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COMPOSITE INDEXES OF LEADING, COINCIDENT, AND LAGGING
INDICATORS: SEPTEMBER 1982

The composite index of leading indicators increased 0.5 percent in September to a level of 130.4 (1967=100), according to preliminary data released today by the Commerce Department's Bureau of Economic Analysis. On the basis of more complete data, the index decreased 0.2 percent in August and increased 1.2 percent in July. A month ago, the Bureau reported preliminary estimates that showed the index decreased 0.9 percent in August. Change in inventories on hand and on order was the major contributor to the August revision.

Five of ten indicators available for September contributed to the increase in the index: manufacturers' new orders for consumer goods and materials in 1972 dollars, contracts and orders for plant and equipment in 1972 dollars, building permits, stock prices, and money supply in 1972 dollars. Stock prices contributed the greatest increase.

Four of ten contributed declines: average workweek; initial claims for state unemployment insurance; change in sensitive crude materials prices -- Producer Price Index (the weighted 4-month moving average of the monthly changes had a negative effect on the index even though sensitive prices increased in September); and change in total liquid assets (the weighted 4-month moving average of the monthly changes had a negative effect on the index as total liquid assets increased at a declining rate in September). Average workweek contributed the greatest decline.

One indicator was unchanged: vendor performance (i.e., companies receiving slower deliveries from vendors).

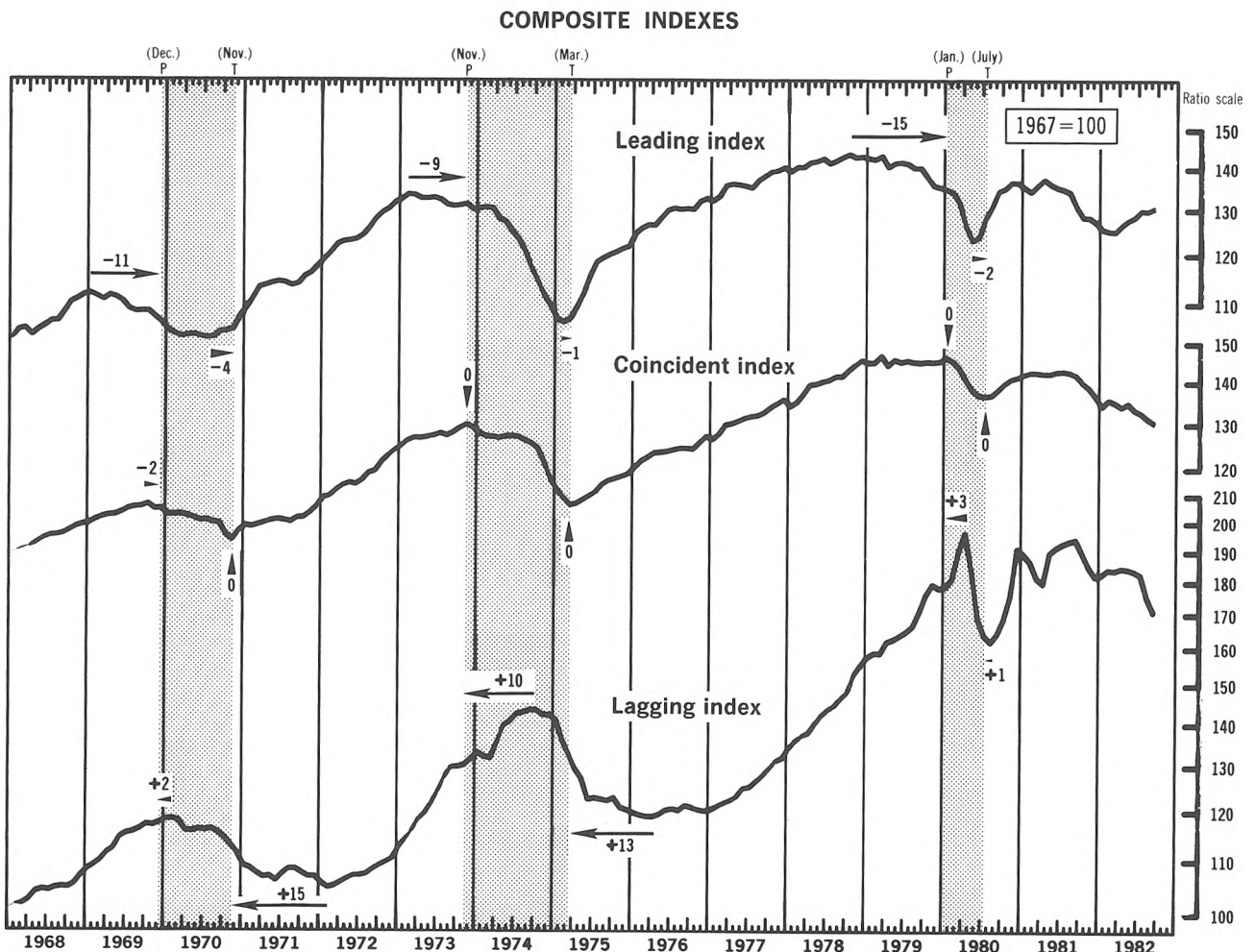
The composite index of coincident indicators, which is a monthly approximation of aggregate economic activity, decreased 0.8 percent in September to a level of 130.3 (1967=100). On the basis of more complete data, the index decreased 1.0 percent in August and decreased 0.5 percent in July.

