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Present Conditions of the U.S. Economy in Historical Perspective

by

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1. Introducing the Subject and Approach of this Paper

As this is being written during the summer of 2008, the U.S. economy is widely seen as gripped by a severe financial crisis that began in mid-summer 2007 and is still growing more intense and dangerous. Serious professional observers have publicly compared the situation with past recessions, and even depressions; the extreme impression conveyed by some is that it is the worst time since the Great Depression of the 1930s. Yet economists with specialized training and experience in the subject have still not declared that a recession is underway. Indeed, none is, for the good reason that no cyclical decline in general economic activity (total employment and production, real spending and income) has yet occurred.

Business cycle phases take time and vary in amplitude as well as duration. The data required for their measurement take time to be produced and processed. Appraisals of cyclical business conditions and their revisions, therefore, evolve over time; they are never immediately available or reliably conveyed by popular opinion. All this helps explain the discrepancies between what is told on the (Wall and Main) streets and what eventually becomes accepted knowledge. These discrepancies vary but they seem to have been larger than usual lately, and it is of interest to ask why.

* I am grateful for comments by Ataman Ozyildirim. This paper also benefited greatly from editorial assistance by Andre Therrien as well as from the discussion during The Conference Board staff meeting on July 31, 2008.



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This paper tries to answer the question of where the American economy is today in terms of the history of the observed sequences of business cycle turning points and phases. This is best done with data and methods derived directly from the analysis of modern business cycles.

Decades of post-World War II work in this field at the National Bureau of Economic Research (NBER), in which I was fortunate to participate, produced the identification, dating, and characterization of business cycles in the United States and a number of foreign countries. Among the results of this work was the selection of well-conforming indicators of recessions and recoveries, and their classification into leading, coincident, and lagging. Combining these data into composite indexes and using them in the analysis of current business conditions were further steps. In what follows much the same types of statistical instruments and procedures will be employed for analogous purposes.

Macroeconomic diagnoses that look to the present ought to be in principle much better and more firmly established than macroeconomic prognoses that look into the future. In practice, however, the distinctions between the two are often not so sharp: uncertainty about current events converts statements about them into partial forecasts. Thus, what looks like a cyclical downturn—the start of a recession—may turn out to be an episode hitch—the start of an irregular short-term decline or slowdown. Only more time and evidence will resolve the issue definitively, although additional analysis (e.g., with leading indicators) may help. Our findings suggest that the U.S. economy may be facing such a situation.



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2. What are the Coincident Indicators Telling Us?

Total nonfarm employment, in millions of persons, seasonally adjusted, is a direct measure of a central aspect of aggregate economic activity in the United States. Another is total personal income less transfer payments, in billions of 2000 dollars at seasonally adjusted annual rate. Also important, although of less broad coverage, are the index of industrial production, which shows monthly output in value added terms of manufacturing, mining, and electric and gas utilities. The same applies to total manufacturing and trade (retail and wholesale) in billions of 2000 dollars. These four series are shown for the past half-century (since 1959) in Chart 1. The equally weighted composite of the four, known as the U.S. Coincident Index, is shown as the second curve in Chart 2.

These indicators are called “coincident” (or “roughly coincident”) because they approximately share the same pattern of cyclical timing, which tends to coincide with the U.S. business cycle. That is, they rise in expansions and decline in contractions, and have specific cycle peaks and troughs clustering close around business cycle peaks and troughs, respectively.

