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COMPOSITE INDEXES OF LEADING, COINCIDENT, AND LAGGING
INDICATORS: APRIL 1987

The composite index of leading indicators decreased 0.6 percent in April to 186.6 (1967=100), according to preliminary estimates released today by the Commerce Department's Bureau of Economic Analysis.

On the basis of more complete data, the index increased 0.8 percent in March and 0.4 percent in February. A month ago, the bureau reported estimates that showed the index increased 0.4 percent in March and 0.4 percent in February. Change in inventories on hand and on order in 1982 dollars was the major contributor to the March revision.

Five of 9 indicators available for April contributed to the decline in the index. They were, ordered from the largest negative contributor to the smallest: average workweek, building permits, manufacturers' new orders for consumer goods and materials in 1982 dollars, stock prices, and contracts and orders for plant and equipment in 1982 dollars.

Four of 9 made positive contributions. They were, ordered from the largest positive contributor to the smallest: average weekly initial claims for state unemployment insurance, vendor performance (i.e., companies receiving slower deliveries from vendors), money supply in 1982 dollars, and change in sensitive materials prices.

The composite index of coincident indicators, a monthly approximation of aggregate economic activity, decreased 0.2 percent in April to 166.7 (1967=100). On the basis of more complete data, the index decreased 0.2 percent in March and increased 1.6 percent in February.

The composite index of lagging indicators was unchanged in April at 131.0 (1967=100). On the basis of more complete data, the index decreased 0.5 percent in March and 1.8 percent in February.

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 1984 edition of Handbook of Cyclical Indicators (price \$5.50, stock number 003-010-00127-5), which is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

More data on the composite indexes, as well as other important measures of economic activity, appear each month in Business Conditions Digest, also available from the Superintendent of Documents. Annual subscription: \$44.00.

Next release date: June 30 for the May composite indexes.

