



October update

Brexit fact-base

October 2017

Introduction

Before the EU referendum, we prepared a presentation to help friends and neighbours assess issues. In 2017, we have updated and extended it to create a 'Brexit fact-base'.

Our objective is to share politically neutral information. The fact-base covers a range of topics to aid your understanding of current issues. It uses reputable secondary sources, such as House of Lords, House of Commons, Office of National Statistics (ONS), think tanks and industry bodies.

- Part 1 covers the topics most relevant to the current discussions: (1) sovereignty and law; (2) EU budget and UK contribution; (3) economic context; (4) trade; (5) immigration; (6) impact of 'no deal'; and, (7) impact on industry sectors and regions.
- Part 2 covers important but secondary topics: (8) what is the EU?; (9) foreign direct investment; (10) environment and climate change; (11) education, science, healthcare; (12) defence and security; and (13) Euratom.
- Section 14 provides an overview of the UK and EU approaches to negotiation and the published position papers.

Appendices provide additional detail (including details of the referendum electorate and result).

Each section is independent of others, so please go straight to the section that interests you.

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Please note that the presentation will be updated from time to time. The google-drive link will continue to give you access to the latest version. However, the version date (noted at the top of this page) will change.

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1. Sovereignty and law

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UK sovereignty and the EU

EU competence covers limited areas

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Subsidiarity

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Are criticisms of the ECJ justified?

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See Section 8 “What is the EU?” for detail on the roles of EU’s institutions including the elected parliament.

UK sovereignty and the EU

“Whilst Parliament has remained sovereign throughout our membership of the EU, it has not always felt like that.”

White Paper, Exit From Europe, Feb 2017 – page 13.

- The UK has had a strong influence on EU legislation (for example in relation to financial services) and has supported most EU legislation.
 - However in the UK, perceptions of sovereignty in relation to the EU have been influenced by domestic political expediency and UK media coverage that has often been incomplete or inaccurate. Appendix A provides a summary of the purveyors of Euromyths*.
- At the EU level, the UK has voted for proposals 97% of the time in the last 12 years (2004 – 2015): that is, the UK voted for the vast majority of EU legislation.
- In terms of the total volume of laws passed, the proportion of times the UK government has been on the “losing side” is small at about 2% since 1999. In recent years the UK has been losing more votes, and now loses a higher proportion of votes than other members.

Source: Full Fact <https://fullfact.org/europe/eu-facts-behind-claims-uk-influence/> and also on Simon Hix, Sara Hagemann, Doru Frantescu: Would Brexit matter? The UK’s voting record in the Council and the European Parliament, April 2016.

*For Euro-myths see <http://blogs.ec.europa.eu/ECintheUK/euromyths-a-z-index/>

Analysis by the Economist found that the Daily Mail, Daily Telegraph, Express, Times and Sun are the five top purveyors of Euro-myths See <http://www.economist.com/blogs/graphicdetail/2016/06/daily-chart-15> and **Appendix A**

EU competences cover limited areas

Determined exclusively at EU level	Shared between EU and UK	Broadly or exclusively determined by UK (sometimes supported by EU)
<ul style="list-style-type: none"> • Trade policies, customs union, including tariffs and other trade measures • Rules and standards for the EU Single Market • Competition rules and state aid • Intra-EU migration • Conservation of marine biological resources • Monetary policies for Euro area 	<ul style="list-style-type: none"> • Ratifying trade agreements • Energy and climate policies • Environmental standards • Agriculture and fisheries • Employment policies • Consumer protection and transport • European cooperation on criminal matters • Asylum policy • VAT • Cooperation on foreign policy • Shared safety concerns on public health 	<ul style="list-style-type: none"> • Health policy • Education • Fiscal policy and public expenditure • Monetary policy • Income tax, corporation tax and capital gains tax • Non-EU immigration • Border control and security • Pensions • Welfare • Foreign policy decisions • Defence • Intelligence • Development cooperation and humanitarian aid • Local government • National policing and criminal justice • Media regulation

Source: Chatham House and <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3Aai0020>

Unanimity

All EU countries, when meeting within the Council, have to vote unanimously on a number of matters which the member states consider to be sensitive. In other areas, qualified majority voting (QMV) applies.

Unanimity means that each country has a veto. For example: some states (e.g. Austria, Cyprus) have said that they would veto Turkey's accession to the EU (the process for which is effectively suspended due to the Erdogan regime's actions); and, the EU has offered Spain a veto right over the future relationship between Gibraltar and the EU after Britain leaves the bloc.

Unanimity is required for:

- Common foreign and security policy (with the exception of certain clearly defined cases which require qualified majority, e.g. appointment of a special representative);
- Citizenship (the granting of new rights to EU citizens);
- EU membership (accession of new countries or withdrawals);
- EU trade agreements;
- Harmonisation of national legislation on indirect taxation;
- EU finances (own resources, the multiannual financial framework);
- Certain provisions in the field of justice and home affairs (the European prosecutor, family law, operational police cooperation, etc.);
- Harmonisation of national legislation in the field of social security and social protection.

Source: European Council - <http://www.consilium.europa.eu/en/council-eu/voting-system/unanimity/>

Subsidiarity (1/2) - role of national parliaments

- Since 2006, the Commission has been transmitting to national parliaments all new legislative proposals, and has replied to their opinions. With the Lisbon Treaty from 2009, the rights and duties of national parliaments within the EU are clearly set.
- National parliaments are now better able to express their views on draft legislative acts as well as on other matters of particular interest to them.
- EU actions are subject to the principle of **subsidiarity**. *This means that the EU only acts where action will be more effective at EU level than at national level.*
- Where the treaties have given exclusive powers to the EU, this is considered to be the case, but otherwise it is a judgment that is made for each new law. Correct application of this principle in EU decision-making is monitored by national parliaments.
- To enable parliaments to carry out subsidiarity checks, the Commission sends draft legislation to national parliaments at the same time as it forwards it to the EU legislature (i.e. the European Parliament and the Council).
- The other key principle is **proportionality** - the content and scope of EU action may not go beyond what is necessary to achieve the objectives of the Treaties.

Subsidiarity (2/2) - safeguards

Subsidiarity is a principle of the EU that decisions are taken at national level rather than European level wherever possible. Safeguards include the following:

“Yellow card”:

10 EU28 **national parliaments** can ask the European Commission to reconsider a proposed law if they think there's a subsidiarity problem - EC can still go ahead, so makes no difference

“Orange card”:

15 EU28 **national parliaments** but also need *either* 16 Governments in the Council *or* a majority in the EU Parliament to get the Commission to drop a proposal – this has never been used

“Red card”:

55% of EU28 **national parliaments** (i.e. 16 countries) → Governments on EU's Council would discuss objections of the parliaments and either shelve the proposal or amend it to take account of objections.

Source: Fullfact, <https://fullfact.org/europe/explaining-eu-deal-red-card/>

European Court of Justice and EU law

- The Court of Justice of the European Union (CJEU) is the supreme judicial authority on EU law. It includes:
 - Court of Justice: 1 judge from each EU country, plus 11 Advocates General
 - The number of judges in the ECJ is set to double to 56 over the next four years in response to the increasing case load: 1270 pending cases in November 2015
 - General Court: 1 judge from each EU country
 - Civil Service Tribunal: 7 judges
- **European Court of Justice** rules on questions of EU law (EU treaties and other EU legislation). Its decisions are binding on EU institutions and member states. The ECJ:
 - Hears actions brought by individuals seeking damages from European institutions, or the annulment of EU law which directly concerns them;
 - Clarifies points of European law at the request of courts in member states.
- **EU law** has three main sources:
 - *Primary law*: the Treaties establishing the European Union.
 - *Secondary law*: regulations and directives which are based on the Treaties. The EU legislature is composed of the European Parliament and the Council of the European Union, which, under the Treaties, may establish secondary law to pursue the objective set out in the Treaties.
 - *Supplementary law*: case law by the ECJ, international law and general principles of EU law.
- EU law is applied by the courts of member states and ECJ.
 - EU law has supremacy over laws of member states.
 - A member state may be taken to court for failing to meet its obligations under EU law.
 - Big fines may be imposed for non-compliance with the court's rulings.

Are criticisms of the ECJ justified?

- A common criticism of the ECJ is that it engages in 'activist' rulings aimed at increasing its own power as an institution.
- However, the ECJ is often required to make rulings because of conflicts between different EU objectives.
- In addition, many EU decisions (and supporting EU laws) are deliberately left politically unclear on the assumption that the ECJ will 'fill in the blanks' later.
- Where EU law is unclear or ambiguous, this will inevitably give rise to cases for the ECJ to resolve. As a result, ECJ decisions may be seen as having political consequences.
- Some cases brought to the ECJ reflect problems with the overall nature of EU decision-making, and unresolved political differences.
- UK citizens have sometimes taken cases against the UK government or UK-based organisations to the ECJ, when avenues within UK law have been exhausted (e.g. *Williams vs British Airways plc*) or where UK has failed to follow EU law (e.g. in relation to air pollution laws).

Note - the **European Court of Human Rights** is *not* an EU institution at all. Neither is the **Council of Europe** .

To enable citizens to exercise their rights under the Convention, the Council of Europe set up the **European Court of Human Rights**. The European Court of Human Rights is *not* an EU institution.

The **Council of Europe** is an intergovernmental organisation which aims to protect human rights, democracy and the rule of law. It was set up in 1949 and one of its early achievements was to draw up the European Convention on Human Rights. The Council of Europe now has 47 Member States, including all EU countries, and its headquarters are in Strasbourg, France.

EU and UK law (1/2)

What proportion of UK law comes from Brussels?

House of Commons estimates for various definitions of 'law'

Acts put in place by our
Parliament: 1980-2009



Regulations initiated by UK
Parliament: 1997/8-2008/9



All regulations (including EU-
initiated regulations): 2009



NB: The House of Commons Library warned that "there is no totally accurate, rational or useful way of calculating the percentage of national laws based on or influenced by the EU."

Source: Fullfact and House of Commons analysis - 2010

EU and UK law (2/2)

- The key point is that counting laws is not a good measure of EU influence on the UK. (A better question would be 'which EU laws do we want to change?').
- The figures from counting laws can be misleading as they include a majority of minor regulations that have an immaterial impact on UK citizens.
- At EU level, UK voted for proposals 87% of the time : that is, we vote for vast majority of EU legislation
 - Parliament passed 945 Acts between 1993 and 2014 (a different period to the previous charts), of which 231 implemented EU obligations Over the same period, it passed 33,160 Statutory Instruments, 4,283 of which implemented EU obligations. These figures together account for 13% of laws passed.
- If you count *all EU regulations, EU-related Acts of Parliament, and EU-related SIs*, about 62% of laws introduced between 1993 and 2014 that apply in the UK implemented EU obligations.
 - However, the 62% figure significantly overstates the EU proportion because:
 - It treats all EU regulations as part of the UK's body of laws when they may not actually apply (e.g. in relation to Schengen) or simply do not have any real impact on Britain (e.g. tobacco production).
 - What matters is the number of laws in force. Many EU regulations are short-term in nature; each working day new regulations on fruit and vegetable imports into the Single Market. These are all counted in the 62% figure, despite the fact that they no longer apply.
- It is also important to remember that the UK government and its officials tend to 'gold-plate' EU law and regulation.

Source: FullFact <https://fullfact.org/europe/uk-law-what-proportion-influenced-eu/>

House of Commons Briefing Paper 07092, 10 June 2015, EU obligations: UK implementing legislation since 1993
<http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN07092>

Article 50 of Lisbon Treaty

- Article 50 was not expected to be used and is not very detailed. It leaves room for interpreting the extent to which the 'future framework' for relations between a withdrawing state and the EU should be included in the negotiations and the final agreement.
- The two-year timeframe set out in Article 50 ends on 29 March 2019. This may be extended if the Member States and the UK unanimously agree.
- Article 218(3) requires unanimous agreement on certain elements of the negotiation.
- Some lawyers (but not all) believe that Article 50 is unilaterally reversible. For example, EU treaties say when something is irreversible. However, even if the UK withdrew its Art 50 notification, it would have to be accepted as effective by the EU27 or, failing that, the ECJ.

Wording of Article 50

1. Any Member State may decide to withdraw from the Union in accordance with its own constitutional requirements.
2. A Member State which decides to withdraw shall notify the European Council of its intention. In the light of the guidelines provided by the European Council, the Union shall negotiate and conclude an agreement with that State, setting out the arrangements for its withdrawal, taking account of the framework for its future relationship with the Union. An agreement shall be negotiated in accordance with Article 218(3) of the Treaty on the Functioning of the European Union. It shall be concluded on behalf of the Union by the Council, acting by a qualified majority, after obtaining the consent of the European Parliament.
3. The Treaties shall cease to apply to the State in question from the date of entry into force of the withdrawal agreement or, failing that, two years after the notification referred to in paragraph 2, unless the European Council, in agreement with the Member State concerned, unanimously decides to extend this period.
4. For the purposes of paragraphs 2 and 3, the member of the European Council or of the Council representing the withdrawing Member State shall not participate in the discussions of the European Council or Council or in decisions concerning it.
5. A qualified majority shall be defined in accordance with Article 238(3)(b) of the Treaty on the Functioning of the European Union.
6. If a State which has withdrawn from the Union asks to rejoin, its request shall be subject to the procedure referred to in Article 49.

Article 127 of EEA agreement

What is Article 127 and why does it matter?

Article 127 of the EEA Agreement states that “Each Contracting Party may withdraw from this Agreement provided it gives at least twelve months' notice in writing to the other Contracting Parties. Immediately after the notification of the intended withdrawal, the other Contracting Parties shall convene a diplomatic conference in order to envisage the necessary modifications to bring to the Agreement.”

It is not clear whether the UK needs to trigger article 127 to terminate its membership of the EEA.

Views differ

The [Single Market Justice](#) (SMJ) campaign, led by Adrian Yalland and Peter Wilding, argues that because the UK is a separate contracting party to the EEA Agreement in its own right, it will not leave the Single Market even after it leaves the EU. To exit the Single Market, the Government will have to trigger a separate exit process, as set out in Article 127 of the EEA agreement. SMJ argue that since the UK's EEA membership is part of UK law under Parliament's 1993 EEA Agreement Act, triggering Article 127 would require parliamentary approval. From this angle, Article 127 can be understood as the Single Market equivalent of Article 50.

