

Brexit: A near-ideal test of uncertainty's economic effects

By Nicholas Bloom and Scarlet Chen

KEY TAKEAWAYS

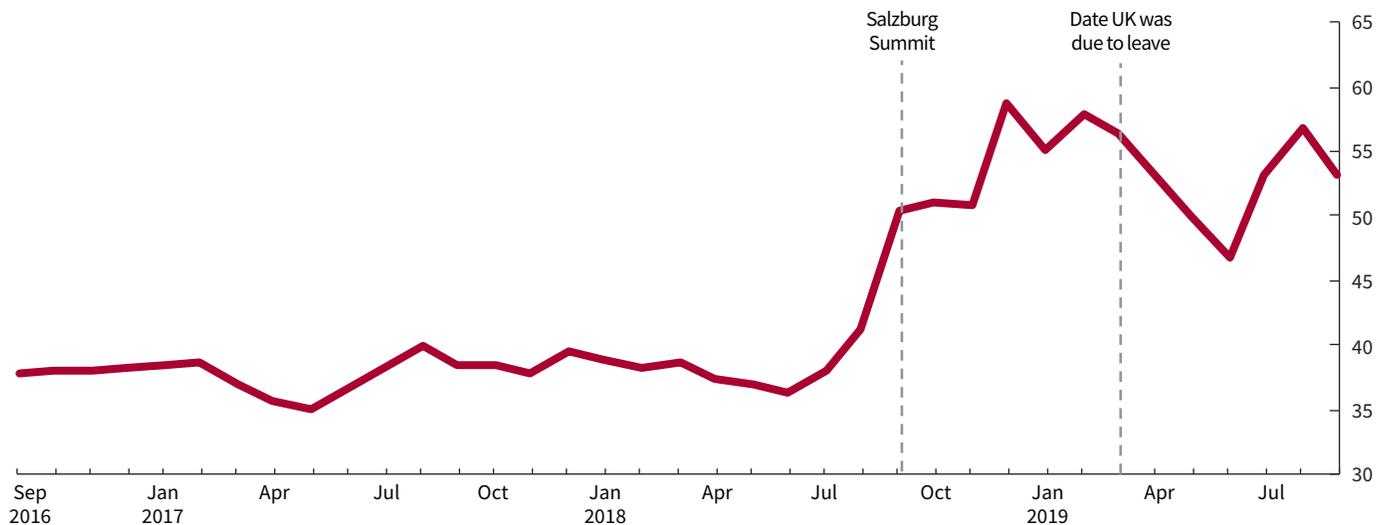
- In August 2019, uncertainty related to Brexit was close to the highest levels recorded at any time in three years, according to an uncertainty measure derived from a survey of U.K. businesses.
- Brexit-related uncertainty was greatest at companies with strong European trade links.
- Brexit trimmed U.K. business investment an estimated 11 percent and productivity 2 to 5 percent in the three years since voters approved the referendum to take Britain out of the European Union.
- Compared with other shocks boosting business uncertainty, Brexit is unusually persistent, with effects that are likely to linger for years to come.

In a year when political developments around the world have been nothing short of astounding, the events surrounding the United Kingdom's exit from the European Union have arguably been the most melodramatic. Just in the period following Boris Johnson's accession as prime minister, the U.K. witnessed a rebellion by Conservative Remainers, an attempt to prorogue Parliament, a unanimous decision by the Supreme Court that the suspension of Parliament was void, and on-again, off-again threats of a no-confidence vote and a snap election—all before the U.K.'s exit from the EU even took place.

To characterize this tumultuous episode as a case of uncertainty shock is to put the matter mildly. But what does it mean for the British economy, which in recent years has posted some of its lowest unemployment rates since the 1970s? In this policy brief, we present evidence that Brexit has had and will continue to have powerful economic effects. Some may be first order, such as losses of overseas markets and lower sales of British products and services. But one of Brexit's most far-reaching consequences is substantially heightened uncertainty about the business environment, a condition that research shows can sap confidence and undermine growth.