The composite index of lagging indicators decreased 2.6 percent in September to a level of 170.6 (1967=100). On the basis of more complete data, the index decreased 3.9 percent in August and decreased 0.7 percent in July.

The leading index is designed to predict monthly movements in aggregate economic activity, which is approximated by the coincident index. The lagging index is expected to move, after a time lag, in the same direction as the coincident index and thus to confirm the movements in the coincident index. These concepts are explained more fully in the Handbook of Cyclical Indicators, a supplement to Business Conditions Digest (BCD), available from the Superintendent of Documents at the price of \$4.50.

More data on the composite indexes, as well as other important measures of economic activity, appear in BCD. It is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Annual subscription: \$55.00.

Next release date: November 30 for the October composite indexes.



NOTE: P (peak) indicates the end of general business expansion and the beginning of recession; T (trough) indicates the end of general business recession and the beginning of expansion. Thus, the shaded areas represent recessions. The numbered arrows indicate the length of leads (-) and lags (+), in months, from business cycle turning dates.

Table 1. Composite Indexes of Leading, Coincident, and Lagging Indicators

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	IQ	IIQ	IIIQ	IVQ
Leading index (1967=100)																
1973	132.3	133.4	133.2	132.4	132.4	132.6	132.1	130.9	130.6	130.8	131.1	129.8	133.0	132.5	131.2	130.6
1974	130.1	130.4	130.1	127.7	127.0	124.9	123.2	120.5	116.9	114.2	111.3	109.2	130.2	126.5	120.2	111.6
1975	106.9	106.4	107.1	109.4	111.9	115.5	118.3	119.2	119.9	120.5	121.2	121.7	106.8	112.3	119.1	121.1
1976	124.5	125.7	126.4	126.3	128.0	129.7	130.2	129.9	130.1	129.9	131.8	132.5	125.5	128.0	130.1	131.4
1977	131.9	133.0	135.6	136.0	135.8	135.5	135.0	136.9	138.0	139.1	139.4	140.2	133.5	135.8	136.6	139.6
1978	139.1	140.3	140.3	141.5	141.8	142.5	141.2	142.0	142.9	143.6	142.8	143.0	139.9	141.9	142.0	143.1
1979	142.6	142.3	143.2	140.3	141.4	141.6	141.2	140.1	140.1	137.8	135.6	135.2	142.7	141.1	140.5	136.2
1980	134.7	134.1	131.5	126.2	123.0	123.9	128.1	130.7	134.4	135.0	136.5	136.4	133.4	124.4	131.1	136.0