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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)																
1978	141.0	142.8	144.9	146.3	146.4	146.9	145.4	146.2	146.8	147.9	147.6	147.2	142.9	146.5	146.1	147.6
1979	147.7	147.5	149.3	146.4	147.6	146.5	145.2	144.5	144.5	141.7	140.1	140.5	148.2	146.8	144.7	140.8
1980	141.4	140.4	137.4	133.4	130.9	132.0	135.1	138.3	141.2	142.4	143.4	143.0	139.7	132.1	138.2	142.9
1981	142.1	140.4	141.7	144.6	144.5	143.2	142.9	142.4	139.3	136.9	137.0	136.2	141.4	144.1	141.5	136.7
1982	135.1	135.7	134.7	136.0	136.2	135.5	136.2	136.1	137.5	138.6	139.4	140.9	135.2	135.9	136.6	139.6
1983	145.2	147.4	150.2	152.5	154.4	157.3	158.2	158.9	160.0	162.4	162.5	163.4	147.6	154.7	159.0	162.8
1984	164.6	166.7	166.7	167.6	167.9	166.6	163.8	163.4	164.1	163.6	164.4	163.8	166.0	167.4	163.8	163.9
1985	165.5	166.5	167.2	165.9	166.9	167.3	168.5	169.3	170.2	171.2	171.1	174.0	166.4	166.7	169.3	172.1
1986	174.1	175.0	176.4	178.1	178.5	178.4	179.7r	180.1r	179.9r	181.3r	182.7r	186.6r	175.2	178.3	179.9r	183.5r
1987	185.6r	186.3r	187.7r	186.6p									186.5r			
Leading index--percent change from preceding month (quarter)																
1978	-1.0	1.3	1.5	1.0	.1	.3	-1.0	.6	.4	.7	-.2	-.3	.6	2.5	-.3	1.0
1979	.3	-.1	1.2	-1.9	.8	-.7	-.9	-.5	.0	-1.9	-1.1	.3	.4	-.9	-1.4	-2.7
1980	.6	-.7	-2.1	-2.9	-1.9	.8	2.3	2.4	2.1	.8	.7	-.3	-.8	-5.4	4.6	3.4
1981	-.6	-1.2	.9	2.0	-.1	-.9	-.2	-.3	-2.2	-1.7	.1	-.6	-1.0	1.9	-1.8	-3.4
1982	-.8	.4	-.7	1.0	.1	-.5	.5	-.1	1.0	.8	.6	1.1	-1.1	.5	.5	2.2
1983	3.1	1.5	1.9	1.5	1.2	1.9	.6	.4	.7	1.5	.1	.6	5.7	4.8	2.8	2.4
1984	.7	1.3	.0	.5	.2	-.8	-1.7	-.2	.4	-.3	.5	-.4	2.0	.8	-2.2	.1
1985	1.0	.6	.4	-.8	.6	.2	.7	.5	.5	.6	-.1	1.7	1.5	.2	1.6	1.7
1986	.1	.5	.8	1.0	.2	-.1	.7	.2	-.1r	.8r	.8r	2.1r	1.8	1.8	.9r	2.0r
1987	-.5r	.4	.8r	-.6p									1.6r			
Coincident index (1967=100)																
1978	137.1	138.3	140.0	143.0	143.1	144.2	145.0	145.9	146.1	147.4	148.4	149.7	138.5	143.4	145.7	148.5
1979	149.3	149.4	151.2	149.1	150.6	150.6	151.0	150.6	150.4	150.3	149.9	150.0	150.0	150.1	150.7	150.1
1980	150.7	149.6	148.1	145.1	142.4	141.1	140.8	141.2	142.7	144.2	145.3	146.1	149.5	142.9	141.6	145.2
1981	146.8	147.2	147.2	147.1	146.9	147.5	147.6	147.3	146.5	145.5	143.0	140.9	147.1	147.2	147.1	142.8
1982	138.4	139.9	139.2	138.0	138.8	137.3	136.4	135.2	134.5	132.9	132.7	132.6	139.2	138.0	135.4	132.7
1983	134.3	133.5	134.6	135.6	137.9	139.8	140.7	140.8	143.3	145.0	145.9	147.5	134.1	137.8	141.6	146.1
1984	149.5	150.6	151.1	152.6	153.9	155.4	155.7	156.0	156.5	156.5	157.7	158.8	150.4	154.0	156.1	157.7
1985	158.4	159.0	159.3	160.5	160.2	159.5	159.7	160.9	160.9	160.8	161.6	163.0	158.9	160.1	160.5	161.8
1986	162.9	163.4	162.9	165.6	164.3	163.7	164.3r	164.6r	165.3	164.9	165.2	166.8r	163.1	164.5	164.7	165.6
1987	164.8r	167.4r	167.0r	166.7p									166.4			
Coincident index--percent change from preceding month (quarter)																
1978	-.7	.9	1.2	2.1	.1	.8	.6	.6	.1	.9	.7	.9	.9	3.5	1.6	1.9
1979	-.3	.1	1.2	-1.4	1.0	.0	.3	-.3	-.1	-.1	-.3	.1	1.0	.1	.4	-.4
1980	.5	-.7	-1.0	-2.0	-1.9	-.9	-.2	.3	1.1	1.1	.8	.6	-.4	-4.4	-.9	2.5
1981	.5	.3	.0	-.1	-.1	.4	.1	-.2	-.5	-1.4	-1.0	-1.5	1.3	.1	-.1	-2.9
1982	-1.8	1.1	-.5	-.9	.6	-1.1	-.7	-.9	-.5	-1.2	-.2	-.1	-2.5	-.9	-1.9	-2.0
1983	1.3	-.6	.8	.7	1.7	1.4	.6	.1	1.8	1.2	.6	1.1	1.1	2.8	2.8	3.2
1984	1.4	.7	.3	1.0	.9	1.0	.2	.2	.3	.0	.8	.7	2.9	2.4	1.4	1.0
1985	-.3	.4	.2	.8	-.2	-.4	.1	.8	-.0	-.1	.5	.9	.8	.8	.2	.8
1986	-.1	.3	-.3	1.7	-.8	-.4	.4r	.2	.4r	-.2	.2	1.0r	.8	.9	.1	.5
1987	-1.2	1.6r	-.2r	-.2p									.5			
Lagging index (1967=100)																
1978	111.4	111.6	112.3	111.6	112.8	113.7	114.3	114.8	115.4	115.3	117.1	118.0	111.8	112.7	114.8	116.8
1979	119.2	119.7	118.8	121.7	121.0	122.3	122.3	123.0	124.7	125.8	126.3	126.1	119.2	121.7	123.3	126.1
1980	126.2	127.1	130.2	132.3	129.6	125.5	121.8	120.5	119.4	119.0	120.1	123.0	127.8	129.1	120.6	120.7
1981	121.7	120.7	119.0	119.0	122.2	122.4	122.5	123.3	124.7	125.0	124.5	124.4	120.5	121.2	123.5	124.6
1982	126.1	125.3	125.1	125.1	124.8	124.3	122.3	121.4	120.2	118.2	116.7	125.5	125.3	122.7	118.4	
1983	115.7	115.8	114.4	113.5	111.0	109.8	109.7	110.3	109.7	109.6	110.0	110.9	115.3	111.4	109.9	110.2
1984	109.8	111.3	112.8	114.6	116.4	117.5	118.8	119.8	121.0	122.0	121.7	121.9	111.3	116.2	119.9	121.9
1985	123.7	124.3	125.4	125.1	126.7	126.5	126.9	127.2	128.4	129.7	129.7	130.2	124.5	126.1	127.5	129.9
1986	131.6	131.9	133.0	131.2	132.0	131.8	131.9	132.2	131.5	133.3	133.0	132.3	132.2	131.7	131.9	132.9
1987	134.1r	131.7r	131.0r	131.0p									132.3r			
Lagging index--percent change from preceding month (quarter)																
1978	1.8	.2	.6	-.6	1.1	.8	.5	.4	.5	-.1	1.6	.8	2.7	.8	1.9	1.7
1979	1.0	.4	-.8	2.4	-.6	1.1	.0	.6	1.4	.9	.4	-.2	2.1	2.1	1.3	2.3
1980	.1	.7	2.4	1.6	-2.0	-3.2	-2.9	-1.1	-.9	-.3	.9	2.4	1.3	1.0	-6.6	.1
1981	-1.1	-.8	-1.4	.0	2.7	.2	.1	.7	1.1	.2	-.4	-.1	-.2	.6	1.9	.9
1982	1.4	-.6	-.2	.6	-.6	-.2	-.4	-1.6	-.7	-1.0	-1.7	-1.3	.7	-.2	-2.1	-3.5
1983	-.9	.1	-1.2	-.8	-2.2	-1.1	-.1	.5	-.5	-.1	.4	.8	-2.6	-3.4	-1.3	.3
1984	-1.0	1.4	1.3	1.6	1.6	.9	1.1	.8	1.0	.8	-.2	.2	1.0	4.4	3.2	1.7
1985	1.5	.5	.9	-.2	1.3	-.2	.3	.2	.9	1.0	.0	.4	2.1	1.3	1.1	1.9
1986	1.1	.2	.8	-1.4	.6	-.2	.1	.2	-.5	1.4	-.2	-.5	1.8	-.4	.2	.8
1987	1.4	-1.8r	-.5	.0p									-.5r			

