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Statistical Indicators of Business-Cycle Changes

Among the primary leading indicators of business-cycle changes, revised data for the index of net business formation indicate that this series decreased slightly during December but increased to a record amount during January. This index clearly was expanding cyclically through January. The net change in inventories on hand and on order in constant dollars decreased during January for the sixth consecutive month. However, a decreasing trend of this duration has been accompanied by a business-cycle contraction in only about 40 percent of such postwar instances; therefore, we continue to appraise this series as probably expanding cyclically.

Both new orders for consumer goods and materials in constant dollars and vendor performance increased during February. The 4-month moving average of the new-orders series reached a new cyclical high, and this series remains appraised as expanding cyclically. The increase in vendor performance during February followed five consecutive monthly decreases in this series. We continue to appraise vendor performance as probably contracting cyclically. The inverted layoff rate in manufacturing was unchanged during February, and the cyclical status of this series remains indeterminate.

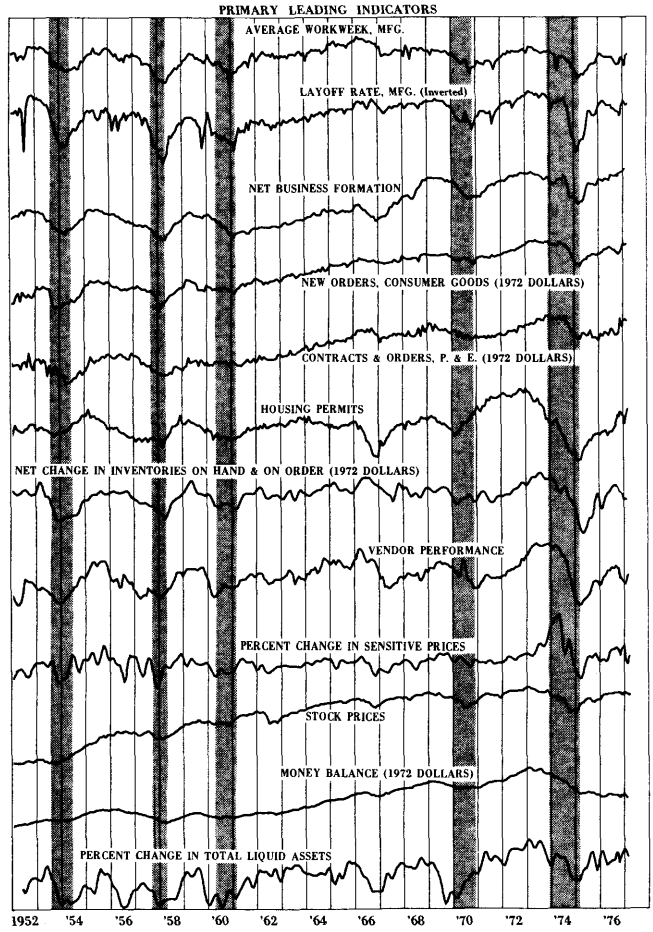
Contracts and orders for plant and equipment in constant dollars, the money supply (M_1) in constant dollars, and the percent change in total liquid assets decreased during February. However, the moving averages of the contracts-and-orders series and the change-in-liquid-assets series were only slightly less than their cyclical highs. We continue to appraise these series as expanding cyclically and probably expanding cyclically, respectively. The "real" money supply decreased during February to an amount little more than that at the cyclical trough of this series in January 1976. The February decrease has left the cyclical status of the "real" money supply indeterminate. This series had been appraised as probably expanding cy-

