## COMMERCE

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BUREAU OF ECONOMIC ANALYSIS

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COMPOSITE INDEXES OF LEADING, COINCIDENT, AND LAGGING INDICATORS: JUNE 1985

The composite index of leading indicators increased 1.0 percent in June to 168.5 (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 0.1 percent in May and decreased 0.5 percent in April. A month ago, the bureau reported estimates that showed the index increased 0.7 percent in May and decreased 0.6 percent in April. Change in inventories on hand and on order was the major contributor to the May revision. Average workweek was the major contributor to the April revision.

Six of 10 indicators available for June contributed to the increase in the index. They were, ordered from the largest positive contributor to the smallest: net business formation, money supply in 1972 dollars, stock prices, average workweek, contracts and orders for plant and equipment in 1972 dollars, and change in sensitive materials prices (the weighted 4-month moving average of the monthly changes had a positive effect on the index even though sensitive prices decreased in June).

Three of 10 made negative contributions. They were, ordered from the largest negative contributor to the smallest: building permits, manufacturers' new orders for consumer goods and materials in 1972 dollars, and average weekly initial claims for state unemployment insurance.

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

The composite index of coincident indicators, a monthly approximation of aggregate economic activity, increased 0.1 percent in June to 160.0 (1967=100). On the basis of more complete data, the index decreased 0.3 percent in May and increased 0.9 percent in April.

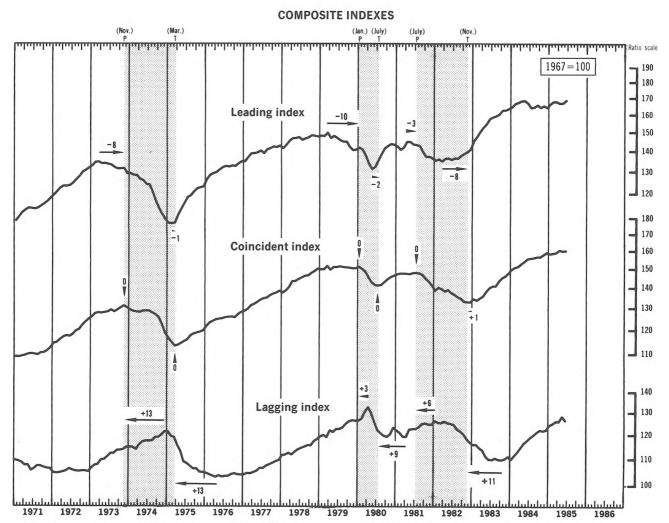
The composite index of lagging indicators decreased 1.4 percent in June to 126.3 (1967=100). On the basis of more complete data, the index increased 1.7 percent in May and was unchanged in April.

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 <u>Handbook of Cyclical Indicators</u> (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 <u>Business Conditions Digest</u>, also available from the Superintendent of Documents. Annual subscription: \$44.00.

Next release date: August 30 for the July 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.