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
	Jan. 1987	Feb. 1987	Mar. 1987	Apr. 1987	Jan. to Feb.	Feb. to Mar.	Mar. to Apr.	Mar. to Apr.
LEADING INDICATORS								
Average workweek, production workers, manufacturing (hours).....	41.0	41.3r	41.0r	40.5p	.25	-.25	-.50	-
*Average weekly initial claims, state unemployment insurance (thousands)...	359	361	341	324	-.02	.17	.19	+
New orders, mfg., consumer goods and materials (billions of 1982 dollars).	80.58	84.71r	85.72r	83.76p	.27	.06	-.15	-
Vendor performance, companies receiving slower deliveries from vendors (pct.)	55	52	55	57	-.13	.13	.11	+
Contracts and orders, plant & equipment (billions of 1982 dollars).....	32.47	33.16r	34.49r	34.44p	.05	.09	.00	-
Building permits (index: 1967=100).....	131.7r	133.7r	137.1r	127.4	.05	.08	-.29	-
#Change in inventories on hand and on order (ann. rate, billions of 1982 \$)	.90r	11.84r	23.72p	NA	.29	.31	NA	-
#Change in sensitive materials prices (percent).....	1.13	.34	-.11	-.10	-.34	-.19	.01	+
Stock prices, 500 common stocks (index: 1941-43=10).....	264.51	280.93	292.47	289.32	.41	.27	-.09	-
Money supply (M2) (billions of 1982 \$) ..	2445.4r	2434.9r	2428.2r	2429.0p	-.15	-.10	.01	+
Change in credit--business and consumer borrowing (annual rate, percent).....	8.0r	-.2r	.7p	NA	-.47	.05	NA	-
Percent change in Leading Index.....	....	....	....	....	.38	.75	-.59	-
COINCIDENT INDICATORS								
Employees on nonagricultural payrolls (thousands).....	101626	101854r	102009r	102325p	.19	.13	.33	+
Personal income less transfer payments (annual rate, billions of 1982 \$)...	2596.7r	2627.2r	2621.2r	2613.5p	.58	-.11	-.19	-
Industrial production, total (index: 1977=100).....	126.5	127.1	126.8r	126.3p	.13	-.07	-.14	-
Manufacturing and trade sales (millions of 1982 dollars).....	418765r	435137r	435697p	NA	.85	.03	NA	-
Percent change in Coincident Index....	....	....	....	....	1.58	-.24	-.18	-
LAGGING INDICATORS								
*Average duration of unemployment (weeks).....	15.0	14.6	14.9	14.9	.20	-.15	.00	0
Ratio, deflated inventories to sales, manufacturing and trade (ratio).....	1.54	1.49	1.49p	NA	-.66	.00	NA	-
Labor cost per unit of output, mfg.-- actual as percent of trend (percent).	78.4r	77.8r	77.5r	77.4p	-.22	-.11	-.05	-
Average prime rate charged by banks (percent).....	7.50	7.50	7.50	7.75	.00	.00	.26	+
Commercial and industrial loans outstanding (millions of 1982 \$).....	361324r	356168r	352858r	350861p	-.38	-.25	-.22	-
Ratio, consumer installment credit to personal income (percent).....	16.28	16.10r	16.07p	NA	-.69	-.12	NA	-
Percent change in Lagging Index.....	....	....	....	....	-1.79	-.53	.00	-

