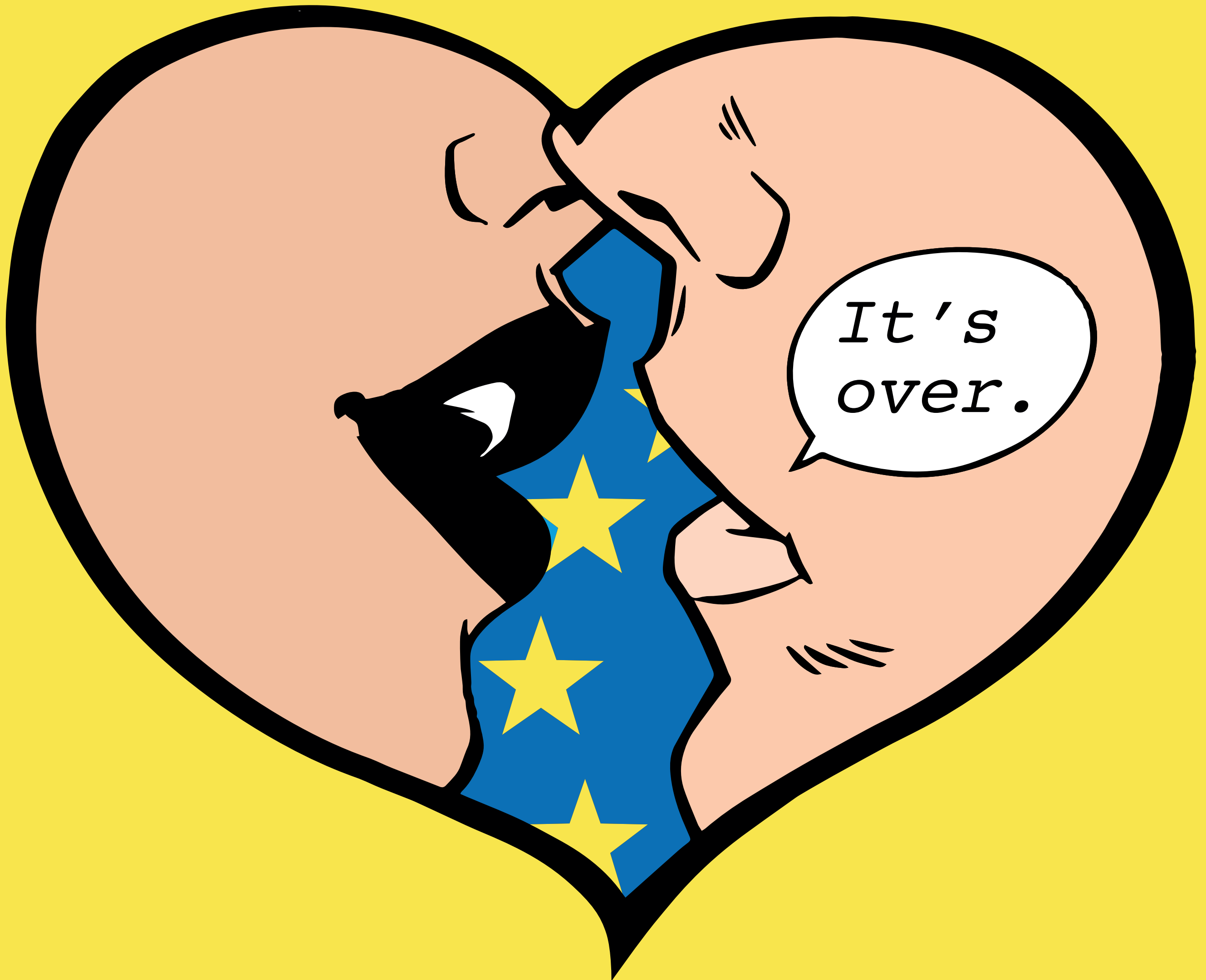

It's over.

Investment from overseas brings many benefits to the UK economy, including higher pay and productivity. According to CEP research, leaving the European Union could lead to a fall in inward foreign direct investment into the UK of close to a quarter. This would damage productivity and could lower people's real incomes by more than 3%.

Foreign investors love Britain – but Brexit would end the affair

Foreign direct investment (FDI) comprises investments from outside a country to set up new establishments, expand existing ones or purchase local companies. According to government body UK Trade & Investment, the UK has an estimated stock of over £1 trillion of FDI, and only the United States and China have more. About half of this stock of FDI is from the European Union (EU).

Countries generally welcome FDI as it tends to raise productivity, which increases output and wages (Bloom et al, 2012). FDI brings direct benefits as foreign firms are typically more productive and pay higher wages than domestic firms. But FDI also brings indirect benefits as the new technological and managerial know-how introduced by foreign firms can be adopted by domestic firms, often through being part of multinationals' supply chains. FDI can also increase competitive pressures, which force managers to improve their performance.

