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# 2002 Mid-Year Benchmark Revisions to the U.S. Composite Indexes

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The Conference Board's August 19, 2002 release of the U.S. Composite Indexes for July 2002 includes benchmark revisions that incorporate recent changes to the history of component data. The benchmark revision is a maintenance procedure typically done at the beginning of the year. In light of substantial data revisions announced by the Bureau of Economic Analysis (BEA) in July, however, The Conference Board decided to undertake a mid-year benchmark revision and incorporate the changes. Benchmark revisions usually have minor effects on the composite indexes, since the list of underlying components is not changed and the component revisions often tend to offset each other.

During the course of the year, monthly updates to the leading, coincident, and lagging indexes only include revisions to component data over the past six months. This methodology was adopted to avoid many minor revisions to the history of the indexes throughout the year. In the benchmark revisions, histories of the composite indexes are recalculated using the most up-to-date version of the component data available. In special circumstances, such as the adoption of the North American Industrial Classification Standard (NAICS) last year, and the relevance of the BEA revisions last month, it becomes necessary to revise the indexes in order to reflect the latest important changes in the data.

### Volatility Adjustment Factors are Updated at Benchmark Revisions

As part of this process, the standardization factors—which adjust the component contributions to equalize their volatility—were also recalculated based on the most up-to-date data for the component series. The standardization factors were calculated as the inverse of the standard deviations of each component's contributions, using the period from 1959 to 2000 (for more information on the index methodology, visit **www.globalindicators.org**). Therefore, the month-to-month changes in the indexes will no longer be comparable to those published earlier. For the 2003 benchmark revision, however, the standardization factors will be based on the period from 1959 to 2001.

The changes in the standardization factors are very small, as expected. Table 1 lists the standardization factors that were used from January 2002 to July 2002, and the factors for the remainder of the year.

## BEA Revisions Show a Larger and Longer Economic Contraction in GDP in 2001

The National Income and Product Account (NIPA) revisions of the U.S. Department of Commerce's Bureau of Economic Analysis last month showed a deeper and more protracted 2001 recession than previously thought. Prior to the revision, the GDP had only a one-quarter decline of 0.34 percent, as opposed to a three-quarter decline of 0.62 percent after the revisions.

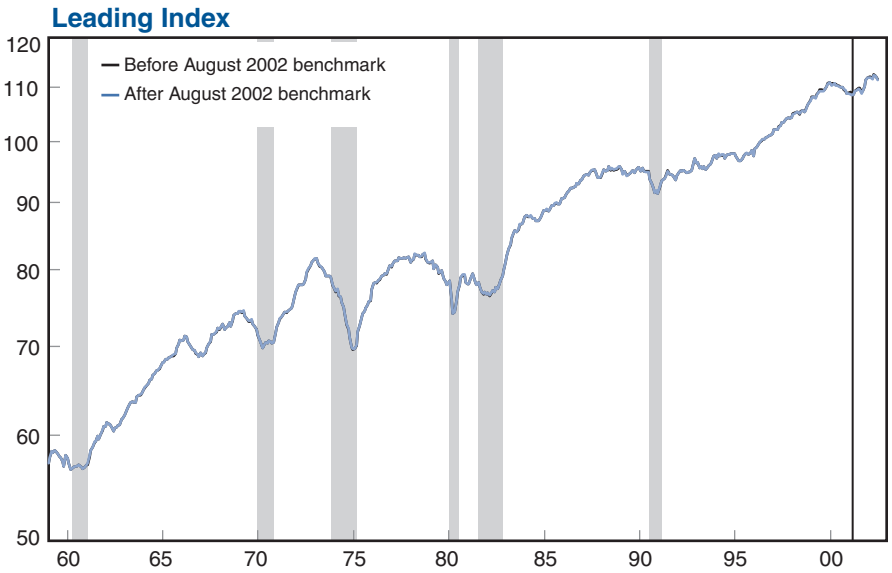
The Conference Board's coincident index prior to all these revisions indicated an economy weakening from December 2000 to November 2001, and the fall in the coincident index was 1.03 percent from peak to trough. After the revisions, the coincident index shows the same decline, but it is now a drop of 1.64 percent from peak to trough. This underscores one of the advantages of the *monthly* coincident index vis-à-vis the GDP in measuring current economic activity.

Specifically, real personal income less transfer payments and real manufacturing and trade sales—both components of the coincident index—were most affected by the NIPA revisions. Prior to revisions, the former did not show any cyclical behavior in the 2001 recession. After the revisions, however, it now shows November 2000 as the clear peak for the series, and June 2001 as the trough. On the other hand, real manufacturing and trade sales showed cyclical behavior prior to revisions. The peak date for this particular series, however, changed from August 2000 (prior to the revisions) to June 2000. Overall, these two series contributed to the deeper decline in the coincident index in 2001.

