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Analysis of the Economic Recovery

General business activity began to expand cyclically in the spring of 1975 and continued to do so through the first quarter of this year, at least. All *primary roughly coincident* indicators of business-cycle changes have continued thus to expand during recent months. (Such indicators are those economic series whose cyclical timing corresponds closely to that of cycles in general business activity.) Moreover, the apparent cyclical expansion of eight of the twelve *primary leading* indicators suggests that general business activity will continue to expand during the next few months. (Cyclical peaks in these indicators have preceded such peaks in general business activity by an average of about 10 months.)

Two questions seem pertinent at this point: How does the recent recovery of economic activity compare with other post-World War II recoveries? and What implications might differences and similarities between this recovery and others have for the outlook for continued expansion?

To facilitate our analysis we have charted data for five selected series during the most recent recession and recovery and other comparable postwar periods (see the next page). Three of the charts (2, 4, and 5) show the percent change from the level of each series at the preceding peak month of general business activity. Chart 1 shows the monthly net change in annual rates, and Chart 3 shows annual percentage rates.

The point labeled "Trough" on each chart represents the month in which the troughs of general business activity are believed to have occurred. The numbers on the abscissa of each chart represent the number of months before and after each trough of business activity. The National Bureau of Economic Research (NBER) has not yet designated the trough month for the 1973-75 recession. We have tentatively designated March 1975 as that month because it was then that the NBER composite of primary roughly coincident indicators reached a cyclical trough.

Severity of the Recent Recession

One indication of the severity of the recent recession is the magnitude of the reversal in the net change in inventories businesses had on hand and on order (in constant dollars), from large rates of accumulation to record rates of liquidation. (See Chart 1.) The rates at which such inventories were accumulated or liquidated usually has influenced the rate of production. After businessmen have begun to accumulate inventories and to order more goods at accelerating rates, manufacturers usually have stepped up production. Conversely, some time after the accumulation of inventories and orders has begun to diminish, manufacturers usually have reduced production. That the net change in inventories on hand and on order is a primary leading indicator of business-cycle changes, and that industrial production is a primary coincident indicator of such changes, reflect this relationship.

Chart 1 reveals that prior to the most recent business contraction businessmen were accumulating inventories and orders at a near-record annual rate of $21.3 billion in constant dollars. Except for that during the Korean War buildup in 1951, this rate was the largest of any during the post-World War II period.

During 1973 the rate of increase in most prices began to accelerate, and shortages of some items developed. Many businessmen who expected higher prices and further shortages placed orders and accumulated inventories at increasing rates. Some businessmen made purchases and orders not only to meet current and expected sales but also to speculate that the values of their inventories would increase. However, after increases in prices and sales diminished, these businessmen realized that their inventories and orders were excessive.

Late in 1973 and early in 1974, orders for goods were cancelled, and the rate of inventory accumulation diminished. The *liquidation* of inventories on hand and on order (indicated by the portion of the narrower solid line below the zero line in Chart 1) that began during the summer of 1974 accelerated to a postwar record annual rate of 28.1 billion in constant dollars during April 1975. During February 1976, such inventories still were being liquidated but at a smaller rate. Chart 1 reveals that the liquidation of inventories and orders was at a larger rate and for a longer duration during the recent recession than during any previous postwar recession. Much, if not most, of the excess inventory ordered and accumulated during 1973 subsequently was liquidated during 1974, 1975, and early in 1976. Excessive ordering and inventory accumulation has not occurred thus far during the recent expansion. This expansion thus is not now vulnerable to such excesses.

The change in the NBER composite of 4 primary roughly coincident indicators also reflects the severity of the recent recession. This composite reflects changes in industrial production, income, sales, and employment. Chart 2 reveals that the cyclical contraction in this composite was much greater during the recent recession than were such contractions during the preceding two recessions. This recent contraction also was much larger than the average of the contractions during all five preceding post-World War II recessions.*

Note that 12 months after the most recent trough, the composite series still had not reached the preceding cyclical peak. Such peaks were surpassed within 7 months of the troughs of the composite during the other periods shown in Chart 2. The unusual development mentioned above appears to reflect the greater depth of the recent contraction of business activity.

