

Out and down

Mapping the impact of Brexit

A report by The Economist Intelligence Unit





Contents

Introduction	2
The political cost	4
The economic cost	7
Finance: Firms fear loss of the EU market	10
Retail: Consumer uncertainty will depress sales	13
Automotive: Brexit is worrying for car firms	17
Healthcare: Domestic and foreign demand could suffer	20
Energy: Frameworks and climate policy will be affected	23
Telecommunications: Regulation and roaming charges will be key topics	26



Introduction

On June 23rd Britain will vote on its membership of the European Union. A decision to leave would have profound consequences for the future of both the UK and the EU. We expect real GDP in the UK to be 6% below our baseline forecast by 2020 if voters elect to leave. This economic pain would be coupled with political instability, as significant doubts emerge about government cohesion. The impact will be serious, and prolonged.

The effects of a decision to leave the EU will not be distributed evenly however, either across economic sectors or across time. The Economist Intelligence Unit expects the shock of a “Brexit” will be front-loaded, but will stretch out to at least 2020 (see chart below for our assessment of how Brexit will play out chronologically)

Some sectors of the UK economy, such as the automotive sector, might be better placed to withstand the uncertainty that a Brexit would bring. Others, such as financial services would not. This special report maps the impacts of Brexit by industry sector. Sections 1 and 2 look at the political and economic context that British companies would be operating in. Sections 3-8 look at the impacts on different parts of the economy, in particular:

Financial Services: The UK financial services would lose access to its economic hinterland in Europe causing firms to shift away from London to ensure access to the single market.

Retail: UK retailers will face greater supply chain complexity and regulatory divergence as domestic sales slump while consumers wait on the outcome of negotiations.

Automotive: The UK is a sizeable market in its own right. In fact an EU exit may create opportunities for locally based carmakers. However, supply chains would experience disruption.

Healthcare: Pharmaceutical exports, access to medicines, and research grants could all be at risk if the UK leaves the EU. Any economic downturn would also affect NHS spending.

Energy: Regardless of Brexit the UK will need to remain intrinsically linked to the European energy market and the frameworks which govern it.

Telecommunications: Investment and revenue in the UK would only see a slight fall but uncertainty over the future of pan-European roaming charges could put consumers at risk.



How events might unfold in the event of a leave vote

	Event	Sector	Implications
June 24th	<i>Britain votes to leave EU</i>		Market responds to shock of result - sterling falls sharply.
2016	<i>Uncertainty and market volatility</i>	Macroeconomy	Financial market conditions tighten and sterling depreciates further, ending up 14-15% weaker than the dollar on average in 2016.
		Finance	Uncertainty affects consumption, investment, employment decisions. Planned LSE-Deutsche Borse merger fails as the result of expected barriers to cross-border capital markets transactions.
		Retail	Financial firms begin to evaluate where and how to shift their EU-oriented business units to financial hubs like Dublin and Luxembourg that will still enjoy passport rights.
		Auto	Retail sales growth falls back to 0.6%.
		Pharmaceutical	Vehicle-makers review impact on supply chains as UK sales slide.
2017	<i>Second-round effects hit the domestic economy</i>	Pharmaceutical	EU workers lobby to remain in the UK; those in the NHS likely to be given special dispensation.
		Energy	Government legislates for fifth carbon budget for 2028-2032, but faces calls to abandon climate policy targets.
		Telecoms	Telecoms regulator begins to draw up agreements to make up for loss of EU guidance. Ofcom likely to re-affirm its scrutiny towards consolidation deals.
			Formal notification of intent to leave EU by year-end.
		Macroeconomy	Negotiations on the new UK-EU trade agreement begin. Last year's depreciation in sterling raises import prices, pushing up inflation. Unemployment rises, consumer spending slumps. Heavy decline in fixed investment. Real GDP contracts by 1%.
2018	<i>Trade deal takes shape</i>	Finance	Continental European governments apply pressure for home-country firms to repatriate units and employees, as opposed to shifting them to third-country locations (eg, Ireland).
		Retail	Financial firms begin in earnest to shift the legal incorporation, key personnel and tax payments to alternate locations outside the UK.
		Auto	Consumer uncertainty and rising prices lead to a 3.1% decline in retail sales volumes.
		Pharmaceutical	UK exclusion from Digital Single Market prompts search for a solution that delivers growth for e-commerce exports and enables preservation of consumer protection.
		Energy	Vehicle sales tumble; auto companies review investment plans.
2019	<i>Trade deal comes into force</i>	Energy	The UK's EU budget contributions may be redirected to the NHS.
		Telecoms	UK submits a new INDC to UN Framework Convention on Climate Change detailing its climate policy post EU exit.
		Macroeconomy	Uncertainty over roaming charges mounts - ability of Ofcom to negotiate a workable arrangement becomes clearer.
		Finance	Economic uncertainty eases, domestic demand begins to recover.
		Retail	Job losses mount in UK financial services sectors as firms shift EU-oriented work to legal entities within the EU (though some employees may remain in the UK).
2020	<i>A gradual recovery begins</i>	Auto	Retail sales recover to 1.1% as resolution of trade talks releases pent up demand.
		Pharmaceutical	Car sales recover, but commercial vehicle market remains subdued, with business investment low.
		Finance	European Medicines Agency quits London; the UK establishes its own market authorisation body.
		Telecoms	Telecoms growth begins to recover as operators and consumers become increasingly more comfortable with Ofcom and CMA approach to issues such as regulation and consumer pricing.
		Macroeconomy	Real GDP growth stagnates as the reality of Brexit takes hold. UK's new relationship with the EU leads to a contraction in the labour force and a step decline in services exports.
2020	<i>A gradual recovery begins</i>	Finance	Financial services sector workers from EU countries, stripped of automatic right to remain in UK, leave in large numbers. Personal tax take falls.
		Retail	Retail sales flat as economic stagnation weighs on consumer sentiment.
		Auto	Car firms jostle for market share as trade barriers change.
		Pharmaceutical	The UK continues to review pharmaceutical regulations and trade barriers amid occasional supply shortages.
2020	<i>A gradual recovery begins</i>	Macroeconomy	Real GDP growth resumes, but from a lower base.
		Finance	Financial sector downsized as non-EU business fails to compensate for lost EU business. UK becomes one of a number of European financial hubs of roughly equal size.
		Retail	Sales growth rises again but remains below pre-Brexit growth levels.
		Auto	Commercial vehicle markets strengthen, but supply chains continue to cause problems for manufacturers.
2020	<i>A gradual recovery begins</i>	Pharmaceutical	The UK scales back spending on pharma research and development, as access to grants and investment worsens.



The political cost

If the UK votes to leave the EU the country will face a political crisis. There are a range of paths that the UK could take. In the short term, a vote to leave would upend many settled assumptions about the UK's political culture, leading to mounting political uncertainty. If a vote for "Brexit" is possible, what else might be? In the medium term, the spectrum of potential outcomes is wider with both high disruption and low disruption outcomes possible. Our firm baseline view is that the UK would end up at the high-disruption end of the spectrum. However, we would caution against underestimating the instinct of the UK's political and bureaucratic machinery to absorb, rather than allow itself be convulsed by, the shock of a vote to leave.

The high-disruption case: a profound shock forcing a swift negotiation

Under our baseline view, a vote to leave the EU would trigger a political and constitutional crisis with immediate and lasting impact. It would be an event of immense force, pulling all other considerations into its orbit until the terms of the Brexit agreement have been negotiated. Having failed to carry the day on the biggest single question put to the UK electorate in decades, Mr Cameron's authority would be shattered. He may well seek to stay in office for a transition period in order to help to manage the initial maelstrom, but against a backdrop of huge political dislocation and plunging financial markets his grip on power would be irreversibly weakened. Within the Conservative Party, Boris Johnson, the former mayor of London, would be the referendum's clear victor and Mr Cameron's heir apparent.

We would expect a mood of palpable crisis to prevail, with the Conservative Party in something close to meltdown as the divisions of the referendum campaign begin to solidify. Mr Cameron and Mr Johnson would have closely aligned incentives in terms of seeking to restore stability in the aftermath of the referendum, but this would not be in their control. The outlook for the UK would be largely reliant on the outcome of negotiations with the other 27 EU member states, many of which would be in no mood to offer the country a generous deal. Moreover, the domestic backdrop for negotiations would be dismal. Political, financial and economic uncertainty would create intense pressure for a swift resolution of negotiations. This would weaken the UK's bargaining power. It would also lead to buyer's remorse among a potentially large number of voters, compounding the difficulty of gauging what kind of deal would enjoy domestic legitimacy.

Our view is that, for all the moving parts and countless individual legislative instruments that are involved, Brexit negotiations will come down to one key trade-off: between control of immigration and access to the EU's single market for the UK's large services sector. Given that the ability to control immigration has been the single most important driver of pro-Brexit support, if the UK votes to leave on June 23rd, Mr Johnson would be under significant pressure to deliver a deal that markedly increases



the UK's ability to manage the number of EU migrants who are allowed to enter the country each year. Even for a politician as flexible as Mr Johnson, this would represent a dilemma.

