscal instruments that could be adapted quickly, under special legislative rules, to changing economic conditions – such as a variable tax credit for business investment in fixed capital. Once again, I would urge the Congress to give serious consideration to this urgently needed reform.

We must strive also for better understanding of the effects of economic stabilization policies on economic activity and prices. Our knowledge in this area is greater now than it was five or ten years ago, thanks to extensive research undertaken by economists in academic institutions, at the Federal Reserve, and elsewhere. The keen interest of the Joint Economic Committee in improving economic stabilization policies has, I believe, been an influence of great importance in stimulating this widespread research effort.

I look forward to continued cooperation with the Committee in an effort to achieve the kind of economic performance our citizens expect and deserve.

Sincerely yours,



ARTHUR F. BURNS

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