The upward slope of the composite of coincident series

*This "average" was calculated by dropping the highest and lowest figure for each comparable month and taking a mean of the remaining 3 figures.

during the current recovery approximates the slopes during the other periods shown, which suggests that the rates of economic recovery during all periods shown were similar. However, more than 40 years of inflating has fostered major maladjustments in the economy, some of which were reduced but not removed during the recent recession. Some such distortions are reflected in the several financial series discussed below.

Financial Series

Charts 3, 4, and 5 show three *primary lagging* series whose trends during the recent recovery have differed from those during preceding recoveries. These series are a composite of short-term interest rates, commercial and industrial loans, and the ratio of consumer installment debt to personal income. All of them are influenced by the demand for and supply of credit.

Chart 3 reveals several interesting aspects of short-term interest rates. First, short-term interest rates were greater in each succeeding cycle. The following table shows these rates at each postwar cyclical peak.

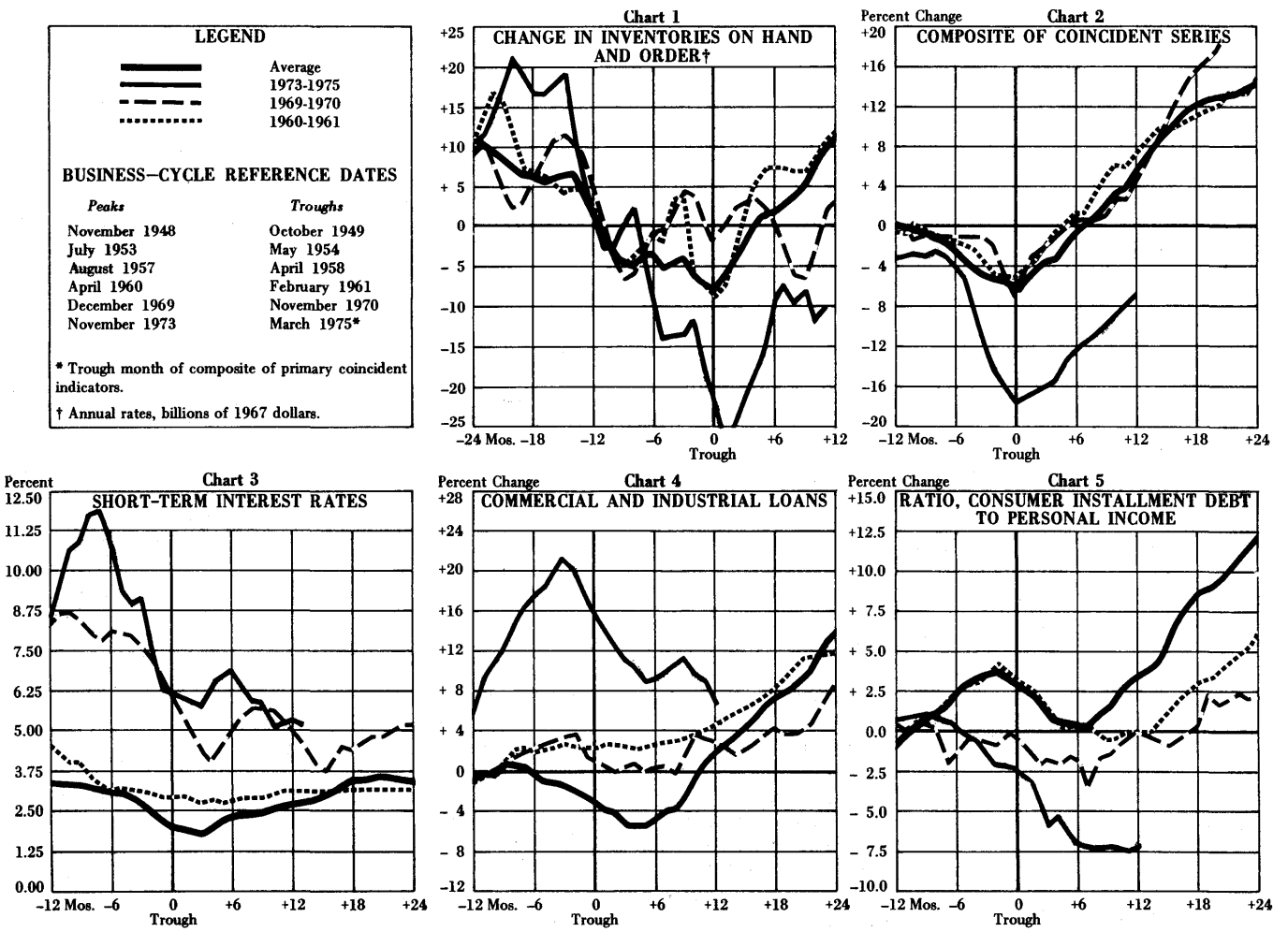
Peak Month		*Composite of Short-Term Interest Rates**
June	1949	1.38
August	1953	2.32
October	1957	3.99
January	1960	4.84
January	1970	8.71
August	1974	11.86