To explore these questions, we analyzed the results of a major survey of U.K. businesses and found that Brexit took a toll on the nation's economy from the June 2016 referendum through the extended period of negotiation with the EU and Parliament's consideration of Brexit legislation, as the Oct. 31, 2019, scheduled date of Britain's departure approached.¹

1 Nicholas Bloom, et al, "The Impact of Brexit on UK Firms," NBER working paper, September 2019.

Figure 1: Percentage of senior managers who say Brexit is one of three top sources of uncertainty

First, anticipation of Brexit generated a sharp jump in uncertainty, according to a business uncertainty measure derived from survey responses. In addition, we estimate that business investment dropped 11 percent while productivity was off 2 to 5 percent in the three years following voter approval of the leave position. Lower investment and productivity apparently reflected both first-order and uncertainty effects, indicating that Brexit has had a measurable and significant effect in slowing U.K. economic growth.

Brexit as a test of uncertainty effects

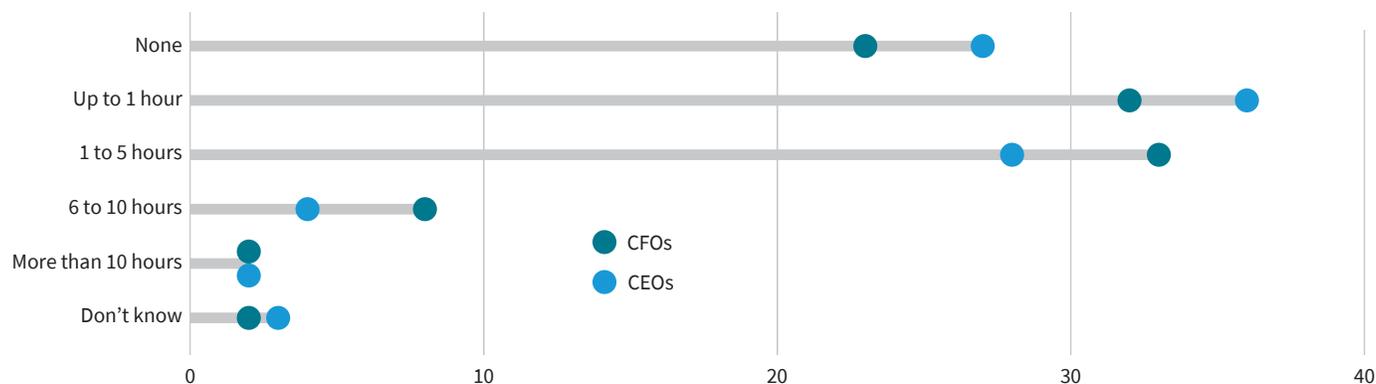
A growing body of literature finds that rising business uncertainty can have a profound dampening effect on economic activity.² Brexit offers an unusually compelling opportunity to test this idea. Other shocks that boosted uncertainty, such as the 9/11 attacks or the collapse of Lehman Brothers, typically were one-off events with a traumatic initial impact that quickly faded. After a relatively

short period, uncertainty levels returned nearly to normal.

By contrast, Brexit has brought about an unusually persistent jump in uncertainty, according to our research. Three years after the referendum, Brexit-related uncertainty was near the highest level registered at any time since the vote. Moreover, at this writing, the U.K.'s departure from the EU is about to take place. It is hard to predict the consequences of this momentous change and we expect uncertainty to remain elevated.

We base our measure of the uncertainty Brexit has generated on data from the Decision Maker Panel (DMP), a monthly survey of U.K. companies that gets about 3,000 responses. The DMP regularly asks respondents to describe how Brexit has affected the level of uncertainty their businesses are experiencing. We construct a Brexit Uncertainty Index (BUI) based on the share of companies that say the U.K.'s exit from the EU is either the largest source or one of the top two or three drivers of uncertainty.

² Nicholas Bloom, "Fluctuations in Uncertainty," *Journal of Economic Perspectives*, Spring 2014.

Figure 2: Average hours spent planning for Brexit, % of respondents

Source: Decision Maker Panel

Note: Results in this table are based on one question about the average number of hours spent by firm's CEOs and CFOs planning for the UK's eventual withdrawal from the European Union; "On average, how many hours a week are the CEO and CFO of your business spending on preparing for Brexit at the moment? Please select one option: i) None, ii) Up to 1 hour, iii) 1 to 5 hours, iv) 6 to 10 hours, v) More than 10 hours, vi) Don't know." Quarterly averages are provided from questions in November 2017-January 2018 and November 2018-January 2019.

