In Focus

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Analytics Corner

Understanding Leading and Lagging Indicators

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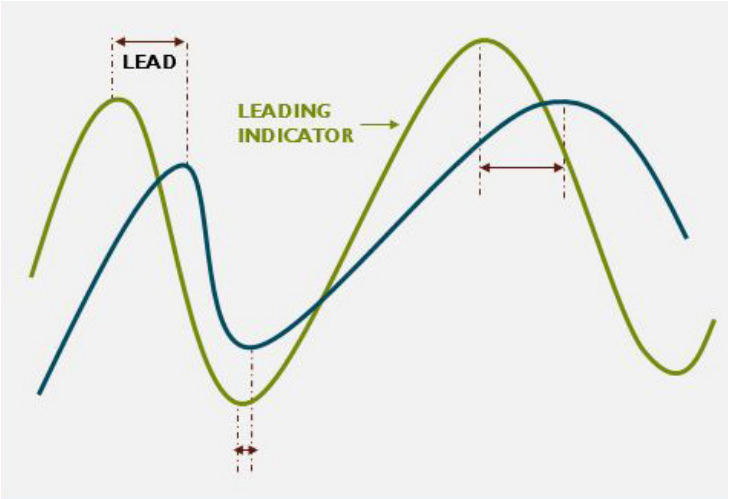
It can be easy to conflate the stock market and the economy, and we've seen this happen particularly over the past few years with the combination bull market and strong U.S. economy. People have begun to associate them together. But not only are they not the same thing, the relationship between them may not be as straightforward as many people think. Understanding how economic indicators and stock prices are related can be important when it comes to recognizing market opportunities. Particularly as we come to what may be a turn in the market cycle, understanding indicators and what they show us can help us to be prepared.

Stock analysts divide indicators into two main categories as they relate to stock prices and/or the economy:

- **Lagging indicators:** A measurable economic factor that changes only after the economy has begun to follow a particular pattern or trend
- **Leading indicators:** Any economic factor that changes before the rest of the economy begins to go in a particular direction

Recognizing the relation between different indicators does not make it possible to predict the future, but it does help us better understand the environment. And it can prevent misunderstanding, which commonly occurs when investors mistake lagging indicators for leading indicators. So let's clarify by identifying some of the most common lagging indicators, as well as the leading indicators market analysts use to help forecast economic shifts.



Lagging indicators:

- **GDP:** Gross Domestic Product (GDP) growth, used as a measure of economic health, is actually a lagging indicator of the economy, as the measure is always slightly behind the reality. While GDP growth provides valuable information about the economy, the measure doesn't point to the future but to the past.
- **Unemployment:** Unemployment is often used to indicate economic strength, but is also a lagging indicator. Low unemployment is the result of economic growth, not the precursor.
- **Wage growth:** Similar to unemployment, strong wage growth follows economic growth.
- **Inflation:** Inflation is another lagging indicator, demonstrating that demand has increased due to economic growth, and prices are rising to reflect the growing demand.

