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DIFFUSION INDEXES & ECONOMIC TURNING POINTS

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Diffusion indexes measure multiple indicators, and whether they are trending upward or downward, in an effort to determine the state of the economy and possible turning points. At times, however, a contrarian view can be wise.

MEASURING THE BREADTH OF JOB LOSSES AND GAINS

Diffusion indexes typically use 50 or zero (0) as a base value. A number above the base suggests expansion, while a reading below the base suggests contraction. If exactly half of the items being measured are advancing and the other half are declining, the diffusion index is 50 or zero depending upon the base for the index. The magnitude of the movements of each component is ignored.

The unprecedented shutdown of the U.S. economy thrust the employment data into headlines nationwide. In June, the employment diffusion index for Federal Reserve District 3: Philadelphia was -4.3, compared with -46.7 in April. The drop in the diffusion index in recent months shows that job losses from the virus were not limited merely to industries like leisure and hospitality, but were spread widely across the economy.

AN ECONOMIC BAROMETER

In order to gauge the health and direction of the U.S. economy, investors focus on several diffusion indices each month. The most notable include two from the Institute for Supply Management (ISM) on manufacturing and services, indexes from regional Federal Reserve district offices including Philadelphia, New York, and Chicago, and indexes from IHS Markit.

Investors typically want diffusion indices to be above the base number because this would suggest that the economy is expanding.
Movement like this in the Philadelphia Federal Reserve office index coincided with positive stock price movement in 2019.

It would seem to be logical that a consistently rising diffusion index would be incrementally positive for the stock market. Historically, however, too much of a good thing has proven to produce exactly the opposite stock market reaction.

The chart above covers the entire 52-year history of the Philadelphia Federal Reserve manufacturing index with major peaks and troughs highlighted.

The Philly Fed Index was strong leading up to March 1973, which suggests the economy and the stock market were in very solid positions. From this peak reading for the Philly Index at 58.9, the S&P 500 fell 38.67% by December 1, 1974, as the Index fell to -57.9. This same pattern of a very strong Index reading leading to a major slump and sharply falling stock prices was evident in 2004, 2008, and 2011.

On the other hand, significantly negative levels of the index in 1980, 1990, 2001, 2008, and 2011 led to major stock market gains.

2020: AN UNPRECEDENTED TIME

We are currently in a unique situation. As the chart above illustrates, usually many months and often years separate major index peaks and troughs. This year, it took only three months for the index to go from the third-lowest reading ever (-56.6) to 27.5, which was 2.5 times the median for the index and slightly more than three times the average. This recovery was the most rapid return to zero or better in the history of the index. From May 1, 2020, to June 1, 2020, the index posted a record one-month change.

The unprecedented shutdown of major portions of the economy and the massive stimulus applied to facilitate a recovery clouds the interpretation of what the index suggests about the economy. Some economists argue the economy might have peaked as far back as 2017 with COVID-19 dramatically accelerating the decline. In taking this view, they might argue that the recent sharp rebound will be temporary and the ultimate economic trough is still ahead. This view, however, fails to
acknowledge the massive fiscal and monetary stimulus thrust into the economy that, as of now, has only had a modest effect. The vast majority of the impact should be felt over the next year or longer.

The Philadelphia diffusion index history offers a simple way of seeing the periodically inverse relationship to the stock market. Although all the major diffusion indices have value that can lead to tactical portfolio shifts to enhance returns, the chart below summarizes how during the long term, the Philadelphia index relates to the equity market and how that should be applied by long-term investors.

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