

THE WALL STREET JOURNAL.

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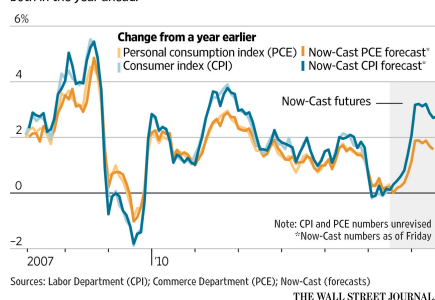
ECONOMY | ECONOMIC DATA

Economic Forecasting Is Getting More Up-to-the Minute

Company scans Internet data to produce real-time indicators

Tracking Numbers

Now-Cast has closely predicted how the personal consumption and consumer indexes have done. It also predicts a significant rise for both in the year ahead.



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By JOSH ZUMBRUN

Updated Aug. 24, 2015 7:47 p.m. ET

The Federal Reserve updates its economic forecasts every quarter. Many economists update their estimates monthly. Some forecasters run their models daily to incorporate new information.

If that's still too slow, a new company aims to offer forecasts every single minute created by trawling the Internet continuously for data. Run by a computer system dubbed Xcalibur, because it is constantly calibrating, the forecast spits out constantly updated projections for about 3,600 indicators.

"Once a week, or monthly, is not real-time," said Giselle Guzman, a forecaster and economist who founded the company, Now-Cast Data Corp. "Real-time is the speed of life as we're living it."

Users of Now-Cast, being unveiled to the public this week, can pull up a dashboard of forecasts of major U.S. indicators, and watch as every few moments the screen flashes and the forecasts update. They often move by only fractions of a percentage point, but after hours and days, the forecast continuously transforms as new data come in.

The approach reflects the supply of data online and rising demand for up-to-date economic estimates, especially on turbulent market days like Monday. Most official economic data is built around government surveys and records that take a month or more to compile. Investors and policy makers make decisions about today's economy even though they won't have data on its health for weeks or months.

The nation's economic data agencies are continually working to make their data faster and more comprehensive. The Labor Department, for example, is seeking funding to make its monthly survey on job openings and turnover come out just a few days after the month's end, instead of the subsequent month. The Commerce Department recently unveiled quarterly reports of gross domestic product by state and by industry, upping the pace from annual. But official real-time dashboards remain a remote prospect given government funding constraints.

"Right now, we rely very heavily on this peculiar process where we forecast an estimate of the past," said Joseph Stiglitz, a Nobel Prize-winning economist at Columbia University who mentored Ms. Guzman while she was getting her doctorate. For example, the Commerce Department is now revising its estimate of gross domestic product for the second quarter. That means economists in August are attempting to guess the result of a second attempt at measuring the period from April to June.

Ms. Guzman, who for 17 years worked with the late Lawrence Klein, another economics laureate and the father of modern economic forecasting, declined to identify Now-Cast's specific data sources but said they include social-media data and Internet search queries. Ms. Guzman has published an academic paper that showed how people are

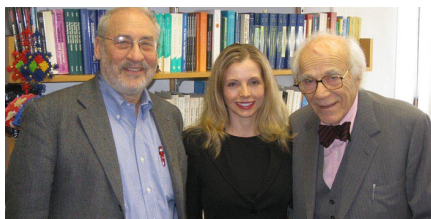
more likely to do Internet searches for terms like “inflation” when they are worried about rising prices, and she argues that such search data can be used to predict inflation expectations more accurately than surveys.

Other researchers have demonstrated this same technique can help estimate retail sales, auto and home sales, unemployment claims and travel patterns.

Meanwhile, several companies are competing to use big data to accelerate forecasting. Premise Data Corp. collects food and grocery prices, with individuals taking photos at food carts and store shelves to track changes globally. Another company, Billion Prices Project, scrapes Internet prices to estimate inflation with its PriceStats index.

While Premise creates gauges of food prices, it also has branched out to more novel indicators such as an initiative in Venezuela to photograph the length of lines at supermarkets to measure food insecurity.

Some economists say the abundance of Internet data still doesn't provide enough information to see into the future.



Nobel laureates Joseph Stiglitz, left, and Lawrence Klein, right, with Giselle Guzman, center, founder of Now-Cast. PHOTO: GISELLE GUZMAN

“You could have every transaction on Amazon, every search on Google, every résumé that’s downloaded, that’s really useful stuff,” said Michael Strain, an economist at the American Enterprise Institute who has worked at the New York Fed and Census Bureau and who hasn’t reviewed Now-Cast specifically. “When a big outside event disrupts the economy, those are hard things to forecast. By definition you can’t build them into your forecasting model because they haven’t happened yet.”

An episode earlier this year showed both the power and limits of faster forecasts. In late February and early March, PriceStats began showing a sharp acceleration in inflation. The Labor Department’s official consumer-price index, only available through January at the time, was sharply negative. The CPI eventually confirmed that inflation accelerated.

But the acceleration didn’t last. In March, inflation climbed at the same pace as in February. In April, the rate slowed. PriceStats was right, but its window into the future was limited.

As of Monday, Now-Cast predicted the Fed’s preferred gauge of inflation, the personal consumption expenditures price index, including food and energy, will have been 0.3332% higher than a year earlier in July and 0.3618% higher from a year earlier in August.

The official report for July comes out Friday. August’s report comes out in late September.

So far, Mr. Stiglitz said forecasts he has seen from Now-Cast have been impressive, but “it will be a question of the test of time whether in fact it holds up.”

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