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Growth of online retail is changing inflation

Jackson Hole paper shows sector's prices are becoming less insulated from shocks

Some economists have noted the increased ease with which shoppers can compare prices online and the impact these changes have on brand loyalty © AP

Sam Fleming in Jackson Hole AUGUST 25, 2018 27

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The swelling influence of online retailers is changing the way inflation behaves by making it more sensitive to one-off shocks such as jumps in the price of oil, currency swings or the imposition of tariffs, according to new research.

A paper presented to the Federal Reserve Bank of Kansas City's symposium in Jackson Hole finds that the growth of internet retail platforms is having far-reaching effects on the broader sector, as prices become more uniform across different selling locations and companies adjust prices more frequently.

"These changes make retail prices more sensitive to aggregate, nationwide shocks, increasing the pass-through of both gas prices and nominal exchange rate fluctuations," said Alberto Cavallo, an associate professor at Harvard Business School, in a report. "For monetary policy and those interested in inflation dynamics, the implication is that retail prices are becoming less insulated from these common nationwide shocks."

The research shines new light on a major area of inquiry among central bankers as they examine the so-called Amazon effect of growing online activity. Some economists have noted the increased ease with which shoppers can compare prices online and the impact these changes have on brand loyalty as they look for explanations behind sluggish inflation.

> **As pricing strategies become**

Janet Yellen, the former Fed chair, said in 2017 that the growing importance of

As pricing strategies become more interconnected, a few large retailers using algorithms could change the pricing behaviour of the industry as a whole

Alberto Cavallo, Harvard Business School

online shopping, by increasing the competitiveness of US retail, might have reduced price margins and restrained companies' ability to push through higher prices. But she also pointed out that the economy overall was becoming more concentrated and less dynamic, which could boost companies' pricing power — a theme that has also sat at the heart of discussions this year at Jackson Hole.

Mr Cavallo's research finds pervasive effects of growing online shopping on the way inflation is set. The implications are that nationwide rates of inflation could swing sharply as big one-off hits such as a jump or plunge in oil prices feed through quickly to the pricing algorithms that high-tech retail companies use.

The research homes in on two key facets of pricing by outlets such as Amazon — highly flexible prices and uniform prices across different locations. It suggests that these strategies are affecting pricing behaviour by large brick-and-mortar retailers with internet operations.

The frequency of price changes by big retailers has been increasing in the past 10 years — and changes are particularly noteworthy in sectors where online companies are major players, such as electronics. The monthly frequency of changes in regular prices, which exclude temporary sales, rose from 15.4 per cent in 2008-10 to 27.4 per cent in 2014-17, Mr Cavallo said.

Rapid price changes by online players result from their use of automated algorithms to respond to activity on their sites; many other retailers scrape the web to monitor competitors' pricing. "As pricing strategies become more interconnected, a few large retailers using algorithms could change the pricing behaviour of the industry as a whole," said Mr Cavallo.

The research also found that while online retailers tend to charge the same prices around the country regardless of the location of the buyer, large traditional retailers are also showing an increased degree of uniformity. Mr Cavallo's paper finds that Amazon's prices are the same across different locations 91 per cent of the time, while the share of identical prices among multichannel retailers is 78 per cent.

The finding supports other research arguing that the transparency of the internet is constraining brick-and-mortar retailers' ability to price discriminate across locations, Mr Cavallo said.

"This evidence suggests that as traditional retailers compete more with online retailers, their geographical price dispersion will continue to fall," the report said. As a result, big one-off changes in major prices such as that of oil and the currency are propagating broadly and rapidly through the industry.

The possibility that inflation will become more responsive to big economic shocks is one of several structural shifts in the economy being discussed in Jackson Hole.

The Kansas City Fed has also put the increasing power of major companies on its agenda, as economists puzzle over the surging profits and market shares seen by some leading companies alongside poor general wage growth and sluggish economy-wide productivity in nations including the US.

Alan Krueger: 'If employers collude to hold wages to a fixed, below-market rate . . . then wages could remain stubbornly resistant to upward pressure from increased labour demand in a booming economy' © Bloomberg

Alan Krueger, a former chairman of the Council of Economic Advisers who is now at Princeton, said in a speech on Friday that the puzzle of poor wage growth may be in part down to poor bargaining power of workers in the face of powerful companies which may be using uncompetitive practices or colluding to hold down pay.

A quarter of American workers were bound by a non-compete restriction on their current job, or from a previous job, for example, he said — limiting their ability to defect to rivals in search of higher wages. His research has suggested that 58 per cent of franchise companies use no-poaching clauses which also restrict workers' chances of moving to another member of the chain.

"If employers collude to hold wages to a fixed, below-market rate, or if monopsony power increases over time, then wages could remain stubbornly resistant to upward pressure from increased labour demand in a booming economy," he said.