Table 1

### U.S. Composite Indexes: Components and Standardization Factors

| | | *August 2002* | *January 2002* |
|---|---|---|---|
| **Leading Index** | | | |
| 1. | Average weekly hours, manufacturing | .1812 | .1812 |
| 2. | Average weekly initial claims for unemployment insurance | .0261 | .0241 |
| 3. | Manufacturers' new orders, consumer goods and materials | .0496 | .0456 |
| 4. | Vendor performance, slower deliveries diffusion index | .0276 | .0277 |
| 5. | Manufacturers' new orders, nondefense capital goods | .0130 | .0131 |
| 6. | Building permits, new private housing units | .0191 | .0191 |
| 7. | Stock prices, 500 common stocks | .0308 | .0310 |
| 8. | Money supply, M2 | .3038 | .3068 |
| 9. | Interest rate spread, 10-year Treasury bonds less federal funds | .3305 | .3330 |
| 10. | Index of consumer expectations | .0183 | .0185 |
| **Coincident Index** | | | |
| 1. | Employees on nonagricultural payrolls | .5230 | .4805 |
| 2. | Personal income less transfer payments | .2176 | .2814 |
| 3. | Industrial production | .1407 | .1292 |
| 4. | Manufacturing and trade sales | .1187 | .1090 |
| **Lagging Index** | | | |
| 1. | Average duration of unemployment | .0378 | .0367 |
| 2. | Inventories to sales ratio, manufacturing and trade | .1257 | .1225 |
| 3. | Labor cost per unit of output, manufacturing | .0624 | .0611 |
| 4. | Average prime rate | .2521 | .2454 |
| 5. | Commercial and industrial loans | .1300 | .1265 |
| 6. | Consumer installment credit to personal income ratio | .1992 | .2209 |
| 7. | Consumer price index for services | .1929 | .1869 |

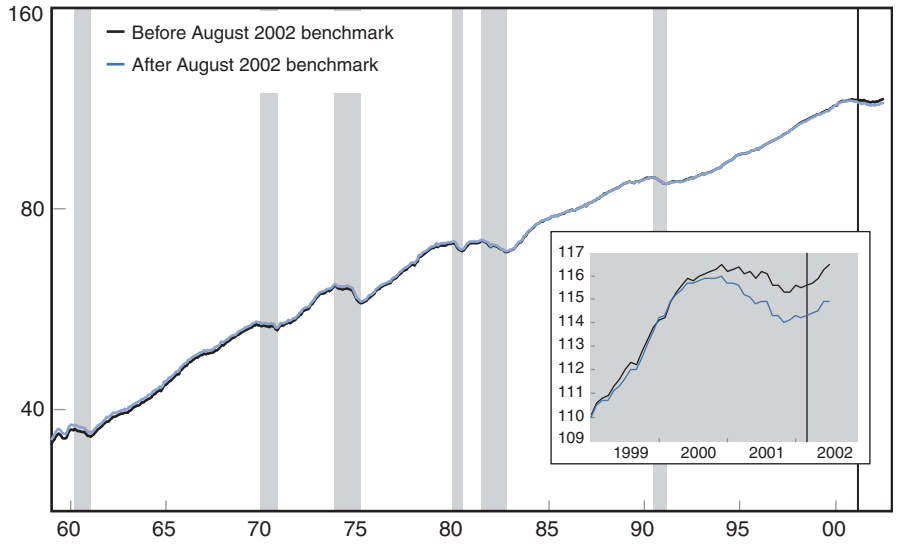


## Cyclical Performance of the Composite Indexes

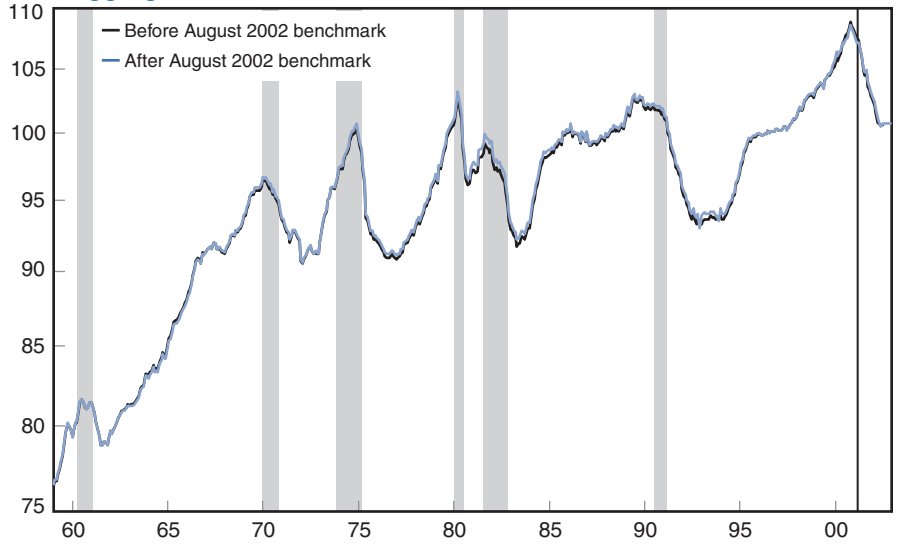
The series in the leading index affected by the latest BEA revisions were manufacturers' new orders for consumer goods and materials, and manufacturers' new orders for non-defense capital goods. The series in the lagging index affected by the latest BEA revisions was the ratio of manufacturing and trade inventories to sales. The effects of these data revisions on the indexes were minimal, as seen in the charts. While the data revisions affecting these components were not great, the small impact of these revisions on the leading and lagging indexes is at least partly due to the fact that revisions in different components may offset each other.

While the levels of the new composite indexes differ from their levels prior to the revision, their cyclical patterns remain unchanged. That is, the peak and trough dates of the leading, coincident, and lagging indexes, and the coincident-to-lagging ratio after the benchmark process remain unchanged from respective peak and trough dates prior to the benchmark revision. The accompanying charts show the effect of the benchmark revisions on the indexes.

### Coincident Index




### Lagging Index




### Ratio of the Coincident to Lagging Index