- On the one hand, delivering on immigration would risk causing serious economic damage to services exporters, particularly in the large financial services sector, where there is a risk of significant activity being lost to other EU countries.
- On the other hand, failing to deliver on immigration would immediately undermine a key rationale for the vote to leave. This would lead to an increase in buyer's remorse and would undermine the credibility and popularity of Mr Johnson and other senior figures in the leave campaign.

There is a high risk that whatever resolution to this trade-off is agreed on, it will create lingering dissatisfaction among a significant proportion of the electorate, further poisoning the political well for years ahead. One possible way of mitigating this risk, which we believe warrants more attention than it is currently receiving, would be to hold a second referendum on the final Brexit deal or its broad outlines. This is not a new idea. In late February 2016, when he first declared his support for leaving the EU, Mr Johnson hinted at the idea of a second vote. He swiftly distanced himself from the proposal, but we think that it is possible that he would revive it in the wake of a vote to leave.

A second referendum would provide the electorate with an opportunity to vote on the concrete implications of leaving the EU rather than on the abstract principle. Assuming a vote to leave would have been narrow, and that many voters would subsequently have succumbed to buyer's remorse amid intense volatility, we think it is likely that a second referendum would result in a vote to remain. Given that Mr Johnson currently supports the leave side for self-interested party-political reasons rather than on principle, we do not think he would be greatly troubled by the idea of the UK staying in the EU. However, if the electorate again opted to leave the EU, having held a second vote would be advantageous for Mr Johnson: he would have insulated himself from direct responsibility for any adverse economic impact that leaving might entail. It is worth repeating at this point that we would expect all post-Brexit arrangements to be net negative in economic terms, relative to the status quo of continued membership.

The low-disruption case: a gradual return to the status quo

A more sanguine view of the implications of a vote to leave requires the assumption that the political shock is less profound than we have suggested above, and that the UK's political and institutional ballast would equip the state to withstand the initial turmoil and navigate its way to calmer waters. For this scenario to play out rather than trigger a near-collapse in the Conservatives, there would have to be a swift unity reshuffle, with Mr Cameron and Mr Johnson committing to work together to restore stability. The government would have to convince the electorate and the UK's business community to look through the inevitable post-referendum volatility and to expect an imminent return to a steady-state condition that is likely to look more like the status quo ante than many might have feared. This in turn would require buy-in from the EU, in the form of swift statements that it would be in both sides' interests to secure a deal that maintains the UK's close economic ties with the rest of Europe while



Out and down

Mapping the impact of Brexit

recognising that there are important political divergences. In addition, all sides would need to be clear that until a deal is done—however long that takes—the status quo would prevail. This would require a swift agreement that Article 50, which starts a two-year clock running on withdrawal from the EU, would not need to be triggered for a considerable period of time.

If the UK government could weather the initial storm in this way, the path could open to a slow process of negotiation that ultimately delivers incremental change to the UK-EU relationship rather than a rupture. In the age-old tradition of European politics, the ostensibly fundamental trade-off between immigration and single-market access would be fudged: a limited increase in control over immigration would be matched with a limited increase in the costs of selling services to the EU. Both sides could credibly claim to have held their ground. Economics and political life could continue without dramatic disruption.

Why we lean firmly towards the high-disruption case

We have presented two post-Brexit scenarios because we do not think that the possibility of a low-impact aftermath should be discounted: the UK is a small-c conservative polity and the instinct to preserve stability is deeply rooted. However, our baseline case is that a vote to leave would trigger a highly disruptive period in the country's history. Yes, the UK has long been a conservative country. But that bedrock assumption is precisely what would have been thrown into question by a vote to leave the EU. The electorate would have rejected the advice of almost the entire political establishment and opted for a path that voters already acknowledge would lead to uncertainty and costs in the short and medium term.

The low-disruption scenario outlined above would risk exacerbating rather than mitigating voter disaffection. It assumes that the government's response to a vote for major constitutional realignment would be to deliver a swift return to the status quo that had just been rejected. In addition, although Mr Johnson may have incentives to seek a path back to the status quo, others on the leave side would not. Nigel Farage, the populist leader of the UK Independence Party (UKIP), would loudly denounce yet another establishment stitch-up and would do all in his considerable power to prevent the government's desired steady-as-she-goes narrative being allowed to take root. If the immigration issue were fudged during Brexit negotiations, Mr Farage would use every subsequent migration-related data release to whip up public anger at mainstream politicians' failure to heed the single clearest message of the referendum result. Moreover, even the assumption of a neat conclusion to Brexit negotiations between the UK and the EU looks optimistic. It would take only one dissenting EU member state to scupper a low-disruption agreement, which would leave the UK facing the worst-case scenario of falling back on World Trade Organisation (WTO) rules.

Thus far, the UK has not seen quite the same level of anti-establishment sentiment as some of its European neighbours. That could no longer be said to be true if the electorate chooses to leave the EU on June 23rd, and a deeply disruptive transition would be hard to avoid. If the political establishment were to respond by closing ranks and trying to hold to the status quo, it would risk reaping the whirlwind in subsequent elections.



The economic cost

Should the UK vote to leave the EU on June 23rd, the country's economy will be plunged into uncertainty. This would be reflected in the first instance by tumultuous financial market volatility, but there would also be a swift impact on the real economy, with households and businesses reining in their spending until the dust settles.

The first few months: uncertainty and market volatility

The uncertainty about the economic costs of the vote to leave the EU would lead to a sharp sell-off in UK assets and a significant depreciation in the pound. The currency effect would be most pronounced in the weeks after the vote, but on a full-year basis our projections assume that a vote for Brexit would mean that the average value of the pound against the euro and the US dollar in 2016 would be 14-15% lower than in 2015.

Beyond the currency markets, financial conditions more generally would tighten, with bond yields and lending rates increasing to reflect the additional risk premium associated with UK borrowers. We would expect the average yield on ten-year government bonds to be 0.6 percentage points higher than in our non-Brexit baseline forecast in the third and fourth quarters of 2016. Meanwhile, the economic impact of the post-referendum spike in uncertainty would begin to be felt, with consumer confidence slumping and companies delaying investment and hiring decisions, compounding the impact on domestic demand in the second half of 2016.

As we have outlined, there is a wide range of political paths that the UK might take in the wake of a Leave vote. Our core forecast is that the government would act swiftly to alleviate uncertainty, formally notifying the EU of its intent to withdraw and laying out to the public the broad pillars of the trade agreement that it will seek with the EU. It would do this by the end of the year. Although this would also ease financial market volatility, a significant degree of uncertainty would persist, reflecting doubts about the government's ability to achieve its aims during the two-year negotiating period with the EU.

2017-18: second-round effects hit the domestic economy

While UK-EU negotiations would be hammered out in 2017-18, the economy would be experiencing the deepening second-round effects of the vote. The previous year's sharp depreciation in the pound would begin to show up in rising import costs. The extent to which this would pass through into consumer price inflation in 2017-18 might be limited by companies' reluctance to increase prices in a weak demand environment; we therefore expect inflation to overshoot its 2% target, but only slightly. As a result, however, profit margins would be squeezed, potentially leading to job cuts. With hiring decisions also deferred, we anticipate that the unemployment rate would climb in 2017, peaking at 6% in 2018. This reflects about a 230,000 increase in the number of unemployed people compared with 2015, and is around 380,000 more than our baseline forecast for 2018.



Out and down
Mapping the impact of Brexit

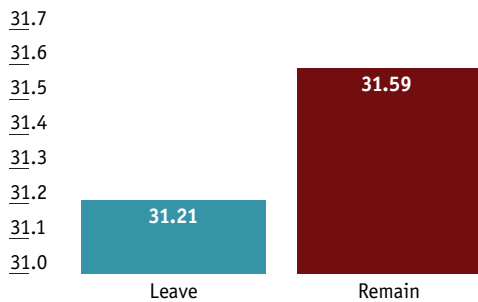
Against this backdrop we would expect consumers to increase their precautionary saving, lifting the UK savings rate close to levels last seen during the financial crisis in 2008-09. Combined with the deterioration in the labour market, this would lead to a slump in private consumption in 2017. Meanwhile, the likely decision by companies to defer or abandon investment plans immediately following the vote to leave the EU would mean a sharp contraction in investment spending in the following year.

The resulting slump in domestic demand would mean that the greatest hit to the economy resulting from a vote to leave the EU would be felt in 2017, with real GDP contracting by a projected 1%. One factor mitigating the depth of the GDP contraction would be a decline in imports, allowing the external balance to deliver a positive contribution to real GDP, particularly as export volumes would benefit from sterling's depreciation and (at this stage) would mainly be adversely affected by constraints on the ability of UK companies to meet export demand during the economic downturn. However, a boost from the external balance would only partially insulate the economy from the deterioration in domestic demand, and we expect real GDP to be 3% below our baseline non-Brexit forecast in 2017, and more than 4% below it by 2018.