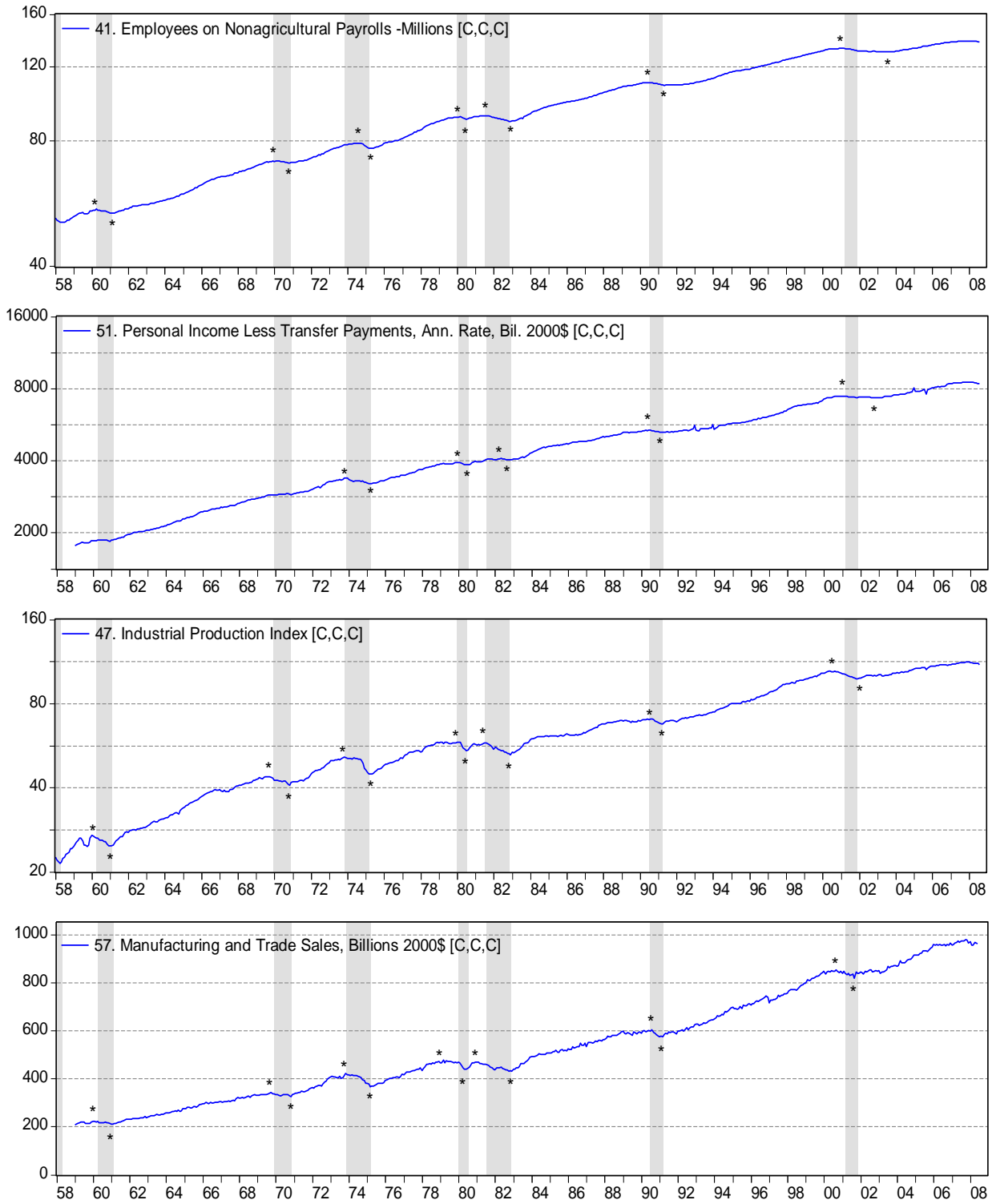
This is well illustrated in Chart 1 through the devices of using shaded columns between the stated dates of business cycle peaks and troughs to mark the recessions. The asterisks used to indicate the specific cycle peaks and troughs in the coincident indicators can be seen to be generally located near where shaded areas start and end.