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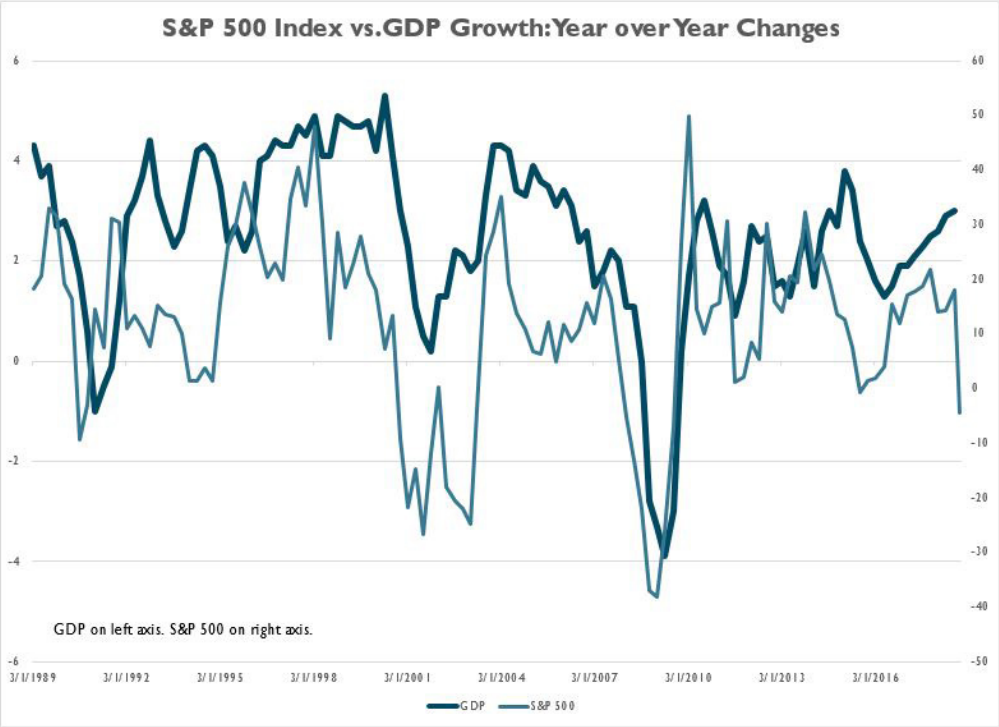
Leading indicators:

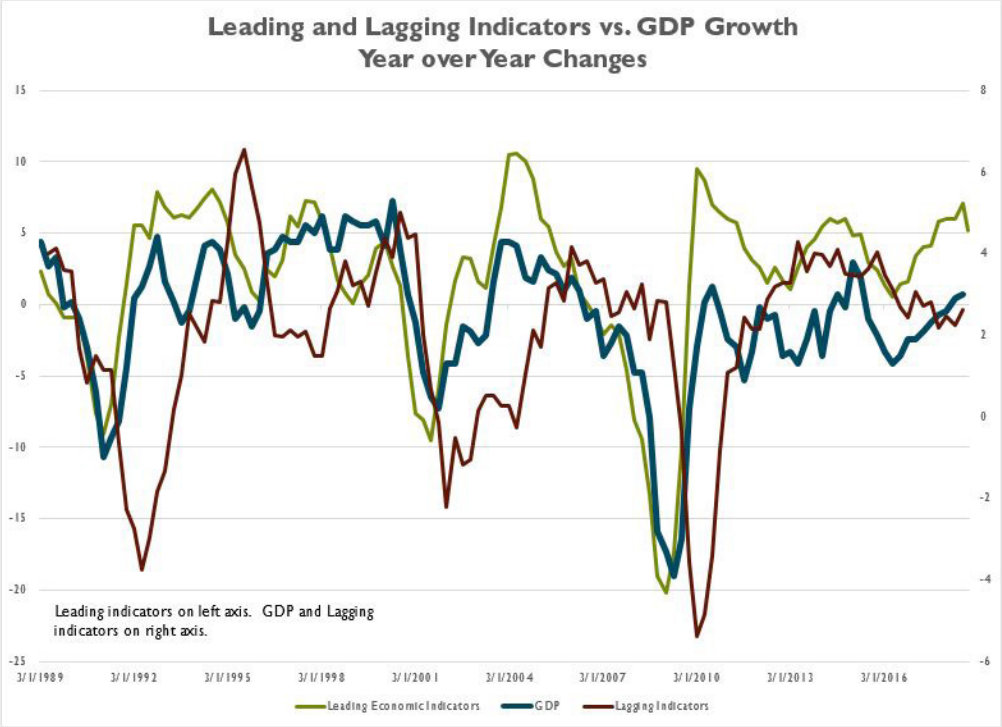
- **Stock market:** The stock market is not the strongest leading indicator of economic strength, but it does tend to move in advance of the economy and shows some correlation to GDP growth. The key thing to understand is that a strong market generally means that earnings estimates are up and investors are expecting the economy to grow. Conversely, decreasing market prices can indicate economic weakness on the way.
- **Manufacturing activity:** An increase in manufacturing activity suggests growing consumer demand, leading to economic growth.
- **Inventory levels:** Inventory levels are an inverse leading indicator; high inventory levels suggest slowing consumer demand as supplies exceed demand, suggesting a slowing economy.
- **Building permits:** A high volume of building permits suggests the construction industry will be active, strengthening job prospects and economic growth. On the other hand, fewer building permits means slowing construction and lower demand.
- **Housing market:** As with building permits, an increase in real estate prices implies increasing demand and growth, whereas declining real estate values suggest that consumers are tightening their belts.
- **New business startups:** New business startups can have a significant effect on the job market, and are a strong indicator of the direction of the economy.
- **Bond yields:** Bond traders often anticipate trends in the economy, and bond yields tend to reflect investor expectations of future economic conditions, making bond yields a strong leading indicator.