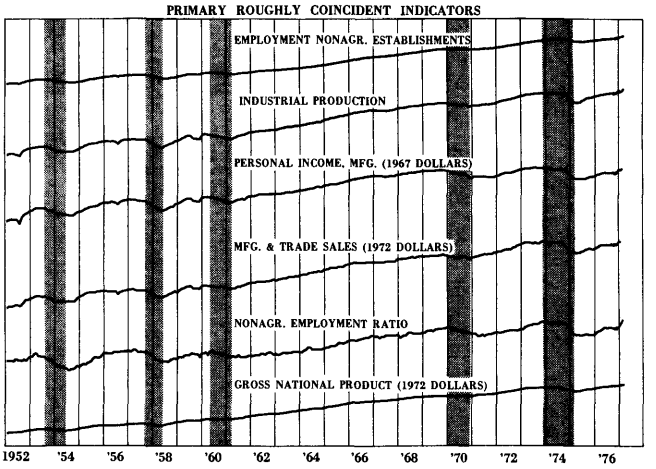
THE STATISTICAL INDICATORS

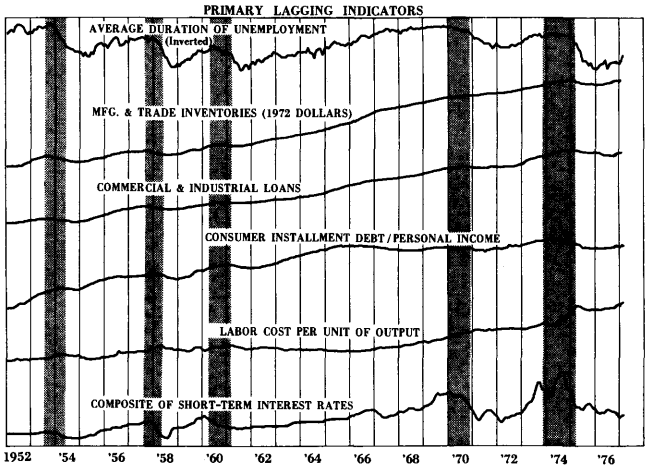
	Direction of Change					*Apparent Cyclical Status*
Primary Leading	*Nov.*	*Dec.*	*Jan.*	*Feb.*	*Mar.*	
Average workweek, mfg.	+	—	—	+	+	?
Layoff rate, mfg.*	+	+	—	nc		?
Net business formation	+	—r	+			+
New orders, con. gds.†	+	+	—	+		+
Contracts & ords. p. & e.†	—	+	+	—		+
Housing permits	+	—	—	+	+	+
Chg. invs., hnd. & ord.†	—	—	—			+?
Vendor performance	—	—	—	+		—?
Chg. in sensitive prices	+	+	—	—	+	+?
Stock prices	—	+	—	—	—	—?
Money balance (M_1)†	—	+	—	—		?
Chg. in liquid assets	+	+	—	—		+?
Percent expanding cyclically						58
Primary Roughly Coincident						
Empl'm't. nonagr. estabs.	+	+	+	+	+	+
Industrial production	+	+	—	+	+	+
Personal income, mfg.†	+	+	—r	+		+
Mfg. & trade sales†	+	+	—			+
Nonagr. employment ratio	+	+	+	+	+	+
Gross national product†q	+	+	+	+	+	+
Percent expanding cyclically						100
Primary Lagging						
Avg. duration of unempl.*	—	—	+	+	+	+
Mfg. & trade inventories†	—	—r	+			+
Com'l & industrial loans	+	+	—	+		+
Cons. instal. debt/per. inc.	—	—	+	—		+?
Labor cost/unit of output	—r	—	+	+		+
Short term int. rates	—	—	+	+	+	+?
Percent expanding cyclically						100

nc No change. r Revised. *Inverted. q Quarterly.
† In constant dollars.

Plus and minus signs indicate, respectively, increases or decreases in monthly or quarterly data and expansions or contractions of each series as currently appraised. Blank spaces indicate data not yet available; question marks indicate doubtful or indeterminate statuses of series.







clically. More comments on the constant-dollar money supply appear later in this report.

The average workweek for a production worker in manufacturing, the index of new housing permits issued, and the percent change in sensitive prices increased during March. Although the 3-month moving average of the workweek series has increased during 5 of the past 6 months, it remains substantially less than the cyclical high reached during January 1976. Consequently, the cyclical status of this series remains indeterminate. The housing-permits series increased substantially during March to a new cyclical high, and this series clearly is expanding cyclically. Although the change-in-sensitive-prices series increased during March, the 4-month moving average of this series decreased for the third consecutive month. However, decreasing trends of this duration have been accompanied by a business-cycle contraction in only about 40 percent of such postwar instances, and we continue to appraise this prices series as probably expanding cyclically.

The index of 500 common stock prices decreased during March, and the 2-month moving average of this series has not exceeded its recent (September 1976) peak. We have appraised this stock-prices series as probably contracting cyclically.

The change in status of the money supply in constant dollars reduced the percentage of primary leaders appraised as expanding cyclically from 67 to 58, or the number so appraised from eight to seven. Only two of the 12 primary leading series (vendor performance and the index of common stock prices) are appraised as probably contracting. The cyclical statuses of the remaining three series are indeterminate.