1981	135.2	134.2	135.8	137.3	136.0	135.2	134.8	134.1	130.7	128.3	128.2	127.2	135.1	136.2	133.2	127.9
1982	125.7	125.2	125.1	126.6	127.7	r128.4	r129.9	r129.7	p130.4				125.3	r127.6	p130.0	
Leading index--percent change from preceding month (quarter)																
1973	0.5	0.8	-0.1	-0.6	0.0	0.2	-0.4	-0.9	-0.2	0.2	0.2	-1.0	2.1	-0.4	-1.0	-0.5
1974	0.2	0.2	-0.2	-1.8	-0.5	-1.7	-1.4	-2.2	-3.0	-2.3	-2.5	-1.9	-0.3	-2.8	-5.0	-7.2
1975	-2.1	-0.5	0.7	2.1	2.3	3.2	2.4	0.8	0.6	0.5	0.6	0.4	-4.3	5.1	6.1	1.7
1976	2.3	1.0	0.6	-0.1	1.3	1.3	0.4	-0.2	0.2	-0.2	1.5	0.5	3.6	2.0	1.6	1.0
1977	-0.5	0.8	2.0	0.3	-0.1	-0.2	-0.4	1.4	0.8	0.8	0.2	0.6	1.6	1.7	0.6	2.2
1978	-0.8	0.9	0.0	0.9	0.2	0.5	-0.9	0.6	0.6	0.5	-0.6	0.1	0.2	1.4	0.1	0.8
1979	-0.3	-0.2	0.6	-2.0	0.8	0.1	-0.3	-0.8	0.0	-1.6	-1.6	-0.3	-0.3	-1.1	-0.4	-3.1
1980	-0.4	-0.4	-1.9	-4.0	-2.5	0.7	3.4	2.0	2.8	0.4	1.1	-0.1	-2.1	-6.7	5.4	3.7
1981	-0.9	-0.7	1.2	1.1	-0.9	-0.6	-0.3	-0.5	-2.5	-1.8	-0.1	-0.8	-0.7	0.8	-2.2	-4.0
1982	-1.2	-0.4	-0.1	1.2	0.9	0.5	1.2	r-0.2	p0.5				-2.0	1.8	p1.9	
Coincident index (1967=100)																
1973	124.8	126.1	126.7	126.6	126.9	127.2	127.7	127.2	127.9	128.9	129.7	129.0	125.9	126.9	127.6	129.2
1974	127.7	127.0	126.9	126.6	127.0	127.1	126.9	126.1	125.4	124.2	121.2	117.7	127.2	126.9	126.1	121.0
1975	115.4	113.7	112.3	112.6	113.4	114.2	115.1	116.7	117.5	117.9	118.4	118.9	113.8	113.4	116.4	118.4
1976	120.3	121.6	122.4	123.3	123.4	123.6	124.0	124.3	124.3	124.1	125.6	127.1	121.4	123.4	124.2	125.6
1977	126.3	127.6	129.7	130.0	130.6	131.3	131.7	131.9	132.6	133.8	134.7	135.7	127.9	130.6	132.1	134.7
1978	134.0	135.0	136.9	139.3	139.5	140.1	140.5	141.4	141.4	143.0	144.3	145.5	135.3	139.6	141.1	144.3
1979	144.8	144.9	146.6	144.1	145.6	145.0	145.4	145.0	144.9	145.1	145.0	145.2	145.4	144.9	145.1	145.1
1980	146.1	145.2	143.5	140.5	138.0	136.7	136.5	136.7	138.1	139.7	140.8	141.3	144.9	138.4	137.1	140.6
1981	142.0	142.5	142.4	142.2	142.2	142.7	142.8	142.5	141.8	139.9	138.5	136.5	142.3	142.4	142.4	138.3
1982	134.1	135.7	135.0	134.0	134.9	r133.3	r132.6	r131.3	p130.3				134.9	r134.1	p131.4	
Coincident index--percent change from preceding month (quarter)																
1973	0.7	1.0	0.5	-0.1	0.2	0.2	0.4	-0.4	0.6	0.8	0.6	-0.5	2.7	0.8	0.6	1.3
1974	-1.0	-0.5	-0.1	-0.2	0.3	0.1	-0.2	-0.6	-0.6	-1.0	-2.4	-2.9	-1.5	-0.2	-0.6	-4.0
1975	-2.0	-1.5	-1.2	0.3	0.7	0.7	0.8	1.4	0.7	0.3	0.4	0.4	-6.0	-0.4	2.6	1.7