However there is an opposing view. Jean Claude Piris, former head of the European Commission's legal service, has said:

“The UK's withdrawal from EU will mean an automatic cessation of its membership of EEA as an EEA-EU member”. This position derives from Article 126 (1) of the EEA agreement:

“The Agreement shall apply to the territories to which the Treaty establishing the European Economic Community is applied and under the conditions laid down in that Treaty, and to the territories of Iceland, the Principality of Liechtenstein and the Kingdom of Norway.”

In this case, the UK is a member of the EEA only in its capacity as an EU member. Therefore leaving the EU means an automatic exit from the EEA, and the UK will not need to trigger Article 127.

Current status

The Government's position appears to be that even if our EU exit does not automatically terminate the EEA agreement in law, any continued signature to the EEA Agreement would not equate to functional Single Market membership and they do not anticipate the need to trigger Article 127 with parliamentary approval.

The door seems to be open for future legal challenges against the government on this issue.

Source: Institute for Government, <https://www.instituteforgovernment.org.uk/explainers/article-127-and-single-market>

2. EU budget and UK contribution

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EU plan for spending 2014-20

EU budget - 2016

EU 28 contributions compared

Contribution per person

UK net contribution to the EU for 2016-17

UK contribution as % of UK public expenditure

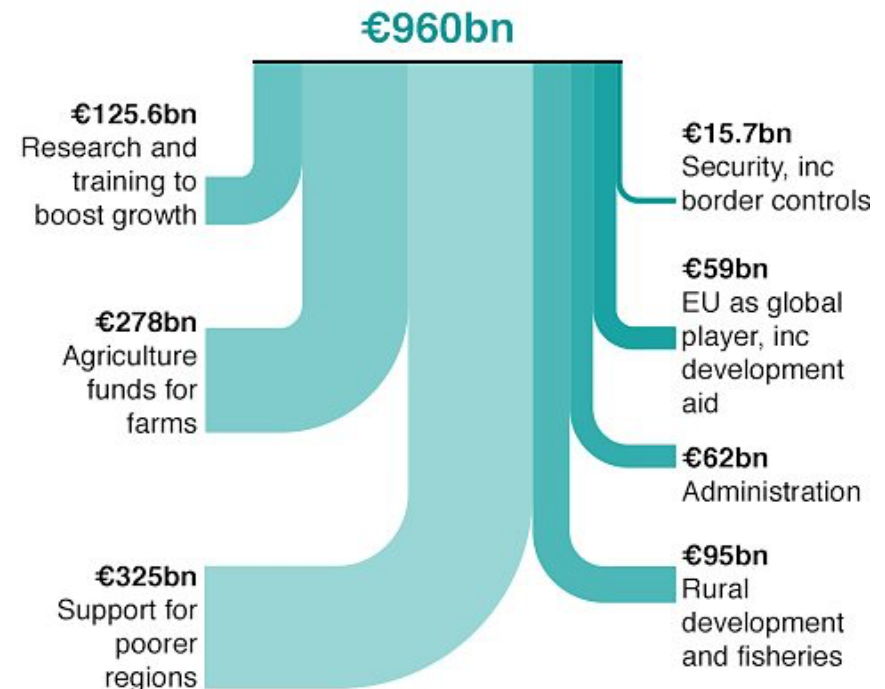
UK financial settlement with EU

EU plan for spending 2014-20

The EU has 11 main objectives for 2014-20.

1. Strengthening research, technological development and innovation
2. Enhancing access to, and use and quality of, information and communication technologies
3. Enhancing the competitiveness of Small and Medium-sized Enterprises (SMEs)
4. Supporting the shift towards a low-carbon economy
5. Promoting climate change adaptation, risk prevention and management
6. Preserving and protecting the environment and promoting resource efficiency
7. Promoting sustainable transport and improving network infrastructures
8. Promoting sustainable and quality employment and supporting labour mobility
9. Promoting social inclusion, combating poverty and any discrimination
10. Investing in education, training and lifelong learning
11. Improving the efficiency of public administration

Plans for spending the EU budget, 2014-20



Source: European Commission

http://ec.europa.eu/regional_policy/en/policy/how/priorities

EU budget - 2016

- The EU budget is always balanced, so there is no deficit or debt.
- The current year's budget is made up mostly (>90%) of payments for the current year plus commitments in future years (<10%).
- Country contributions vary principally according to country Gross Domestic Product – at an average of about 1% of GDP (the EU uses a similar measure, called Gross National Income – GNI).
- The 2016 budget was €155bn:
 - €132.3bn (85%) was spent in EU countries, benefitting citizens directly, on the EU's main objectives of sustainable growth and smart and inclusive growth.
 - €4bn on security and citizenship and €9bn on Global Europe (8.5%)
 - €9bn (5.8%) was spent on administration
- EU budget averaged **83 cents a day per citizen** (EU population 511 million in 2016) or **€303 a year per citizen**.

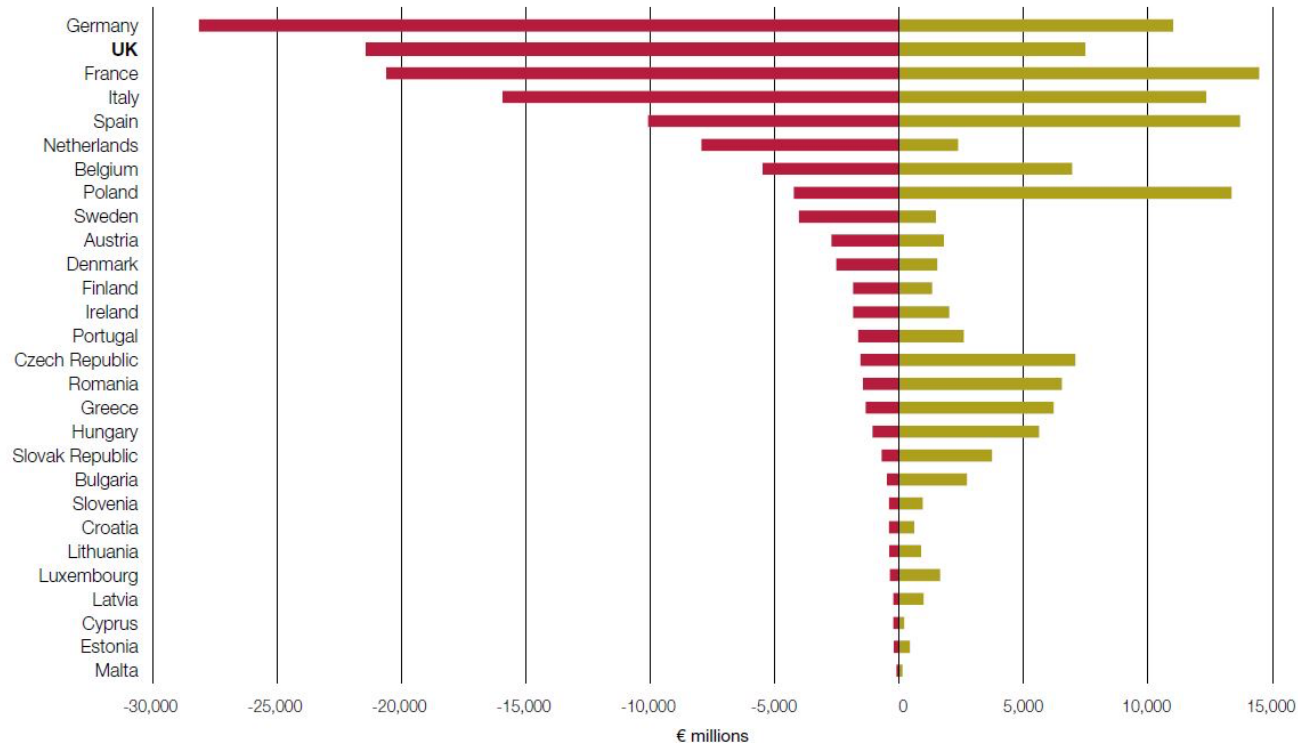
<http://www.consilium.europa.eu/en/policies/eu-annual-budget/2016/>

See Appendix B for supporting detailed analysis of the similar 2015 budget from the National Audit Office (NAO)

EU 28 contributions compared

Member state contributions to the EU budget, and payments from the EU budget to member states, 2015

In 2015 the UK contribution represented 15.6% of all member states' contributions to the EU budget, second only to the contribution made by Germany. In the same period it received 5.7% of all payments from the EU budget to member states.



- Member state contributions to the EU budget
- Payments from the EU budget to member states

Note

Data in this graphic represent member state contributions to the EU budget, and payments from the EU budget to member states (**public and private sectors**), in 2015. The bar representing the UK contribution therefore takes the UK rebate (or abatement) into account. For more information on how the UK contribution to the EU budget is calculated, see [Appendix Four](#).

Source: European Commission

Source: National Audit Office, Briefing on EU-UK finances, December 2016
<https://www.nao.org.uk/report/briefing-on-eu-uk-finances/>

Contribution per person



Economist.com

UK's net contribution to the EU for 2016-17

HM Treasury recorded the UK gross contribution to the EU budget in 2016-17 as £17.0bn. After rebate, this reduces to **£12.2bn (£235m/week)**, which is the amount sent to the EU (including duties UK collects on behalf of EU). The UK then receives payments from the EU.

The UK **net contribution** in 2016-17 was **£8.1bn**, taking account of £4.1bn in payments to the UK public sector. The UK receives additional funds secured through competitions (including money received for research in UK universities). NAO estimated these at £1.4bn for 2014. Assuming an estimated £1.0bn for 2016/17 results in a **UK net contribution of £7.1bn: £137m per week or 30p per day per person** (UK population of 65 million).

UK contributions						
	2016-17			2015-16		
	Annual £bn	Per week £m	Per person per day p	Annual £bn	Per week £m	Per person per day p
Gross UK contribution	17.0	327	72	17.7	340	75
UK rebate	(4.8)			(4.1)		
Gross contribution after rebate	12.2	235	51	13.6	262	58
Public sector receipts	(4.1)			(2.8)		
<i>HMT net contribution</i>	<i>8.1</i>	<i>156</i>		<i>10.8</i>	<i>208</i>	
Receipts through competitions	(1.0)			(1.4)		
Net UK contribution	7.1	137	30	9.4	181	40

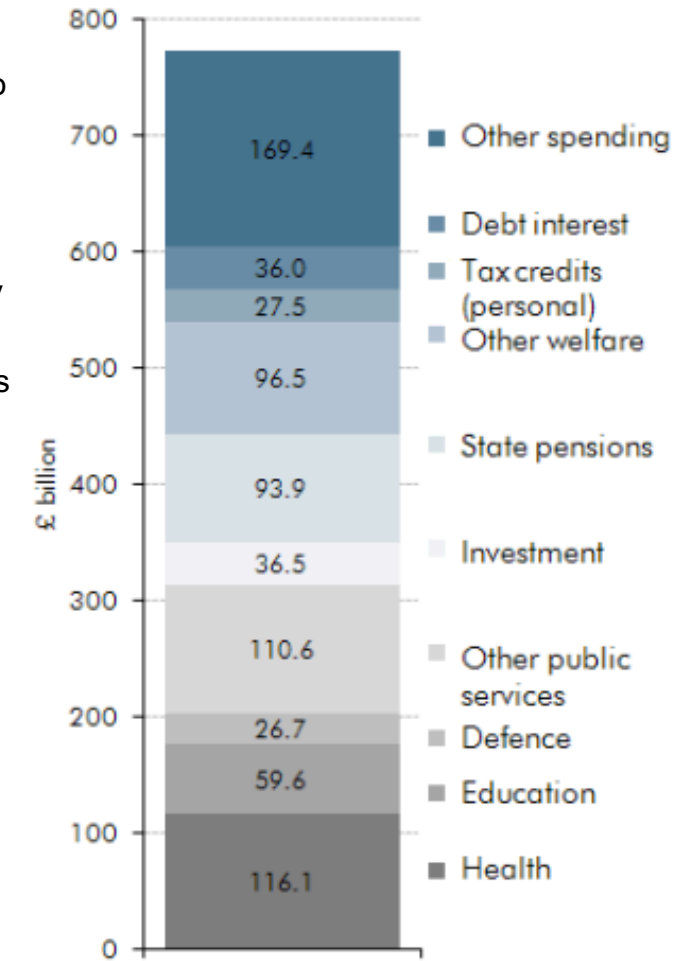
See Appendix B for
- supporting detail
from the NAO;
- HMT figures for UK
contributions from
2012-13 to 2019-20

Note: The UK contribution includes the UK's share of the EU's international aid budget. The UK's share was about £1bn in 2015/16, which counts towards the UK's overseas aid target of 0.7% of GDP. To meet the target after leaving the EU, the UK would still need to spend £1bn on aid. Therefore, the **UK could only 'save' £6.1bn (£117m/week)**, not £7.1bn. (Any Brexit saving would be outweighed by its additional costs to public finances due to reduced trade, GDP, migration etc.; leading to lower tax take and increased public sector costs).