Coincident and Lagging Series

All of the primary roughly coincident indicators except manufacturing and trade sales in constant dollars increased during the most recent month or quarter for which data are available. Manufacturing and trade sales decreased slightly during January, but the 2-month moving average of this series increased to a cyclical high. Therefore, we appraise manufacturing and trade sales in constant dollars as expanding cyclically. The remaining five coincident series (number of employees in nonagricultural establishments, the index of industrial production, personal income in manufacturing in constant dollars, the nonagricultural employment ratio, and Gross National Product in constant dollars) increased to cyclical highs and clearly are expanding cyclically.

Among the primary lagging indicators, revised and new data for manufacturing and trade inventories in constant dollars indicate that this series decreased, rather than increased, during December and increased during January. Some doubt had arisen last month that this inventories series was expanding cyclically; however, the January increase in this series to a cyclical high removed that doubt. Both commercial and industrial loans and the index of labor cost per unit of output increased to cyclical highs during February, and both are clearly expanding cyclically.

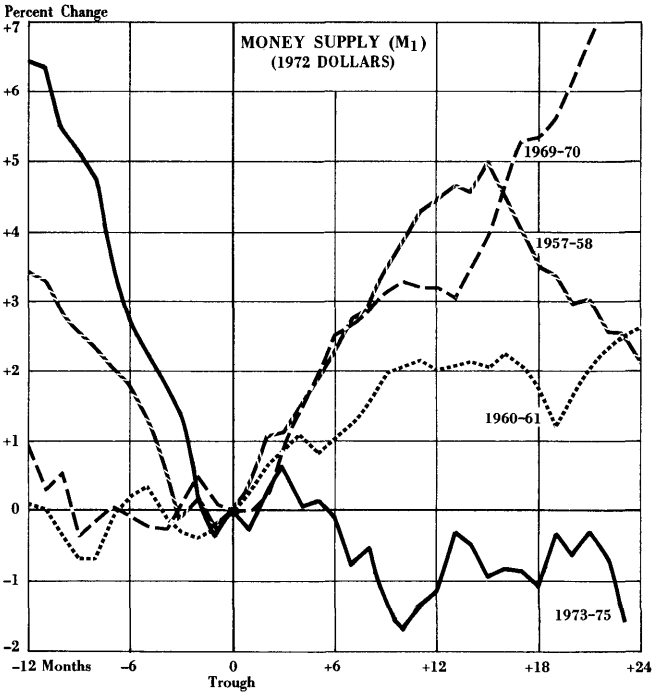
The ratio of consumer installment debt to personal income decreased slightly during February. Although this series generally has trended upward from a cyclical low in October 1975, the increases in the series have been small compared with those during similar periods of other postwar cyclical expansions. The ratio of consumer installment debt to personal income during February was only 1.6 percent more than that during October 1975; whereas, the average increase in this series during similar periods of the other five postwar expansions was 13.4 percent. We appraise this ratio as probably expanding cyclically but note that a moderate decrease would bring this series to a cyclical low.

The inverted average duration of unemployment increased during March to a cyclical high and continued to expand cyclically. The composite of short-term interest rates increased for the third consecutive month during March, and we appraise it as probably expanding cyclically. However, the increases in interest rates have been small, and the series is only slightly above its recent trough. All of the six primary lagging series are appraised as expanding cyclically.

Money Supply

The one primary leading series that thus far has failed to increase substantially from a cyclical trough is the money supply (M_1) in constant dollars. This series increased slightly for 4 months from an apparent trough in February 1975, but it subsequently decreased to a new trough in January 1976. During the following 3 months the real money supply increased substantially; however, it subsequently fluctuated near the larger amount until decreases during January and February 1977 left constant-dollar M_1 only 0.2 percent above the January 1976 trough amount.

The accompanying chart shows the cyclical pattern of constant-dollar M_1 during the most recent four recessions and subsequent expansions. The percent changes were calculated from the amount of M_1 during the month in which general business activity reached a trough. The trough month is indicated by the heavy grid so labeled. Each curve is labeled with the years during which the recession occurred.



