The Political Economy of the Brexit Referendum

The outcome of the UK referendum on membership of the EU came as a surprise to financial markets. In the shorter term, it is the uncertainty created by this surprising outcome that we expect to have the biggest economic impact on the UK economy. But the magnitude of the interactions between the UK and EU – not just economic, but also political and institutional – implies that even when that uncertainty starts to be resolved as the new relationship between Britain and its European neighbours is clarified, the impact of a Brexit will be profound.\(^1\)

In the early hours of the 24 June 2016, we awoke to news that the incoming results of the UK’s referendum on EU membership pointed strongly to a Leave vote. This came as a considerable surprise to financial markets, which had been pricing in a victory for the Remain camp.

On the previous day – as voting was taking place – the pound sterling had appreciated significantly (through USD 1.50), UK and European equity markets had rallied strongly, and British and German bond yields had risen. All this reflected anticipation of a vote to Remain.

As the early results came through, these trends rapidly reversed. Against the US dollar, sterling fell by more than 10%. On Friday morning, UK equities opened weaker: 5% lower on the FTSE-100 index, with its heavy bias to international companies; and more than 8% weaker on the more domestically-oriented FTSE-250 midcap measure. German Bund yields fell more than 20 basis points to visit (negative) all time lows.

Surprise extended beyond the financial markets. Leaders on both sides of the campaign appeared shell-shocked. Prime Minister David Cameron resigned. Nigel Farage, the leader of the UK Independence Party and high-profile advocate of leaving the EU, declared that Britain had achieved its own “independence day” only hours after appearing to concede defeat in the referendum as the polls closed. Journalists and commentators searched for a new narrative.

Judging opinion in the run-up to the referendum

How could so many supposed experts have mis-judged the outcome of the referendum to that extent?

Opinion polls had long suggested that the outcome of the referendum was not a forgone conclusion. For sure, the polls tended to predict a vote to Remain. But over time the polls had proved volatile. The signal offered by various “polls-of-polls” (which aggregate and average over a set of individual opinion surveys) had swung in both directions, even in the few weeks ahead of the referendum itself.

Yet concerns about the reliability of the opinion polls – which were ultimately vindicated – drew on several sources.

Firstly, survey methods had an important influence over opinion poll results. Online polls and telephone polls offered significantly and persistently different messages. Polls conducted by telephone tended to

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predict a victory for the Remain camp, whereas online polls tended to indicate greater support for Leave (and pointed to a neck-and-neck outcome in the referendum itself). Views differed on which polling method was more reliable and whether it was possible to correct for any biases through adjusting for the demographic or sociological profile of responders. A common view was that online polls were biased towards Leave since advocates of exit from the EU were more motivated and passionate about their cause, and therefore more likely to take the time to respond to the survey.

Secondly, turnout was seen as likely to exert a strong influence on the referendum, and was viewed as difficult to predict. Broadly speaking, a low turnout was viewed as likely to favour the Leave camp, on the basis that those supporting exit from the EU tended to report a greater commitment to voting in the referendum than those supporting remaining. Yet polling data suggested that the university educated, supporters of the Labour and Liberal Democrat parties and Scots were both more likely to vote and more likely to favour retaining membership of the EU. More generally, in the absence of a track record of voting behaviour in similar referendums in the past on which to benchmark the impact of turnout, uncertainty about the impact of turnout on the referendum abounded – a concern that proved well founded.

Thirdly, throughout the long referendum campaign, undecided voters held the balance of power. By their nature, their behaviour was seen as hard to predict. On balance, conventional wisdom was that the demographic profile of the undecided voters pointed to a tilt towards a preference to remain in the EU. Those unwilling to express a definitive preference were seen as more risk averse and therefore ultimately more likely to favour the status quo. Such thinking acted as a bulwark to the widely held view that the remain camp would prevail in the referendum, even as the opinion polls swung in the opposite direction in the weeks ahead of the voting date. Confidence that the undecided would turn decisively to remain when in the polling booth appears to have been misplaced.

**Shorter-term economic implications of the referendum outcome**

Notwithstanding the referendum result, the UK government has yet to establish a timetable or strategy for leaving the EU. The EU Treaty foresees a two-year time-frame for departure once Article 50 of the EU Treaty (which governs any exit procedure) has been triggered. Whether the UK will trigger this article has also been questioned by some, on the basis that it would imply an irreversible step into the unknown, given that the UK’s post-exit relationship with the EU would be unclear.

