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COMPOSITE INDEXES OF LEADING, COINCIDENT, AND LAGGING INDICATORS: AUGUST 1984

The composite index of leading indicators increased 0.5 percent in August to 164.5 (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 1.8 percent in July and 1.1 percent in June. A month ago, the bureau reported estimates that showed the index decreased 0.8 percent in July and 1.3 percent in June. Change in inventories on hand and on order was the major contributor to the July revision. Average workweek was the major contributor to the June revision.

Four of 10 indicators available for August contributed to the increase in the index. They were, ordered from the largest positive contributor to the smallest: stock prices, net business formation, average weekly initial claims for state unemployment insurance, and manufacturers' new orders for consumer goods and materials in 1972 dollars.

Six of 10 decreased. They were, ordered from the largest negative contributor to the smallest: vendor performance (i.e., companies receiving slower deliveries from vendors), change in sensitive materials prices, building permits, average workweek, contracts and orders for plant and equipment in 1972 dollars, and money supply in 1972 dollars.

The composite index of coincident indicators, a monthly approximation of aggregate economic activity, increased 0.2 percent in August to 156.0 (1967=100). On the basis of more complete data, the index increased 0.1 percent in July and 1.0 percent in June.

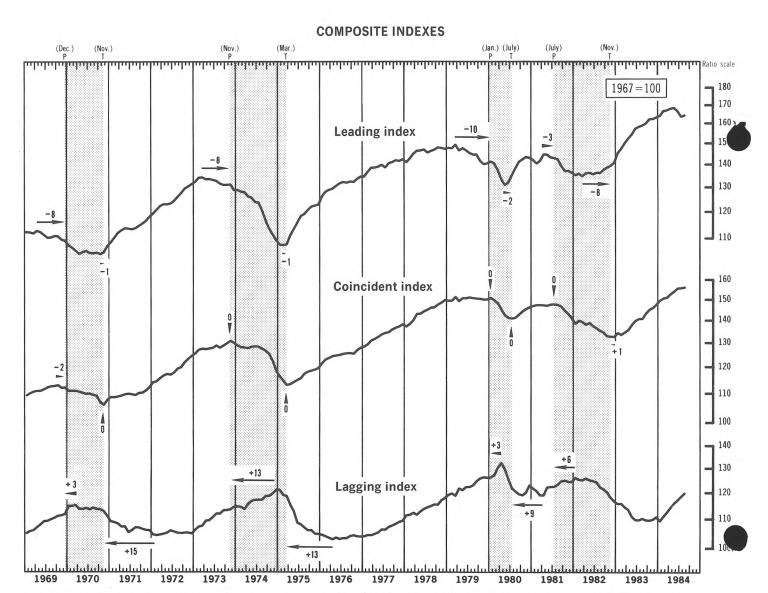
The composite index of lagging indicators increased 1.1 percent in August to 119.9 (1967=100). On the basis of more complete data, the index increased 1.2 percent in July and 1.0 percent in June.

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 <a href="Handbook of Cyclical Indicators">Handbook of Cyclical Indicators</a> (price \$5.50, stock number 003-010-00127-5), which is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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

Next release date: October 31 for the September 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

