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Feliks Tamm: (202) 523-0535 BEA 79-76

COMPOSITE INDEXES OF LEADING, COINCIDENT, AND LAGGING INDICATORS: OCTOBER 1979

The composite index of leading indicators decreased 0.9 percent in October to a level of 138.8 (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 September index level was revised to 140.1, which is 0.2 percent above the revised August level of 139.8. Change in inventories on hand and on order was the major contributor to the September revision.

Seven of ten indicators available for October contributed to the decline in the index: vendor performance, change in total liquid assets, contracts and orders for plant and equipment in 1972 dollars, stock prices, money supply in 1972 dollars, new orders in 1972 dollars, and building permits. Building permits contributed the greatest decline.

Two of ten contributed increases: layoff rate and change in sensitive prices (the weighted 4-month moving average of the monthly changes had a positive effect on the index even though sensitive prices increased at a declining rate in October). Change in sensitive prices contributed the greater increase.

One indicator was unchanged: average workweek.

The composite index of coincident indicators, which is a monthly approximation of aggregate economic activity, increased 0.3 percent in October to a level of 145.3 (1967=100). On the basis of more complete data, the September index level was revised to 144.8, which is unchanged from the revised August level.

The composite index of lagging indicators increased 4.9 percent in October to a level of 179.3 (1967=100). On the basis of more complete data, the September index level was revised to 170.9, which is 2.5 percent above the revised August level of 166.7.

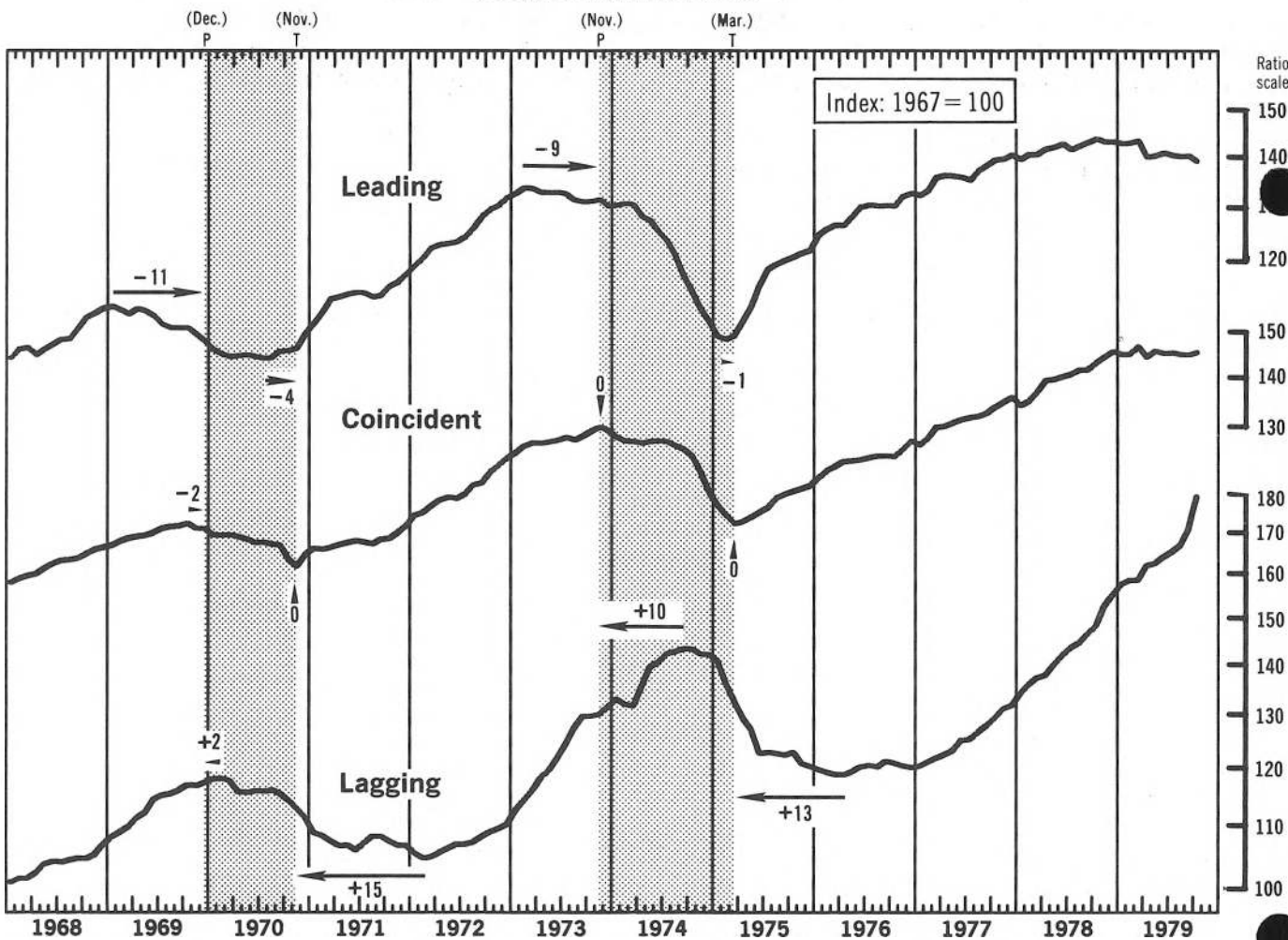
NOTE: The net contributions made by components of the coincident and lagging composite indexes are shown for the first time in this release.

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 more fully explained 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: $40.00.

Next release date: December 31 for the November composite indexes.

