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Practical Applications of Information Flow and Expected Inflation: *An Empirical Analysis*

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Information Flow and Expected Inflation: *An Empirical Analysis*

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Overview

In **Information Flow and Expected Inflation: *An Empirical Analysis***, published in the Winter 2017 issue of ***The Journal of Investing***, **Bradford Cornell**, a visiting professor at the **California Institute of Technology**, analyzes what sort of market news leads to big moves in the breakeven inflation rate (BEI), which he defines as the difference between the yield to maturity on the 10-year Treasury note versus the 10-year Treasury inflation-protected security, or TIPS.

Cornell concludes that the BEI often shifts significantly in price following news stories about changes in Federal Reserve interest rate policy or news related to overall economic activity and aggregate demand. In contrast, announcements related to inflation data, money supply, or fiscal policy do not seem to consistently trigger significant shifts in the BEI.

Practical Applications

- **Investors frequently link expected inflation to actions by the Federal Reserve or news about economic demand.** In contrast, in the period tracked by Cornell, the value of the BEI rarely or never reacted substantially to news about consumer prices, money supply, or fiscal policy such as government borrowing.
- **Sometimes the market revises its expectations of inflation even when there is no public release of information.** On 26 of the 67 days in the sample period in which the BEI saw large shifts, there was no public release of news related to inflation, and the market movements cannot readily be explained.

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Bradford Cornell is a professor of financial economics at Caltech and a senior consultant at CompassLexecon. He teaches courses on applied corporate finance, investment banking, and corporate valuation. Prior to joining Caltech, he was the Bank of America Professor of Finance at the Anderson Graduate School of Management at UCLA. Professor Cornell received his master's degree in statistics and his PhD in financial economics from Stanford University.

Professor Cornell has published more than 100 articles on a wide variety of topics in applied finance, particularly, empirical analysis of asset pricing models. He is also the author of *Corporate Valuation: Tools for Effective Appraisal and Decision Making*, published by Business One Irwin, and *The Equity Risk Premium and the Long-Run Future of the Stock Market*, published by John Wiley.

As a consultant, Professor Cornell has provided testimony and expert analysis in some of the largest and most widely

(*Continued on next page*)

publicized finance-related cases in the United States. He is also the founder of San Marino Business Partners, a private investment firm that focuses on active investments in U.S. equities and equity derivatives.

Key Definitions

Breakeven expected inflation (BEI) rate

This is measured by calculating the difference between the yield to maturity on the 10-year constant maturity Treasury note and the constant maturity 10-year Treasury inflation-protected security (TIPS).

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>
> —**Bradford Cornell**

- **Economists question linking changes in expected inflation to Federal Reserve announcements, but a pattern clearly exists.** It may be helpful for investors to be aware of the pattern behind these price movements, but Cornell cautions about their relevance to a long-term investment strategy.

Discussion

Cornell has long sought to understand what sort of economic news triggers a significant response by investors. Paraphrasing leading economist Stephen Ross, Cornell noted in a recent interview: "It's not too surprising that we can't predict where the market is going. But we should be able to explain why it went where it did. It turns out that is actually incredibly hard to do."

In his article, Cornell identifies three potential explanations for significant market movements as measured by the BEI rate. The first relates to expectations about changes in the money supply, or what Cornell calls "the monetarist explanation." The second theory involves concerns about the government's ability to pay off its debt, or the "fiscal theory of inflation." The final hypothesis for large shifts in the BEI rate relates to what Cornell calls the "Keynesian" model, which refers to news regarding Federal Reserve interest rate policies and "aggregate demand."

ALL THE NEWS THAT'S FIT TO TRADE?

Cornell looked at movements in the BEI from January 1, 2003, through November 10, 2015. Then he identified the days when there was a movement of 10 basis points or more, which amounted to 67 out of 3,219 days, or 2% of the total. He then reviewed what sort of news, if any, emerged on those days that fit within the three themes he had identified: monetarist, fiscal, and Keynesian. Cornell looked at the news coverage the day of the price movement as well as the following day. (The various news categories could overlap.)

What he discovered is that the so-called Keynesian theory accounted for the lion's share of the market movements, with 27 news items on Federal Reserve policy or decision making coinciding with large shifts in the BEI, and 26 instances where there was news about economic activity and aggregate demand. (These two categories often were both in the news on the same day.) There were six instances in which there was news related to the consumer price index that coincided with swings in the BEI. In contrast, the wholesale price index and government debt/fiscal policy surfaced in one news story each, while monetary supply was not a theme on any of the 67 days.

“[V]irtually every news report related to inflation on days when there were large changes in the BEI either explicitly discussed Federal Reserve policy regarding interest rates or focused on the interaction between Fed policy, economic activity, and expected inflation,” Cornell notes in the article.

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> **—Information Flow and Expected Inflation: An Empirical Analysis**

SOMETIMES, MR. MARKET DOESN’T HAVE A REASON

Frustratingly, Cornell found 26 days in which there were large changes in the BEI but no apparent reason for the moves, with no news emerging that fit into any of the identified categories.

“It is further evidence of our inability to explain asset price movements, after the fact, on the basis of the public release of information,” Cornell wrote in his article. “That inability is one of the most vexing issues in financial economics.”

A FOCUS ON THE LONG TERM

Cornell advises investors not to get too distracted by macro data of the sort he identifies in his article. “What do I do with this? Nothing. First of all, it’s so hard to predict what the Federal Reserve will or won’t do. And the data is too noisy and uncertain.”

With the $35 million hedge fund Cornell manages, mostly with money from friends and family, he pursues a micro- rather than macroeconomic strategy. “I am more of a Warren Buffett type of investor, I look at the long-run earning power of companies,” he says.

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