			Table	e 1. Com	posite	Indexes	of Lea	ding, (	Coincide	ent, and	Laggir	g Indic	ators			
Year	Jan.	Feb.	Mar.	Apr.	Мау	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	IQ	IIQ	IIIQ	IVQ
						I	eading	index	(1967=10	00)						
1975 1976 1977 1978 1979 1980 1981 1982 1983 1984	107.7 126.1 134.5 141.0 147.7 141.4 142.1 135.1 145.2 r164.3	128.0 136.5 142.8 147.5 140.4 140.4 135.7 147.4	107.8 128.8 138.4 144.9 149.3 137.4 141.7 134.7 150.2 r167.3	152.5	130.5 138.9 146.4 147.6 130.9 144.5 136.2 154.4	131.6 139.8 146.9 146.5 132.0 143.2 135.5 157.3	145.2 135.1 142.9 136.2 158.2	131.9 140.5 146.2 144.5 138.3 142.4 136.1 158.9	132.4 141.1 146.8 144.5 141.2 139.3		139.4	122.8 134.5 142.4 147.2 140.5 143.0 136.2 140.9 r163.4	142.9 148.2 139.7 141.4 135.2	130.5 139.1 146.5 146.8 132.1 144.1 135.9	132.2 140.0 146.1 144.7 138.2 141.5 136.6	122.4 133.4 142.0 147.6 140.8 142.9 136.7 139.6 r162.8
				Lead	ing ind	exper	cent cha	ange fr	om prece	eding m	onth (q	uarter)				
1975 1976 1977 1978 1979 1980 1981 1982 1983 1984	-1.4 2.7 0.0 -1.0 0.3 0.6 -0.6 -0.8 3.1	-0.1 1.5 1.5 1.3 -0.1 -0.7 -1.2 0.4 1.5	0.2 0.6 1.4 1.5 1.2 -2.1 0.9 -0.7 1.9 0.2	3.0 0.4 0.1 1.0 -1.9 -2.9 2.0 1.0	2.2 0.9 0.3 0.1 0.8 -1.9 -0.1 0.1 1.2 r0.2	2.1 0.8 0.6 0.3 -0.7 0.8 -0.9 -0.5 1.9 r-1.1	2.1 0.5 -0.9 -1.0 -0.9 2.3 -0.2 0.5 0.6 r-1.8	0.7 -0.2 1.4 0.6 -0.5 2.4 -0.3 -0.1 0.4 p0.5	1.3 0.4 0.4 0.0 2.1 -2.2 1.0	1.2 -0.2 0.6 0.7 -1.9 0.8 -1.7 0.8 r1.5	0.3 1.0 -0.2 -0.2 -1.1 0.7 0.1 0.6 0.1	0.3 0.7 0.6 -0.3 0.3 -0.3 -0.6 1.1	-3.2 4.2 2.3 0.6 0.4 -0.8 -1.0 -1.1 5.7 2.1	5.3 2.3 1.9 2.5 -0.9 -5.4 1.9 0.5 4.8	5.2 1.3 0.6 -0.3 -1.4 4.6 -1.8 0.5 2.8	2.6 0.9 1.4 1.0 -2.7 3.4 -3.4 2.2 2.4
Coincident index (1967=100)																
1975 1976 1977 1978 1979 1980 1981 1982 1983	121.4 128.3 137.1 149.3 150.7 146.8 138.4 134.3	114.6 122.9 129.2 138.3 149.4 149.6 147.2 139.5 150.6	113.0 123.6 130.9 140.0 151.2 148.1 147.2 139.2 134.6 151.0		124.6 132.5 143.1 150.6 142.4 146.9 138.8 137.9	114.9 124.8 133.6 144.2 150.6 141.1 147.5 137.3 139.8 r155.5	125.3 134.3 145.0 151.0 140.8 147.6 136.4 140.7	125.5 134.6 145.9 150.6 141.2 147.3 135.2 140.8	118.1 125.6 135.8 146.1 150.4 142.7 146.5 134.5	118.5 125.3 136.6 147.4 150.3 144.2 144.5 132.9 145.0	118.9 126.8 137.2 148.4 149.9 145.3 143.0 132.7 145.9	119.5 127.8 138.1 149.7 150.0 146.1 140.9 132.6	122.6 129.5 138.5 150.0 149.5 147.1 139.2	114.1 124.6 132.6 143.4 150.1 142.9 147.2 138.0 137.8 r154.0	117.0 125.5 134.9 145.7 150.7 141.6 147.1 135.4 141.6	119.0 126.6 137.3 148.5 150.1 145.2 142.8 132.7 146.1