UK contribution as % of UK public expenditure

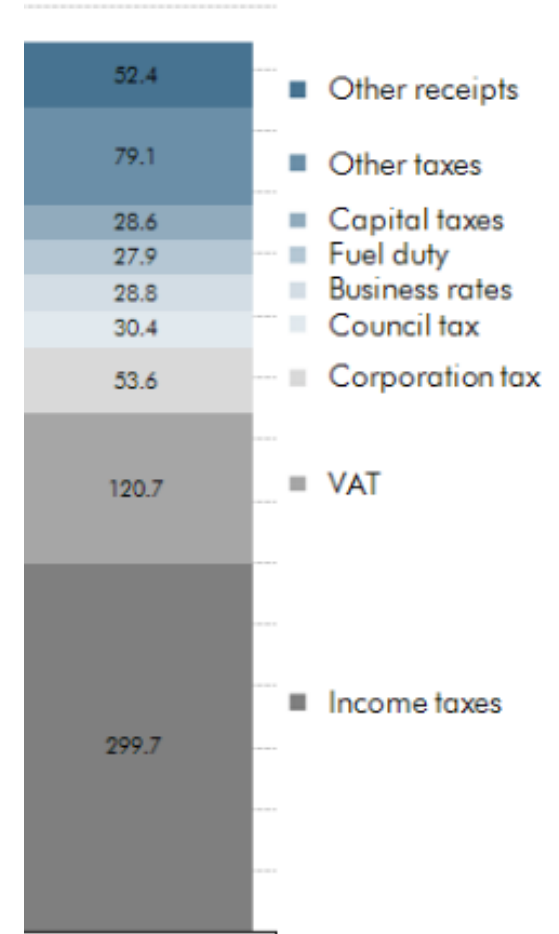
- The UK's contribution to the EU of £10.8bn (46p per day per person) represented **less than 1.5% of UK public expenditure** of £751bn in 2015 (£31.60 per day per person).
- UK public expenditure is expected to be £721bn in 2016-17 – see opposite.

Public sector spending



Source: HMT, OBR 2016-17

of public sector receipts

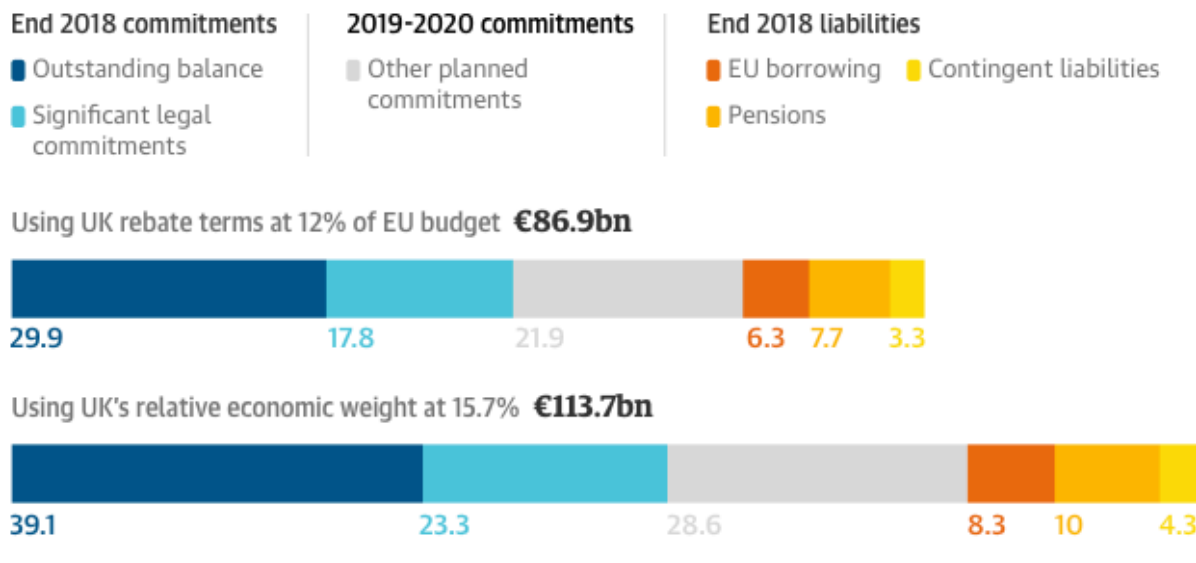


2016-17

UK's financial settlement with EU (1/2)

One important objective of the first phase of the Brexit negotiations is to determine the methodology for calculating the financial settlement.

1. The main item is the UK's share of budget obligations of €724bn. Using two potential, simple methodologies, the Bruegel Institute estimates the UK share at between €86bn and €114bn.



Guardian graphic | Source: Bruegel.org

Source: <http://bruegel.org/2017/03/the-uks-brexit-bill-what-are-the-possible-liabilities/>

Against the UK's budget obligations, will be deducted (to be calculated by methodologies yet to be agreed):

2. UK share of EU assets estimated at €17bn to €23bn
3. EU spending commitments to the UK to 2020 estimated at €29bn

Using these figures, the estimate of **UK's likely financial settlement** (+1-2-3), using the widest possible range of outcomes, would be: **€34bn to €68bn.**

UK's financial settlement with EU (2/2)

The Prime Minister's Florence speech on 22 September 2017 confirmed that "The UK will honour commitments it has made during the period of our membership."

However, the UK has not published a position paper on the financial settlement.

There is a useful House of Commons Paper 8039, Brexit: the exit bill, published 25 September 2017, which summarises an understanding of the UK approach, which has been legalistic and line-by-line.

As the paper says:

"There is some debate over whether the UK would be legally liable for any of the EU's outstanding financial commitments once it left the EU. A Lords Committee recently considered the issue and found that the most persuasive argument was that the UK would not be legally liable.

However, the same committee also concluded that if the UK were to simply leave without making any payments the economic and political consequences could be 'profound'."

Note: The cost of the one-off financial settlement will be much smaller than the costs to the UK of giving up membership of the EU Single Market for an inferior, UK-EU preferential trade agreement, which would last for years.

3. Economic context

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EU and UK GDP compared to other countries

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Inflation forecast

Economic outlook

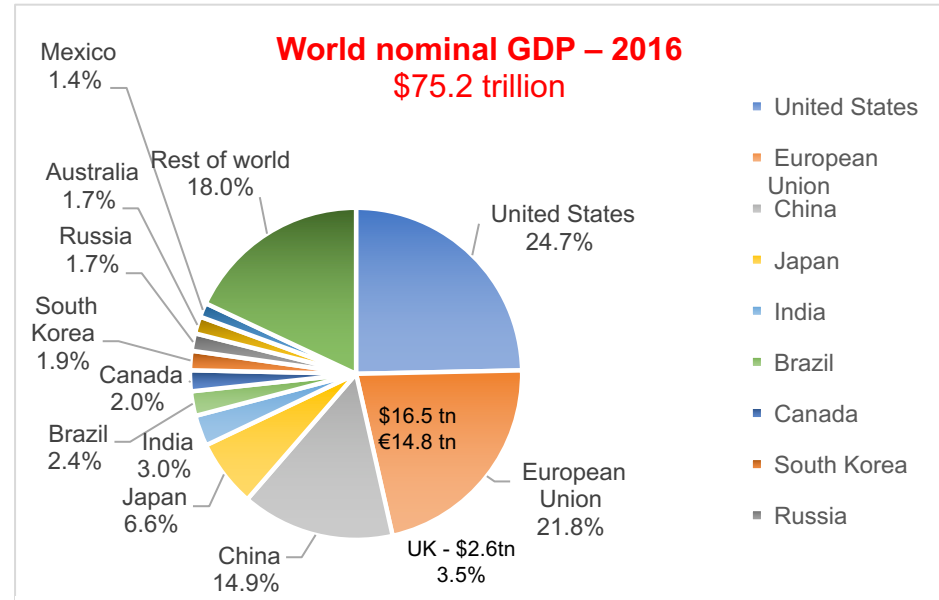
This section contains a collection of economic facts and figures relevant to Brexit.

For a more comprehensive view on the UK economy and its prospects, please refer to a reputable economic outlook.

EU and UK GDP compared to other countries

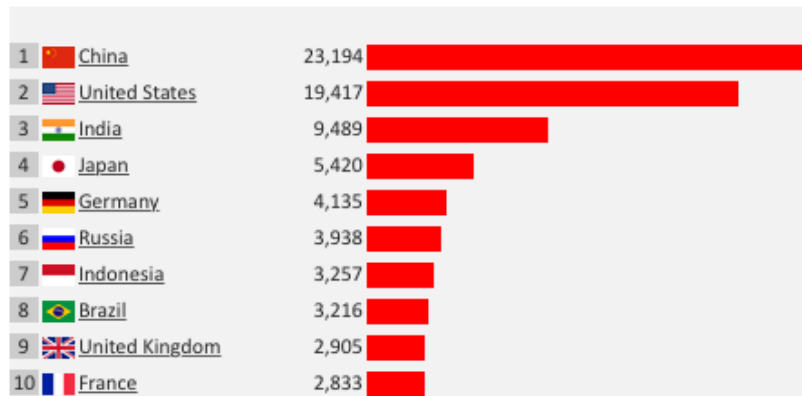
- In 2016, the EU ranked second by size of nominal GDP, behind the US and ahead of China.
- EU nominal GDP has declined as a percentage of global GDP while China, India and Brazil have grown.
- In 2016, the UK ranked 5th with the EU treated as one entity. Treating the EU as separate countries, the UK also ranked 5th behind Germany, but ahead of France.
- If GDP is measured using the Purchasing Power Parity (PPP) method, China ranked 1st, ahead of the US in 2nd, with the UK ranked 9th.

Source: IMF



GDP based on PPP valuation

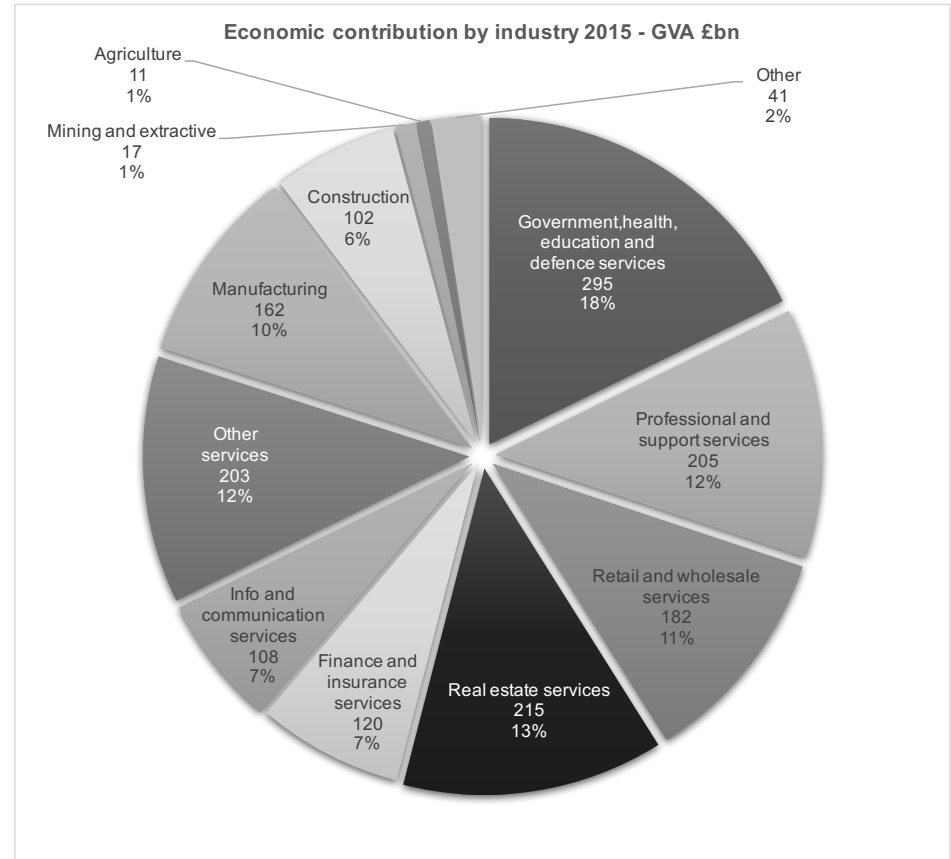
(billion current international dollars)



UK industry sector economic contribution

- The service industries made up 80% of UK total economic output in 2015, measured in Gross Value Added (GVA), equivalent to £1.33 trillion of the total £1.67 trillion.
 - Manufacturing provided £162 bn GVA, 10% of total.
 - Construction provided £102 bn GVA, 6% of total.
- The largest services sub-sector is the government, health, education and defence sector, which contributed £295 billion or 18% of the total in 2015.
 - The professional and support services industry contributed £205 bn GVA in 2015, 12% of the total.
 - The finance and insurance services industry contributed £120 bn GVA, 7% of the total in 2015.
 - The retail and wholesale industries contributed £182 bn GVA, 11% of the total.
- Employment by industry is broadly in-line with output. In 2014:
 - Service industries employed 23.8 million people, 85% of UK workers
 - Manufacturing employed 2.4 million people, 8% of the total
 - Construction industry employed 1.3 million people, 4% of the total

Source: House of Commons Library, Industries in the UK, 15 August 2016. ONS GVA statistics.