The coincident indicators collectively are used to identify and date business cycles. The composite index combining the four series shown individually in Chart 1 is shown as the second curve in Chart 2. The numbers attached to it are leads and lags in



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Chart 1
Four U.S. Coincident Indicators, 1959–2008, Monthly



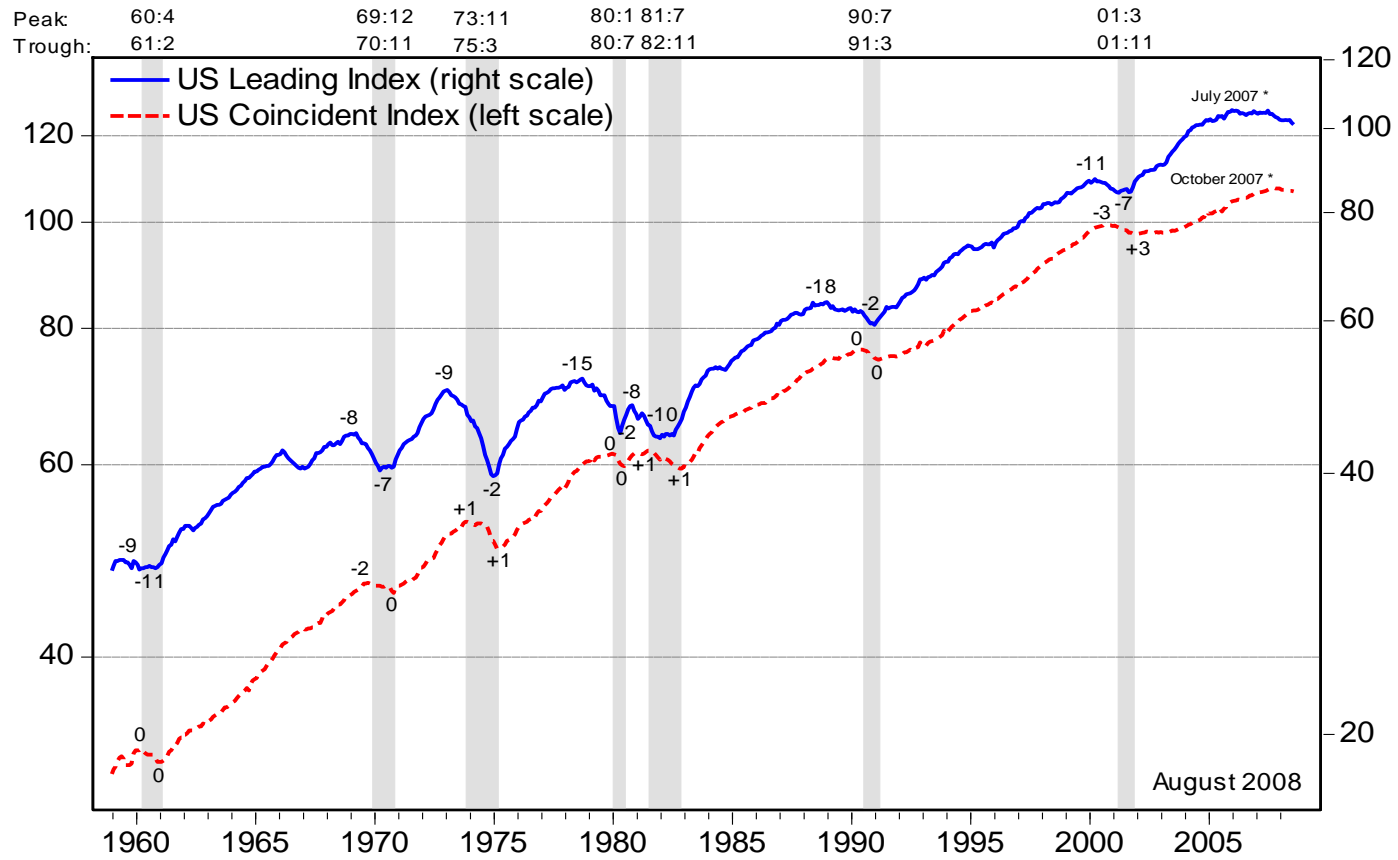
Source: Bureau of Labor Statistics, Bureau of Economic Analysis, Federal Reserve, The Conference Board.



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Chart 2

Composite Indexes of Leading and Coincident Indicators, United States, 1959–2008, Monthly



Source: The Conference Board



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months (marked – and +, respectively) of the U.S. Coincident Index (CEI) at the peaks and troughs of the seven U.S. recessions in the years 1959–2008. At three of these downswings, in 1960–61, 1980, and 1990–91, the timing of the index was perfectly coincident (0); at two others, in 1973–75 and 1981–82, it consisted of single month lags (+1); and at the remaining two, in 1969–70, and 2001, it has included short leads (-2, -3).