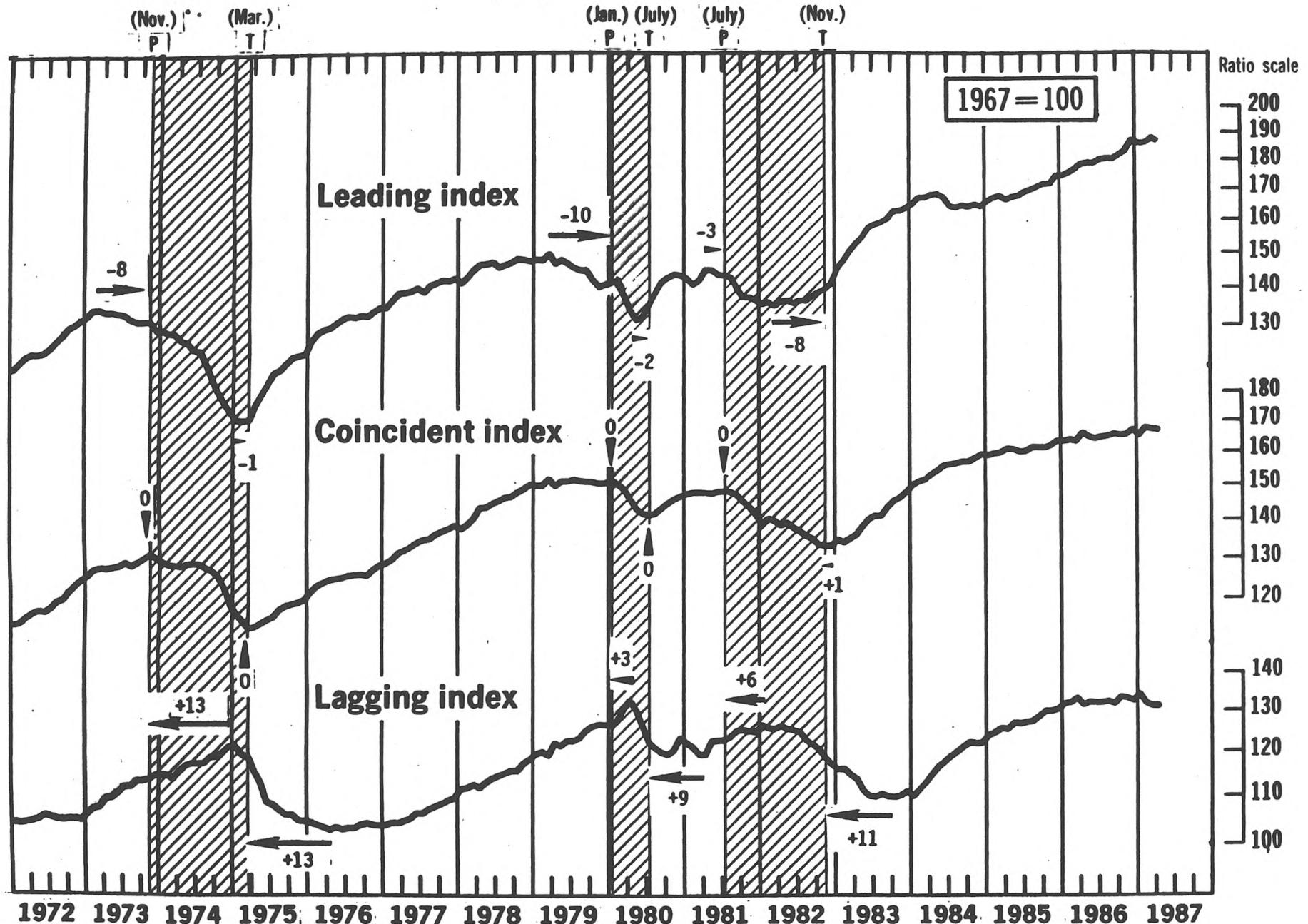
* Series is inverted in calculating the composite index: a decrease in this series is considered an upward movement.

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 0.139 for the leading index, -0.175 for the coincident index, and 0.018 for the lagging index.

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 arrows indicate the length of leads (-) and lags (+), in months, from the business cycle turning dates.