The chart clearly reveals a difference in the pattern of constant-dollar M_1 during the current recovery from those during the earlier recoveries shown. During each of the preceding three recoveries, the real money supply reached a trough before the trough in general business activity and then trended upward for at least a year. However, during the current business recovery, this series did not reach a trough until nearly 1 year after the trough in business activity. Moreover, it has increased very little since then. (The money supply, M_1, in current dollars trended upward throughout the most recent recession and the current recovery.) Now that the American public apparently is more aware of inflating and its pernicious consequences, perhaps the former consistent leading relationship between cyclical changes in the real money stock and those in business activity no longer will occur. This is just one more example of the distorting effects of inflating.

That seven of the twelve primary leading indicators apparently are expanding cyclically and only two apparently are contracting suggests that general business activity will continue to expand during the next few months.

FINANCE

FLOW OF FUNDS

Note: All data are seasonally adjusted.

Data recently published by the Federal Reserve Board indicate that total debt in the United States increased $119 billion during the fourth quarter to $4.66 trillion at the end of 1976. This amount was $445 billion, or 10.5 percent, more than that at the end of 1975. These data are shown in Table 1.

Of the total domestic debt outstanding at the end of 1976, $1.82 trillion was owed by financial institutions (consisting of deposits and other fixed-dollar liabilities of the commercial banking system, private nonbank financial institutions, and Federal credit agencies). This amount was $177 billion, or 10.6 percent, more than that a year earlier. Although all classes of borrowers are intermediaries insofar as they regularly lend and borrow, *financial* corporations acquire funds on the basis of their holdings of financial assets (rather than their ability to repay from income or tax receipts). For example, the debts of a savings and loan company (deposits or shares) are ultimately serviced by those who borrow from it. Thus, the debts of domestic *nonfinancial* borrowers may better indicate the burden of debt in the United States than the total, which in a sense involves "double counting." Debts of domestic *nonfinancial* borrowers increased about $69 billion during the fourth quarter of 1976, to $2.85 trillion. This amount was $268 billion, or 10.4 percent, more than that a year earlier. The percent increase in the debts of domestic nonfinancial borrowers during recent years are shown in Table 2.

Debts owed by foreigners to U.S. nationals increased a

Table 1
FLOW OF FUNDS DURING 1976
(Billions of dollars)

	Financial Assets		*Debts Owed*	
Sector	*Acquired in in 1976*	*Holdings on Dec. 31*	*Increase in 1976*	*Outstanding on Dec. 31*
U.S. Government	$26	$148	$76	$537
State & local governments	16	155	19	269
Households & unincorporated businesses	179	2,798*	103	1,093
Business corporations	58	635	70	946
Total nonfinancial	*$279*	*$3,736*	*$268*	*$2,845*
Financial corporations	$234	$2,554*	$177	$1,819
Total domestic	*$513*	*$6,280*	*$445*	*$4,664*
Foreign	$27	$276	$35	$183
Total assets & debts			*$480*	*$4,847*
Claims other than debt				
Insurance and pension reserves			$48	$556*
Equity issues			12	1,017*
International direct investment			6	157
Statistical discrepancy			–6	–21
Total	*$540*	*$6,556*	*$540*	*$6,556*

*These items include valuation of equity holdings at market value; all other items are shown at par or value when issued.

Table 2
DEBTS OF U.S. NONFINANCIAL BORROWERS
(Percent increase during selected years)

	1973	*1974*	*1975*	*1976*
U.S. Government	2.5	3.8	23.3	16.4
State & local gov'ts.	7.9	9.6	7.0	7.7
Total public	4.4	5.9	17.2	13.5
Households*	12.3	6.9	6.8	10.4
Business corps.	10.3	13.2	3.7	8.0
Total private	11.9	9.8	5.3	9.3
Total	10.5	8.8	8.3	10.4

*Includes unincorporated businesses and nonprofit institutions.

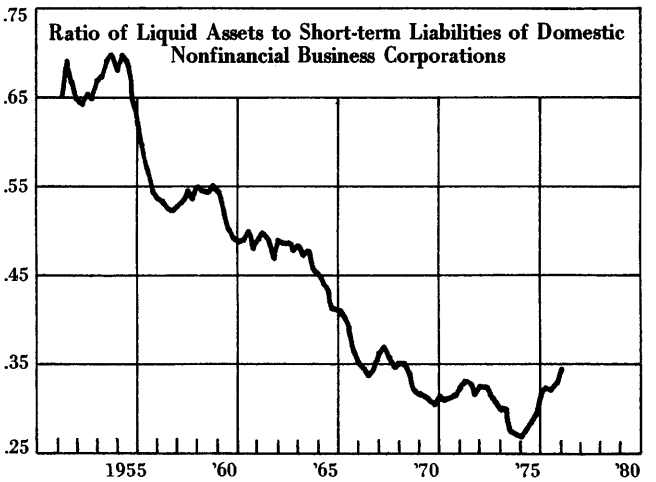
marked 24 percent during 1976, to $183 billion at the end of the year.