Because the media focuses so heavily on stock prices as a leading indicator for the economy, how do they actually stack up when it comes to predicting economic growth? The chart below compares the S&P 500 Index year-over-year changes versus GDP growth year-over-year changes. There's some correlation, but it isn't always consistent. For this reason, while stock prices are certainly considered to be a leading indicator of the economy, they are not a reliable tool on their own for forecasting.

And, while stock prices can tell us something about the direction of the economy, it doesn't work the other way around; economic growth does not necessarily presage rising stock prices.

The Conference Board's Leading Economic Index compiles ten of the most significant leading indicators into a single index; they also combine the strongest lagging indicators into the Conference Board Lagging Economic Index. The chart on the following page shows the Conference Board's Leading and Lagging Indexes (year





over year growth) versus GDP growth – see the boxes to the right for the specific components of each index. You can see that the indexes don't perfectly predict or follow the economy, but that the correlations are fairly strong. The Leading Index tends to show movement about a quarter in advance of the economy, whereas the Lagging Index is usually about three quarters behind.

What does this mean for investors? Understanding leading and lagging indicators can give us a flavor for the future. While we largely avoid market timing — our research shows that a long-term, diversified approach is the most successful strategy — we do examine the environment and make tactical decisions at the margins to take advantage of opportunities and to guard against risks.

Recently, some indicators suggest the economy may be in for a slowdown. For instance, the bond yield curve has flattened, and if it inverts, it could be an indication that recession is on the way. But this is not necessarily bad news for stocks. Earnings continue to be strong, and if valuations do come down, it could be a good opportunity to lean in to certain areas of the equity market.

When it comes to stocks, our research shows that since 1970, the S&P 500 has been up about 53% of the time on a daily basis. On a monthly basis, the Index is up 63% of the time, and that increases to 70% of the time quarterly. On an annual basis, the S&P 500 has risen 80% of the time. This supports our thesis that you don't need to time the market to be successful — you simply need to understand and participate in the long-term trends.

The Conference Board Leading Economic Index for the U.S. includes:

- Average weekly hours, manufacturing
- Average weekly initial claims for unemployment insurance
- ISM® Index of New Orders
- Manufacturers' new orders, nondefense capital goods excluding aircraft orders
- Building permits, new private housing units
- Stock prices, 500 common stocks
- Leading Credit Index™
- Interest rate spread, 10-year Treasury bonds less federal funds
- Average consumer expectations for business conditions

The Conference Board Lagging Economic Index for the U.S. includes:

- Average duration of unemployment
- Inventories to sales ratio, manufacturing, and trade
- Labor cost per unit of output, manufacturing
- Average prime rate
- Commercial and industrial loans
- Consumer installment credit to personal income ratio
- Consumer price index for services