				Coinc	ident i	ndexp	ercent	change	from pr	eceding	month	(quarte	r)			
1975 1976 1977 1978 1979 1980 1981 1982 1983	-1.9 1.6 0.4 -0.7 -0.3 0.5 0.5 -1.8 1.3	0.3 1.1 -0.6	-1.4 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 0.7	0.7 0.2 0.7 0.1 1.0 -1.9 -0.1 0.6 1.7 r0.9	0.7 0.2 0.8 0.8 0.0 -0.9 0.4 -1.1 1.4 r1.0	0.6 0.4 0.5 0.6 0.3 -0.2 0.1 -0.7 0.6 r0.1	1.5 0.2 0.2 0.6 -0.3 0.3 -0.2 -0.9 0.1 p0.2	0.7 0.1 0.9 0.1 -0.1 1.1 -0.5 -0.5	0.3 -0.2 0.6 0.9 -0.1 1.1 -1.4 -1.2	0.3 1.2 0.4 0.7 -0.3 0.8 -1.0 -0.2	0.5 0.8 0.7 0.9 0.1 0.6 -1.5 -0.1	-6.0 3.0 2.3 0.9 1.0 -0.4 1.3 -2.5 1.1 2.9	-0.4 1.6 2.4 3.5 0.1 -4.4 0.1 -0.9 2.8 r2.4	2.5 0.7 1.7 1.6 0.4 -0.9 -0.1 -1.9 2.8	1.7 0.9 1.8 1.9 -0.4 2.5 -2.9 -2.9
							Lagging	index	(1967=1	100)						
1975 1976 1977 1978 1979 1980 1981 1982 1983	104.3 103.8 111.4 119.2 126.2 121.7 126.1 115.7	103.8 104.3 111.6 119.7 127.1 120.7 125.3 115.8	104.2 112.3 118.8 130.2 119.0	102.8 104.7 111.6 121.7 132.3 119.0 125.9 113.5	103.4 105.2 112.8 121.0 129.6 122.2 125.1	102.9 106.3 113.7 122.3 125.5 122.4 124.8 109.8	103.2 106.2 114.3 122.3 121.8 122.5 124.3 109.7	103.2 107.2 114.8 123.0 120.5 123.3 122.3 110.3	107.7 115.4 124.7 119.4 124.7 121.4	104.2 108.3 115.3 125.8 119.0 125.0 120.2	103.8 109.0 117.1 126.3 120.1 124.5	103.7 109.4 118.0 126.1 123.0 124.4 116.7	103.8 104.1 111.8 119.2 127.8 120.5 125.5 115.3	125.3	103.4 107.0 114.8 123.3 120.6	118.
				Lag	ging in	dexpe	rcent cl	nange f	rom pre	ceding	month (	quarter	)			
1975 1976 1977 1978 1979 1980 1981 1982 1983	-0.3 0.1 1.8 1.0 0.1 -1.1 1.4 -0.9	-0.5 0.5 0.2 0.2 0.7 -0.8 -0.6	-0.5 -0.1 -0.6 -0.8 -0.8 -1.4 -0.2 -1.2	-0.5 0.5 -0.6 2.4 1.6 0.0 0.6 -0.8	-2.1 0.6 0.5 1.1 -0.6 -2.0 2.7 -0.6 -2.2 r1.5	-3.7 -0.5 1.0 0.8 1.1 -3.2 0.2 -0.2 -1.1 r1.0	-0.6 0.3 -0.1 0.5 0.0 -2.9 0.1 -0.4 -0.1 r1.2	-1.0 0.0 0.9 0.4 0.6 -1.1 0.7 -1.6 0.5 p1.1	0.7 0.5 0.5 1.4 -0.9 1.1 -0.7	0.1 0.3 0.6 -0.1 0.9 -0.3 0.2 -1.0	-1.2 -0.4 0.6 1.6 0.4 0.9 -0.4 -1.7	$ \begin{array}{r} 2.4 \\ -0.1 \\ -1.3 \end{array} $	-0.3 -1.2 0.2 2.7 2.1 1.3 -0.2 0.7 -2.6	-6.1 -0.8 1.2 0.8 2.1 1.0 0.6 -0.2 -3.4	-4.7 0.4 1.5 1.9 1.3 -6.6 1.9 -2.1	-1. 0. 1. 1. 2. 0. 0. -3.