Table 1 provides the detail of the cyclical timing for the U.S. Coincident Index and its four components. These measures confirm the result to be expected: comprehensive aggregates of national employment, production, real income and real sales have similar cyclical movements that define the expansions and contractions of the (secularly growing) economy.¹

The 2001 decline in the coincident indicators and their composite index was the seventh recession in the last half-century and the tenth recession following World War II.² The expansion that ensued, while relatively moderate, continued steadily through early 2008 but may have reached a temporary high in October 2007 (see the asterisk in Chart 2).

3. What the Leading Indicators are Telling Us

The latest decline in the CEI, the broad measure of current economic activity, is so far too short and too small to help us forecast its own future. It may be followed by a significant contraction, which would amount to another recession, or by a renewed expansion, which would mean a rare success indeed, that this time somehow a macroeconomic downturn had, at least temporarily, been avoided or averted. Either

¹ On the technical details of how the indicators and composite indexes are constructed, see *Business Cycle Indicators Handbook*, The Conference Board, December 2000.

² Prior to 1960–61, the U.S. economy suffered peacetime recessions in Nov. 1948–Oct. 1949, July 1953–May 1954, and Aug. 1957–Apr. 1958.



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Table 1
Coincident Index Cyclical Timing and Its Four Components

Turning Points for U.S. Business Cycles	Employees on nonagricultural payrolls	Industrial production	Personal income less transfer payments	Manufacturing and trade sales	Coincident Index
Timing at Business Cycle Peaks					
Apr-60	0	-3	miss	-3	0
Dec-69	+3	-2	miss	-2	-2
Nov-73	+8	0	0	0	+1
Jan-80	+2	+1	0	-10	0
Jul-81	0	+1	+10	-6	+1
Jul-90	-1	+2	0	+1	0
Mar-01	-1	-9	0	-6	-3
Extra Turns	0	1	0	0	0
Missed Turns	1	0	2	0	0
Mean	1.6	-1.4	2.0	-3.7	-0.4
Median	0.0	0.0	0.0	-3.0	0.0
St. Deviation	3.2	3.8	4.5	3.9	1.5
Timing at Business Cycle Troughs					
Feb-61	0	0	miss	-1	0
Nov-70	0	0	miss	0	0
Mar-75	+1	+2	+1	0	+1
Jul-80	0	0	0	-1	0
Nov-82	+1	+1	-1	+1	+1
Mar-91	+2	0	-1	-2	0
Nov-01	+21	+1	+11	-2	+3
Extra Turns	0	1	0	1	0
Missed Turns	0	0	2	0	0
Mean	3.6	0.6	2.0	-0.7	0.7
Median	1.0	0.0	0.0	-1.0	0.0
St. Deviation	7.7	0.8	5.1	1.1	1.1
Combined Statistics					
Mean	2.6	-0.5	2.0	-2.2	0.1
Median	0.5	0.0	0.0	-1.0	0.0
St. Deviation	5.8	2.9	4.5	3.3	1.4

Source: The Conference Board



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outcome is consistent with the long history of observed coincident indicators and indexes, which contain many cyclical declines but also many shorter and smaller slips and slowdowns.

Bringing in the leading indicators is more helpful. The first curve in Chart 2 represents the composite leading index (LEI) based on the 10 series presented individually in Chart 3. The LEI had specific cycle peaks and troughs preceding the peaks and troughs in the CEI on each occasion. The leads varied from eight to 18 months at recessions and from two to 11 months at recoveries. Table 2 contains a complete detailed list of the related timing measures. Much longer lists for many countries are found in the literature.³

Chart 2 makes it clear that the LEI has, indeed, ceased rising in 2006/07 and started declining in the second half of 2007—thus leading the latest high in the CEI by a few months. Slowdowns in the CEI, such as those in 1966, 1985 and 1994, were also anticipated by interruptions of growth or episodic declines in the LEI, but these were generally less marked than those that occurred prior to business cycle peaks.