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

Year	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	IQ	IIQ	IIIQ	IVQ
							Leading	index	(1967=1	00)						
1976 1977 1978 1979 1980 1981 1982 1983 1984 1985	1 26 .1 1 3 4 .5 1 41 .0 1 47 .7 1 41 .4 1 42 .1 1 3 5 .1 1 45 .2 1 6 4 .5	140.4	138.4 144.9 149.3 137.4 141.7 134.7 150.2 167.2	152.5	138.9 146.4 147.6 130.9 144.5 136.2 154.4	139.8 146.9 146.5 132.0 143.2 135.5 157.3 166.7		140.5 146.2 144.5 138.3 142.4 136.1 158.9	132.4 141.1 146.8 144.5 141.2 139.3 137.5 160.0 165.7	141.9 147.9 141.7 142.4 136.9 138.6 162.4	133.5 141.6 147.6 140.1 1437.0 139.4 162.5 165.2	134.5 142.4 147.2 140.5 143.0 136.2 140.9 163.4	136.5 142.9 148.2 139.7 141.4 135.2 147.6 166.1	139.1 146.5 146.8 132.1 144.1 135.9 154.7	132.2 140.0 146.1 144.7 138.2 141.5 136.6 159.0 r164.7	133. 142. 147. 140. 142. 136. 139. 162. 164.
				Lead	ling ind	exper	cent ch	ange fr	om prec	eding m	onth (	uarter)				
1 976 1 977 1 978 1 979 1 980 1 981 1 982 1 983 1 984 1 985	2.7 0.0 -1.0 0.3 0.6 -0.6 -0.8 3.1 0.7	1.5 1.5 1.3 -0.1 -0.7 -1.2 0.4 1.5 1.2	0.6 1.4 1.5 1.2 -2.1 0.9 -0.7 1.9 0.4	0.4 0.1 1.0 -1.9 -2.9 2.0 1.0 1.5 0.5 r-0.5	0.9 0.3 0.1 0.8 -1.9 -0.1 0.1 1.2 0.1 r0.1	0.8 0.6 0.3 -0.7 0.8 -0.9 -0.5 1.9 -0.9 p1.0	0.5 -0.9 -1.0 -0.9 2.3 -0.2 0.5 0.6 -1.7	-0.2 1.4 0.6 -0.5 2.4 -0.3 -0.1 0.4 r0.3	0.4 0.4 0.0 0.0 2.1 -2.2 1.0 0.7	-0.2 0.6 0.7 -1.9 0.8 -1.7 0.8 1.5	1.0 -0.2 -0.2 -1.1 0.7 0.1 0.6 0.1	0.7 0.6 -0.3 0.3 -0.3 -0.6 1.1 0.6	4.2 2.3 0.6 0.4 -0.8 -1.0 -1.1 5.7 2.0 1.6	2.3 1.9 2.5 -0.9 -5.4 1.9 0.5 4.8 1.0 p0.1	1.3 0.6 -0.3 -1.4 4.6 -1.8 0.5 2.8 -1.8	0. 1 1 -2. 3 -3 2
						C	oincide	nt inde	x (1967	=100)						
1 976 1 977 1 978 1 979 1 980 1 981 1 982 1 983 1 984 1 985	121.4 128.3 137.1 149.3 150.7 146.8 138.4 134.3 149.5 r158.2	129.2 138.3 149.4 149.6 147.2 139.9 133.5	148.1 147.2 139.2 134.6 151.1			133.6 144.2 150.6 141.1 147.5 137.3 139.8 155.4	125.3 134.3 145.0 151.0 140.8 147.6 136.4 140.7 r155.7	125.5 134.6 145.9 150.6 141.2 147.3 135.2 140.8 156.0	125.6 135.8 146.1 150.4 142.7 146.5 134.5 143.3 r156.5	125.3 136.6 147.4 150.3 144.2 144.5 132.9 145.0 r156.5	126.8 137.2 148.4 149.9 145.3 143.0 132.7 145.9 r157.7	127.8 138.1 149.7 150.0 146.1 140.9 132.6 147.5 r158.9	122.6 129.5 138.5 150.0 149.5 147.1 139.2 134.1 150.4 r158.5	154.0	125.5 134.9 145.7 150.7 141.6 147.1 135.4 141.6 r156.1	126. 137. 148. 150. 145. 142. 132. 146.
