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Google to map inflation using web data

By Robin Harding in Denver

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Google is using its vast database of web shopping data to construct the 'Google Price Index' – a daily measure of inflation that could one day provide an alternative to official statistics.

The work by Google's chief economist, Hal Varian, highlights how economic data can be gathered far more rapidly using online sources. The official Consumer Price Index data are collected by hand from shops, and only published monthly with a time lag of several weeks.

At the National Association of Business Economists conference in Denver, Colorado, Mr Varian said that the GPI was a work in progress and Google had not yet decided whether to publish it.

While the Federal Reserve is unlikely to panic just yet, Mr Varian said that the GPI shows a "very clear deflationary trend" for web-traded goods in the US since Christmas. Although the data are not seasonally adjusted, Mr Varian said that prices rose during the same period a year ago. The 'core' CPI in the US, which excludes food and energy, rose 0.9 per cent on a year ago in August.

“It’s a quite different picture if you go to the UK where you see a slight inflationary trend,” Mr Varian said. He attributed the rise in the UK GPI to the weakness of sterling.

Mr Varian emphasised that the GPI is not a direct replacement for the CPI because the mix of goods that are sold on the web is different to the mix in the wider economy. Housing accounts for about 40 per cent of the US CPI, for example, but only 18 per cent of the GPI.

The GPI shows a “pretty good correlation” with the CPI for goods such as cameras and watches that are often sold on the web, but less so for others, such as car parts, that are infrequently traded online.

Mr Varian said that the GPI had been inspired by a personal shopping experience: “A tragedy struck our house a few months ago because my favourite pepper grinder broke.”

On typing ‘pepper grinder’ into Google Shopping, Mr Varian was struck by the list of prices. “What’s the first thing you want to do if you’re an economist? You want to construct a price index,” Mr Varian said.

Mr Varian also discussed some of his other work on using Google’s search data for economic forecasting. He said that he is working on “predicting the present” by using real-time search data to forecast official data that are only released with time lags.

For example, searches for “unemployment insurance” may be a good tool to predict actual claims for unemployment insurance, or the unemployment rate.

Mr Varian said that Wall Street analysts are still more accurate, because they can take account of changes such as lay-offs of census workers, but Google search data may help to improve the accuracy of their forecasts.

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