Definition of Gross Value Added

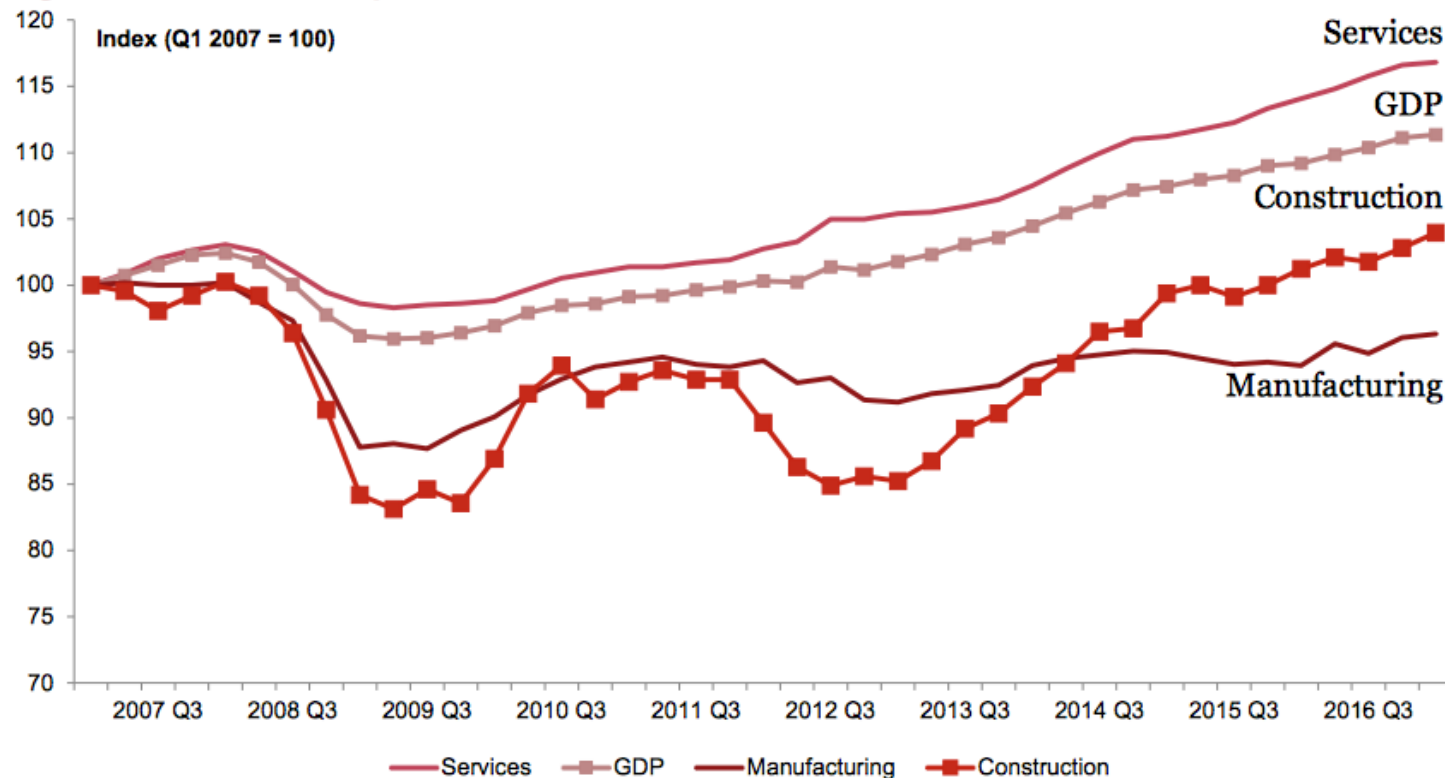
The economic output of part of the economy, such as an industry can be measured and compared using Gross Value Added (GVA), a measure of economic activity that is similar to GDP.

In brief, GVA is the contribution of part of the economy, minus any costs incurred. Value added forms the basis out of which salaries and wages are paid, and profits are earned for shareholders.

Sectoral output trends

Growth in UK services has been strong since the recession, but manufacturing and construction have lagged behind

Figure 2.1: Sectoral output and GDP trends



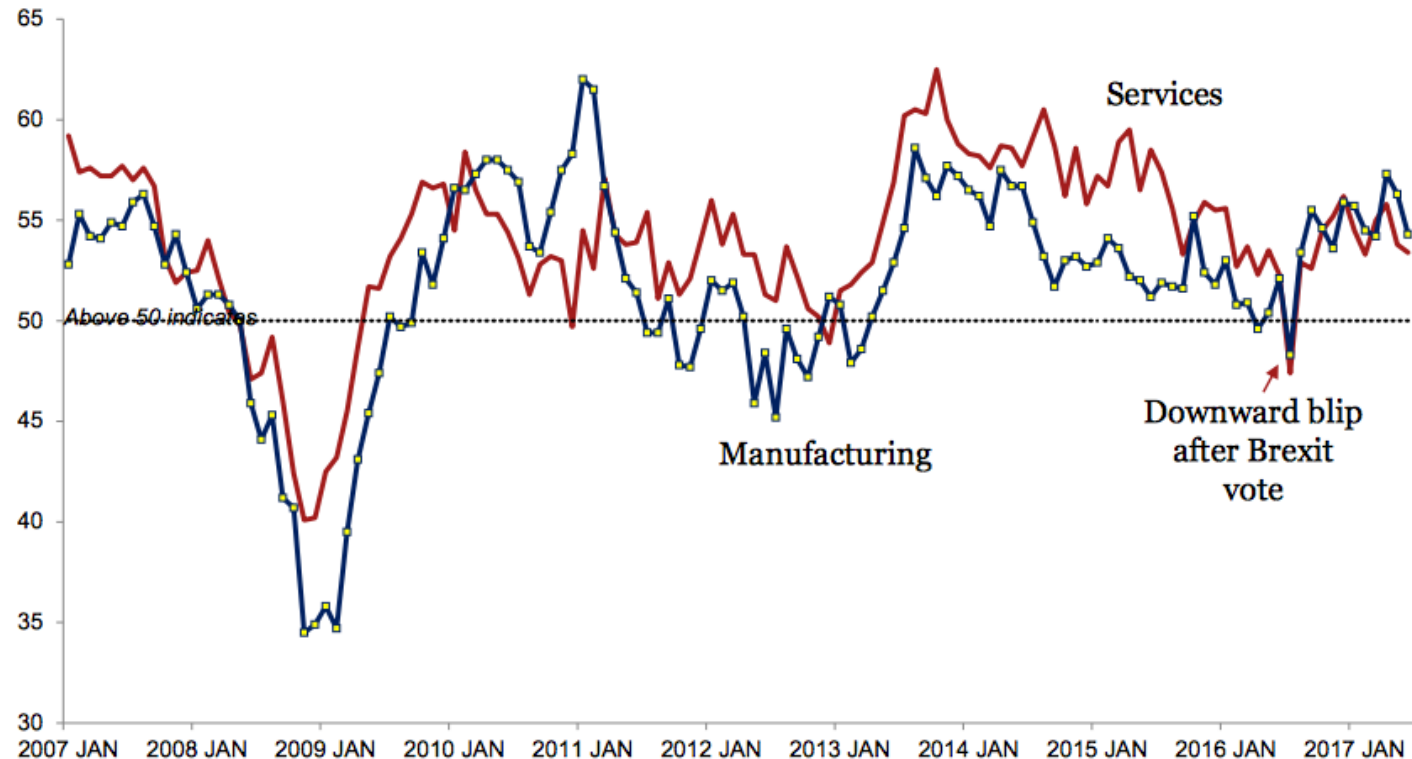
Source: ONS

Source: PwC, UK Economic Outlook, July 2017

Business activity

Relatively strong post-Brexit trends in the services and manufacturing sectors have tailed off in recent months

Figure 2.3: Purchasing Managers' Indices of business activity



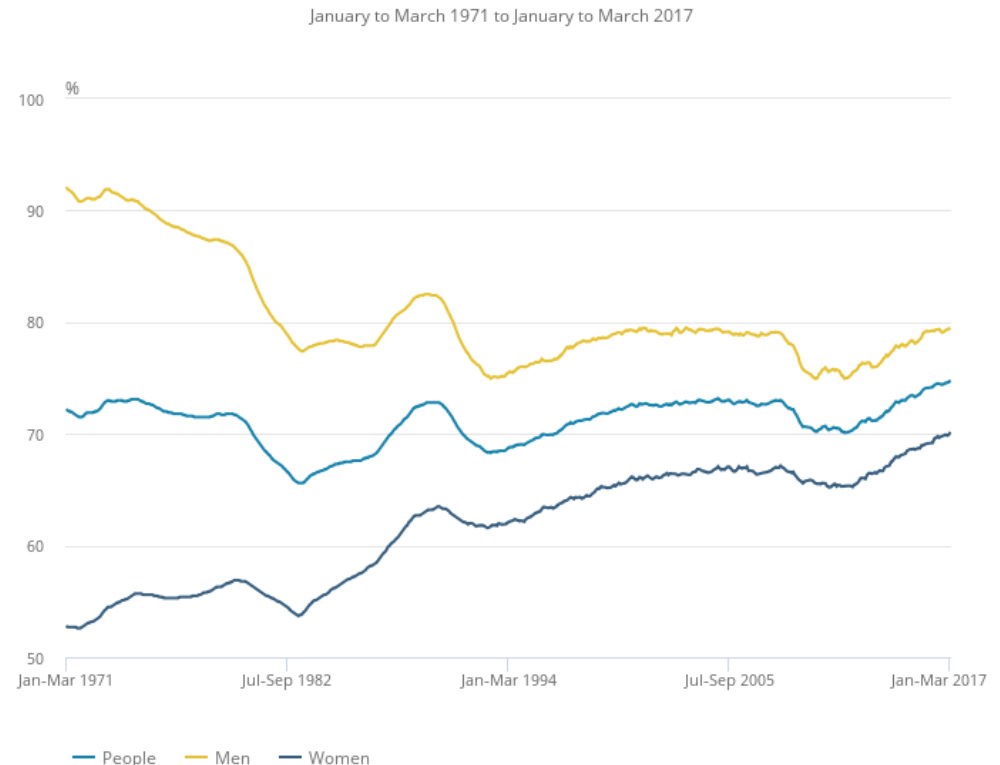
Source: Markit/CIPS

Source: PwC, UK Economic Outlook, July 2017

Employment (1/2): employment rates

- The proportion of people aged from 16 to 64 in work is known as the employment rate. Figure 2 shows the employment rates for people, men and women aged from 16 to 64 since comparable records began in 1971.
- For the latest time period, January to March 2017, the UK employment rate for people was 74.8%, the highest since comparable records began in 1971.
- The UK employment rates for people, men and women have been generally increasing since early 2012.
- The lowest UK employment rate was 65.6% in 1983, during the economic downturn of the early 1980s.

Figure 2: UK Employment rates (aged 16 to 64), seasonally adjusted

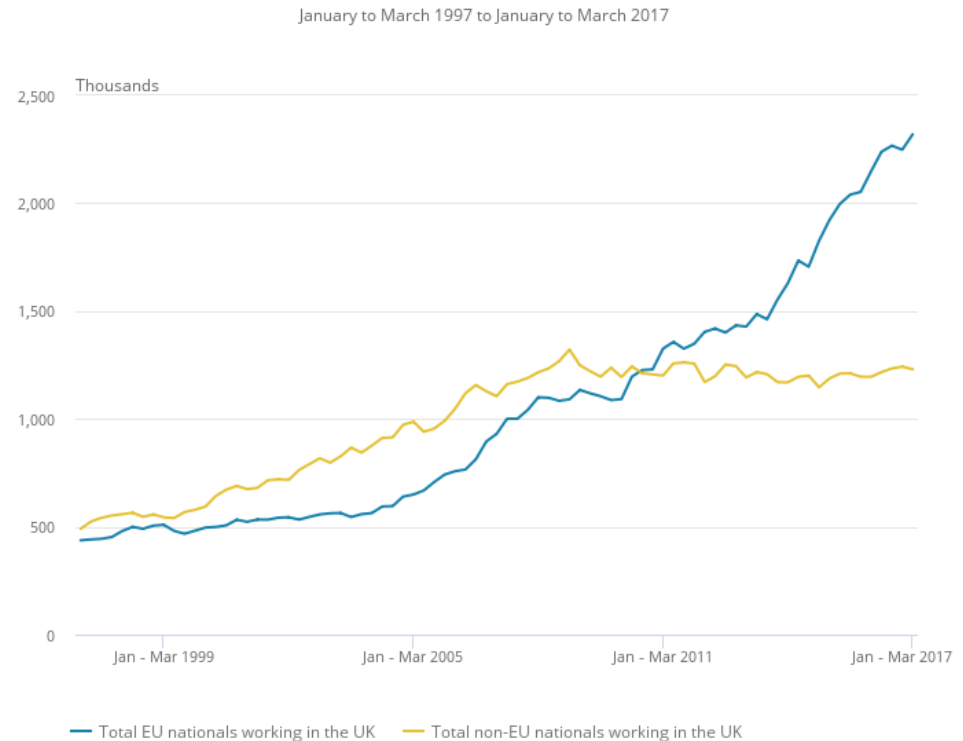


Source: Labour Force Survey, Office for National Statistics

Employment (2/2) - non-UK employment

- Since 2009, the number of non-UK, non-EU nationals working in the UK has been broadly flat but the number of non-UK EU nationals has continued to increase.
- For January to March 2017, there were 5.64 million workers born abroad, but the number of non-UK workers was much lower at 3.55 million. (This is because the estimates for people born abroad include many UK nationals).

Figure 6a: Non-UK nationals working in the UK, not seasonally adjusted



Source: Labour Force Survey, Office for National Statistics

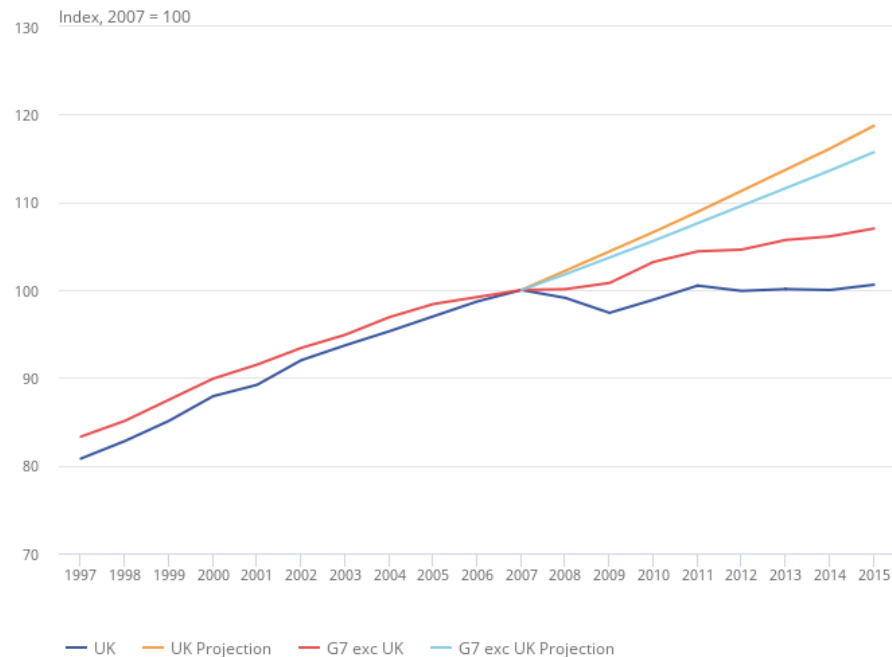
UK productivity

- Output per hour worked in the UK was 15.9% below the average for the rest of the G7 advanced economies in 2015; this compares with 15.8% in 2014.
- Output per worker in the UK was 16.6% below the average for the rest of the G7 in 2015.
- Compared with the rest of the G7, the UK had below average productivity growth in both output per hour and output per worker terms in 2015.
- Output per hour was lower in all G7 countries in 2015 than would have been the case if pre-downturn trends had continued since 2007.
- The UK's "productivity puzzle" – the difference between post-downturn productivity performance and the pre-downturn trend – was 15.2% in 2015; this was the largest in the G7 and was double the average of 7.5% across the rest of the G7.