During the transition period, the UK government would have to negotiate the terms upon which it could continue to trade with EU countries after exit and, because each of the UK’s existing trade relationships with non-EU countries is currently conducted via the EU, it would also have to negotiate the terms on which it can continue to trade with the rest of the world. Domestically, the UK government would have to decide upon which of the existing EU regulations and laws – governing everything from product quality to competition rules – it would want to maintain in its new post-exit UK legal regime.

Some of these trade negotiations and many of the regulatory/legal decisions would be relatively straightforward. But many would not. Moreover, given the sheer quantity of deals and rules involved, the process of constructing a new trading, regulatory and legal architecture is likely to take a number of years, lasting well beyond the two years that the formal process of exit would require.

During this period, UK-based businesses would face considerable uncertainty: exporting companies would not know the terms on which they would be able to supply export markets abroad once Brexit is complete; importing companies would not know the terms on which they would be able to import; and all companies would be confronted with increased regulatory/legal uncertainty.

Faced with such uncertainty, the option value for businesses of delaying investment would be high, at least until some clarity is reached. Business investment accounts for around 10% of UK GDP. A collective decision to pause a significant share of this spending would be materially negative for UK output. More generally, corporate and household decisions which entail making longer-term commitments – real estate transactions, durable consumption, hiring decisions – are likely to be delayed until the mists surrounding the future of the UK’s trading relationships and regulatory regime begin to lift.

**An empirical assessment of the “uncertainty shock” following the referendum**

To assess these developments empirically, we characterise the referendum result and the resulting period of uncertainty implied by a withdrawal of the UK from the EU as a large “uncertainty shock”, which weighs on UK economic activity as firms delay capital expenditure and households delay spending on consumer durables.
To implement this approach, we first seek to construct a portmanteau measure of economic and policy uncertainty facing the private sector. A variety of financial and non-financial metrics can be used to gauge the underlying level of uncertainty perceived by market participants, companies and households. We focus on three indicators that we view as potential barometers of economic uncertainty in the UK around the Brexit referendum: (1) implied volatility on the FTSE 100 equity index; (2) implied volatility on the GBP/USD exchange rate; and (3) the Economic Policy Uncertainty index (EPU, constructed by academic economists Nick Bloom and Steven Davis), which exploits the information content provided by national newspapers to quantify the level of economic uncertainty in the UK. These three series exhibit significant (but not perfect) correlation.

As it is not obvious which series best captures the underlying empirically relevant latent uncertainty in the UK, we construct an encompassing portmanteau measure using an agnostic statistical approach. More specifically, we extract a common factor that explains the bulk of the co-movement of these three series (the “first principal component”, in statistical jargon).

To quantify the impact of referendum related uncertainty on the UK economy, we estimate a Vector Auto-Regression (VAR) model, and calibrate it on a number of previous episodes characterised by high volatility in the UK. Using the results of this model, Chart 1 reports the impact of a one-standard-deviation increase in our portmanteau uncertainty index on UK industrial production and employment. Our analysis implies that industrial production would fall 0.5pp in the year after of the shock, while the impact on employment would be somewhat smaller (-0.2pp).

But this analysis raises the question of how to calibrate our model for the quantum of uncertainty associated with the referendum outcome. It is not immediately clear how to map the uncertainties associated with a vote for Brexit and its political, economic and institutional fallout into our volatility measure. To benchmark our analysis, we explore the impact of a number of episodes from the past two decades where heightened uncertainty has potentially weighed on the UK economy: Sterling’s dramatic exit from the European Exchange Rate Mechanism (ERM) on “Black Wednesday” (September 1992); the collapse of Lehman Brothers and seizing up of global money markets (September 2008); and the referendum on Scottish independence (September 2014).

Chart 2 shows how industrial production would react to the uncertainty shocks calibrated to match the three episodes of heightened uncertainty listed above. Our model suggests that UK industrial production in the aftermath of the Brexit vote could fall by a minimum of -0.5pp (if the associated uncertainties are deemed comparable to the Scottish referendum episode, which we deem optimistic) up to a maximum of -2.5pp (if akin to that registered after the collapse of Lehman Brothers in 2008, which we view as pessimistic). On the same basis, our model suggests that the contraction in employment can vary from a minimum of -0.1pp to a maximum of -0.5pp.