				Coinc	ident i	ndexp	ercent	change	from pr	eceding	month	(quarte	r)			
1 976 1 977 1 978 1 979 1 980 1 981 1 982 1 983 1 984 1 985	1.6 0.4 -0.7 -0.3 0.5 0.5 -1.8 1.3 1.4	1 . 2 0 . 7 0 . 9 0 . 1 -0 . 7 0 . 3 1 . 1 -0 . 6 0 . 7 0 . 2	0.6 1.3 1.2 1.2 -1.0 0.0 -0.5 0.8 0.3	0.6 0.5 2.1 -1.4 -2.0 -0.1 -0.9	0.2 0.7 0.1 1.0 -1.9 -0.1 0.6 1.7 0.9 r-0.3	0.2 0.8 0.8 0.0 -0.9 0.4 -1.1 1.4 1.0 p0.1	0.4 0.5 0.6 0.3 -0.2 0.1 -0.7 0.6 r0.2	0.2 0.2 0.6 -0.3 0.3 -0.2 -0.9 0.1 r0.2	0.1 0.9 0.1 -0.1 1.1 -0.5 -0.5 1.8 r0.3	-0.2 0.6 0.9 -0.1 1.1 -1.4 -1.2 1.2 r0.0	1.2 0.4 0.7 -0.3 0.8 -1.0 -0.2 0.6 r0.8	0.8 0.7 0.9 0.1 0.6 -1.5 -0.1 1.1	3.0 2.3 0.9 1.0 -0.4 1.3 -2.5 1.1 2.9 0.5	1.6 2.4 3.5 0.1 -4.4 0.1 -0.9 2.8 2.4 p0.9	0.7 1.7 1.6 0.4 -0.9 -0.1 -1.9 2.8 r1.4	0. 1. 1. -0. 2. -2. -2.
							Lagging	index	(1967=1	00)						
1976 1977 1978 1979 1980 1981 1982 1983 1984 1985	103.8 111.4 119.2 126.2 121.7 126.1 115.7 109.8	104.3 111.6 119.7 127.1 120.7 125.3 115.8	104.2 112.3 118.8 130.2 119.0 125.1 114.4 112.8	104.7 111.6 121.7 132.3 119.0 125.9 113.5 114.6	105.2 112.8 121.0 129.6 122.2 125.1 111.0 116.4	106.3 113.7 122.3 125.5 122.4 124.8 109.8 117.5	106.2 114.3 122.3 121.8 122.5 124.3 109.7	107.2 114.8 123.0 120.5 123.3 122.3 110.3	115.4 124.7 119.4 124.7	108.3 115.3 125.8 119.0 125.0 120.2 109.6	109.0 117.1 126.3 120.1 124.5 118.2 110.0	109.4 118.0 126.1 123.0 124.4 116.7 110.9	104.1 111.8 119.2 127.8 120.5 125.5 115.3	105.4 112.7 121.7 129.1 121.2 125.3 111.4 116.2	114.8 123.3 120.6	108. 116. 126. 120. 124. 118.
				Lagg	ging ind	lexper	cent ch	ange fi	om prec	eding m	onth (	quarter)				
1 9 7 6 1 9 7 7 1 9 7 8 1 9 7 9 1 9 8 0 1 9 8 1 1 9 8 2 1 9 8 3 1 9 8 4 1 9 8 5	-0.3 0.1 1.8 1.0 0.1 -1.1 1.4 -0.9 -1.0 r1.7	-0.5 0.5 0.2 0.4 0.7 -0.8 -0.6 0.1 1.4	-0.5 -0.1 0.6 -0.8 2.4 -1.4 -0.2 -1.2 1.3 0.8	-0.5 0.5 -0.6 2.4 1.6 0.0 0.6 -0.8 1.6 r0.0	0.6 0.5 1.1 -0.6 -2.0 2.7 -0.6 -2.2 1.6 r1.7	-0.5 1.0 0.8 1.1 -3.2 0.2 -0.2 -1.1 0.9 p-1.4	0.3 -0.1 0.5 0.0 -2.9 0.1 -0.4 -0.1	0.0 0.9 0.4 0.6 -1.1 0.7 -1.6 0.5 r0.8	0.7 0.5 0.5 1.4 -0.9 1.1 -0.7 -0.5 r1.0	0.3 0.6 -0.1 0.9 -0.3 0.2 -1.0 -0.1 r0.8	-0.4 0.6 1.6 0.4 0.9 -0.4 -1.7 0.4	-0.1 0.4 0.8 -0.2 2.4 -0.1 -1.3 0.8 0.3	-1.2 0.2 2.7 2.1 1.3 -0.2 0.7 -2.6 1.0 2.5	-0.8 1.2 0.8 2.1 1.0 0.6 -0.2 -3.4 4.4 p1.4	0.4 1.5 1.9 1.3 -6.6 1.9 -2.1 -1.3 r3.2	0. 1. 2. 0. 0. -3. 0. r1.