*Percent.

The increasing trend of short-term interest rates reflected the increasing imbalance in the credit markets. Inflating encourages the demand for credit relative to the supply of it, both for short-term and long-term funds. Thus, rates have tended to increase as inflating has continued. Unless deflating continues for several years, the long-term upward trend of interest rates probably will continue.

The second interesting aspect of short-term interest rates is that the magnitude of the cyclical fluctuations in such rates has increased with each succeeding business expansion. Larger fluctuations in interest rates surely disrupt economic activity more than do smaller fluctuations. Debtors can better plan their borrowings and creditors their investments if interest rates fluctuate within a relatively narrow range of one or two percentage points rather than a range of five or six percentage points during a year or so. Chart 3 shows that the latter magnitudes have been common during the most recent two business cycles.

The third aspect is that during those two cycles, short-term interest rates reached a trough much later in the recovery than they had during the other postwar cycles. The average of such rates during the five contractions preceding that of 1973-75 reached a trough 3 months after the trough in general business activity. During the 1969-70 recession, however, the trough of short-term interest rates lagged that of general business activity by 15 months. Whether or not short-term interest rates have reached a cyclical trough in the recent recovery is not now clear. Such rates may have reached a trough during February 1976, 11 months after the trough in the composite of coincident



series. Apparently, the extreme "liquidity squeezes" experienced by debtors during (and reflected in the interest-rate peaks of) 1970 and 1974 required relatively long periods for even partial correction.

The lag of commercial and industrial loans oustanding also has been longer during the recent recovery than during previous recoveries. However, the magnitude of the preceding cyclical expansion in such loans also was greater than such expansions during other similar periods. Note in Chart 4 how much greater the expansion in commercial and industrial loans was before the most recent contraction. In view of that great expansion, a larger "correction" should not be surprising. The most recent data for this series indicate that it still is contracting cyclically. During the time commercial and industrial loans have been decreasing, bankers have been purchasing U.S. Treasury securities. Consequently, the general condition of banks is much improved from that a year or so ago.

The recent trend of the ratio of consumer installment debt to personal income is similar to the trends of short-term interest rates and of commercial and industrial loans. The trough of this ratio has lagged that of general business activity by a longer period of time than did troughs during preceding business cycles. (See Chart 5.) Also, the most recent contraction of this series was of greater magnitude and duration than were such contractions during other postwar business cycles. The ratio of consumer installment debt to personal income increased during March 1976 from what may have been a cyclical trough in the series. However, its cyclical status is indeterminate at this time.

Implications

Although a cyclical expansion of general business activity has been underway for about a year, the series shown in Charts 3, 4, and 5 had not clearly begun to expand by early spring. As we indicated above, lags in these series have been greater than they were during preceding recoveries. One reason for the longer lags might be simply the greater severity of the recent recession. However, that these series did not begin to expand earlier is encouraging, for this suggests that corrections of prior maladjustments have proceeded further than did such corrections during earlier cycles.

