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COMPOSITE INDEXES OF LEADING, COINCIDENT, AND LAGGING
INDICATORS: SEPTEMBER 1980

The composite index of leading indicators increased 2.4 percent in September to a level of 133.6 (1967=100), according to preliminary data released today by the Bureau of Economic Analysis, U.S. Department of Commerce. On the basis of more complete data, the August index level was revised to 130.5, which is 1.7 percent above the revised July level of 128.3. Change in total liquid assets was the major contributor to the August revision.

Eight of ten indicators available for September contributed to the increase in the index: average workweek, layoff rate, vendor performance (i.e., companies receiving slower deliveries from vendors), change in total liquid assets, change in sensitive raw materials prices (Producer Price Index), stock prices, new orders in 1972 dollars, and building permits. Layoff rate contributed the greatest increase.

Two of ten declined: contracts and orders for plant and equipment in 1972 dollars and money supply in 1972 dollars. Money supply in 1972 dollars contributed the greatest decline.

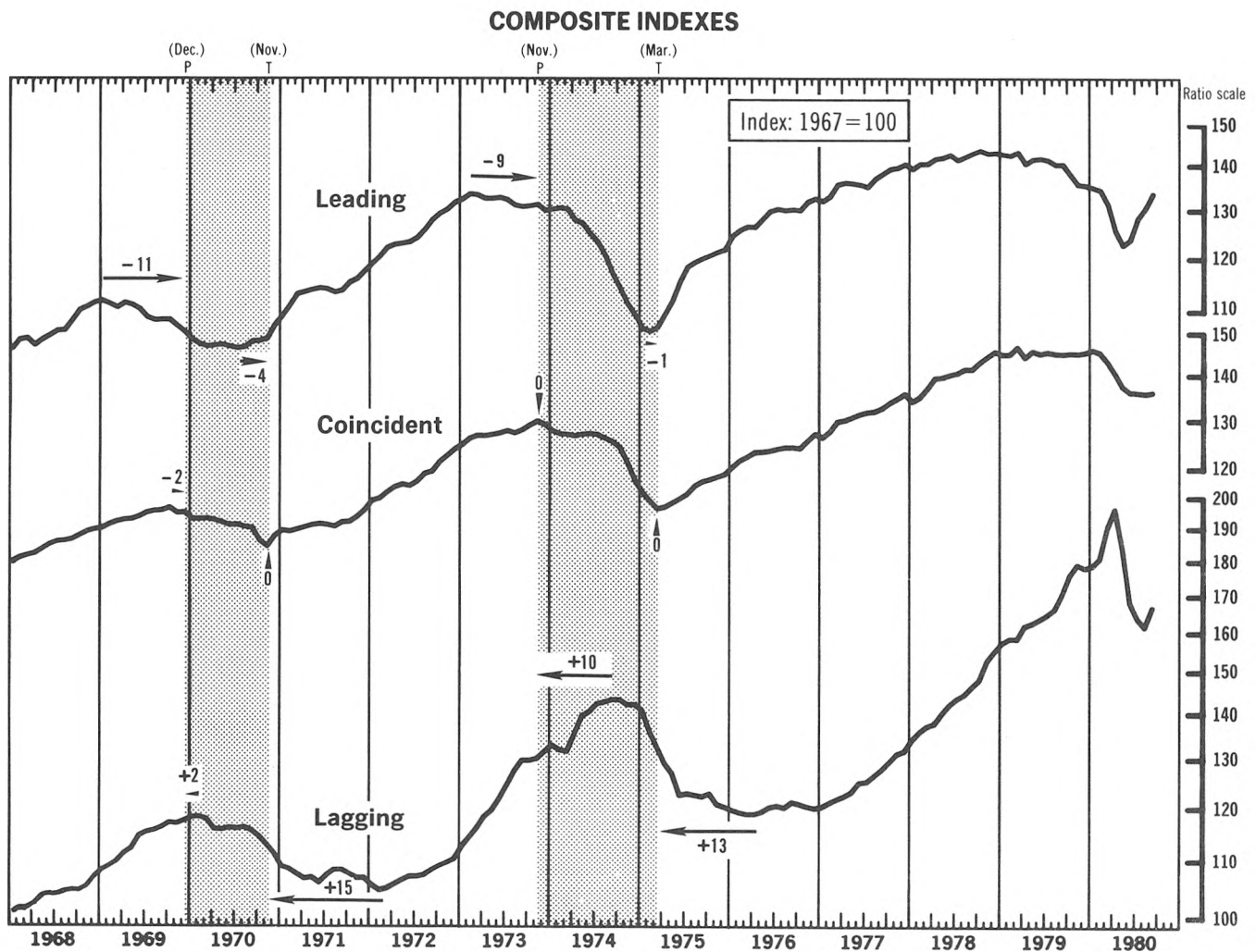
The composite index of coincident indicators, which is a monthly approximation of aggregate economic activity, increased 0.2 percent in September to a level of 136.1 (1967=100). On the basis of more complete data, the August index level was revised to 135.8, which is 0.1 percent below the revised July level of 136.0.