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

***************************************		Basic	data		Net	Direction of change		
Indicator	Mar. 1985	Apr. 1985	May 1985	June 1985	Mar. to Apr.	Apr. to May	May to June	May to June
LEADING INDICATORS								
Average workweek, production workers, manufacturing (hours)	40.4	r40.2	40.3	p40.4	-0.15	0.08	0.09	+
*Average weekly initial claims, state unemployment insurance (thousands)	389	387	3 83	3 9 2	0.01	0.03	-0.08	_
New orders, mfg., consumer goods and materials (billions of 1972 dollars)	36.92	37.46	r37.88	p37.04	0.07	0.06	-0.13	-
Vendor performance, companies receiving slower deliveries from vendors (pct.)	46	44	44	44	-0.08	0.00	0.00	0
Net business formation (index: 1967=100).	115.4	115.4	112.2	p115.4	0.00	-0.39	0.47	+
Contracts and orders, plant & equipment (billions of 1972 dollars)	15.89	14.14	r14.83	p15.34	-0.25	0.10	0.09	+
Building permits (index: 1967=100)	138.8	135.9	141.8	136.5	-0.06	0.13	-0.14	-
#Change in inventories on hand and on order (ann. rate, billions of 1972 \$)	r12.33	r8.96	p0.17	NA	-0.19	-0.49	NA	
#Change in sensitive materials prices (percent)	-0.97	-0.64	-0.22	-0.13	0.13	0.17	0.04	+
Stock prices, 500 common stocks (index: 1941-43=10)	179.42	180.62	184.90	188.89	0.04	0.15	0.16	+
Money supply (M2) (billions of 1972 \$)	953.6	r949.2	r954.0	p963.0	-0.15	0.16	0.36	+
Change in creditbusiness and consumer borrowing (annual rate, percent)	13.3	r11.7	p11.3	NA	-0.08	-0.02	NA	
Percent change in Leading Index					-0.54	0.12	0.96	
COINCIDENT INDICATORS								
Employees on nonagricultural payrolls (thousands)	96,910	r97,120	r97,386	p97,466	0.18	0.23	0.09	+
Personal income less transfer payments (annual rate, billions of 1972 \$ )	1,205.8	r1,218.0	r1,206.3	p1,209.7	0.50	-0.48	0.18	+
Industrial production, total (index: 1977=100)	r124.0	r124.3	r124.4	p124.6	0.07	0.02	0.06	+
Manufacturing and trade sales (millions of 1972 dollars)	179,626	r181,754	p182,552	NA	0.26	0.10	NA	
Percent change in Coincident Index					0.88	-0.31	0.13	
LAGGING INDICATORS								
*Average duration of unemployment (weeks)	15.9	16.1	14.9	15.4	-0.09	0.56	-0.35	_
Ratio, deflated inventories to sales, manufacturing and trade (ratio)	1.57	r1.56	p1.55	NA	-0.13	-0.13	NA	
Labor cost per unit of output, mfg actual as percent of trend (percent)	r86.3	r85.4	r85.1	p84.6	-0.33	-0.11	-0.27	_
Average prime rate charged by banks (percent)	10.50	10.50	10.31	9.78	0.00	-0.13	-055	-
Commercial and industrial loans outstanding (millions of 1972 \$)	r127,069	r127,363	r128,133	p127,262	0.06	0.16	-0.26	-
Ratio, consumer installment credit to personal income (percent)	15.11	15.22	p15.59	NA	0.42	1.42	NA	
Percent change in Lagging Index					0.00	1.75	-1.41	

<sup>\*</sup> Series is inverted in calculating the composite index: a decrease in this series is considered an upward movement.

<sup>#</sup> 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.