Figure 1 shows the BUI surged in autumn 2018 around the time of the Salzburg Summit, when the EU rejected Britain's Brexit proposal. It fell back in the second quarter of 2019 after the U.K.'s departure date was postponed and soared again during the summer as the new October 31 exit loomed, reaching 57 percent in August, close to its highest level of 59 percent recorded in December 2018.

Brexit-related uncertainty is greatest at businesses with the strongest European trade ties, with more than 60 percent of EU-linked firms reporting that Brexit is one of their top three sources of uncertainty in August 2019. Other kinds of links, such as supply-chain sourcing and employment of migrant workers, are also associated with high Brexit-related uncertainty.

Investment, employment, and productivity

By combining DMP responses with publicly available company accounting data, we were able to estimate how Brexit influenced business investment and employment decisions. We conclude that, since June 2016, business spending on plant, equipment, software, and the like

has averaged 3.8 percent lower a year than it otherwise would have been, an approximate 11 percent investment loss over three years. We estimate that Brexit explains most of this drop.

There were indications that Brexit may have slightly diminished employment, but the results were not statistically significant. This muted effect could be because U.K. wages are relatively low and British companies may have substituted cheap labor for capital in some cases. Also, since labor markets are relatively flexible in the U.K., many companies are waiting for the final Brexit decision before potentially adjusting their workforce.

Brexit has reduced British productivity by about 2 to 5 percent since the referendum, according to our analysis. Lower output per hour of labor may reflect several factors. First, senior executives are spending substantial time preparing for Britain's break with the EU, distracting them from more-productive tasks. Figure 2 shows that from November 2018 to January 2019, 10 percent of chief financial officers and 6 percent of chief executives were working on Brexit issues six or more hours per week, companies reported in the DMP.

In addition, we found that the companies reporting the highest levels of uncertainty were also Britain's most productive enterprises. Previously in this policy brief, we noted that high levels of uncertainty are associated with significant international exposure. In other words, Britain's highly productive businesses tend to be those that engage in the most foreign trade and Brexit has shifted activity from these global operators to less-efficient domestic businesses.

Where from here?

Britain and much of the rest of the world have been mesmerized by the protracted spectacle taking place in Westminster and Brussels.

For much of period since June 2016, the key question has been whether the U.K. would leave the EU with or without a deal. Yet, in a fundamental sense, the terms of Britain's departure are secondary. Even with an exit agreement in hand, British businesses face levels of uncertainty without precedent in recent decades and it is probable that this clouded picture will linger for years to come.

Leaving the EU raises a mare's nest of difficult policy and technical questions, most of which will take years to work out. What kind of regulatory framework will the U.K. adopt in place of EU rules? What kind of trade relationship will Britain and Europe develop with each other? Could tariffs or protective trade rules be on the table? What will the U.K. labor market look like without the influx of workers from Europe? The stage is set for disputes both large and small, with repercussions that can scarcely be imagined today.

Certainly, financial markets take a dim view of Britain's prospects. In the past three years, the British pound had fallen more than 12 percent against the U.S. dollar. The behavior of British equity markets is more difficult to characterize, but a recent headline in the Financial Times tells the story: "UK Stocks are Trapped in a Never-Ending Brexit Loop." The Brexit negotiations are like some kind

of monster from a 1980s horror movie—they never want to die, and just keep coming back.

The U.K. economy sits on a knife-edge. The loss of business confidence and the inefficiencies inherent in a go-it-alone strategy are likely to weigh down economic activity for some time. At the same time, if the pound falls far enough, the U.K. might be able to devalue its way into a sort of prosperity—though, to be sure, an uneven prosperity built on cheap labor. There is nothing in recent history that tells us which way things will fall. That makes Brexit one of the greatest experiments ever devised on the effects of uncertainty.



Nicholas Bloom is a SIEPR senior fellow, the William Eberle Professor of Economics, and the co-director of the Productivity, Innovation and Entrepreneurship program at the National Bureau of Economic Research. His research focuses on management practices and uncertainty.



Scarlet Chen is a PhD Candidate in economics at Stanford.

Sam Zuckerman contributed editorial assistance to this policy brief.

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