



# Chemical Activity Barometer

American chemistry is essential to the U.S. economy. Chemistry's early position in the supply chain gives the American Chemistry Council (ACC) the ability to identify emerging trends in the U.S. economy and specific sectors outside of, but closely linked to, the business of chemistry.

The Chemical Activity Barometer (CAB), the ACC's first-of-its kind, leading macroeconomic indicator will highlight the peaks and troughs in the overall U.S. economy and illuminate potential trends in market sectors outside of chemistry. The barometer is a critical tool for evaluating the direction of the U.S. economy.

The index provides a longer lead (performs better) than the National Bureau of Economic Research (NBER). The CAB leads by two to fourteen months, with an average lead of eight months.

## How is it created?

The CAB is a composite index which is comprised of indicators drawn from a range of chemicals and sectors, including chlorine and other alkalis, pigments, plastic resins and other selected basic industrial chemicals. It first originated through a study of the relationship between the business cycles in the production of selected chemicals and cycles in the larger economy. Other specific indicators used include:

- Hours worked in chemicals;
- Chemical company stock data; publicly sourced, chemical price information;
- End-use (or customer) industry sales-to-inventories; and
- Several broader leading economic measures (building permits and ISM PMI new orders).

*The CAB is designed and prepared in compliance with ACC's Antitrust Guidelines and FTC Safe Harbor Guidelines; it does not use company-specific price information as input data; and data is aggregated such that company-specific and product-specific data cannot be determined.*

## What is a leading indicator?

The CAB is a composite index of chemical industry activity that produces a leading indicator of broader economy-wide activity. To better understand shifts in the business cycle, it's important to distinguish between leading, coincident and lagging indicators of the cycle, which essentially reflect the timing of their movements:

- Leading indicators (average weekly hours, new orders, consumer expectations, building permits, stock prices, etc.) are those that consistently turn before the economy does.
- Coincident indicators (employment, industrial production, personal income, business sales, etc.) turn in step with the economy and track the progress of the business cycle.
- Lagging indicators (inventory-to-sales ratios, change in unit labor costs, C&I loans outstanding, etc.) turn after the economy turns, thus playing a confirming role.

The three types of indicators are important in their own right, although most attention is played to the role of leading indicators because they tend to shift direction in advance of the business cycle.

## Why is it critical?

The CAB:

- Provides earlier forecasting
- Determines turning points and likely future trends of the wider U.S. economy
- Identifies shifts in other industries within the U.S. economy
- Highlights the industry's role in driving economic growth

The CAB is not a leading index of chemical industry activity. Rather, it is a leading index (barometer) based on chemical industry data that leads overall industrial production and the overall business cycle.