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 Indicators[1]

	1978			1979									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.
	Monthly index (1967=100)												
Leading indicators	143.6	142.8	r143.0	142.5	142.7	143.2	r139.7	r140.1	r140.6	140.1	r139.8	r140.1	p138.8
Coincident indicators	143.0	144.3	145.5	144.8	144.9	146.6	144.1	145.6	145.0	145.2	r144.8	r144.8	p145.3
Lagging indicators	148.1	152.7	155.2	157.5	158.5	158.5	161.9	162.5	r163.9	r165.1	r166.7	r170.9	p179.3
	Percent change from preceding month												
Leading indicators	0.5	-0.6	r0.1	r-0.3	0.1	0.4	-2.4	r0.3	r0.4	r-0.4	r-0.2	r0.2	p-0.9
Coincident indicators	1.1	0.9	0.8	-0.5	0.1	1.2	-1.7	1.0	-0.4	0.1	r-0.3	r0.0	p0.3
Lagging indicators	1.2	3.1	1.6	1.5	0.6	0.0	2.1	0.4	0.9	r0.7	1.0	r2.5	p4.9

	1978	1979		
	IV	I	II	III
	Quarterly average of monthly index (1967=100)			
Leading indicators	r143.1	142.8	140.1	r140.0
Coincident indicators	144.3	145.4	144.9	r144.9
Lagging indicators	152.0	158.2	162.8	r167.6
	Percent change from preceding quarter			
Leading indicators	r0.8	r-0.2	-1.9	r-0.1
Coincident indicators	2.3	0.8	-0.3	r0.0
Lagging indicators	5.0	4.1	2.9	r2.9

p - preliminary r - revised

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

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

Indicator	Basic data				Net contribution to index[1]			Direction of change
	July	Aug.	Sept.	Oct.	July to Aug.	Aug. to Sept.	Sept. to Oct.	Sept. to Oct.
Average workweek, production workers, manufacturing (hours)	40.2	40.1	r40.1	p40.1	-0.08	0.0	0.0	0
*Layoff rate, manufacturing (percent)	1.2	1.5	1.2	p1.1	-0.30	0.33	0.12	+
New orders, mfg., consumer goods and materials (billions of 1972 dollars)	r35.90	r35.94	r36.29	p36.26	0.01	0.05	-0.01	-
Vendor performance, companies reporting slower deliveries (percent)	60	55	51	50	-0.18	-0.15	-0.04	-
Net business formation (index: 1967=100)	r132.3	e131.4	NA	NA	-0.10	NA	NA	
Contracts and orders, plant and equipment (billions of 1972 dollars)	13.31	r13.22	r14.25	p13.11	-0.02	0.19	-0.23	-
Building permits (index: 1967=100)	123.4	133.6	143.4	124.6	0.23	0.23	-0.49	-
#Change in inventories on hand and on order (ann. rate, billions of 1972 dollars)	r15.04	r13.82	p7.33	NA	-0.08	-0.45	NA	
#Change in sensitive prices (percent)	1.97	1.97	1.78	2.16	0.0	-0.09	0.19	+
Stock prices, 500 common stocks (index: 1941=43=10)	102.71	107.36	108.60	104.47	0.27	0.08	-0.28	-
#Change in total liquid assets (percent)	r0.90	r0.89	r0.87	p0.84	-0.03	-0.07	-0.12	-
Money supply (M2) (billions of 1972 dollars)	524.4	523.7	523.4	p522.0	-0.06	-0.03	-0.14	-
Percent change in the index[2]					-0.21	0.21	-0.93	

(*) 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

[1]Net contribution of each individual component is that component's share in the composite movement of the group.
[2]The 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 Individual Components to the Composite Index of Coincident Indicators

Indicator	Basic data				Net contribution to index[1]			Direction of change
	July	Aug.	Sept.	Oct.	July to Aug.	Aug to Sept.	Sept. to Oct.	Sept. to Oct.
Employees on nonagricultural payrolls(thousands)	89,713	r89,762	r89,845	p90,151	0.04	0.07	0.35	+
Personal income less transfers in 1972 dollars (annual rate, billion dollars)	r1,024.9	r1,023.5	r1,020.0	p1,022.3	-0.07	-0.17	0.14	+
Industrial production, total (index: 1967=100)	152.8	r151.6	152.3	p152.5	-0.22	0.13	0.05	+
Manufacturing and trade sales in 1972 dollars (million dollars)	159,296	r160,227	p160,768	NA	0.13	0.07	NA	
Percent change in the index[2]					-0.28	0.0	0.35	

NA - not available p- preliminary r- revised

[1]Net contribution of each individual component is that component's share in the composite movement of the group.
[2]The 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 Individual Components to Composite Index of Lagging Indicators

Indicator	Basic data				Net contribution to index[1]			Direction of change
	July	Aug.	Sept.	Oct.	July to Aug.	Aug. to Sept.	Sept. to Oct.	Sept. to Oct.
*Average duration of unemployment (weeks)	10.0	10.5	10.6	10.5	-0.30	-0.06	0.09	+
Manufacturing and trade inventories, total, in 1972 dollars (billion dollars)	r259.10	259.38	p257.85	NA	0.05	-0.28	NA	
Labor cost per unit of output, manufacturing (index: 1967=100)	r175.0	r176.3	r176.8	p178.4	0.23	0.09	0.42	+
Average prime rate charged by banks (percent)	11.54	11.91	12.90	14.39	0.72	1.92	4.35	+
Commercial and industrial loans outstanding (million dollars)	r148,526	r151,058	r154,793	p155,215	0.37	0.54	0.09	+
Ratio, consumer installment debt to personal income (percent)	r15.02	r15.04	p15.17	NA	0.07	0.45	NA	
Percent change in the index[2]					0.97	2.52	4.92	

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

NA - not available p - preliminary r - revised

[1]Net contribution of each individual component is that component's share in the composite movement of the group.
[2]The 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).