Why might Brexit hit foreign investment?

Why might FDI fall if the UK were to leave the EU? There are at least three reasons:

- First, being fully in the single market makes the UK an attractive export platform for multinationals as they do not face the potentially large costs from tariff and non-tariff barriers when exporting to the rest of the EU.
- Second, multinationals have complex supply chains and many co-ordination costs between their headquarters and local branches. These would become more difficult to manage if the UK left the EU. For example, component parts would be subject to different regulations and costs; and intra-firm staff transfers would become more difficult with tougher migration controls.

Leaving the EU could lead to a fall in inward foreign direct investment of close to a quarter

■ Third, uncertainty over the shape of the future trade arrangements between the UK and EU would also tend to dampen FDI.

A number of factors determine where firms choose to locate and invest. Bigger and richer markets tend to attract more firms, which want to be close to their customers. The UK has strong rule of law, flexible labour markets and a highly educated workforce, all of which make it an attractive FDI location whether or not it is in the EU.

Supporters of Brexit claim the UK could attract more FDI outside the EU as it would be able to strike even better deals over trade and investment.

So what do the data say?

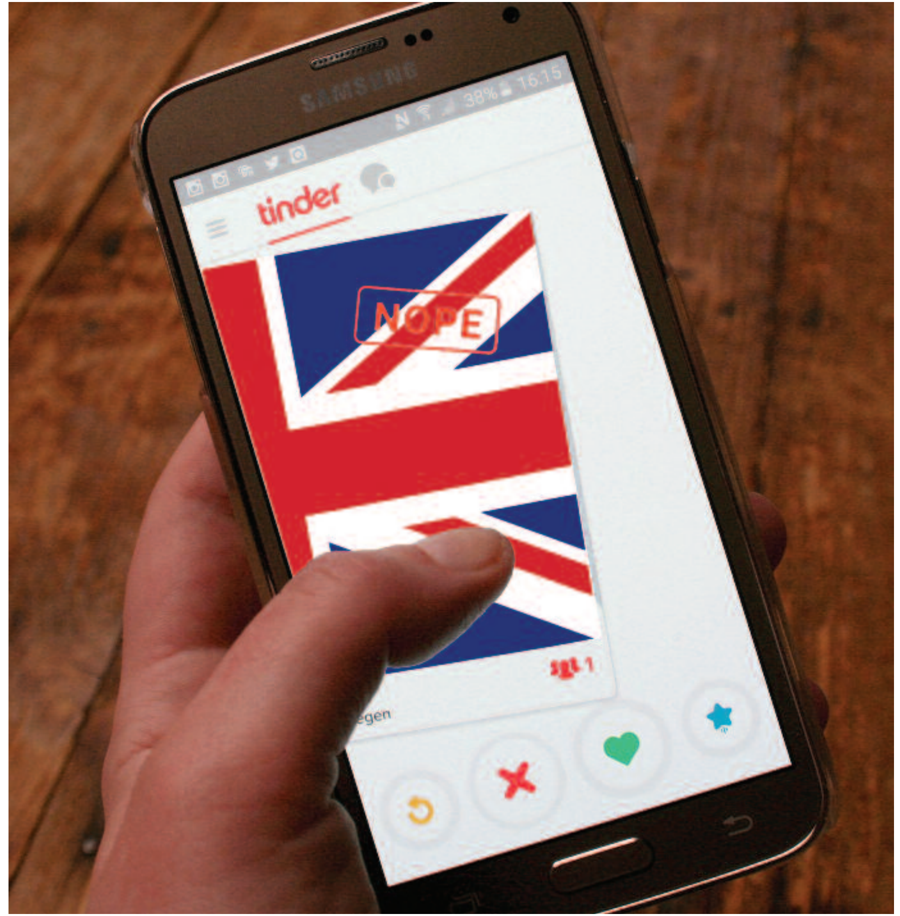
Our research examines bilateral FDI flows across all 34 OECD countries over the last 30 years. We look at how FDI changes when countries join the EU after controlling for a large host of factors such as the size and wealth of the different countries.

The evidence is clear. Being in the EU increases FDI by around 28% (the exact magnitude ranges from a 14% to 38% increase in FDI depending on the statistical method used). These estimates are similar to those in Campos and Coricelli (2015), who find an impact of 25% to 30% using an alternative method that compares the evolution of UK FDI with a comparison group of similar countries.

Being a member of the European Free Trade Association (EFTA) like Switzerland would not restore the FDI benefits of being in the EU. In fact, we find no statistical difference between countries in EFTA compared with those completely outside the EU like the United States or Japan. So striking a comprehensive free trade deal after Brexit is not a good substitute for full EU membership.