Source; ONS -

<https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/bulletins/internationalcomparisonsofproductivityfinalestimates/2015>

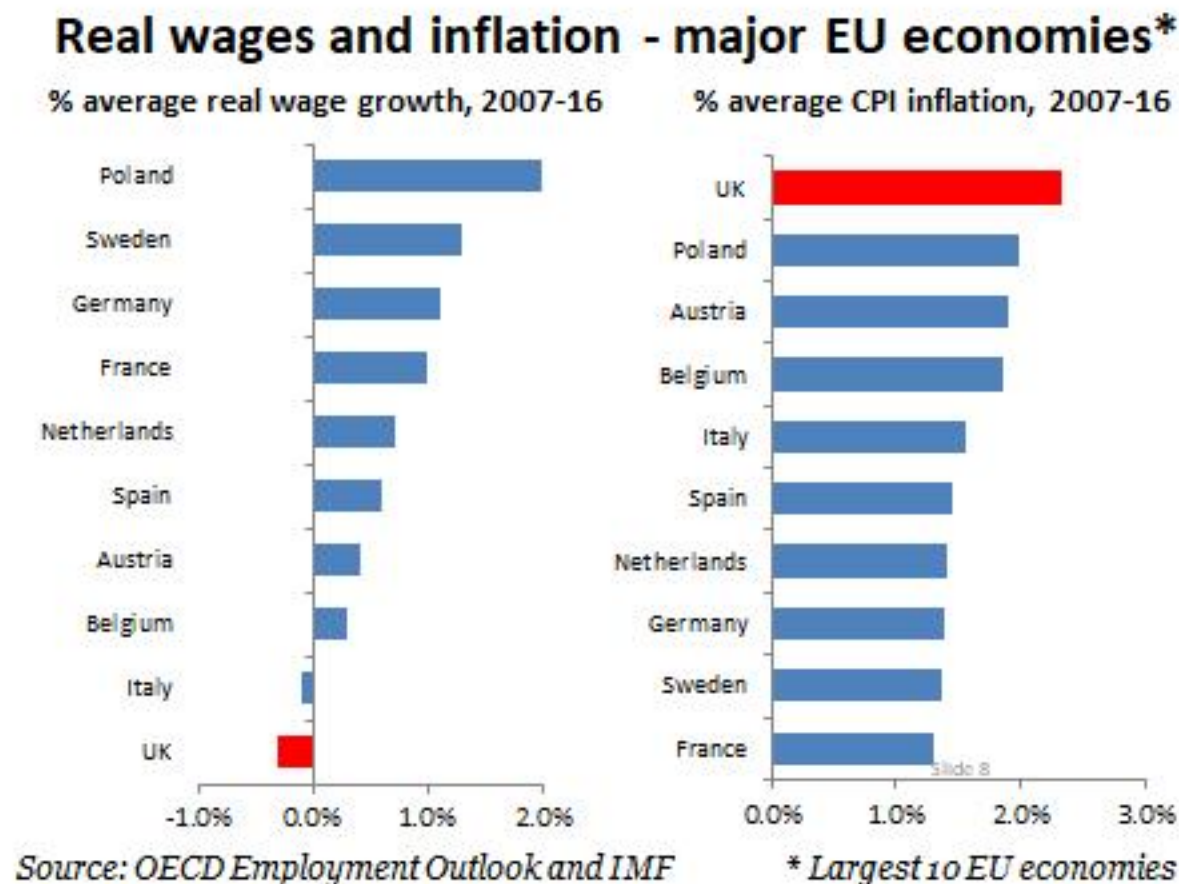
Figure 3: Constant price gross domestic product per hour worked, actual and projections, 1997 to 2015



Source: Organisation for Economic Co-operation and Development, Eurostat and Office for National Statistics calculation

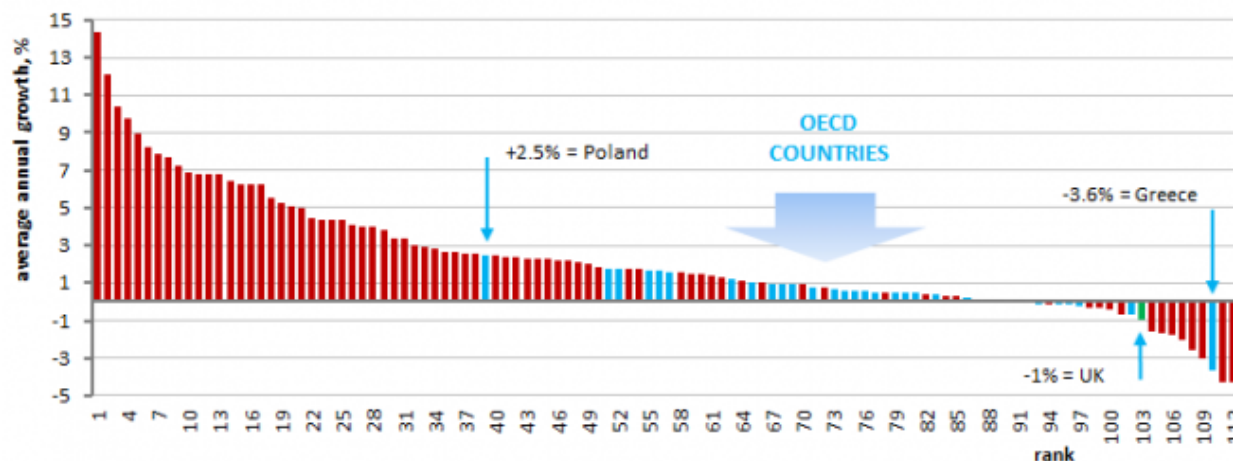
Real wage growth (1/2) – EU major economies since 2007

- UK real wage growth has been weakest among major EU economies since 2007.
- High inflation driven by a weak £ has been a major factor.



Real wage growth (2/2) – world economies since 2008

Post-crisis real wages, annual average growth



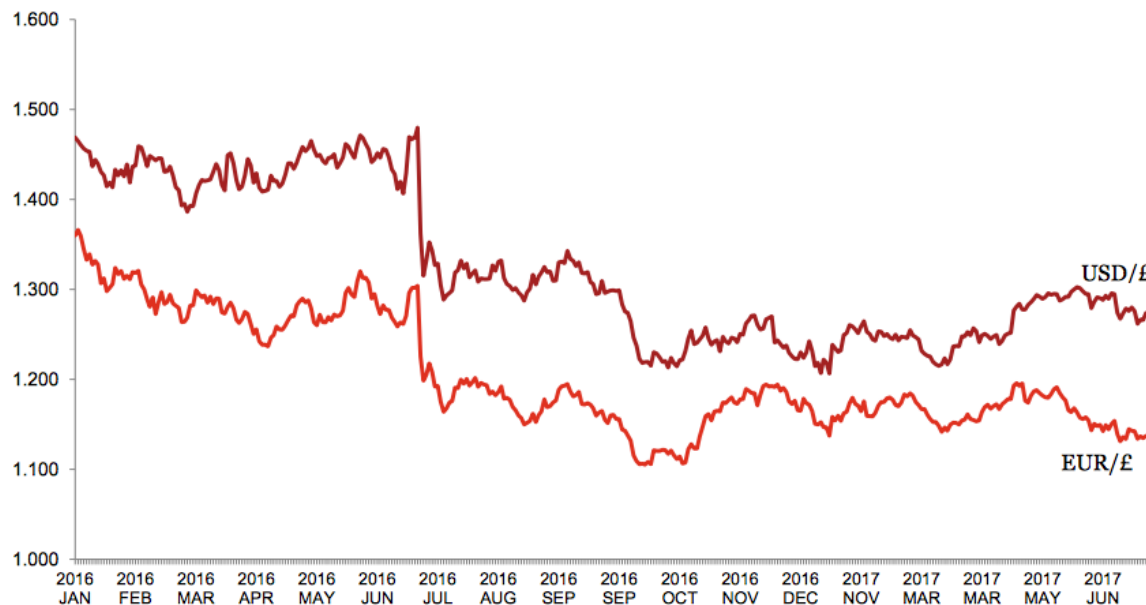
- **Between 2008 and 2015, UK real wages fell by 1% a year.** This puts the UK 103rd out of 112 countries for wage growth over the post-crisis period (International Labour Organisation figures). The average wage growth across all countries was +2.3% a year and the median +1.6%.
- Normally less advanced countries grow faster than advanced countries. The chart below marks out in blue advanced countries using OECD membership.
- These begin with Poland, ranking some way down at 38th; the majority of OECD countries then are arranged from the middle or 50th percentile to the 90th percentile.
- The very worst performances are also by developing countries, except for poor Greece. The next worst advanced country for wages is the UK (and then Italy).

Source: <http://touchstoneblog.org.uk/2017/02/uk-103rd-112-global-ranking-real-wage-growth-since-crisis/>

Exchange rate trends

Concerns about Brexit have left sterling weak against the dollar and euro, pushing up UK import prices and inflation

Figure 2.4: US dollar and euro exchange rates against the pound



Source: Bank of England

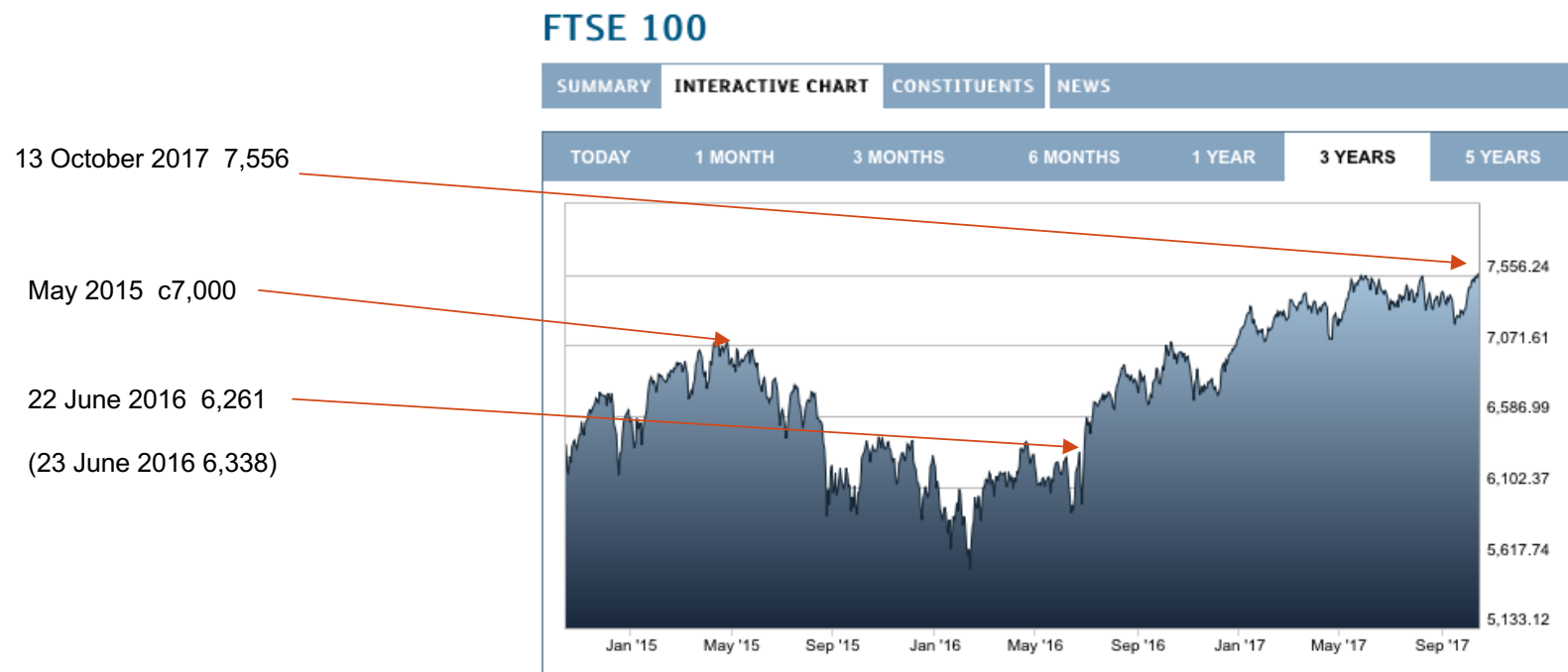
Source: PwC, UK Economic Outlook, July 2017

	May '15	23 Jun '16	24 Jun '16	30 August 2017		
	£	£	£	£	vs May 2015	vs 23 Jun 2016
EUR	c1.40	1.31	1.21	1.08	-23%	-18%
USD	c1.55	1.49	1.37	1.29	-17%	-13%

May 2015 is relevant for its General Election result as referendum was part of the Conservatives' manifesto.

FTSE 100

- The FTSE 100 is a relevant indicator as many UK pension funds and savers invest in it (and other assets or indices).
- By 13 October 2017 it had increased by c20% since June 2016 (c8% since May 2015).
- Around 80% of FTSE100 earnings are earned overseas, so, when sterling weakens, the FTSE increases.