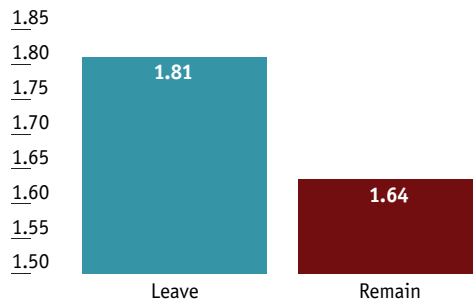
Impact on unemployment peaks in 2018

Unemployment rise by 2018: **350,000**

Employment (m)

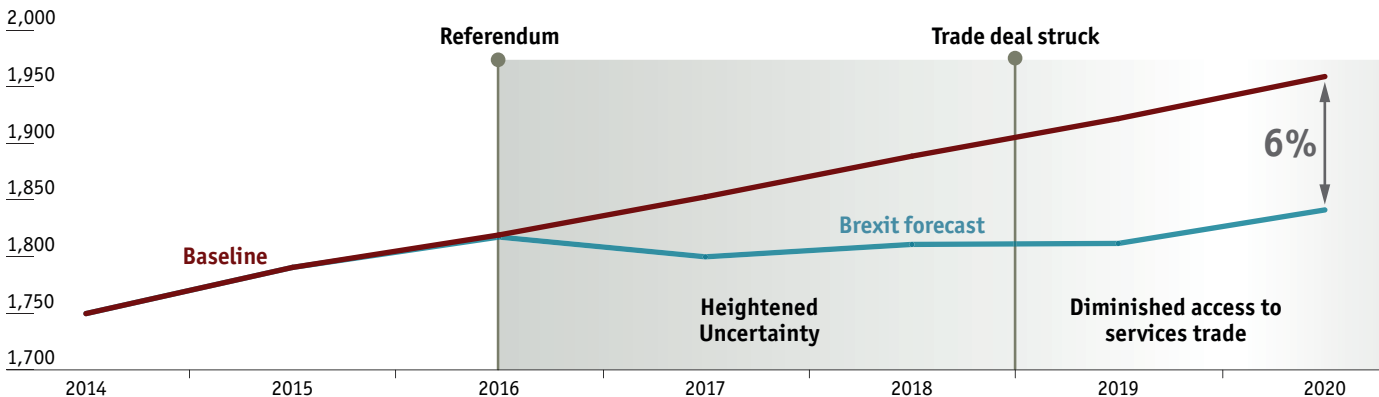


Unemployment (m)



Performance of Real GDP

(£ bn)



Source: The Economist Intelligence Unit.



2019-20: the reality of Brexit

If we are correct in thinking that the UK government would seek to conclude negotiations with the EU swiftly, a deal would be likely to take shape by the end of 2018. We assume that the UK would gain restrictions on free movement of labour and smaller contributions to the EU budget while retaining access to the EU's market for goods, but face new and prohibitive barriers to trade in services.

If we assume that the UK's new relationship with the EU would come into force in 2019, then from this point the economic story would become less about uncertainty and more about the reality of the new UK-EU relationship. By this point domestic demand might be starting to recover from its new lower base. However, the combined impact of restrictions on migration and the likely relocation of firms (particularly in the services sector) would mean that the UK's labour force would decline in 2019, exacerbating existing problems with weak productivity. Loss of access to the single market for services would also lead to a step decline in services exports. In 2015 almost 40% of UK services exports went to the EU. The likely loss of the majority of this export revenue would produce a heavy drag on real GDP from the external sector in 2019. By the end of our five-year forecast period in 2020 the UK's economic environment would probably have stabilised, but our projections suggest that by this point real GDP would be about 6% below our non-Brexit baseline forecast.



Out and down

Mapping the impact of Brexit

Finance: Firms fear loss of the EU market

London has for decades been one of two global financial hubs, alongside New York. A Brexit vote on June 23rd would put that position at risk, almost certainly depriving UK-based financial firms of their passport to conduct business anywhere in the EU. For the UK's financial industry, the break with Europe offers few—if any—offsetting opportunities.

London, unlike New York, does not enjoy a domestic financial hinterland. Although domestic financial markets are highly developed, their size is limited by the UK's economic output of £1.9trn (US\$2.7trn, about 3.9% of world GDP) and a population of about 64m (around 0.9% of the global total). Instead, London and other centres of financial business in the UK have turned to international, and especially European, activities. The industry has managed to dominate sophisticated, high-value activities such as trading foreign exchange and financial derivatives, managing alternative assets or writing crossborder insurance contracts. The people doing this work are mostly British, but large numbers are from other EU countries and from outside the economic bloc.

Two-year countdown

As outlined earlier, a Leave vote would generate immediate financial volatility, including a weakening of the pound, a rise in domestic interest rates and a fall in foreign investment. However, these impacts will be minor in comparison with the later loss to British financial firms of free access to the EU market.

Although we cannot know the outcome of negotiations to secure new trade ties between the UK and the EU after a Brexit vote, it is highly unlikely that continental European countries will allow unfettered British access to their financial services markets. Even Norway and Switzerland, two non-EU countries that abide by many of its rules, do not enjoy full passporting rights. EU countries may also be keen both to punish Britain for leaving and to use the opportunity to lure highly qualified financial experts to their own national centres, such as Frankfurt and Paris.

The very likely result would be a substantial loss in UK services exports, both in financial activities and in associated business services such as accountancy, consulting and law. These are business areas in which the UK has enjoyed a strong current-account surplus with the EU and the wider world, offsetting its persistent deficit in trade in goods.

London loses its lustre

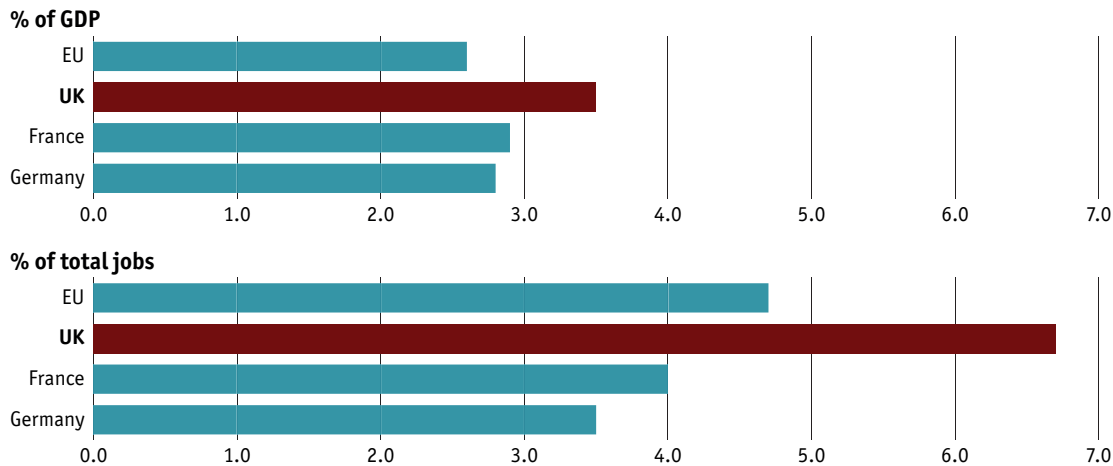
A key appeal of the British capital for foreign firms has been its access to EU markets. From London (and to a lesser extent Birmingham and Manchester) they can conduct operations in banking, insurance and capital markets across the economic bloc with little more than a formal notification to various national authorities.

Many of these companies are themselves from continental Europe but have based their non-domestic operations in the UK because of its business-friendly environment, ease of recruiting



English-speakers, and network effects of proximity to other businesses in their industry. In the wake of a Brexit vote, such firms would face the loss of access to EU markets. They would also probably come under public and political pressure at home to repatriate activities and jobs. As result, the UK financial industry is likely to shrink, while its counterparts in continental Europe are likely to expand.

Finance in proportion 2015



Source: Eurostat data for 2015.

Financial firms from third countries—such as the US, Japan, Switzerland, Australia and Canada—have long chosen Britain as their European home, through which their locally incorporated subsidiaries can easily conduct business across the EU. Facing the loss of access to EU markets, such firms will have to shift work to new or existing subsidiaries in other EU countries to continue to pursue business across the continent.

The formal shift of, say, a US bank's European headquarters to Ireland, Luxembourg or the Netherlands does not automatically mean that all its jobs will move from the UK. Financial companies produce services, sometimes called invisibles, that employees can generate practically anywhere with proper skills, sound regulation and quality communications systems. However, a shift in corporate domicile is likely to lead to transfers of employees, and the creation of new jobs, in the new location. Dublin, for example, has long been a popular European headquarters location for US companies outside of finance, and they have gradually built large workforces there.

An additional negative for financial firms in Britain is that, post-Brexit, they are likely to find it difficult to attract talented continental Europeans as employees, since immigration rules will inevitably tighten compared with the current system of free movement of labour.