The protracted contractions in commercial and industrial loans outstanding and short-term interest rates indicate that the demand for short-term credit has not been excessive recently. During recent months, consumer installment debt outstanding reached record amounts, which might have misled some observers to conclude that the burden of consumer debt had reached record levels. However, such debt in relation to personal income recently was relatively small. Many people were severely "hurt" by the recent recession. Many businesses and banks failed, others nearly did so, the profits of others decreased markedly, and many workers lost their jobs. Perhaps most such businessmen, bankers, employees, and consumers have become more prudent after their recent difficult experience.

That the economy has been expanding for about a year without substantial increases in these financial series has favorable implications for continued economic expansion. We have described often the inflating and other distortions that have occurred during other business expansions during the past 40 years. We have found no evidence to indicate that these developments will be avoided in the future. However, that marked inflating did not occur during the first year of the recent recovery is encouraging.

Unfortunately, there is some evidence that the improvement in these financial series already might have ended. Contrary to the usual implications of upward trends in cyclical indicators, such trends in these series would have adverse implications for a long-continued, sound expansion of business activity. Marked expansions in these series would indicate a return to excessive use of credit at a time when debt burdens remain relatively large. In that event, the recent improvement in the debt situation would be reversed.

A Major Uncertainty

There is at least one "monkey wrench" that might be thrown into the recent expansion. During 1973 Americans experienced "double-digit inflation" for the first time since shortly after the end of World War II. As we mentioned above, the reaction of many businessmen to rapidly rising prices was to purchase and accumulate inventory before prices increased further.

During recent months, price increases have been announced for most major metals, including steel, aluminum, copper, zinc, and lead. The large wage increases recently negotiated by the Teamsters Union probably will foster further price increases. Many other union contracts have expired or will expire this year, including those with the major rubber and automobile producers. New contracts probably will provide large wage increases in most such instances. Disappointing harvests of Russian crops might result in increased demand for U.S. agricultural products and, consequently, increases in food prices.

Will these developments foster more "double-digit inflation"? How would Americans react to another round of rapidly increasing prices? We do not know the answers to these questions, but they probably will be significant for the trend of economic acticity. A "flight from currency" into goods such as that by many businessmen during 1973 presumably would augment the expansion initially. However, the aftermath would be a severe recession like the recent one, and perhaps the depression that seems inevitable after the prolonged inflating of recent decades.

STATISTICAL INDICATORS

Among the primary leading indicators of business-cycle changes, the average workweek for production workers in manufacturing decreased substantially during April. According to a spokesman for the Department of Commerce, this decrease was a statistical anomaly resulting from the collection of April employment data during the week in which Easter and Passover were observed. The index of housing permits decreased during April for the first month since December. Both of these series remain appraised as expanding cyclically, and the percentage of primary leaders so appraised remains at 67.

Industrial production and the nonagricultural employment ratio increased and continued to expand cyclically during April. All six of the primary roughly coincident series appear to be expanding cyclically.

No new data were reported for any of the primary lagging series, 50 percent of which are appraised as expanding cyclically.

The apparent cyclical expansion of two-thirds of the primary leading indicators suggests that general business activity will continue to expand during the next few months.

SUPPLY

INDUSTRIAL PRODUCTION

Production of steel, automobiles, and electric power (1) in the 1- and 4-week periods ended on the indicated dates in the current year and (2) in the corresponding periods of earlier years was as follows:

Steel	*1929*	*1932*	*1973*	*1974*	*1975*	*1976*
Ingots (million tons)						
1 week: May 15	1.35	0.36	2.93	2.87	2.23	2.72
4 weeks: May 15	5.41	1.44	11.90	11.61	9.48	10.81
Automobiles						
Vehicles (thousands)						
1 week: May 15	112	37	214	163	148	193p
4 weeks: May 15	453	131	802	661	580	772p
Electric Power						
Kilowatt-hours (billions)						
1 week: May 15	1.7	1.4	33.5	35.2	33.5	36.0
4 weeks: May 15	6.8	5.8	131.6	135.7	134.2	142.8

Percent change from 4 weeks a year earlier: +6.4

p Preliminary.