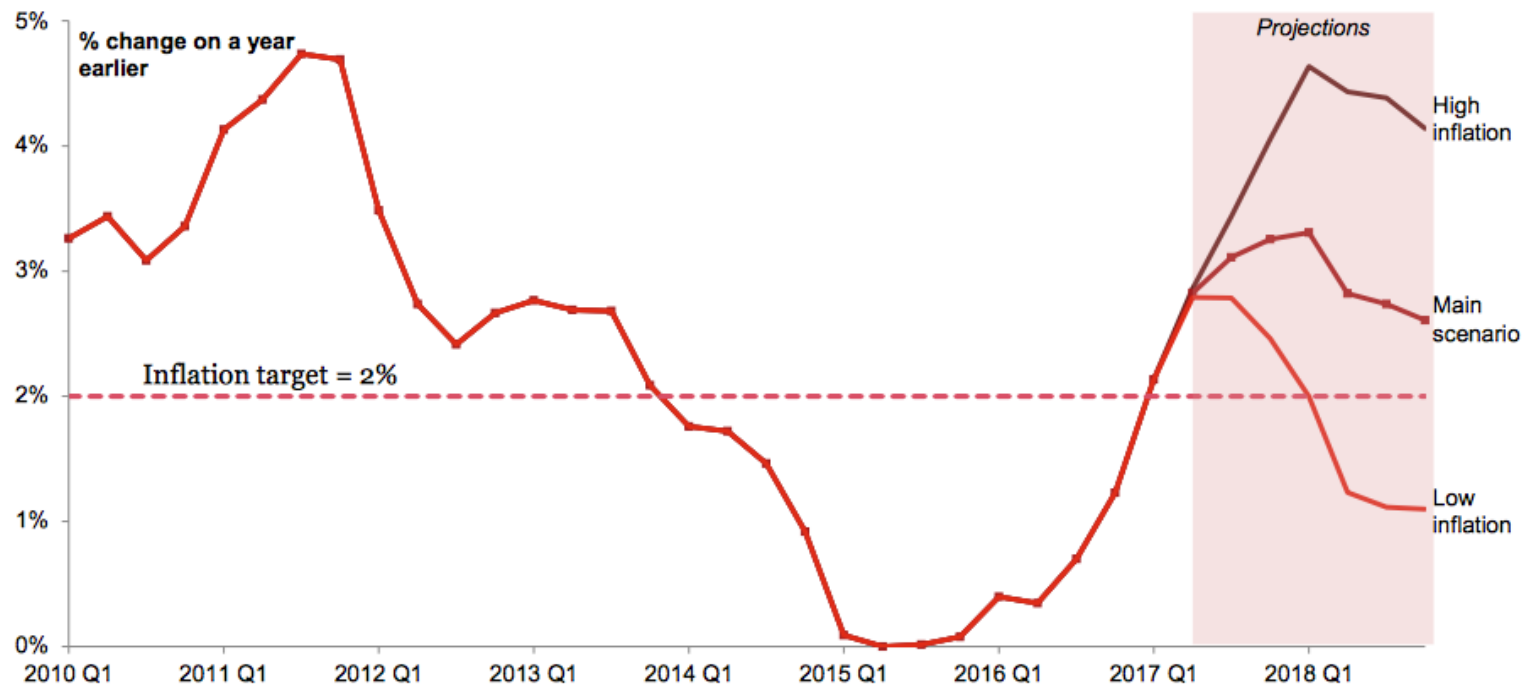
Source: London Stock Exchange,

<http://www.londonstockexchange.com/exchange/prices-and-markets/stocks/indices/summary/summary-indices.html?index=UKX>

Economic outlook (1/4): UK inflation forecast

UK inflation heading above 3% later this year in our main scenario – but considerable uncertainties remain

Figure 2.8: Alternative UK inflation (CPI) scenarios

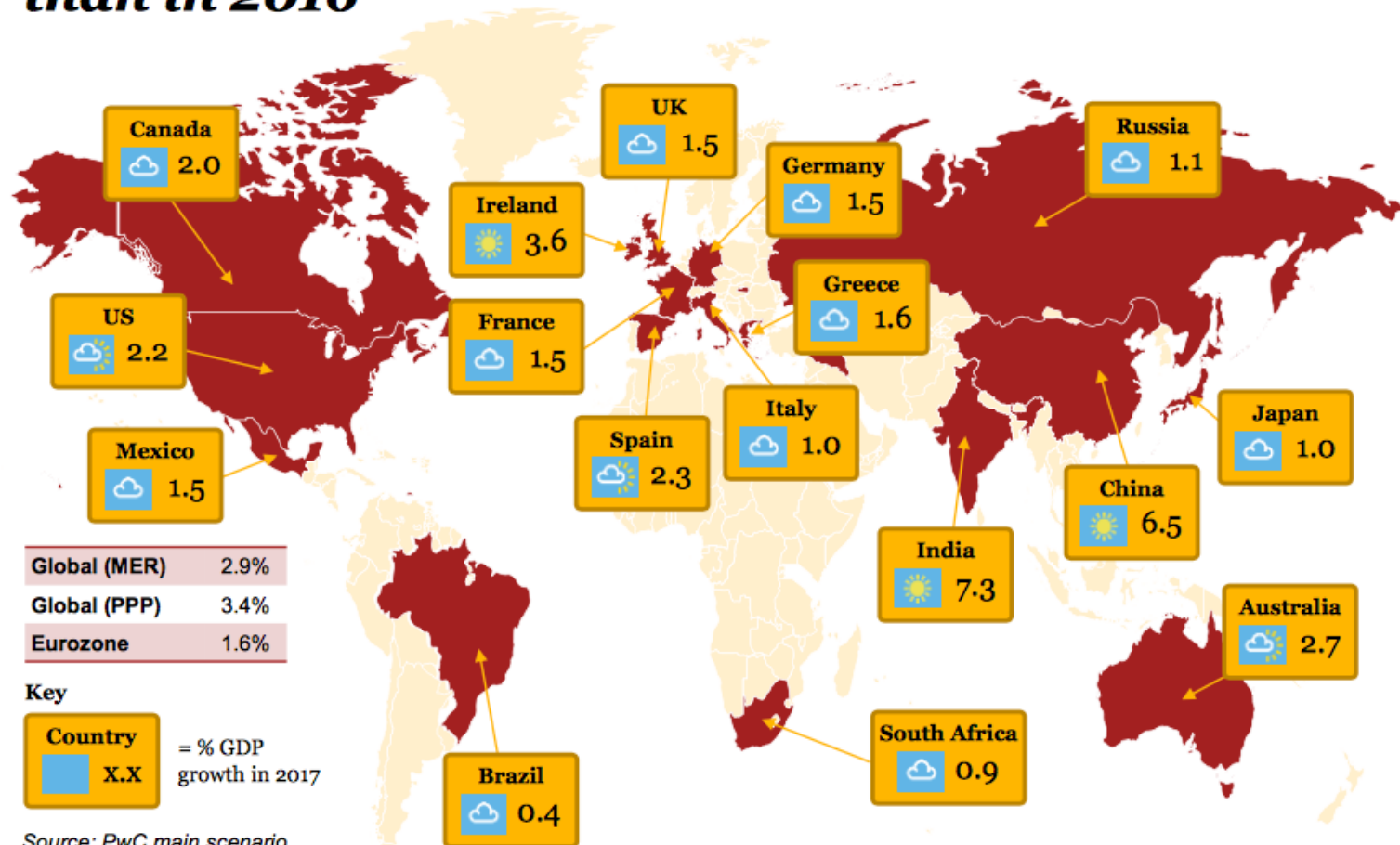


Source: ONS, PwC scenarios

Source: PwC, UK Economic Outlook, July 2017

Economic outlook (2/4): global GDP growth forecasts for 2017

Global growth in 2017 should be slightly stronger than in 2016



Source: PwC main scenario
 UK Economic Outlook
 PwC

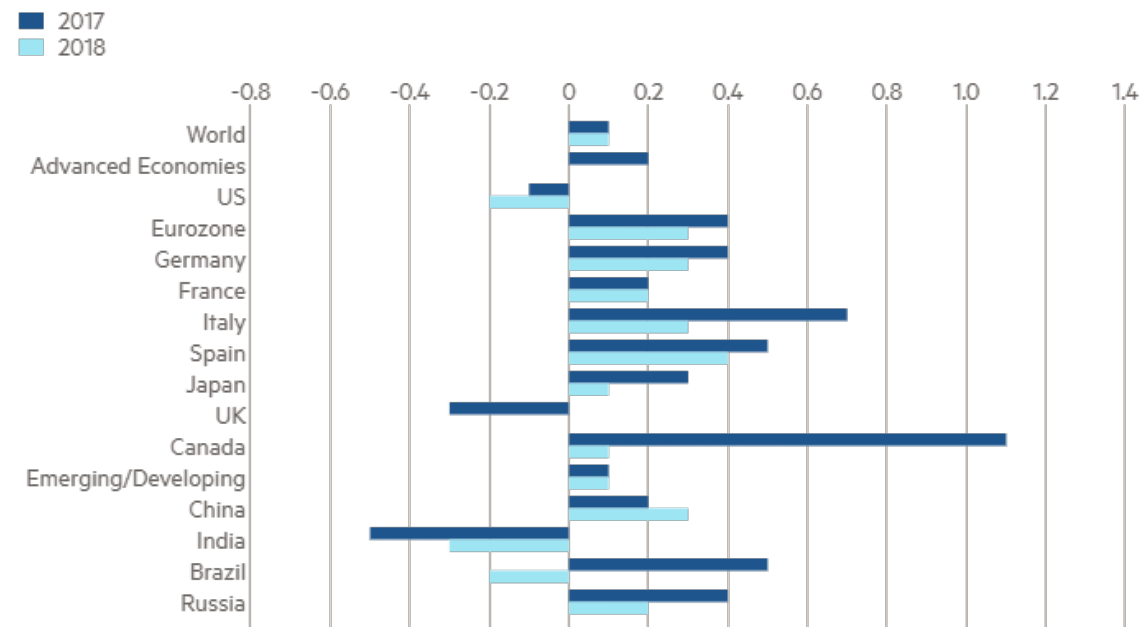
July 2017
 3

Economic outlook (3/4): change in economic growth forecasts

- The economic outlook for 2017 and 2018 has been improving for most countries, but not the UK.
- In October 2017, the IMF singled Britain out as a “notable exception” to an improving global economic outlook, as it confirmed a cut to its long-term forecast for UK growth and said negative effects of Brexit were beginning to show.
- IMF reduced its UK long-term growth outlook, from an estimated annual growth rate of 1.9 per cent to 1.7 per cent.
- IMF also reduced the UK's growth forecast for this year, by 0.3 percentage points, to 1.7 per cent, while raising the forecasts for Germany, France and Italy.
- IMF's October forecasts are slightly more optimistic than the current consensus.

UK growth forecast for 2017 downgraded in generally upbeat IMF assessment

Forecasts for real GDP growth, change from April to October forecast (% points)



Source: IMF

© FT

Sources:

FT, 10 October 2017

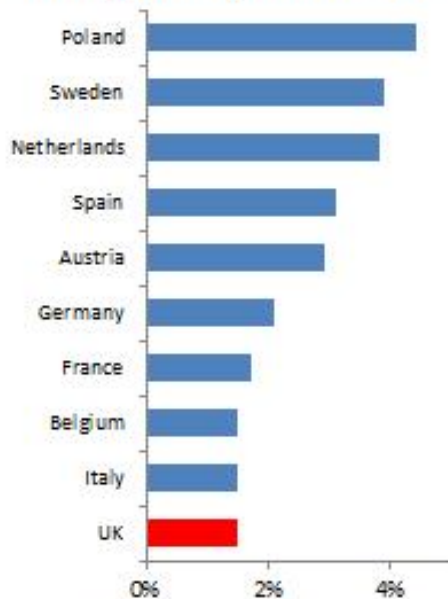
IMF, World Economic Outlook, October 2017

Economic outlook (4/4): growth and inflation – 2017 EU snapshot

- UK has the slowest growth and the highest inflation of any major EU economy.

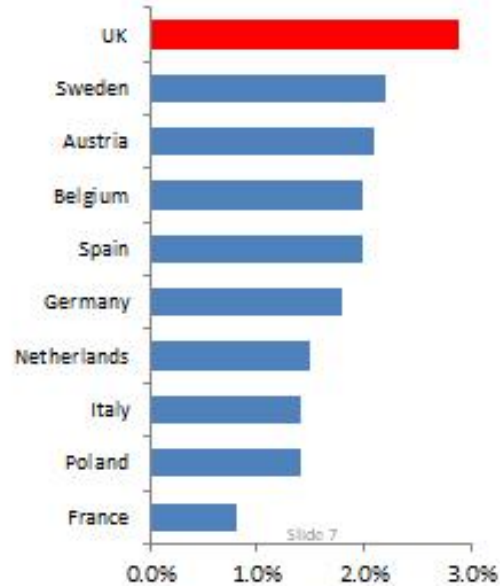
Growth and inflation - major EU economies*

% GDP growth – year to Q2 2017



Source: Eurostat and ONS

% annual CPI inflation, Aug 2017



* Largest 10 EU economies

4. Trade

Section contents

Overview of world trade (overviews of global trends, EU trade, UK trade)

Trade arrangements (FTA, customs unions, WTO, membership of Single Market vs access)

European trading frameworks (EEA and EFTA, existing options, comparison with UK objectives)

UK's main trading partners

UK's main trading sectors

UK trade with EU (EU/non-EU imports and exports; integrated supply chains; importance of UK to EU)

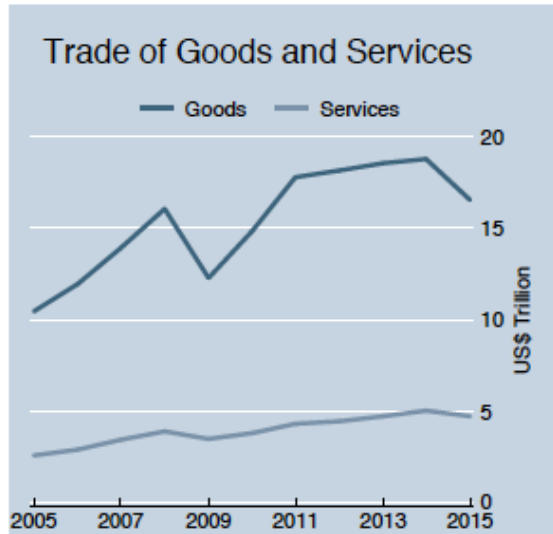
Post-Brexit trade deals (UK outside EU; priority countries; timing and infrastructure)

750 international agreements that need to be replaced

Overview of world trade (1/4): global trends

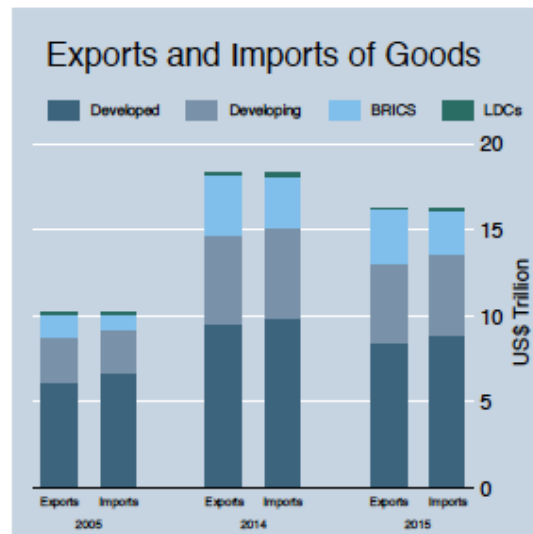
- International trade can be broadly distinguished between trade in goods and services. The bulk of international trade concerns physical goods, while services account for a much lower share (just over 31% in 2015). See Chart 1.
- World trade in goods has increased dramatically over the last decade, rising from about \$10 trillion in 2005 to more than \$18.5 trillion in 2014 to then fall to about \$16 trillion in 2015. Trade in services greatly increased between 2005 and 2015 (from about \$2.5 trillion to almost \$5 trillion). (Chart 1). Trade grew slowly in 2016, but more strongly in 2017.
- Developed countries' relative importance as suppliers in international markets is declining, but they still account for about half of the value of exports of goods and about two thirds of exports of services. (Chart 2).
- The increase in world trade between 2004 and 2014 was largely driven by the rise of trade between developing countries (South–South) (Chart 3). By 2014, the value of South–South trade had reached almost \$5.5 trillion, close to that of trade between developed countries (North–North).
- North-South trade may be a growth area, but within it the UK will need to compete effectively against the EU27, the US, China and other developed countries.