A world of limited financial opportunities

The years since the 2008–09 global financial crisis have not been fantastic for financial firms worldwide, including those in the UK. Many of them, including British banks and insurers, have pulled back from far-flung global empires and refocused on home and near-home markets. At any rate, key global growth markets remain highly protectionist where financial services are concerned, and many



Out and down

Mapping the impact of Brexit

are currently hobbled by slumping commodity prices and weak economies. Russia, which was once a darling of London's financial market, is now struggling with low prices for fossil fuels and sanctions related to the conflict in Ukraine.

Regulators have imposed myriad new rules in recent years; some were made in Brussels, but the most important, such as the Basel III capital adequacy standards, are global standards that were drawn up with the help of UK officials, and which they will certainly continue to follow. Britain managed to dodge some of the more eccentric EU innovations, such as the proposed financial transactions tax. It's hardly conceivable that British supervisors, still smarting from bank bail-outs in the late-2000s, will relax their constraints on the industry.

In recent weeks many international financiers have weighed in against Brexit and the damage it would inflict on the British financial sector. They have also quietly indicated the other places where they might expand operations if the clock starts counting down on Britain's economic ties with the EU. They are probably not bluffing.



Retail: Consumer uncertainty will depress sales

As the Brexit debate has accelerated, some big names in retail have come out against a vote to leave. In May Sir Terry Leahy, Justin King, Marc Bolland and Sir Ian Cheshire all jointly issued a statement outlining reasons to stay and the former chiefs of Tesco, Sainsbury's, M&S and Kingfisher respectively are among the closest thing to royalty that retail has.

Tesco's expansion under Sir Terry was so rapid that five years and two successors later the company is still struggling to find a way to manage the empire he built. Similarly Justin King oversaw 36 consecutive quarters of sales growth at Sainsbury's, a feat made even more impressive given that much of it was achieved during the global financial and subsequent Eurozone crisis. Ironically Mr King's final trading statement marked the first of six consecutive quarters of decline for the retailer which continues to face a tough operating environment. Sir Ian himself oversaw a share price improvement of 120% during his spell at Kingfisher. Marc Bolland's M&S performance was slightly more chequered but history may credit him as the CEO who helped cement the retailer's transition from clothing towards value added food.

Either way when these four statesmen of retail say that Brexit "could be catastrophic for the consumer recovery on which so much of our economic stability depends", businesses sit up and take notice. Further weight comes from Andy Clarke, Asda's chief executive who used the findings of another Treasury study to add that a Brexit would create an uncertainty in pricing that cements a Remain position for the WalMart owned retailer.

The Remain campaign has successfully rolled out an array of respected figures in the business community to support its view that a Brexit would be economically damaging. For its part the "Leave" campaign draws on the support and combined experience of a host of politicians including former chancellors of the exchequer. But when you consider that one of these, Norman Lamont, oversaw Black Wednesday when a run on sterling forced a withdrawal from the ERM at a reported cost of £3.4bn to the UK economy, then the economic claims of the Leave campaign appear to hold a little less credibility. Not only do Leahy et al force the world of retail to sit up and take notice but they are also difficult to fundamentally disagree with.

The Economic shock will impact retail

As the economic outlook outlines, leaving the EU would cause an economic shock. It will create a period of uncertainty. Consumers will retrench and consolidate income and expenditure as they watch and wait on the outcome of negotiation. The value of sterling will fall which, at the very least, means that prices will rise in line with the cost of imports.

For retailers there will be further shocks. The supply chains and agreements that have evolved on an even playing field with partners in the EU will need to be revisited as the goal posts begin to move. Regulatory requirements relating to safety, quality and consumer protection that are currently



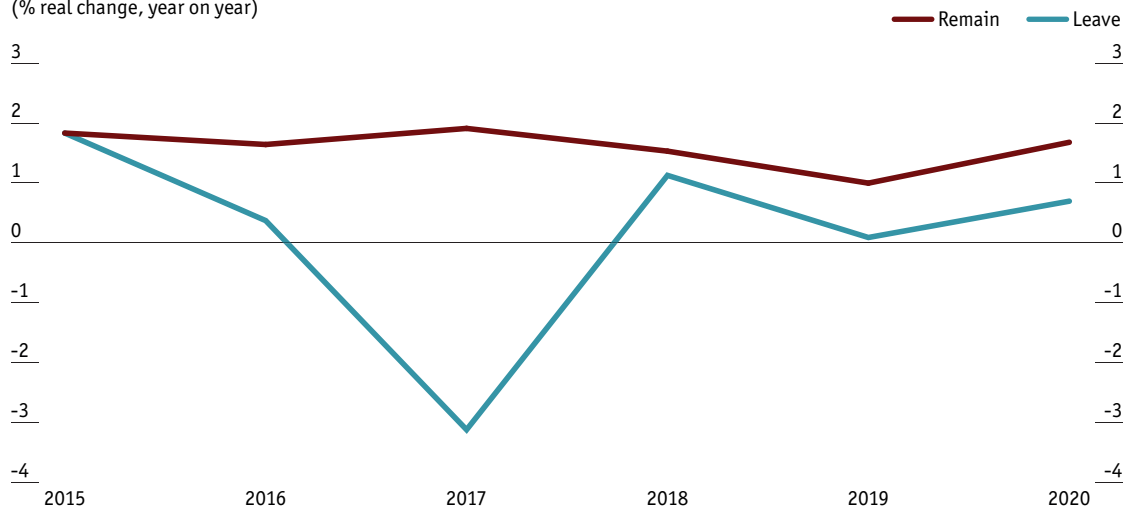
Out and down

Mapping the impact of Brexit

consistent across member states will diverge. This will force retailers to consider two sets of rules when assessing their offering between the UK and Europe. Rather than cutting red tape Brexit could make the situation even more complex for retailers seeking to offer comparable services across countries. There are also mutually beneficial schemes that opting out of the EU will bring an end to and put British Retailers and suppliers at a competitive disadvantage. Opting out of the Common Agricultural Policy could affect agricultural supply chains for British Farmers. A Brexit will also impact on involvement in the single digital economy, which has particular ramifications for the UK's highly developed e-commerce sector which would enjoy a comparative advantage on an even playing field (see boxed text). All of these will add to the cost and complexity of doing business which will either be passed onto consumers or borne by retailers who may have to shed jobs or fall victim themselves.

Retail sales growth

(% real change, year on year)



Source: The Economist Intelligence Unit.

In mitigation to those campaigning to leave the alarmist language may be overblown. Just as frostier diplomacy is unlikely to lead us down a path to world war three, rising inflation on the back of a falling pound is unlikely to see prices skyrocketing in the way that they did during periods of hyperinflation in Zimbabwe or the Weimar Republic. Economic declines will be damaging but not cataclysmic for retail. We predict that if a referendum does result in the UK leaving the EU then there will be a short and relatively sharp retail shock, with sales volumes flattening out in 2016 before shrinking by around 3% next year. Following this there will be a muted recovery while the terms of exit are finalised before sales flatline again in 2019 when departure becomes a reality. After this retail volumes in are expected resume a more stable growth trend by 2020, but the lost years will have set retail back, with nominal sales in 2020 likely to be about 6% lower if the UK leaves when compared to the baseline scenario of remaining.

A modest silver lining

There may be some silver linings for retail. If a Brexit does come about there will be a switch to a pro-

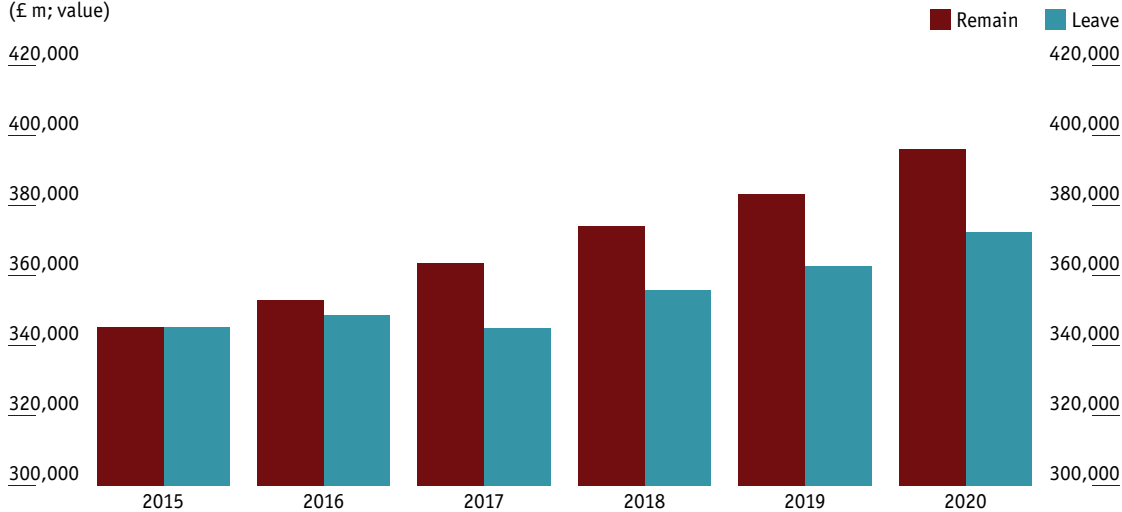


Leave cabinet, which will dedicate itself to making an economic success of secession. This would see a focus on business and investment friendly policies with incentives that could be of benefit to some retailers, especially those less exposed to partners or operations across the channel. A poll carried out by cross border e-commerce firm Global-e found that 54% of medium sized retailers would vote in favour of a Brexit compared with just 24% of respondents from larger companies.