The composite index of lagging indicators increased 3.3 percent in September to a level of 166.9 (1967=100). On the basis of more complete data, the August index level was revised to 161.5, which is 1.4 percent below the revised July level of 163.8.

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 \$4.00.

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: December 1 for the October composite indexes.



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

Table 1. Composite Indexes of Leading, Coincident, and Lagging Indicators¹

	1979			1980								
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept
	Monthly index (1967=100)											
Leading indicators	137.8	135.6	135.4	134.9	134.3	131.3	125.7	r122.7	r123.9	r128.3	r130.5	p133.6
Coincident indicators	145.1	145.0	145.3	145.9	145.2	143.1	140.4	137.4	136.1	r136.0	r135.8	p136.1
Lagging indicators	175.9	179.1	178.0	178.7	181.0	190.4	196.3	183.8	r168.2	r163.8	r161.5	p166.9
	Percent change from preceding month											
Leading indicators	-1.6	-1.6	-0.1	-0.4	-0.4	-2.2	-4.3	r-2.4	1.0	r3.6	r1.7	p2.4
Coincident indicators	0.1	-0.1	0.2	0.4	-0.5	-1.4	-1.9	-2.1	-0.9	r-0.1	r-0.1	p0.2
Lagging indicators	3.1	1.8	-0.6	0.4	1.3	5.2	3.1	-6.4	-8.5	r-2.6	r-1.4	p3.3
	1979			I				1980		III		
	IV							II				
	Quarterly average of monthly index (1967=100)											
Leading indicators	136.3			133.5				r124.1		p130.8		
Coincident indicators	145.1			144.7				138.0		p136.0		
Lagging indicators	177.7			183.4				r182.8		p164.1		
	Percent change from preceding quarter											
Leading indicators	-3.0			-2.1				-7.0		p5.4		
Coincident indicators	0.0			-0.3				-4.6		p-1.4		
Lagging indicators	6.2			3.2				r-0.3		p-10.2		

p - preliminary r - revised

¹See tables 2, 3, and 4 for composition of the indexes.

Table 2. Net Contributions of the Individual Components to the Composite Index of Leading Indicators