4. Opinions and Inferences

The prevailing view of current economic conditions is unusually negative because it is dominated by uniquely adverse and novel events and tendencies, which moreover cumulate and interact in new ways. Foremost among them is the crisis in housing: the downturn and continuing decline in home prices and construction. Closely related is the crisis in finance due to the spread of losses in wealth, spending, income, and credit. The

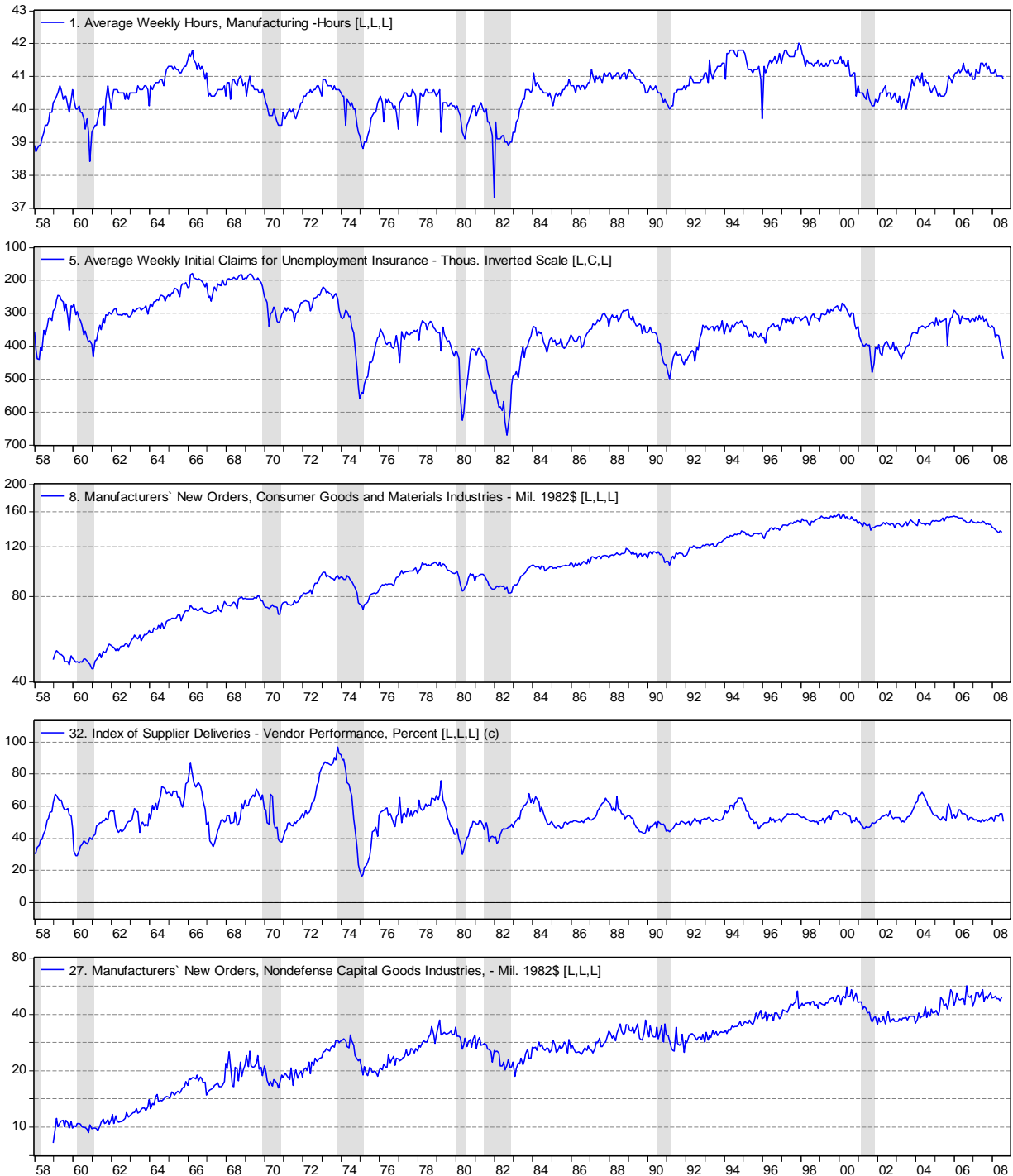
³ See Victor Zarnowitz, *Business Cycles: Theory, History, Indicators and Forecasting*, University of Chicago Press, 1992.