Chart 1



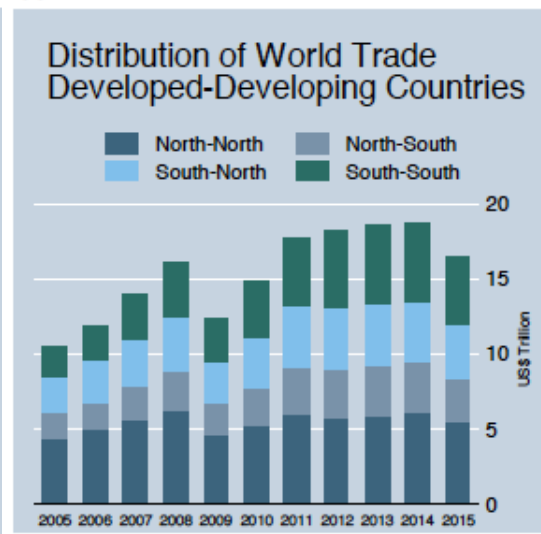
Source: UNCTAD secretariat calculations based on COMTRADE data.

Chart 2



Source: UNCTAD secretariat calculations based on UNCTADStat data.

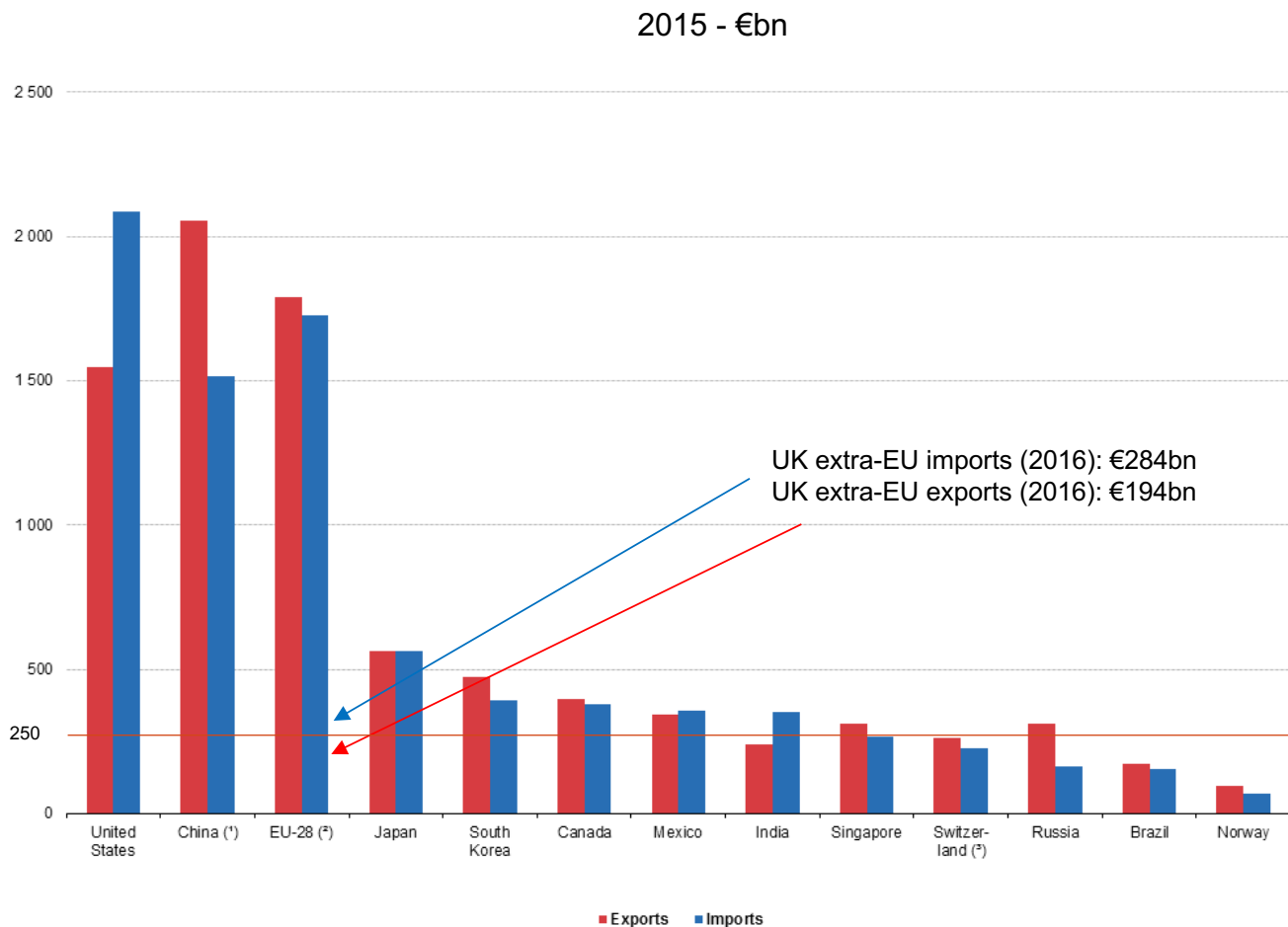
Chart 3



Source: UNCTAD secretariat calculations based on COMTRADE data.

Source: UNCTAD, Key Statistics and Trends in International Trade 2016, February 2017

Overview of world trade (2/4): main players in trade of goods



Note: ranked on the sum of exports and imports.

(*) Excluding Hong Kong.

(*) External trade flows with extra EU-28.

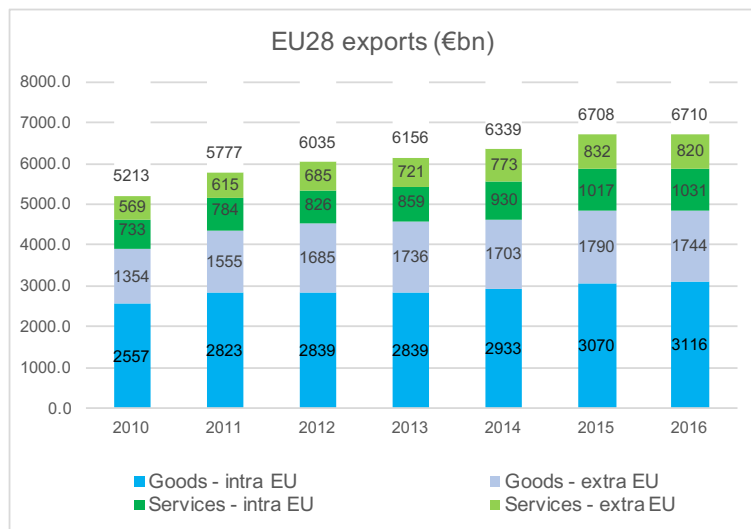
(*) Including Liechtenstein.

Source: Eurostat (online data codes: ext_it_introle and ext_it_intercc)

Overview of world trade (3/4): EU trade

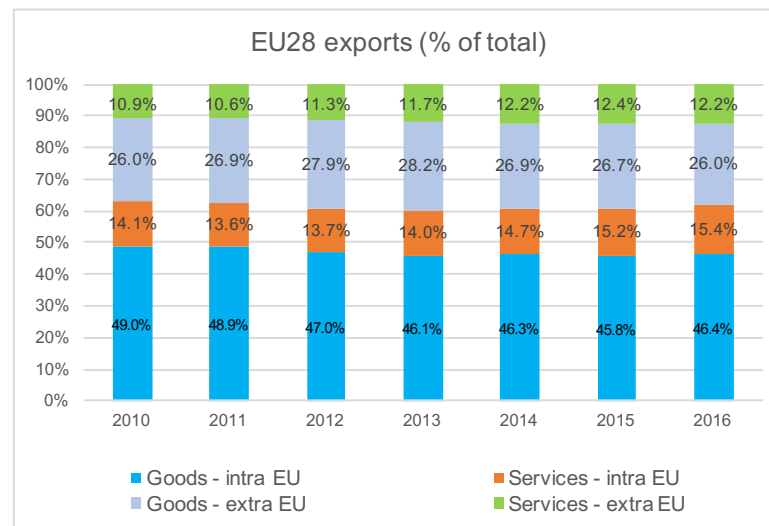
- The exports of the 28 EU member states (€6.7bn in 2016) are dominated by goods (€4.86bn or 72.4%) and intra-EU trade (€4.2bn or 61.8%). This is because of the proximity of EU trade partners, and the benefits of the Single Market, which make trade within the EU very easy to do. See Chart 1 for exports in € and Chart 2 for percentages
- Services are growing as a proportion of EU exports - growing by 42% between 2010 and 2016 from €1.3bn to €1.85bn, accounting for 27.6% in 2016 up from 25.0% in 2010.
- The extra-EU proportion of goods and services exports increased between 2010 and 2016 from 36.9% to 38.2% (from €1.8bn to €2.6bn). This reflects trade with the faster growing trading economies outside the EU such as, China, India and South Korea. The US is a very important trade partner for the EU.

Chart 1



Source: Eurostat

Chart 2



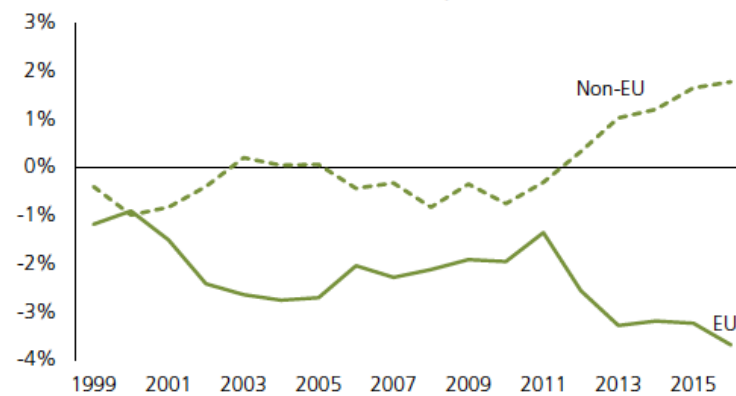
Source: Eurostat

Overview of world trade (4/4): UK trade

- The UK's trade surplus with non-EU countries has been growing while the UK's trade deficit with the EU has also been growing (Chart 1).
- Services only account for about 33% of UK trade (in other words, services trade is about half goods trade), despite 80% of the UK's economy being devoted to services. About 43% of UK services trade is with the EU (Source: Eurostat).

Chart 1

Balance of trade with EU and non-EU countries
Goods and services, % of GDP

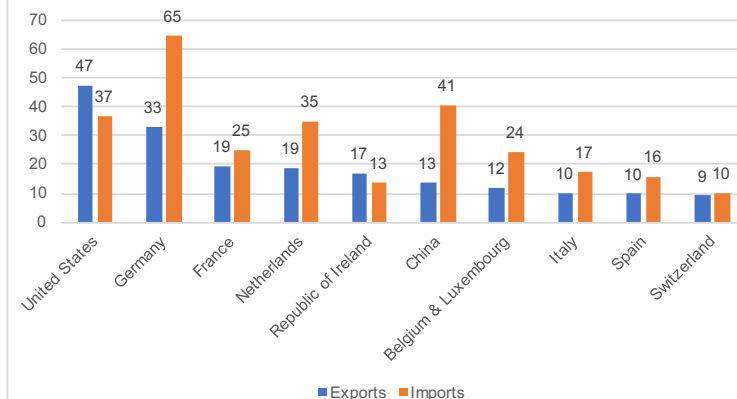


Source: ONS, House of Commons Library

- Seven of the UK's top ten export destinations for goods are in the EU. (Eight are in the EEA, which includes Switzerland). (Chart 2).
- The top ten export destinations for goods account for 63% of UK goods exports and 65% of imports.
- In 2016, the US is the UK's largest single national export destination for UK goods (15.7% of exports), followed by Germany (10.9%) and France (6.4%).