However, in economic terms the policies enacted would be limited and the beneficiaries would be in a distinct minority. Those voting to leave may wish to do so for political or regulatory reasons but, despite the alarmist language used by the Remain campaign, the economic reasons to stay for retail far outweigh those to leave.

Retail sales

(£ m; value)



Source: The Economist Intelligence Unit.



Out and down

Mapping the impact of Brexit

Brexit will close a door to the Single Digital Market

With other aspects of Brexit hogging the headlines many will be forgiven for missing the April release of the online Retail Monitor from Google and the British Retail Consortium (BRC) it outlined some fairly persuasive reasons for British Retailers to want to stay in the EU. The reported 52% increase in internet search volumes for UK retailers (including a 50% hike in searches made on mobile devices) has a distinctly continental flavour to it. Helen Dickinson the chief executive of the BRC climbed briefly off the fence to point out that in 14 EU countries searches for British retailers increased by 100% or more. In the Czech Republic the increase was 256%.

With online sales continuing to track double digit growth, the British ecommerce sector is well developed and maturing, accounting for one of the highest proportions of overall retail in the world. British ecommerce is a sector that could bring significant cross border retail benefits given a level European playing field, which is precisely one of the aims of the proposed Single Digital Market.

SDM will only improve over time

Steps taken in the EU's digital policy have already helped to facilitate cross border retail trade. The elimination of excessive roaming charges have taken

some of the fear out of using online services like ecommerce when travelling abroad. While this is only of marginal significance to retailers the €415bn gains that the EU claim will come with a Single Digital Market are more tangible. When launching its Single Digital Market strategy last year the EU was quick to point out that only 15% of EU citizens engage in cross-border ecommerce, compared with 75% of Europeans who shop online in total. Part of the obstacle to growing cross-border ecommerce comes in the form of regulation and consumer protection. Another pain point comes in logistics with a reported 62% of companies identifying high delivery costs as an obstacle to cross-border sales. Ongoing efforts by the EU look likely to smooth these problems out between member states which could open up new sales channels to UK retailers who have already developed complex online solutions to serve a maturing domestic market.

Of course this works both ways and bringing down barriers will also open up the UK to competition from ecommerce players which benefit from lower overheads in other member states. But with the Brexit debate also citing Barack Obama's claim that leaving the EU would push Britain to the back of the queue for the Transatlantic Trade and Investment Partnership (TTIP) it seems more important that retailers consider the benefits of fewer barriers between member states than with the US.



Automotive: Brexit is worrying for car firms

When Nissan signed a deal to build its car plant in Sunderland in 1984, Britain had only been a member of the EU for just over a decade. That plant is now the biggest in the UK, churning out around half a million vehicles a year, employing 6,700 people and supporting up to 27,000 other jobs. Yet around 80% of Sunderland's output goes for export, with the rest of the EU its biggest market. Will Sunderland carry on thriving if the UK votes in favour of Brexit on June 23rd?

The Brexit scenario is certainly worrying many people in the UK automotive industry on a business—if not a personal—level. In March the Society of Motor Manufacturers and Traders (SMMT) found that fully 77% of SMMT members thought that staying in the EU would be best for their business, with only 9% saying Brexit would be better. Large companies, including original equipment manufacturers (OEMs), were particularly opposed to Brexit, with access to EU markets, skilled labour and the ability to influence EU regulations being the biggest reasons for staying in.

A stable base for the wider market

Toyota, which has now been in the UK for over 50 years, was among those highlighting the risks of Brexit. Its two plants in Derbyshire and North Wales export nearly 90% of production and are fully integrated into its European supply chains. Like Nissan, Toyota came to the UK partly because it offered a stable base from which to operate in the wider European market. And the Japanese are not the only ones. All the major OEMs in the UK are now foreign-owned, and although some investors (such as Ford and GM) predate EU membership by decades, being part of the trade bloc remains important.

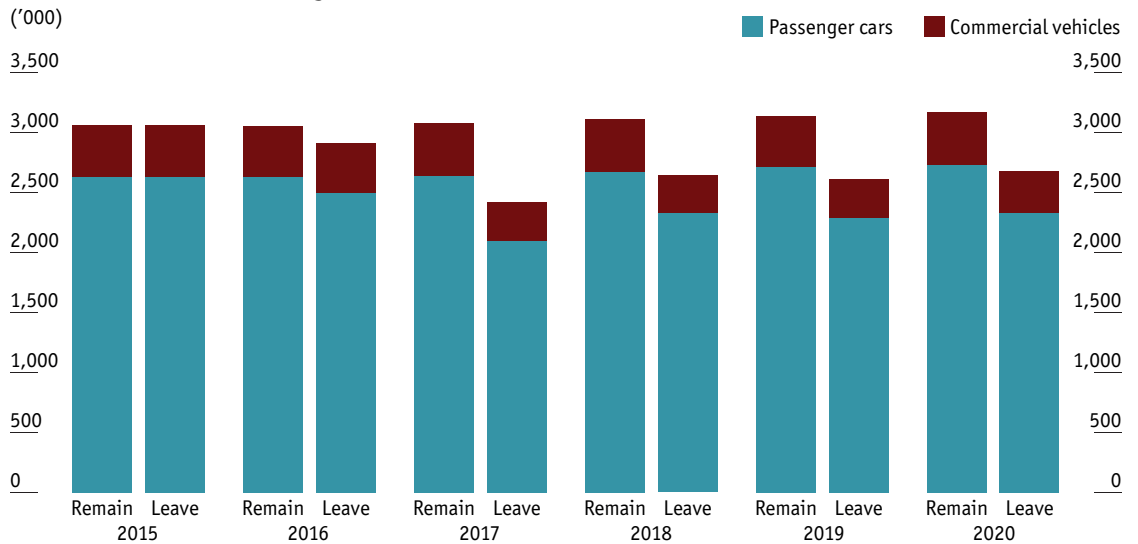
In 2015 the UK exported a record 1.3m cars, over three-quarters of its total output. Although the US and China are the biggest one-country markets, a combined 58% of these cars went to EU countries. That share was up sharply on previous years, when the European market was in the doldrums, but has been consistently above 50%. In value terms, meanwhile, the EU accounted for around 44% of the £22bn in vehicle and parts exports in 2015, according to data from the International Trade Centre (ITC).

Even so, Toyota has openly said it has no plans to leave if the UK were to vote for Brexit, while Honda has stayed mostly non-committal on the issue. After all, the UK is a sizeable market in its own right, and if trade barriers were to rise further, then there might be some benefits for carmakers that produce locally. The ITC data suggest that the UK runs a big trade deficit on vehicles and parts, with imports from the EU amounting to around £28bn in 2015, compared with exports of £10bn. That includes, of course, many of the components that are used to produce cars in the UK. But in terms of whole vehicles it could benefit domestic producers, making it harder for, say, Volkswagen to sell in the UK.

If that was combined with trade deals with the rest of the world (although the US president, Barack Obama, has warned against counting on that), then new trading opportunities could emerge too. Until



Forecasts for new vehicle registrations



Source: The Economist Intelligence Unit.

the EU market recovered last year, UK exports to the rest of the world had been rising rapidly. Free-trade agreements between the EU and other parts of the world take years to negotiate—negotiations with India, for example, began in 2007 and are still stalled owing in part to the complexity of satisfying demands from 28 EU nations at once. On its own, the UK may be able to negotiate such deals far more quickly. It will also, of course, try to negotiate trade access to the EU, perhaps along the lines of Norway or Switzerland, although that would probably have to be balanced against the desire to stem the free movement of people.

Regulatory disruption

Even if trade deals do emerge, there would be substantial disruption first, particularly over regulations. In the SMMT survey, the respondents did highlight some areas for EU reform, including trimming red tape, making the rules more consistent and easing trade with the rest of the non-EU world. But it is not clear that this would be possible initially, at least with product-related regulations, including safety and emissions rules. Most EU directives and rules have already been translated into national laws and regulations in the UK, so these would have to be revised before manufacturers could even think about redesigns and retooling. And those that still harboured ambitions to trade with EU markets would think twice about making product changes anyway. Indeed, the risk is that the UK car industry would end up having to comply with EU rules without even having a say in those rules. Our influence would have disappeared.

A similar problem would apply when it comes to general business regulations, such as those involving employee rights. Once revised, however, any new regulations would be easier for businesses to implement. Depending on government policy, moreover, they could make the country’s car industry more competitive, for example if some workers’ rights were weakened. However, multinational



companies could also face more difficulties attracting skilled labour, or swapping managers from country to country. True, immigration from non-EU countries could rise and the UK might have more leeway to request particular skills, but in the meantime some of those already working in UK companies might have to leave.