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Chart 3

Ten U.S. Leading Indicators, 1959–2008, Monthly



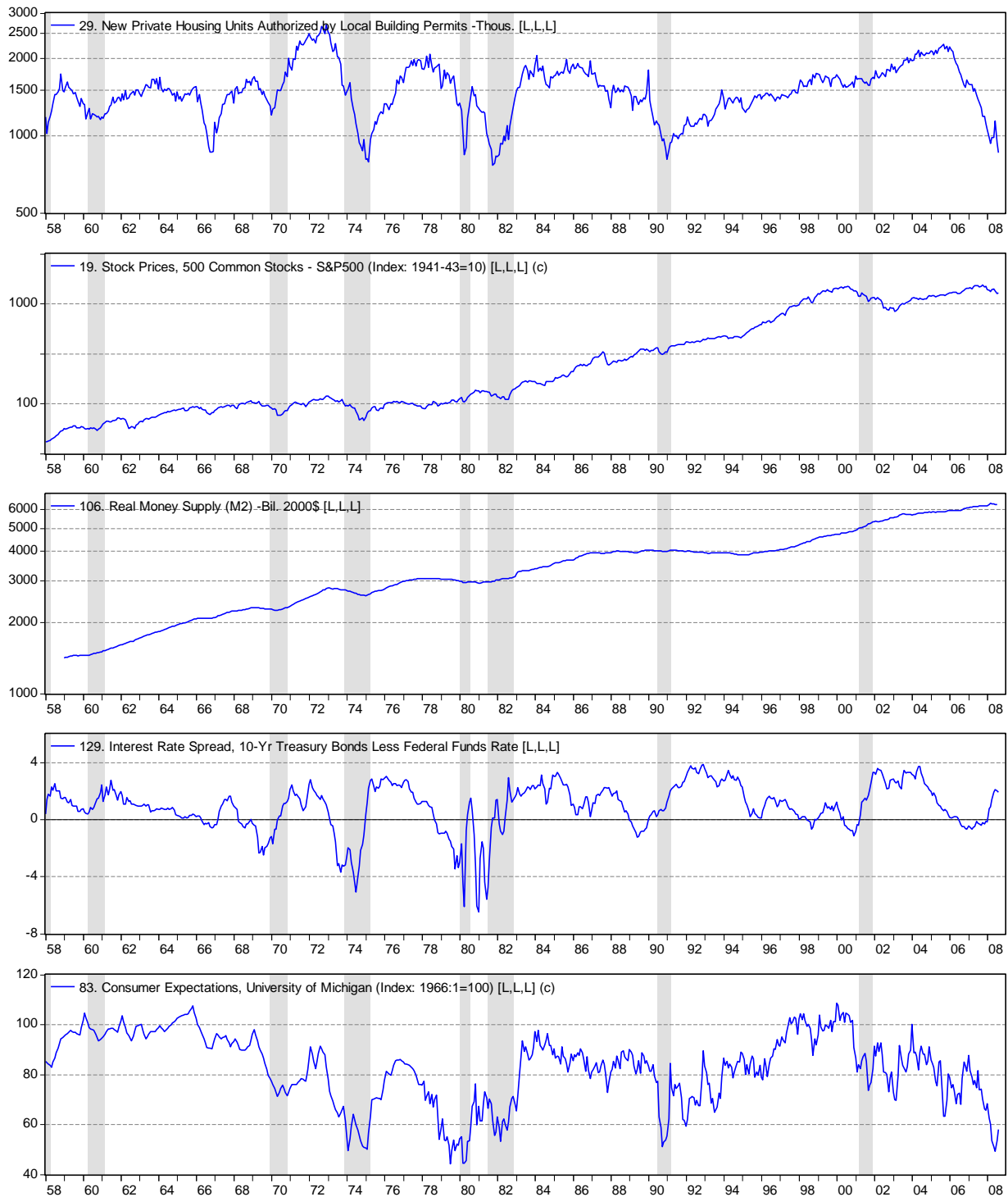
Source: U.S. Census Bureau, Bureau of Labor Statistics, Bureau of Economic Analysis, Institute for Supply Management (ISM), The Conference Board.