All in all, these results – which capture only the uncertainty impact of Brexit, not other effects such as the complications to trade and financing patterns that it may imply – suggest the referendum outcome is likely to imply significant macroeconomic weakness in the UK for some time. The survey data that we have seen since the referendum – notably the flash purchase managers index (PMI) released on 22 July – support this view.

**Longer-term implications of the UK leaving the EU**

Looking beyond the short-term, leaving the EU is likely to have significant implications for the structure and performance of the UK economy (and also that of the EU itself).

On the one hand, shorn of its obligation to implement EU legislation and regulation, the UK economy could shift in a more liberal and business-friendly direction. This was one of the most prominent arguments made by proponents of leaving the EU in the referendum. Yet membership of the EU has not hindered the UK from reforming its labour and goods markets. On the basis of data produced by the OECD, the wide cross-country variation in the level of labour and product market regulations across EU countries suggests that the influence of EU regulation (which should be uniform across EU members) may be exaggerated. Moreover, when viewed in the global context, membership of the EU has not prevented the UK from already having one of the least regulated labour and product markets among advanced economies.

On the other hand, exiting the EU will change the UK’s trade, financing and investment relationship with its European neighbours and with the rest of the world.

The EU is the main trading partner of the UK. It absorbs about half (47% in 2014) of the UK’s £500bn total gross exports of goods and services each year (Chart 3). This is equivalent to close to 13% of UK GDP. And more than...
55% of the UK’s total imports come from the EU. From the reciprocal perspective of the EU, the size of the UK market is more modest: for the EU ex. UK, exports to the UK account for about 4% of GDP and 15% of total exports. A more granular look at trade between the EU and the UK demonstrates: (1) exports of services make up around a third of the UK’s total exports to the EU; and (2) the importance of intra-industry trade between the two economies.

Foreign direct investment (FDI) is also an important aspect of the UK’s economic relationship with the rest of the EU. FDI from the EU explains much of the increase in the UK’s inward FDI stock over the past three decades (and, in particular, at the turn of the century and again after 2005): the share of EU-based ownership of the UK’s FDI stock rose from 30% to 50% (Chart 4). More strikingly, among all major EU economies, the UK has managed to secure the lion’s share of total (EU and non-EU) inward FDI. In 2014, the UK’s stock of inward FDI amounted to USD 1,400bn (i.e., approximately half of UK GDP), compared with US$1,000bn for Germany and US$730bn for France. Moreover, while FDI into continental European economies predominantly comes from other EU member states, the UK’s stock of FDI is split evenly between EU and non-EU ownership, thereby reflecting the attractiveness of the UK in the eyes of extra-European international investors, albeit a large part of that attractiveness is likely reflect the UK’s role as a gateway into the European single market prior to the decision to exit the EU.

These FDI flows have contributed to the creation of a significant number of jobs in the trade, manufacturing, and financial and insurance sectors. In 2012, close to 3.5 million people in the UK were directly employed by (non-UK) multinational enterprises, of which more than 1 million were employed by (non-UK) EU multinationals.

Turning to the impact on migration, more than 3 million non-British EU nationals live in the UK. Close to 1 million British nationals live in one of the 27 other EU member states. While the status of such non-nationals after UK exit from the EU is as yet unclear, the numbers reported here illustrate the potential magnitude of the implications.

In short, even once the uncertainty created by the referendum outcome starts to be resolved and a new economic, political and institutional relationship between the UK and the EU is established, the ramifications of Brexit are likely to remain profound.

Chart 1: The impact of an “uncertainty shock” on UK output

Source: Goldman Sachs Global Investment Research.
**Chart 2: Three “uncertainty episodes” in the UK to calibrate the impact of the Brexit referendum outcome**

Source: Goldman Sachs Global Investment Research.

**Chart 3: Half of UK exports go to the EU**

Source: ONS, Goldman Sachs Global Investment Research.
Chart 4: Stock of Foreign Direct Investment into the UK

Source: OECD, Goldman Sachs Global Investment Research.