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	May	June	July	Aug.	May to June	June to July	July to Aug.	July to Aug.
LEADING INDICATORS								
Average workweek, production workers, manufacturing (hours)	40.6	r40.6	r40.5	p40.4	0.00	-0.08	-0.09	-
*Average weekly initial claims, state unemployment insurance (thousands)	348	350	365	358	-0.02	-0.12	0.06	+
New orders, mfg., consumer goods and materials (billions of 1972 dollars)	38.46	36.65	r37.87	p37.92	-0.24	0.16	0.01	+
Vendor performance, companies receiving slower deliveries from vendors (pct.)	70	66	60	54	-0.16	-0.24	-0.29	-
Net business formation (index: 1967=100).	r115.6	r115.2	r115.3	p117.9	-0.05	0.01	0.37	+
Contracts and orders, plant & equipment (billions of 1972 dollars)	17.11	15.99	r15.18	p14.98	-0.15	-0.11	-0.03	-
Building permits (index: 1967=100)	141.0	142.8	126.4	121.6	0.04	-0.36	-0.14	-
#Change in inventories on hand and on order (ann. rate, billions of 1972 \$)	r34.93	r26.81	p18.48	NA	-0.45	-0.46	NA	
#Change in sensitive materials prices (percent)	0.27	-0.13	-0.64	-1.05	-0.16	-0.20	-0.19	-
Stock prices, 500 common stocks (index: 1941-43=10)	156.55	153.12	151.08	164.42	-0.14	-0.08	0.63	+
Money supply (M2) (billions of 1972 $\$$ )	r914.0	r918.0	919.1	p918.3	0.14	0.04	-0.03	-
Change in creditbusiness and consumer borrowing (annual rate, percent)	24.3	r22.6	p14.0	NA	-0.09	-0.45	NA	
Percent change in Leading Index					-1.13	-1.80	0.49	
COINCIDENT INDICATORS								
Employees on nonagricultural payrolls (thousands)	r93,786	r94,135	r94,351	p94,510	0.31	0.19	0.18	+
Personal income less transfer payments (annual rate, billions of 1972 \$ )	r1,169.7	r1,181.8	r1,185.1	p1,186.9	0.52	0.14	0.10	+
Industrial production, total (index: 1967=100)	r162.8	r164.3	r165.8	p166.2	0.26	0.25	0.09	+
Manufacturing and trade sales (millions of 1972 dollars)	r177,407	r178,417	p176,160	NA	0.13	-0.28	NA	
Percent change in Coincident Index					1.04	0.13	0.19	
LAGGING INDICATORS								
*Average duration of unemployment (weeks)	18.4	18.6	18.1	17.3	-0.08	0.20	0.48	+
Ratio, deflated inventories to sales, manufacturing and trade (ratio)	1.52	1.51	p1.54	NA	-0.13	0.40	NA	
Labor cost per unit of output, mfg actual as percent of trend (percent)	85.6	r84.7	r83.6	p83.3	-0.33	-0.40	-0.16	_
Average prime rate charged by banks (percent)	12.39	12.60	13.00	13.00	0.15	0.28	0.00	0
Commercial and industrial loans outstanding (millions of 1972 \$)	r111,907	r115,496	r116,368	p118,574	0.84	0.20	0.73	+
Ratio, consumer installment credit to personal income (percent)	r14.18	r14.31	p14.45	NA	0.50	0.54	NA	
Percent change in Lagging Index					1.03			,

<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.