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Chart 3 (Continued)



Source: Federal Reserve, U.S. Census Bureau, Standard & Poor's Corporation, University of Michigan's Survey Research Center, The Conference Board.

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Table 2
Leading Index Cyclical Timing and its Ten Components

	Average weekly hours, manufacturing	Avg. weekly initial claims for unempl. insurance	Mfrs' new orders, consumer goods and materials	Vendor performance, slower deliveries diffusion index ©	Mfrs' new orders, non-defense capital goods	Building permits, new private housing units	Stock prices, S&P 500 ©	Money Supply M2	Cumulative yield spread, 10-yr Treasury bonds less fed. funds	Index of consumer expectations ©	Leading Index
Business Cycle Peaks											
Apr-60	-11	-12	miss	-14	miss	-17	-9	miss	miss	-2	-9
Dec-69	-14	-7	-3	-4	-8	-10	-12	-10	-17	-10	-8
Nov-73	-9	-9	-8	0	8	-11	-10	-10	-9	-15	-9
Jan-80	-19	-21	-10	-9	-10	-29	miss	-24	-17	-38	-15
Jul-81	-2	-4	-1	-3	miss	-10	-8	miss	miss	-2	-8
Jul-90	-17	-18	-19	1	-7	-21	miss	-7	-19	-18	-18
Mar-01	-13	-12	-14	-16	-9	-27	-7	miss	-10	-14	-11
Mean	-12.1	-11.9	-9.2	-6.4	-5.2	-17.9	-9.2	-12.8	-14.4	-14.1	-11.1
Median	-13.0	-12.0	-9.0	-4.0	-8.0	-17.0	-9.0	-10.0	-17.0	-14.0	-9.0
St. Deviation	5.6	6.0	6.7	6.7	7.5	8.1	1.9	7.6	4.6	12.2	3.9
Extra Turns ^b	7	6	5	10	4	6	4	2	3	10	1
Missed Turns ^c	0	0	1	0	2	1?	2	3	2	0	0
Business Cycle Troughs											
Feb-61	-2	0	-1	-11	miss	-2	-4	miss	miss	-3	-11
Nov-70	1	-1	0	1	-1	-10	-5	-7	-6	-6	-7
Mar-75	0	-2	0	-1	9	0	-3	-2	-3	-1	-2
Jul-80	0	-2	-2	-2	miss	-3	miss	7	miss	-4	-2
Nov-82	-1	-2	-1	-8	3	-13	-4	miss	-13	-8	-10
Mar-91	0	0	0	0	3	-2	miss	-4	-14	-5	-2
Nov-01	0	-1	-2	-6	7	-16	15	miss	-8	-2	-7
Mean	-0.3	-1.1	-0.9	-3.9	4.2	-6.6	-0.2	-1.5	-8.8	-4.1	-5.9
Median	0.0	-1.0	-1.0	-2.0	3.0	-3.0	-4.0	-3.0	-8.0	-4.0	-7.0
St. Deviation	1.0	0.9	0.9	4.5	3.9	6.3	8.5	6.0	4.7	2.4	3.9
Extra Turns ^b	7	6	5	10	3	6	4	2	3	9	1
Missed Turns ^c	0	0	0	0	2	1?	2	3	2	0	0
Mean	-6.2	-6.5	-4.7	-5.1	-0.5	-12.2	-4.7	-7.1	-11.6	-9.1	-8.5
Median	-2.0	-3.0	-2.0	-3.5	1.0	-10.5	-6.0	-7.0	-11.5	-5.5	-8.5
St. Deviation	7.3	6.9	6.0	5.7	6.2	9.1	6.6	8.8	5.3	9.9	4.6

a Series shows no clear specific-cycle peak in 1959, the first year for which the data are available.
b Cyclical turning points in the series with no business cycle counterparts.
c Business cycle turns not matched by the series (as identified by the entries "miss" above).