The biggest question, however, is over what would happen to the economy after a vote to leave. Our prediction of a 2017 recession would almost inevitably mean a slide in UK vehicle sales over the next few years. No car company will benefit from that, regardless of the longer-term arguments.



Out and down

Mapping the impact of Brexit

Healthcare: Domestic and foreign demand could suffer

With the government, the Bank of England and the IMF all emphasising the economic risks of Brexit, the pharma industry is becoming increasingly worried about the effect it would have on UK health spending, and consequently domestic demand for their goods. Meanwhile, the potential barriers for EU trade could weigh on foreign demand.

In February senior managers of 50 leading life-sciences companies, including AstraZeneca and GlaxoSmithKline, wrote to the Financial Times to state the case against Brexit. In early March academics, researchers and entrepreneurs from the Cambridge biotech cluster added their voices to the Remain campaign. Then in May the Association of the British Pharmaceutical Industry (ABPI) warned that leaving the EU could threaten the UK's access to medicines. On a personal level, the even split in opinion polls suggests that some people in the life-sciences industry must be pro-Brexit, but most public pronouncements are in favour of remaining in the EU.

EU accounts for majority of UK pharma exports

The main reason given is over pharma trade. According to the Confederation of Business Industry (which is also anti-Brexit), the EU accounts for 56% of UK pharma exports, which total around £53bn. Pro-Brexit campaigners counter that the UK runs a substantial trade deficit on pharmaceuticals. They argue, moreover, that it is the non-EU portion of exports which is growing faster, and freeing ourselves to enter into bilateral trade negotiations would help to support that. Nevertheless, pharma companies are worried that sales could be at risk unless the UK manages a rapid renegotiation of trade links in the wake of an exit.

The pharma industry would also face uncertainty over regulation. At present, many of the regulations on intellectual property rights, quality standards, clinical trial rules and criteria for product approval are harmonised across the 28 EU member states. Although they still face individual country rules over pricing and reimbursement, pharma companies generally welcome that harmonisation is reducing their costs. Indeed, even if the UK were free to set its own rules, the pharma industry would probably lobby for it to copy those of the EU to avoid disrupting trade.

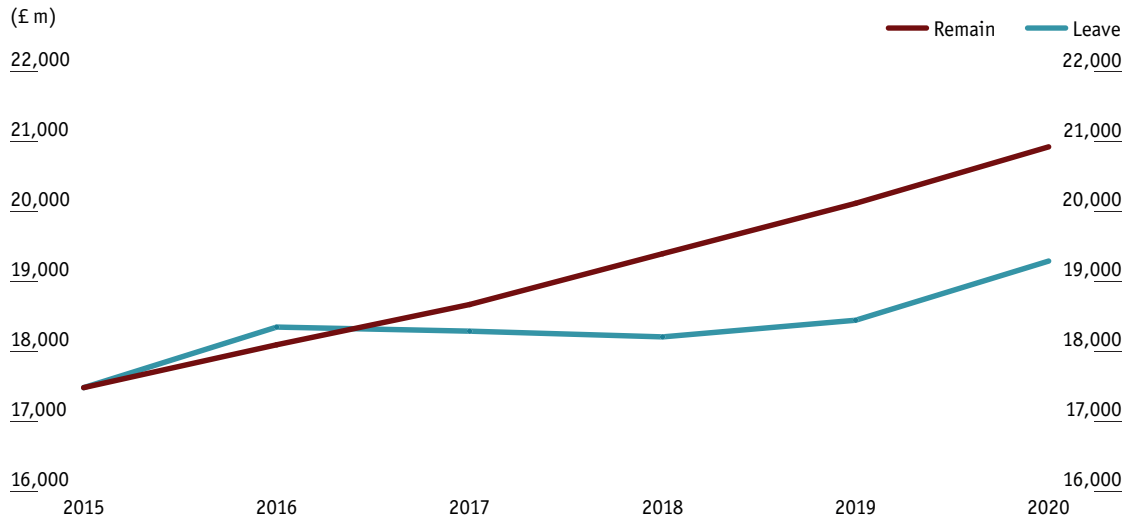
But even if the UK were to opt to continue with harmonisation, there could still be disruption to the flow of goods as the details are sorted out. As the ABPI warns, as well as denting exports, given the extra effort involved, it may in turn deter foreign pharma companies from launching products in the UK market. The ABPI also warns that opting out of EU clinical trial regulations—although they are often criticised for being onerous—could undermine that industry, including contract research organisations. The UK currently ranks first in the EU for the number of Phase I trials, and second or third for Phase II and III trials.



Investor uncertainty

On the regulation side, then, Brexit would bring more uncertainty than benefits. The same is true for research funding. As noted by the Cambridge University academics, the UK is (after Germany) the second-biggest beneficiary of EU funding for research, including into life sciences, and it is unclear whether the UK government would be able to plug that gap post-Brexit. The UK is also the EU's main destination for venture-capital funding in the industry. According to the UK BioIndustry Association (BIA), between 2005 and 2015 the UK's biotech sector raised £924m (US\$1.3bn) via initial public offerings (IPOs) and US\$2.4bn in venture capital. The industry therefore needs to be cautious about shaking investor confidence.

Forecasts for pharmaceutical sales



Source: The Economist Intelligence Unit.

More broadly, investment in UK pharma could suffer if the nation votes to leave the EU in June. Although both the UK government and EU officials would issue reassuring statements, we would expect the stockmarket to fall, along with the value of sterling. That would reduce valuations for pharma companies, so some investors would be willing to dive in looking for bargains. But for the same reason UK pharma companies looking to float or to raise money for their next venture might head to more stable markets, such as the US.

There are other, less important considerations when it comes to the effect a vote in favour of Brexit would have on pharma. The European Medicines Agency is based in London and would probably have to move out. The UK could also lose the planned division of the European Patent Court, due to open in 2017. Furthermore, it would lose much of its influence on European healthcare debates, where institutions such as the National Institute for Health and Care Excellence (NICE) and York University have played a leading role.



Out and down

Mapping the impact of Brexit

Tax flexibility could be a benefit

The few arguments in favour of Brexit, perhaps, come in the area of general business rules and taxation. Decisions on tax are already mainly within the remit of individual countries: despite pronouncements from Brussels, Ireland has been allowed to keep its corporate tax rates low, attracting substantial pharma investment. The UK did have to modify the “patent box” it introduced in 2013 to give tax breaks on earnings from patented products, but that was because of pressure from the OECD, not the EU. Nevertheless, Brexit might allow more policy flexibility, although the economic consequences could also reduce tax revenue, reducing fiscal flexibility.

On general business rules, most EU requirements, such as the Working Time Directive, have already been translated into UK law. In the longer term, however, Brexit might offer room for some relaxation of workers’ rights. This would probably be welcomed by pharma managers, if not their employees, and might make the industry more competitive on costs in the long term. In the short term, however, pharma companies could face additional difficulties recruiting skilled staff and managers. The head of AstraZeneca, for example, is a Frenchman, while many laboratories are staffed by multinational teams. Still, the pharma industry is likely to face fewer difficulties in recruitment than the NHS itself, which now relies heavily on EU nationals to fill health-service vacancies. More broadly, the pharma industry faces a major threat to its domestic market if an economic downturn leads to reduced spending on the NHS. Taking into account the projected drop in GDP associated with Brexit, we calculate that by 2020 healthcare spending per head would be around £135 lower per head than our core forecast if the UK stays in the EU. That would have serious knock-on effects for pharmaceuticals companies.



Energy: Frameworks and climate policy will be affected

Energy is not a leading issue for either the Remain or the Leave campaign, but it is a policy area that will be impacted by a decision to exit the EU. There are two main themes concerning energy and Brexit: the UK's relationship with the European energy market frameworks (especially concerning electricity) and the consequences for UK climate policy. In the event of the UK leaving the EU, its interests will still be best served if it remains within the emerging European internal energy market and the frameworks that govern it. Furthermore, while Brexit will result in the UK officially abandoning EU climate and energy targets, the UK has, on paper at least, its own domestic climate and energy policies that are in some cases more ambitious than EU objectives. These policies may be easier to reverse in the event of the UK leaving the EU, but Brexit itself would not result in an automatic overhaul of UK climate and energy policy.

No energy market is an island

A vote in favour of the UK leaving the EU will introduce some uncertainty regarding the future of the UK energy market. This impact will depend on the kind of relationship the UK is able to negotiate with the EU, a process that will take some years. Energy will not be the key topic influencing any post-Brexit negotiations, but it will be affected by their outcome. From the energy policy perspective it would make sense, however, that a UK outside the EU remains closely integrated with the European energy frameworks, as this would avoid greater costs to the UK energy sector and prevent UK energy security from being put at risk. Indeed, a Brexit that results in a withdrawal from these frameworks would reverse the recent trajectory of UK energy policy, which has worked towards facilitating a more integrated and liberalised energy market within Europe.