The rate of increase of the debts of domestic nonfinancial borrowers during 1976 was nearly equal to the record rate of increase that occurred during 1973, and substantially larger than the 7.3-percent average rate of increase during the period 1952-1976. However, public borrowing, and particularly that of the Federal Government, accounted for a far larger proportion of the 1976 increase than it did during the other years except for 1975.

During 1976 nonfinancial business corporations raised long-term funds (bonds, mortgages, and equities) considerably in excess of their external requirements for capital expenditures. These funds resulted in an improvement in the working capital positions of such corporations. The accompanying chart shows the ratio of liquid assets to short-term liabilities of such corporations for the years 1952-1976. As the chart shows, this measure of corporate liquidity has increased somewhat since reaching a postwar low in the fourth quarter of 1974. It remains to be seen if the managers of such corporations will choose to add to liquidity rather than to increase capital expenditures from their recent relatively low amounts, about 1.2 times replacement-cost depreciation compared with a postwar average of about 1.45.

Debts are not the only financial claims tabulated in the Flow of Funds Accounts. Some flows reported by the Federal Reserve Board are not associated with any fixed-dollar claims between borrowers and lenders. For example, private insurance and pension organizations accumulated about $48 billion in reserves during 1976. These funds are invested in the money and capital markets and, to the extent that they are invested in equities (mostly common stocks), the value of the reserves during a year may change according to market conditions and by more or less than the flow of insurance premiums and pension payments. The market value of private insurance and pension reserves at the end of 1976 was $556 billion, which was $72 billion more than that a year earlier. The increase was attributable to a $48-billion flow of cash and a $24-billion appreciation in the market value of the assets held for reserves. We do not classify these reserves as debt obligations, because the liabilities of such fiduciary organizations are computed actuarially and are not directly related to the annual dollar flow of receipts. That the reserves of pension funds, in particular, are grossly inadequate to cover current actuarially calculated benefits also suggests that the value of reserves is not a measure of debt.

Similarly, equity issues are not debt. During 1976, nonfinancial business corporations issued about $10 billion of new stock (net of retirements), and financial corporations issued about $2 billion. At the end of 1976



the total value of corporate equities was about $1.02 trillion, which was $171 billion, or 19 percent, more than that a year earlier. The 1976 value of corporate equities was about 15 percent less than the record value at the end of 1972.

International direct investment consists of loans made to and equity claims on foreign entities controlled by U.S. corporations or U.S. entities controlled by foreigners. We do not view these flows as debt obligations. At the end of 1976, direct investment by U.S. corporations abroad was about $128 billion, and direct investment by foreigners in U.S. companies then totaled about $29 billion.

The foregoing amounts are shown in Table 1 in the third and fourth columns. The basis of the flow of funds account is that any debt is also the asset of the lender. As discussed above, some funds are used to acquire assets other than debt obligations, and the first column in the table shows the uses of funds by various sectors to acquire *all types* of financial assets during 1976. The second column shows their holdings of financial assets as of the end of the year.

Flow-of-funds data show that the rate of debt accumulation by U.S. nonfinancial sectors accelerated during 1976 to a rate nearly as rapid as those during 1972 and 1973, after having decelerated during 1974 and 1975. Because debt can be financed with saved purchasing media as well as newly created purchasing media, the rate of debt accumulation alone does not determine the rate of inflating. Therefore, one should not conclude that the results of the 1976 debt accumulation will be similar to the events following the rapid accumulation of debt during 1972 and 1973.

PRICES

COMMODITIES PRICES

Index	*1976* *Apr. 12*	*1977* *Apr. 4*	*Apr. 11*
Spot-market, 22 commodities*	520	571	571
Commodity-futures	646	860	897
Steel-scrap	$92.17	$73.17	$72.17
	Apr. 22	*Apr. 14*	*Apr. 21*
Gold	$127.30	$152.05	$148.10

*For the preceding Tuesday.

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