DEMAND

RETAIL SALES

Estimates of retail sales during the most recent week and 4 weeks compare with such sales during the corresponding periods a year earlier as follows:

Period	*Percent change*
Week ended May 14	+13
Four weeks ended May 14	+15

BUSINESS

EMPLOYMENT AND UNEMPLOYMENT

Data released by the BLS (Bureau of Labor Statistics) indicate that employment conditions from the point of view of employees continued to improve during April. Improvement was indicated by an increase in the number of persons on non-farm payrolls, and by decreases in the unemployment rates for adult men, married men, white persons, and the long-term unemployed. Deterioration in employment conditions during April was indicated by a small increase in the number of unemployed persons and by increases in the unemployment rates for teenagers and nonwhite persons. Unusually large decreases were reported in the average workweek for production workers in manufacturing and in the average of overtime hours in manufacturing during April. However, according to a Department of Commerce spokesman, these decreases were statistical anomalies arising from the collection of the employment data during the week in which Easter and Passover were observed.

The monthly survey of households conducted by the BLS revealed that the number of employed persons increased 707,000 to 87,399,000 during April. This was 3.1 million more than the number employed a year earlier. The April increase was the sixth consecutive monthly increase in the number of employed persons and the largest monthly increase since January. Adult women accounted for nearly 60 percent of the 2.2-million increase in the number of employed persons during the 6-month period ended in April.

The number of unemployed persons (defined as persons who told interviewers that they had sought but not found employment during the survey period) increased only 13,000 during April to 7,040,000. The BLS also reported that during the first quarter of 1976 the average number of "discouraged" workers (unemployed persons who have ceased looking for employment) totaled 937,000. If such persons were included in the calculation of the number of unemployed, that total for April would have been about 8,000,000 persons. The number of "discouraged" workers has decreased substantially since the third quarter of 1975, when 1,160,000 workers were so classified.

As a result of the changes in the number of employed and unemployed persons during April, the number of persons in the civilian labor force increased 720,000 then to a total of 94,439,000. This number was 60.7 percent of the noninstitutional population ages 16 and over. The rate of participation in the labor force during April has been exceeded only once (in August 1975) in the 30 years that such data have been reported on a comparable basis. These data indicate that during April there were proportionately more persons either employed or searching for employment than at almost any time during the past 30 years.

The total unemployment rate was unchanged at 7.5 percent during April. This was the first month since October (when the unemployment rate was 8.6 percent) during which the total unemployment rate did not decrease. The total unemployment rate (inverted), which formerly was a primary roughly coincident indicator of business-cycle changes, appears to be expanding cyclically.

The nonagricultural employment ratio is a new primary roughly coincident indicator of business-cycle changes. This ratio is the proportion of the working age population that is employed in nonagricultural establishments. The principal advantage of this employment ratio compared with the total unemployment rate is the greater accuracy involved in ascertaining the number of those who are employed rather than the number of those who are unemployed. (To be counted as unemployed, an individual must not only not have worked but also must have sought work during the survey period.) During April, the nonagricultural employment ratio increased to 54.0 percent. This was the fifth consecutive increase in this series, which appears to be expanding cyclically.

Administration economists reportedly were encouraged by the improvement in the employment situation during April. Apparently, the data were more favorable than they had expected. However, several such economists have cautioned that data for subsequent months might not be as favorable because of seasonal adjustment factors.

Employment conditions from the point of view of employees probably will continue to improve during the next few months.

PRICES

COMMODITIES PRICES

Index	*1975 May 10*	*1976 May 3*	*1976 May 10*
Spot-market, 22 commodities*	509	530	529
Commodity-futures	542	668	685
Steel-scrap	$84.17	$86.83	$83.50

*For the preceding Tuesday.

Note: The indexes are, respectively, those of the U.S. Bureau of Labor Statistics, Dow-Jones, and *Iron Age*. The spot-market and futures indexes are converted so that their August 1939 daily averages equal 100. The steel-scrap index is a composite price for No. 1 heavy melting scrap.

PRICE OF GOLD

	1975 May 22	*1976 May 13*	*1976 May 20*
Final fixing in London	$174.75	$127.70	$125.65

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