Source: The Conference Board

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extreme manifestations of the crisis are home foreclosures and losses, huge write-offs of financial institutions that made bad loans and were forced to tighten credit and those that barely averted failures.

The housing and financial crises have certainly new elements of major importance. Home ownership has long been a major source of consumer wealth in the United States and home prices were always expected to rise, not fall. But the very novelty of these factors makes it difficult to rely on them in answering questions that inherently require historical comparisons (e.g., “Are we in a situation comparable to the recessions of the past?”). This paper approached this question by using the same data and procedures that helped NBER and other researchers to answer the same question in the past.

This does not mean, of course, that the new elements in the situation are disregarded. The cyclical indicators in use cover a wide range of sectors and processes. Note, for example, that the inclusion of building permits for new private housing units, manufacturers’ new orders, and consumer expectations together account for most of the large decline in the Leading Index. The sudden rise in the interest rate spread needs stressing, too.

What the time-honored indicator approach aims at is simply to give proper representations to a variety of factors at work in a time framework that applies sequences of business cycle phases and turns. In the current context, the incipient decline in the CEI and its components is likely to turn into a longer decline as foreshadowed by the recent weakness in the LEI and its components. The adversity of current expectations is already contributing to this result.



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Last but not least, the current situation is substantially aggravated by rising inflation concentrated in prices of commodities – oil, metals, and food. Reminiscent of the 1970’s, though not as bad yet, this greatly complicates the task of countercyclical policies. It also reminds us of the failures of the recent policy of holding the short-term interest rates too low, for too long.

About the Author

Victor Zarnowitz, Ph.D., one of the world’s leading scholars on business cycles, indicators, and forecast evaluation, is Senior Fellow and Economic Counselor to The Conference Board. He is Professor Emeritus of Economics and Finance, Graduate School of Business, The University of Chicago, and Research Associate, National Bureau of Economic Research (NBER).

Zarnowitz has been with NBER since 1952. He has lectured at major universities, including the universities of Munich, Zurich, Columbia, Stanford, and others. He was co-editor of the *Journal of Business, Economic Forecasts*, and the ASA-NBER *Quarterly Survey of Economic Outlook*.

Zarnowitz earned his Ph.D. in economics (summa cum laude) at the University of Heidelberg (Germany) in 1951. He is Fellow of the National Association of Business Economists, Fellow of the American Statistical Association, Honorary Fellow of the International Institute of Forecasters, and Honorary Member of the Center for International Research on Economic Tendency Surveys (CIRET). In 2001, he received the William F. Butler Memorial Award from the New York Association for Business Economists.

Zarnowitz's numerous papers and books include *An Appraisal of Short-Term Economic Forecasts* (1967), *The Business Cycle Today* (1972), *Orders, Production, and Investment* (1973), and *Business Cycles: Theory, History, Indicators, and Forecasting* (1992). His most recent papers are "Has the Business Cycle Been Abolished?" (1998), "Theory and History Behind Business Cycles" (1999), "The Old and the New in U.S. Economic Expansion" (2000), "Time Series Decomposition and Measurement of Business Cycles, Trends and Growth Cycles" (2006), and "A More Timely and Useful Index of Leading Indicators" (2007). At The Conference Board, Zarnowitz is an advisor to its economic research and its ongoing work on business cycle theory and history.

Most recently, Zarnowitz published his autobiography, *Fleeing the Nazis, Surviving the Gulag, and Arriving in the Free World: My Life and Times*, in August 2008 with Greenwood Publishing Group, Inc. The book is one part a historical recount of his experiences and one part a reflection on the political and economic influences that made him the man he is today.