The UK is a net energy importer of oil and gas from other European countries. This trade is unlikely to be affected by a UK withdrawal. But electricity imports, which will be increasingly important to the UK, could be impacted. This is crucial, as the UK faces substantial electricity infrastructure requirements over the next decade owing to the pending retirement of nuclear and coal capacity. In addition to “keeping the lights on”, the UK is also committed to reducing emissions—as required by the Climate Change Act of 2008—which will require significant investment in renewables. A post-Brexit scenario that affects the UK's ability to attract investment in energy infrastructure will complicate the linkage with the European internal energy market and reduce the UK's influence in the formulation of European energy regulations. This could make it more problematic for the UK to realise its goals of maintaining a reliable and affordable energy supply.

In 2015 around 6% of the UK's electricity supply was imported via interconnectors linking the country with France, Belgium and Norway, and this share will increase owing to the construction of additional transmission lines either approved or in the planning stage. By the early 2020s the UK's electricity import capacity could triple from currently about 4 GW. Electricity flows from European exporters would not be threatened by Brexit, but a UK outside the EU would still be required to comply



Out and down

Mapping the impact of Brexit

with regulations that facilitate interconnectivity within European power markets. Over time this level of interconnectivity will increase, so in the event of Brexit the UK would need to ensure that it will still have input into the formulation of those regulations and how they are applied. This requires staying within existing European energy policy and regulatory frameworks.

Even if the UK were able to adopt the Norway model—membership of the European Economic Area (EEA) and the European Free Trade Association (EFTA) but not the EU—it would still need to negotiate the level of its input into regulations in an energy market of which it will remain an integral part. Furthermore, to maintain relevance it would need to retain membership of key European industry bodies—such as the European Network of Transmission System Operators—which have been mandated by the EU to facilitate the liberalisation of European electricity and gas markets. Post-Brexit, the greater the isolation of the UK from European energy policy and regulatory frameworks, the smaller its influence over the rules governing a market on which it is becoming increasingly dependent.

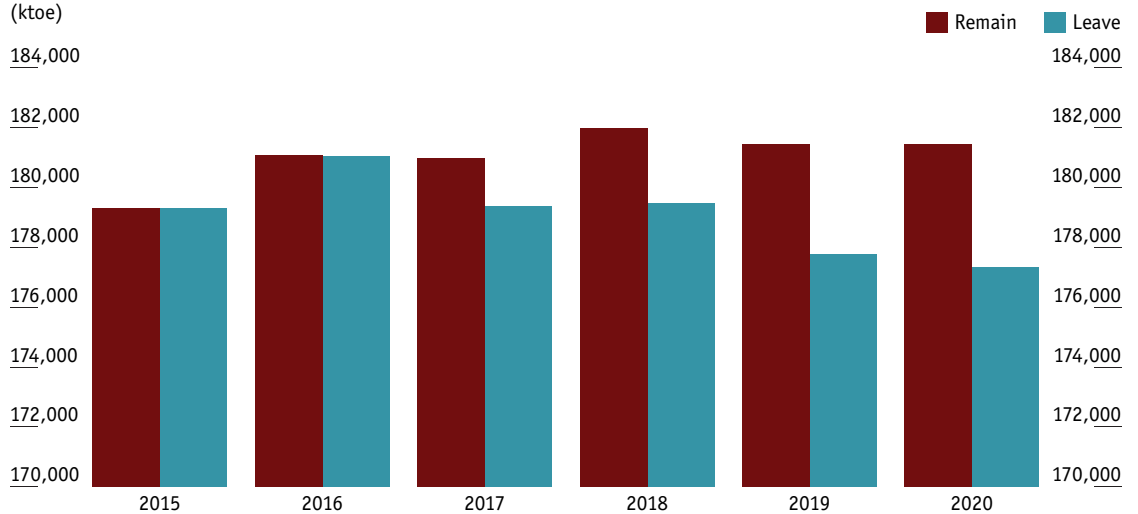
Brexit may also impact the cost of financing for the UK's substantial energy infrastructure requirements, which could be as much as £24bn annually between 2016/17 and 2020/21. A large share of this will be directed to electricity and gas generation, transmission and distribution. According to a study by Vivid Economics, a consultancy, financing of electricity infrastructure may become more costly in the event of Brexit owing to the level of investor uncertainty concerning the prospective new terms of the UK-EU relationship. Furthermore, significant financing for energy infrastructure has been provided by sources such as the European Investment Bank and the European Fund for Strategic Investment, and access to these and other European sources of funding may become problematic if the UK leaves the EU.

Climate for policy change?

The freeing of the UK from being obligated to adhere to EU climate and energy policies and targets has been identified as a benefit of Brexit. It has been argued that the EU Green Agenda places undue

Energy consumption

(ktoe)



Source: The Economist Intelligence Unit.



financial burdens on the UK energy consumer and reduces the competitiveness of UK industries. Following Brexit, these EU-determined constraints would be eliminated, leaving the UK to determine its own energy policy criteria. The reality, however, is more complicated. As an EU member state, the UK adheres to the EU 2020 and 2030 climate and energy frameworks, which set targets to reduce emissions, increase the use of renewables and improve energy efficiency. The UK also participates in the EU's Emissions Trading Scheme (ETS) and has adopted EU directives to reduce air pollution from power plants, such as the Industrial Emissions Directive (IED).

Brexit would allow the UK to abandon EU climate and energy targets and give it the option to leave the ETS and ignore other energy-related policies set by the EU. However, it must be remembered that the UK has adopted more far-reaching climate-related goals of its own and has been a key player in climate diplomacy at European and international levels. Therefore it is not the case that the UK has been compelled to sign up to broader European efforts to combat climate change against its own interests. For example, the UK's Climate Change Act includes an ambitious target to reduce emissions by 80% from 1990 levels by 2050, far beyond what the EU has pledged. The UK also aims to phase out unabated coal-fired power by 2025 and has set its own carbon floor price. Until recently renewable energy was also receiving active policy support, and renewables accounted for 25% of UK power generation in 2015. If the UK left the EU, the current suite of domestic climate and energy policies would still be in place.

The UK has also been influential in the development of energy policy set by the EU. In negotiations to establish the 2030 climate and energy targets the UK was crucial in ensuring that the requirement to reach a 27% share for renewables in energy consumption would not be binding at the national level. The UK argued for this on the grounds that member states should have the flexibility to determine their own energy mix and to choose their own path of emissions reduction. The UK therefore has not been a passive "policy-taker" from the EU on the climate and energy front.

As adherence to EU targets would no longer apply, Brexit would make it easier in the future for the UK to abandon a domestic policy agenda to tackle climate change, but the act of leaving the EU in itself will not automatically result in this course of action taking place. Post-Brexit the Climate Change Act would still be in place, carbon pricing would still exist, the UK would still be able to participate in some way in the ETS, the coal phase-out would still be maintained, and directives such as the IED would still be enshrined in national law. To a large extent the UK has set its own agenda on climate policy and has not merely gone along with an agenda set in Brussels.

Regardless of the outcome of the referendum, the interests of a UK outside the EU will be best served by remaining within the frameworks of the European energy market. Otherwise it will have little influence over the operations of a market with which it is increasingly linked. As the UK has been developing its own set of climate policies, its withdrawal from the EU will not necessarily mean that these will be abandoned, even though it will no longer be obligated to adhere to EU climate targets. Brexit may make it simpler for a future government to reverse course on climate policy, although if this were to occur, it would go against the direction of climate policy at a global level. Given the integral links between UK and Europe in terms of both energy policy and energy markets a post-Brexit scenario would appear to present more pitfalls than benefits.



Telecommunications: Regulation and roaming charges will be key topics

As is the case with many industries, forecasting the fate of the telecommunications sector outside the EU becomes problematic for reasons that largely relate to the pan-European legal and regulatory framework under which the UK currently operates. Much of the ability to make a convincing case in favour of Brexit would therefore depend on the ability to negotiate agreements that would give the UK telecoms sector the same level of access to EU markets that it currently enjoys within the Union, while also ensuring that levels of consumer protection are maintained.

Regulation

Ostensibly, the UK telecoms market may not be as affected by a Brexit scenario as other industries, primarily because consumers engage with operators at a national level, while there is little in the way of trade in telecoms products that would have a substantial impact on levels of imports and exports. One of the biggest talking points in the sector—consolidation—is also unlikely to experience any major degree of upheaval. While Brexit would mean a transfer of regulatory power from the European Commission to Ofcom, the UK telecoms regulator, both bodies have raised concerns over the question of reducing the number of operators in the market, notably due to the possibility of higher consumer prices. And it is not just Ofcom that operators would have to convince—the Competition and Markets Authority (CMA) would also need to be persuaded of the positive effects of a reduction in the number of competitors. The EU’s stance is unlikely to change in this respect, and Ofcom’s own research suggests that out of 25 countries studied, on average prices were up to one-fifth lower in markets with four operators compared with three.