1976	1.2	1.1	0.7	0.7	0.1	0.2	0.3	0.2	0.0	-0.2	1.2	1.2	2.5	1.6	0.6	1.1
1977	-0.6	1.0	1.6	0.2	0.5	0.5	0.3	0.2	0.5	0.9	0.7	0.7	1.8	2.1	1.1	2.0
1978	-1.3	0.7	1.4	1.8	0.1	0.4	0.3	0.6	0.0	1.1	0.9	0.8	0.4	3.2	1.1	2.3
1979	-0.5	0.1	1.2	-1.7	1.0	-0.4	0.3	-0.3	-0.1	0.1	-0.1	0.1	0.8	-0.3	0.1	0.0
1980	0.6	-0.6	-1.2	-2.1	-1.8	-0.9	-0.1	0.1	1.0	1.2	0.8	0.4	-0.1	-4.5	-0.9	2.6
1981	0.5	0.4	-0.1	-0.1	0.0	0.4	0.1	-0.2	-0.5	-1.3	-1.0	-1.4	1.2	0.1	0.0	-2.9
1982	-1.8	1.2	-0.5	-0.7	0.7	r-1.2	r-0.5	r-1.0	p-0.8				-2.5	r-0.6	p-2.0	
Lagging index (1967=100)																
1973	112.5	114.2	115.9	118.2	119.5	121.7	124.4	127.4	129.6	129.6	130.0	131.5	114.2	119.8	127.1	130.4
1974	132.9	131.8	131.5	135.5	139.4	140.4	142.2	142.6	143.2	143.1	141.9	141.9	132.1	138.4	142.7	142.3
1975	140.6	135.9	132.4	129.0	126.9	122.4	122.7	122.4	122.1	122.7	120.6	120.1	136.3	126.1	122.4	121.1
1976	119.5	119.0	118.7	118.7	119.2	120.1	120.4	120.0	121.1	120.7	120.2	119.9	119.1	119.3	120.5	120.3
1977	120.2	121.0	121.7	122.3	123.1	125.0	125.2	126.5	127.8	129.4	131.1	131.7	121.0	123.5	126.5	130.7
1978	134.1	135.9	137.2	137.8	140.0	142.0	143.5	144.5	146.4	148.1	152.7	155.2	135.7	139.9	144.8	152.0
1979	157.4	158.5	158.4	161.8	162.5	163.6	164.8	166.4	170.6	175.9	179.1	177.9	158.1	162.6	167.3	177.6
1980	178.4	180.8	190.0	196.2	183.5	168.5	163.6	161.7	164.2	168.5	175.6	191.0	183.1	182.7	163.2	178.4
1981	189.1	186.5	181.2	179.4	189.6	191.4	192.6	193.5	194.1	189.5	184.9	181.7	185.6	186.8	193.4	185.4
1982	182.3	184.0	183.7	184.5	184.2	r183.5	r182.3	r175.1	p170.6				183.3	184.1	p176.0	
Lagging index--percent change from preceding month (quarter)																
1973	2.1	1.5	1.5	2.0	1.1	1.8	2.2	2.4	1.7	0.0	0.3	1.2	4.3	4.9	6.1	2.6
1974	1.1	-0.8	-0.2	3.0	2.9	0.7	1.3	0.3	0.4	-0.1	-0.8	0.0	1.3	4.8	3.1	-0.3
1975	-0.9	-3.3	-2.6	-2.6	-1.6	-3.5	0.2	-0.2	-0.2	0.5	-1.7	-0.4	-4.2	-7.5	-2.9	-1.1
1976	-0.5	-0.4	-0.3	0.0	0.4	0.8	0.2	-0.3	0.9	-0.3	-0.4	-0.2	-1.7	0.2	1.0	-0.2
1977	0.3	0.7	0.6	0.5	0.7	1.5	0.2	1.0	1.0	1.3	1.3	0.5	0.6	2.1	2.4	3.3
1978	1.8	1.3	1.0	0.4	1.6	1.4	1.1	0.7	1.3	1.2	3.1	1.6	3.8	3.1	3.5	5.0
1979	1.4	0.7	-0.1	2.1	0.4	0.7	0.7	1.0	2.5	3.1	1.8	-0.7	4.0	2.8	2.9	6.2
1980	0.3	1.3	5.1	3.3	-6.5	-8.2	-2.9	-1.2	1.5	2.6	4.2	8.8	3.1	-0.2	-10.7	9.3
1981	-1.0	-1.4	-2.8	-1.0	5.7	0.9	0.6	0.5	0.3	-2.4	-2.4	-1.7	4.0	0.6	3.5	-4.1
1982	0.3	0.9	-0.2	0.4	-0.2	r-0.4	r-0.7	r-3.9	p-2.6				-1.1	0.4	p-4.4	