Indicator	Basic data				Net contribution to index ¹			Direction of change
	June	July	Aug.	Sept	June to July	July to Aug.	Aug. to Sept	
Average workweek, production workers, manufacturing (hours).....	39.1	r39.0	r39.4	p39.5	-0.09	0.34	0.10	+
*Layoff rate, manufacturing (percent).....	2.9	1.7	2.0	p1.5	1.20	-0.30	0.60	+
New orders, mfg., consumer goods and materials (billions of 1972 dollars)...	29.07	31.66	r31.66	p33.08	0.45	0.0	0.27	+
Vendor performance, companies receiving slower deliveries from vendors (pct.)..	28	32	34	39	0.14	0.07	0.21	+
Net business formation (index: 1967=100).	114.8	115.3	e117.4	NA	0.06	0.26	NA	
Contracts and orders, plant & equipment (billions of 1972 dollars).....	r12.61	r13.70	r12.58	p12.38	0.19	-0.20	-0.04	-
Building permits (index: 1967=100).....	87.1	99.8	109.9	126.3	0.40	0.28	0.49	+
#Change in inventories on hand and on order (ann. rate, billions of 1972 \$)...	r-12.39	r-15.38	p-11.51	NA	-0.19	0.24	NA	
#Change in sensitive raw materials prices, PPI (percent).....	r-0.45	0.27	1.12	1.92	0.30	0.36	0.40	+
Stock prices, 500 common stocks (index: 1941-43=10).....	114.55	119.83	123.50	126.51	0.28	0.19	0.18	+
#Change in total liquid assets (percent)...	r0.60	r0.63	e0.67	e0.71	0.10	0.13	0.15	+
Money supply (M2) (billions of 1972 \$)...	804.1	816.2	r820.5	p817.9	0.58	0.20	-0.15	-
Percent change in the index ²					3.55	1.71	2.38	

(*) Series is inverted in calculating the composite index of leading indicators: a decrease in the layoff rate is considered an increase in the series.

(#) 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

¹Net contribution of each individual component is that component's share in the composite movement of the group.²The percent change in the index equals the sum of the net contributions of the individual components plus the trend adjustment factor of 0.099 (except for occasional rounding differences).

Table 3. Net Contributions of the Individual Components to the Composite Index of Coincident Indicators

Indicator	Basic data				Net contribution to index ¹			Direction of change
	June	July	Aug.	Sept	June to July	July to Aug.	Aug. to Sept	Aug. to Sept
Employees on nonagricultural payrolls (thousands).....	90,047	r89,867	r90,109	p90,296	-0.16	0.21	0.21	+
Personal income less transfers in 1972 dollars (annual rate, billion dollars).	1,005.1	r1,002.9	r1,004.0	p1,000.9	-0.11	0.05	-0.20	-
Industrial production, total (index: 1967=100).....	r141.5	r140.1	r141.0	p142.4	-0.27	0.18	0.35	+
Manufacturing and trade sales in 1972 dollars (million dollars).....	147,805	r152,027	p148,871	NA	0.62	-0.46	NA	
Percent change in the index ²					-0.07	-0.15	0.22	

NA - not available p - preliminary r - revised

¹Net contribution of each individual component is that component's share in the composite movement of the group.

²The percent change in the index equals the sum of the net contributions of the individual components plus the trend adjustment factor of -0.164 (except for occasional rounding differences).

Table 4. Net Contributions of the Individual Components to the Composite Index of Lagging Indicators

Indicator	Basic data				Net contribution to index ¹			Direction of change
	June	July	Aug.	Sept	June to July	July to Aug.	Aug. to Sept	Aug. to Sept
*Average duration of unemployment (weeks).....	11.7	11.6	12.6	13.1	0.05	-0.51	-0.36	-
Manufacturing and trade inventories, total, 1972 dollars (billion dollars)...	257.50	r257.90	p257.43	NA	0.07	-0.09	NA	
Labor cost per unit of output, manufacturing (index: 1967=100).....	r198.0	200.4	r200.9	p201.2	0.38	0.08	0.07	+
Average prime rate charged by banks (percent).....	12.63	11.48	11.12	12.23	-2.24	-0.70	3.24	+
Commercial and industrial loans outstanding (million dollars).....	159,211	160,318	162,898	165,347	0.15	0.35	0.49	+
Ratio, consumer installment debt to personal income (percent).....	14.32	r14.06	p13.96	NA	-0.90	-0.34	NA	
Percent change in the index ²					-2.62	-1.40	3.34	

(*) Series is inverted in calculating the composite index of lagging indicators: a decrease in average duration of unemployment is considered an increase in the series.

NA - not available p - preliminary r - revised

¹Net contribution of each individual component is that component's share in the composite movement of the group.

²The percent change in the index equals the sum of the net contributions of the individual components plus the trend adjustment factor of -0.170 (except for occasional rounding differences).