Consolidation aside, Brexit could trigger a change in approach to UK telecoms investment regulation, given that the government would no longer need state-aid approval from the EU when it comes to telecoms investment in research and development (R&D), eGovernment initiatives and areas such as eHealth and eSkills. However, this seems unlikely, given that the UK government has recently announced its digital economy bill, which suggests a willingness to boost greater levels of investment in the telecoms sector, rather than adopting a more interventionist approach that would replicate that of the EU. In this way, it could be argued that Brexit would lead to a more favourable investment environment, although other areas, such as broadband targets or the elimination of rural “not-spots”, might fall by the wayside, given the difficulties in pushing through ambitious goals. Other areas, such as net neutrality and mobile-spectrum allocation, would also be difficult to determine, although existing guidance and influence from the EU are likely to prove a marker for the UK.

Digital Single Market

However, with the EU moving ever closer to enacting a Digital Single Market (DSM), the most obvious way in which the prospects of the UK telecoms sector will be affected in a post-Brexit scenario is with



respect to its ability to benefit from the policy areas set out under the initiative. The DSM strategy is based on three pillars: improved access to digital goods and services; rules and regulations surrounding the evolution of technology; and the use of digital services as a driver for economic growth across the EU. These pillars therefore encapsulate several more specific policy goals, such as facilitating crossborder e-commerce; improved enforcement of consumer protection; an overhaul of the telecoms regulatory framework; enhanced data privacy; and work on improvements to cyber security. In truth, there would be little impediment to Ofcom addressing some of these issues itself should the UK no longer play a part in the DSM. However, whether it has the motivation to do so or whether it can cope with any pressure from operators to desist from regulatory changes, for example, is questionable.

As discussed earlier at a time when e-commerce in the UK is growing fast, a Brexit scenario could put the brakes on growth. Much would therefore depend on the UK being able to negotiate an amended free-trade agreement with the EU, to enable it to continue trading on favourable terms. Whether this can be successfully negotiated is unknown.

Freedom to roam?

But it is on the issue of roaming charges that the impact on the UK market will be most keenly felt. The EU has spent a considerable amount of its negotiating power over the years to reduce roaming charges incurred by operators when consumers use their mobile phones while travelling in the EU. While these charges have been successfully whittled down over the years, they are currently scheduled to be abolished completely by the Commission as part of its DSM plans in 2017. It is unclear whether Ofcom would choose to try and replicate the aims of the abolition of roaming charges in the rest of Europe. Should it wish to do so, its task would involve co-ordinating a significant number of commercial agreements to effectively abolish the charges. If that proved to be too much of a challenge, an alternative would be for Ofcom to negotiate lower roaming charges for UK customers in Europe, similar perhaps in pricing structure to what is currently being enacted (as an interim measure) by the Commission by putting in place temporary price caps on calls, SMS and data from April 30th 2016 to June 2017.

That said, the minister of state for culture and the digital economy, Ed Vaizey, has affirmed that a limit on roaming charges would be included in any post-Brexit package negotiated with the EU. The UK government would therefore have to negotiate with Europe to ensure that freedom from roaming charges remains on the EU statute book post-June 2017, when the ban on roaming fees is due to come into force. Speaking to the House of Lords, Mr Vaizey said he believed the UK would still be able to benefit from the abolition of roaming charges, citing the case of Norway, which, as a member of the European Economic Area (EEA), is set to benefit from the changes. However, Switzerland—which is not a member of the EEA but participates in the EU's single market—is not a part of the deal to abolish the charges, and if the UK were to leave the EU, mobile operators would theoretically be free to raise roaming tariff rates. If that were the case, it would damage prospects for UK travellers looking to use their phones abroad, as well as for EU tourists looking to use their phones in the UK.

But even if roaming charges are not abolished, it may be that competitive pressure alone would force



Out and down

Mapping the impact of Brexit

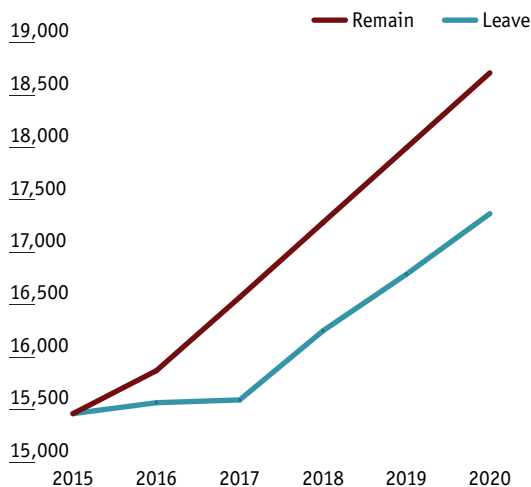
operators to hang back on the imposition of punitive charges, regardless of the power they would have to do so. With the abolition of roaming charges elsewhere in the EU, operators in the UK would look isolated if they persisted with higher charge rates. What's more, with charges currently at distinctly low rates (five euro cents per minute for outgoing calls and one euro cent for inbound calls), operators would probably have to convince Ofcom of the need to raise charges. With wholesale roaming costs at these levels, the regulator might question the industry's motivations, particularly when raising charges would seem unfairly punitive for UK consumers. Again, much would depend on the ability to negotiate a regional trade agreement with the EU that would allow operators to obtain similar wholesale roaming rates to operators throughout the EU member states. The UK could potentially seal such an agreement under the most-favoured nation (MFN) clause under the General Agreement on Trade in Services (GATS), but it is difficult to determine how such negotiations might fare.

In terms of the tangible economic impact on the telecoms sector, analysis suggests that this would be modest. As the charts below show, overall telecoms investment and mobile telecoms revenue would both be adversely impacted by Brexit, primarily on account of an anticipated UK recession in 2017. In terms of telecoms investment, this would rise by around 29% between 2015 and 2020 if the UK were to remain in the EU, compared with a rise of nearly 23% under a Brexit scenario. Mobile revenue would be harder hit if the UK were to leave the EU. Revenue would rise by 21% over the same period if the UK were to remain, compared with a rise of 12% if the UK were to leave the EU.

As in many other industries, the implications of a Brexit for the telecoms sector are unclear. Without the DSM driving more inclusive consumer protection and a more harmonised approach to e-commerce, UK businesses could suffer. So too could consumers if a workable solution to the issue of roaming charges is not found. Regulation too would be somewhat uncertain, although the EU-wide approach to reining in the influence of operators is unlikely to change anytime soon. The level uncertainty over negotiations in a post-Brexit world would therefore not bode well for confidence and growth in the telecoms industry.

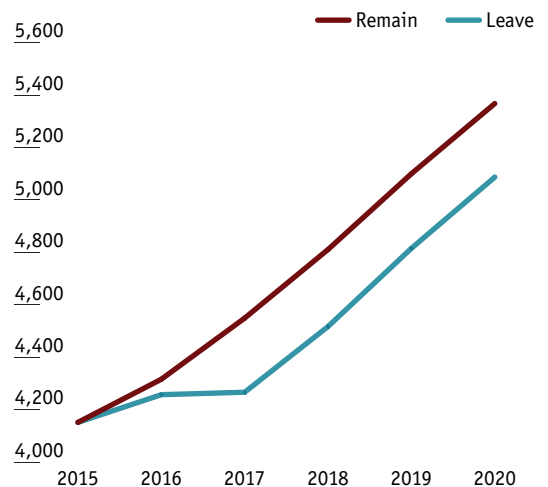
Mobile telecoms revenue

(£ m)



Telecoms investment

(£ m)



Source: The Economist Intelligence Unit.

While every effort has been taken to verify the accuracy of this information, The Economist Intelligence Unit Ltd. cannot accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out in this report.

The Economist Intelligence Unit (EIU) is the research and analysis division of The Economist Group, the sister company of the Economist newspaper. The EIU's expertise in country analysis, macroeconomic principles and forecasting methodologies has provided decision-makers with critical information since 1946. Since then, the EIU has helped businesses, financial institutions and governments understand how the world is changing and how this creates opportunities to be seized and risks to be managed. Given that many of the issues facing the world have an international (if not global) dimension, the EIU is ideally positioned as commentator, interpreter and forecaster on the phenomenon of globalisation as it gathers pace and impact.

For more information about the EIU and how it can help your business or organisation, please contact us at any of the addresses below.

LONDON

20 Cabot Square
London
E14 4QW
United Kingdom
Tel: (44.20) 7576 8000
Fax: (44.20) 7576 8500
E-mail: london@eiu.com

NEW YORK

750 Third Avenue
5th Floor
New York, NY 10017
United States
Tel: (1.212) 554 0600
Fax: (1.212) 586 1181/2
E-mail: americas@eiu.com

HONG KONG

1301 Cityplaza Four
12 Taikoo Wan Road
Taikoo Shing
Hong Kong
Tel: (852) 2585 3888
Fax: (852) 2802 7638
E-mail: asia@eiu.com

GENEVA

Rue de l'Athénée 32
1206 Geneva
Switzerland
Tel: (41) 22 566 2470
Fax: (41) 22 346 93 47
E-mail: geneva@eiu.com