p, preliminary. r, revised.

NOTE: Quarterly data are averages of monthly figures. Quarterly percent changes are computed from quarterly data. See table 2 for composition of the indexes.

Table 2. Net Contributions of the Individual Components to the Leading, Coincident, and Lagging Indexes

Indicator	Basic data				Net contribution to index			Direction of change
	June	July	Aug.	Sept	June to July	July to Aug.	Aug. to Sept	Aug. to Sept
LEADING INDICATORS								
Average workweek, production workers, manufacturing (hours).....	39.2	r39.2	39.0	p38.6	0.00	-0.19	-0.42	-
*Average weekly initial claims, State unemployment insurance (thousands)....	551	515	597	671	0.21	-0.46	-0.40	-
New orders, mfg., consumer goods and materials (billions of 1972 dollars)...	30.06	30.69	r29.63	p29.67	0.12	-0.20	0.01	+
Vendor performance, companies receiving slower deliveries from vendors (pct.)..	38	37	40	40	-0.04	0.12	0.00	0
¹ Net business formation (index: 1967=100)..	NA	NA	NA	NA	NA	NA	NA	
Contracts and orders, plant & equipment (billions of 1972 dollars).....	r11.27	r10.80	r11.21	p11.99	-0.11	0.09	0.18	+
Building permits (index: 1967=100).....	75.0	85.8	71.7	81.0	0.43	-0.57	0.43	+
#Change in inventories on hand and on order (ann. rate, billions of 1972 \$)..	r-14.36	r-12.92	p-8.78	NA	0.10	0.28	NA	
#Change in sensitive crude materials prices, PPI (percent).....	0.22	0.96	0.86	0.58	0.34	-0.05	-0.14	-
Stock prices, 500 common stocks (index: 1941-43=10).....	109.70	109.38	109.65	122.43	-0.02	0.02	0.81	+
#Change in total liquid assets (percent)..	r1.00	re1.00	re1.08	e1.05	0.00	0.28	-0.12	-
Money supply (M2) (billions of 1972 \$)..	825.2	827.1	834.6	p836.7	0.10	0.38	0.12	+
Percent change in Leading index.....	....	....	....	....	1.17	-0.15	0.54	
COINCIDENT INDICATORS								
Employees on nonagricultural payrolls (thousands).....	89,839	r89,535	r89,268	p89,038	-0.27	-0.24	-0.26	-
Personal income less transfer payments (annual rate, billions of 1972 \$).....	1,070.3	r1,069.6	r1,068.1	p1,066.3	-0.03	-0.07	-0.11	-
Industrial production, total (index: 1967=100).....	r138.7	r138.8	r138.1	p137.3	0.02	-0.14	-0.21	-
Manufacturing and trade sales (millions of 1972 dollars).....	152,371	r151,927	p149,352	NA	-0.06	-0.37	NA	
Percent change in Coincident index....	....	....	....	....	-0.53	-0.98	-0.76	
LAGGING INDICATORS								
*Average duration of unemployment (weeks).....	16.5	15.6	16.2	16.6	0.35	-0.23	-0.23	-
Manufacturing and trade inventories, total (billions of 1972 dollars).....	265.18	265.57	p265.72	NA	0.07	0.03	NA	
Labor cost per unit of output, manufacturing (index: 1967=100).....	r231.3	r230.0	r230.1	p229.6	-0.18	0.01	-0.10	-
Average prime rate charged by banks (percent).....	16.50	16.26	14.39	13.50	-0.47	-3.64	-2.60	-
Commercial and industrial loans outstanding (millions of dollars).....	r213,700	214,499	r214,904	p218,364	0.08	0.04	0.53	+
Ratio, consumer installment credit to personal income (percent).....	12.96	12.85	p12.83	NA	-0.38	-0.07	NA	
Percent change in Lagging index.....	....	....	....	....	-0.65	-3.95	-2.57	

*Series is inverted in calculating the composite index: a decrease in this series is considered an upward movement.

Smoothed by a weighted 4-month moving average (with weights 1,2,2,1) placed at the terminal month of the span.

NA, not available. p, preliminary. r, revised. e, estimated.

NOTE: The net contribution of an individual component is that component's share in the composite movement of the group. The percent change in the index equals (except for rounding differences) the sum of the net contributions of the individual components plus the trend adjustment factor of 0.099 for the leading index, -0.164 for the coincident index, and -0.170 for the lagging index.

¹The net business formation series is not updated for the period since December 1981 because half of its components are not available. If the missing components do not become available in the future, the series will be dropped from the leading index or will be reconstructed using other components.