Foreign investment increases your income

To get at the nation-wide impact of FDI on output and income, we draw on the work of Alfaro et al (2004), who estimate the effect of changes in FDI on growth rates across 73 countries. We find that the impact of lower FDI following Brexit would be equivalent to a fall in real UK incomes of about 3.4%. This represents a loss of GDP of around £2,200 per household.



Quantifying the relationship between FDI and growth is notoriously difficult so the exact number is subject to considerable uncertainty. But it suggests that falls in FDI following Brexit would matter for living standards in the UK. An income decline of 3.4% is larger than our static estimates of the losses from trade of 2.6% in our pessimistic case (see previous article), which suggests that a significant fraction of the long-run impact of Brexit comes from FDI losses.

> Lower foreign investment would damage productivity and lower people's real incomes by more than 3%

Of cars and cash – two UK success stories that stand to lose out

The macroeconomic estimates give a bird's eye view of the effects of Brexit; but it's useful to focus on particular industries: cars and financial services.

Cars are a successful part of UK manufacturing. In 2014, the industry contributed around 5.1% to UK exports, 40% of which were to the EU. Head and Mayer (2015) use information on assembly and sales locations (IHS Automotive data) on 1,775 models between 2000 and 2013. In their work, Brexit has two main disadvantages:

- First, as trade costs rise, locating production in the UK is less attractive because it becomes more costly to ship to the rest of Europe.
- Second, there is an increase in the co-ordination costs between headquarters and the local production plants located separately in the UK and the EU – for example, transfers of key staff within the firm may be harder if migration controls are put in place.

Putting both costs together, total UK car production is predicted to fall by 12% – 180,000 cars per year. This is mainly because European car manufacturers such as BMW move some production away from the UK. Prices faced by UK consumers also rise by 2.5% as the cost of imported cars and their components increase.

Financial services have the largest stock of inward FDI in the UK (45%) and constitute 12% of tax receipts. The single market allows a bank based in one member of the EU to set up a branch in another, while being regulated by authorities in the home country. This 'single passport' to conduct activities in EU member states is important for UK exports of financial services. 'Passporting' means that a UK bank can provide services across the EU from its UK home. It also means that a Swiss or an American bank can do the same from a branch or subsidiary established in the UK.

The UK might be able to negotiate some of these privileges after Brexit. Members of the European Economic Area (EEA) outside the EU enjoy them, but they also have to contribute substantially to the EU budget, accept all EU regulations without a vote on the rules and must allow free labour mobility with the EU. And even for these countries like Norway, which must 'pay and obey with no say', there seem to be greater difficulties in doing business than a full EU member. One reason is that the coverage of financial services under the EEA does not keep pace with EU policy changes, so Norwegian banks have a tougher time accessing the EU market.

Staying in the EU also gives the UK the ability to challenge new regulations in the European Court of Justice, a right that was successfully exercised when the European Central Bank wanted to limit clearing-house activities to the Eurozone. If the UK leaves the EU, it would lose its leverage in negotiating and challenging future EU regulations.

In summary: is it worth it?

Overall, Brexit would cut inward FDI – by close to a quarter according to our new estimates. This will damage UK productivity and could lower real incomes by 3.4%. Case studies of cars and finance also show that Brexit would lower EU-related output of goods and services, and erode the UK's ability to negotiate concessions from regulations on EU-related transactions.

Of course, these costs may be a price that many people are willing to pay to leave the EU. But they are not trivial costs. The UK received about £44 billion of new FDI inflows in 2014, according to UK Trade & Investment. If we conservatively assume that the stock of FDI is unaffected, that still means losing almost £10 billion of annual inflows after Brexit.

This article summarises 'The Impact of Brexit on Foreign Investment in the UK', CEP Brexit Analysis No. 3 by Swati Dhingra, Gianmarco Ottaviano, Thomas Sampson and John Van Reenen (http://cep.lse.ac.uk/pubs/download/brexit03.pdf).

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Further reading

Laura Alfaro, Areendam Chanda, Sebnem Kalemli-Ozcan and Selin Sayek (2004) 'FDI and Economic Growth: The Role of Local Financial Markets', *Journal of International Economics* 64(1): 89-112.

Nicholas Bloom, Raffaella Sadun and John Van Reenen (2012) 'Americans Do IT Better: US Multinationals and the Productivity Miracle', *American Economic Review* 102(1): 167-201.

Nauro Campos and Fabrizio Coricelli (2015) 'Some Unpleasant Brexit Econometrics', VoxEU (http://www.voxeu.org/article/some-unpleasant-brexit-econometrics).

Keith Head and Thierry Mayer (2015) 'Brands in Motion: How Frictions Shape Multinational Production', UBC Working Paper.

Case studies of cars and finance show that Brexit would lower EU-related output of goods and services