Chart 2

UK's top ten export partners in goods
£bn - 2016



Source: ONS trade data

Trade arrangements (1/3): FTA and customs union

Free trade agreement

- An FTA is an agreement which generally aims to abolish tariffs and non-tariff trade barriers between its members. Some trade agreements are between two countries and others involve more – for example regional deals. An FTA differs from a customs union in not requiring its members to set the same tariffs on trade with countries outside the union.
- FTAs that mostly deal with border measures, such as tariffs and customs arrangements, are called “shallow” agreements. FTAs that include rules on other domestic policies are referred to as “deep” agreements. Common topics include competition policy, intellectual property rights, investment and movement of capital. Some FTAs cover issues such as environmental laws, labour market regulations and measures on visa and asylum.
- There is a move towards deeper FTAs. However, most do not go as far as the Single Market in removing barriers to trade.
- Examples: NAFTA (US, Canada, Mexico),
Asean FTA (Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand plus newer members: Cambodia, Laos, Myanmar and Viet Nam),
Dominican Republic-Central America Free Trade Area (CAFTA-DR) (US, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and the Dominican Republic),
EFTA (Norway, Iceland, Switzerland and Liechtenstein)

Customs union

- A customs union is only relevant for trade in goods as there are no tariffs on services.
- A key characteristic of a customs union is the common external tariff (CET). The CET distinguishes a customs union from a free trade area.
- All members of a customs union apply the same set of tariffs on goods imported from outside the union. Goods will therefore be subject to the same tariffs irrespective of which member country imports them. Once inside the customs union, goods may move tariff-free between its members without the need for checks on the origin of goods
- Exports of goods to the EU from countries outside its customs union are still subject to rules of origin checks even if they have an FTA with the EU. Also, EU member states are prevented from pursuing bilateral FTAs with non-EU countries.
- Examples: Gulf Cooperation Council (GCC), West African Economic and Monetary Union (WAEMU), Central American Common Market (CACM), Caribbean Community (CARICOM), Andean Community (CAN), Southern Cone Common Market (Mercosur).

Source: World Bank, <https://siteresources.worldbank.org/INTRANETTRADE/Resources/C5.pdf>, Customs Unions, (Soamiely Andriamananjara)

Trade arrangements (2/3): World Trade Organisation

World Trade Organisation

If there is no trade agreement between the UK and EU (and between the UK and anywhere else) when the UK leaves the EU, the UK would have to adopt WTO terms, The UK would then have to apply the same tariffs and other measures to all imports, including those from the EU.

The WTO has 163 members including all the world's leading economies. The UK is a member in its own right, but the EU acts at the WTO on behalf of EU member states. To become a fully independent member, Britain would need to have its own "schedules", WTO-speak for the list of tariffs and quotas that it would apply to other countries. On Brexit, the UK will need to have its own schedules. But, for those schedules to be certified, there must be no objections by any of the other 162 WTO members. Britain would probably keep its schedules precisely as they were under the EU, including maintaining the EU's common external tariff, which is applied uniformly by member states to imports from third countries. The WTO processes for any changes would require careful navigation.

"Some have speculated that the ability of any member of the WTO to veto proposed changes would mean the UK was at the mercy of countries playing politics with ulterior motives, say by Argentina over the Falklands or by Spain over Gibraltar. As such, the WTO was another ironic example of a process supposedly about "taking back control" handing real power of the UK's post-Brexit fate to the whims of outside powers." David Allen-Green FT 28 February 2017

On 5th October 2017, the US and other countries, including Argentina, Brazil and New Zealand objected to a deal between the UK and EU to divide valuable agricultural import quotas between the EU and the UK.

Under WTO rules, there can be no special treatment for particular countries. Under the principle of Most Favoured Nation (MFN), a lower customs duty offered by one member of the WTO to another country must be extended to all other WTO members. However, a country may enter into an FTA or customs union granting more favourable treatment to the participants.

The country must observe the relevant provisions of the WTO agreements to ensure the FTA complements the WTO system. For example, sector-specific agreements are not permitted: there could be no deals just for Nissan or for cars (or components) from Germany. Similarly, the WTO would disapprove of channelling government money to boost exports. Trade agreements must also cover a substantial portion of trade, which means that they are complex and take years to negotiate. The WTO has over 900 staff and two of its key roles are to advise on trade agreements and to resolve disputes between members.

The Economist summed it up:

"The WTO option may seem like an easy way out for post-Brexit Britain, but that road is in reality covered with bumps."

Source: Economist, <https://www.economist.com/blogs/economist-explains/2017/01/economist-explains-4>

Trade arrangements (3/3): Single Market membership versus access

Membership versus access for the UK

Full 'membership' of the EU Single Market substantially reduces the costs of trade within the EU. Whilst some costs such as transport costs and cultural barriers such as language remain, the Single Market eliminates tariffs (border taxes) and customs checks and, importantly, reduces non-tariff barriers, which are particularly important for services trade.

Whilst any country has 'access' to the EU as an export destination, membership of the Single Market reduces non-tariff barriers in a way that no existing trade deal, customs union or free trade area does.

If the UK joined the European Economic Area (EEA), we would enjoy near-full membership of the Single Market but likely be obliged to accept EU regulations and free movement of people and make a budgetary contribution. Obtaining membership of the Single Market without meeting these conditions would be unprecedented.

Beyond the EEA, the UK could seek a type of 'free trade agreement' (FTA) with the EU. This would likely mean better 'access' relative to a situation with no agreement by substantially reducing, and potentially eliminating, tariffs on goods. Some trade agreements, such as the EU–Canada deal, also reduce some non-tariff barriers on services, though such deals are rare, harder to agree and *stop well short of the kind of **service access** conferred by membership of the Single Market.*

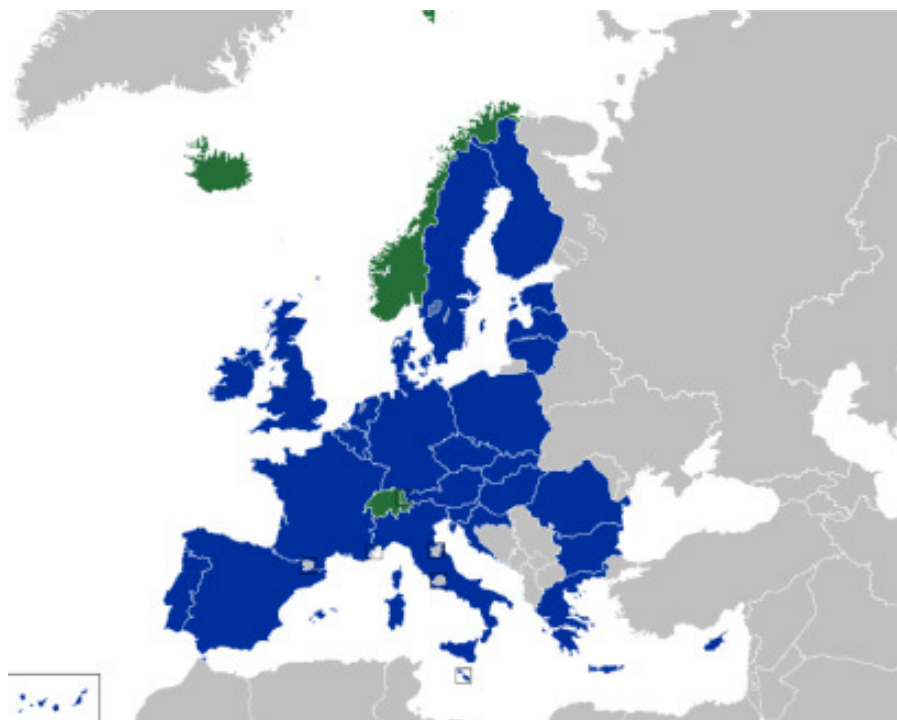
Service trade does not tend to be affected by tariffs or customs checks – so non-tariff barriers are especially important. The Single Market has focused increasingly on smoothing trade in services in the last two decades. For UK service exports, the EU is by far the largest market accounting for almost 40%, whereas emerging economies such as Brazil, Russia, India and China together account for less than 5%.

Trade deals that cover services are still relatively rare and they are time-consuming to agree.

Source: Institute for Fiscal Studies, <https://www.ifs.org.uk/publications/8411>, August 2016

European trading frameworks (1/3) – EEA and EFTA

- The European Free Trade Association (EFTA) is an intergovernmental organisation set up for the promotion of free trade and economic integration to the benefit of its four Member States (Iceland, Norway, Liechtenstein & Switzerland).
- European Economic Area (EEA) provides for the free movement of persons, goods, services and capital within the Single Market of the EU between its 28 member states, as well as three member states of EFTA: Iceland, Liechtenstein and Norway.
- The EEA agreement is very limited compared to EU membership. Among other things, the EEA agreement does not include:
 - EU Customs Union and trade agreements with third countries.
 - Common Agricultural Policy.
 - Common Fisheries Policy.
- To ensure unified application of EEA rules, the EEA EFTA States established the EFTA Surveillance Authority and the EFTA Court, which mirror the surveillance functions of the European Commission and the competences of the ECJ.
- See <http://www.efta.int/faq> for more detail on EFTA and differences with EEA and EU.



EU



EFTA – Iceland, Norway, Liechtenstein & Switzerland



http://www.sfbvg.ch/xml_3/internet/EN/application/d50/f60.cfm

European trading frameworks (2/3) – existing options

- The UK is seeking a bespoke deal with the EU which would be different to the existing models.
- The main features of existing models, other than full EU membership, are summarised below.
- Please note that the table does not cover all considerations.

Model	1. EEA and EFTA member	2. EFTA member (not EEA)	3. Customs union	4. Free trade agreement	5. WTO
Examples	Norway, Iceland, Liechtenstein	Switzerland	Turkey, Andorra, San Marino	Canada	US, China
Summary	Remain a member of the Single Market.	Bilateral treaty with EU as a member of EFTA but do not join EEA.	Tariff-free trade for goods (does not apply to agricultural goods or services).	Tariff-free trade with EU in goods and reduced barriers for some services.	Apply WTO tariffs in all trade with other WTO members (including the EU).
Implications	Keep four EU freedoms of labour, capital, goods and services. Contribute to EU budget. Comply with EU regulation (e.g. social, employment and product) but have limited influence over it.	Access to some areas of Single Market (not agriculture or fisheries) but comply with relevant EU reg. standards. Make contributions to EU programmes. Tailored free movement and other bilateral agreements. (Switzerland has over 100 bilateral agreements with EU)	No tariffs or quotas on goods traded with EU. Apply EU tariffs on goods imported from outside EU. Comply with EU rules on items going to EU (including environment, competition etc.)	Gain preferential access to Single Market, for goods and some services. Although there would be more non-tariff barriers for services trade than there are as a member state.	Only WTO terms are applied - goods and services carry tariffs into the EU (treated in the same way as e.g. US imports). Less access to EU market than EEA, EFTA or through an FTA. Bilateral agreements likely to be needed, too.
Single Market member	Yes	No	No	No	No
Independent trade policy	Yes	Yes	No	Yes	Yes

European trading frameworks (3/3): options and UK objectives

- The table below summarises the main UK-EU trade options against the PM's objectives.

		PM's Lancaster House speech	Stay in the Single Market but leave the Customs Union 	Leave the Single Market but negotiate a customs union 	Leave the Single Market and Customs Union, but negotiate a bilateral trade agreement   			Leave the Single Market and Customs Union with no deal WTO option
"Red lines" – Defensive interests	Control migration from the EU	✓	✗	✓	✗	✓	✓	✓
	End the jurisdiction of the European Court of Justice	✓	Partial	Mostly	Mostly	Partial	✓	✓
	End applicability of EU regulations	✓	✗	Partial	Partial	Very limited	✓	✓
	Pursue an independent trade policy	✓	Mostly	Very limited	Mostly	✓	✓	✓
	Stop obligatory budgetary contributions to the EU	✓	✗	✓	✗	✓	✓	✓
	Exit CAP and CFP	✓	✓	✓	✓	✓	✓	✓
Offensive interests	Tariff-free trade with the EU	✓	✓	✓	✓	✓	✓	✗
	Access to the EU single market for services	✓	✓	✗	Very limited	✓	Very limited	✗
	Seamless and frictionless border	✓	Partial	Partial	Partial	Partial	✗	✗
	Voluntary participation in EU programmes	✓	✓	✓	✓	✓	Partial	✗
	Speed of negotiation (within Article 50 process)	✓	✓	✓	✗	✗	✗	N/A

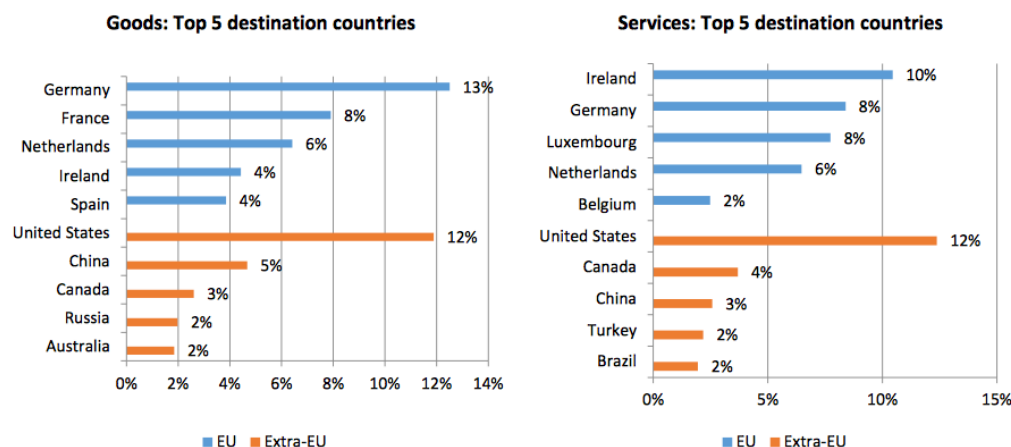
Source: Institute for Government, <https://www.instituteforgovernment.org.uk/explainers/options-uk-trading-relationship-eu>,

UK's main trading partners (1/3): goods and services

Panel A – UK exports

- Germany is the main destination country for goods, accounting for 13% of the UK's exports
- The other top four destination EU countries are France, the Netherlands, Ireland and Spain.
- Outside the EU, the US is the main destination country for goods, absorbing 12% of UK exports, followed by China, Canada, Russia and Australia.
- The main markets for UK services are US (12%), Ireland (10%), Germany (8%), Luxemburg and the Netherlands, all importing more than 5 percent of UK services

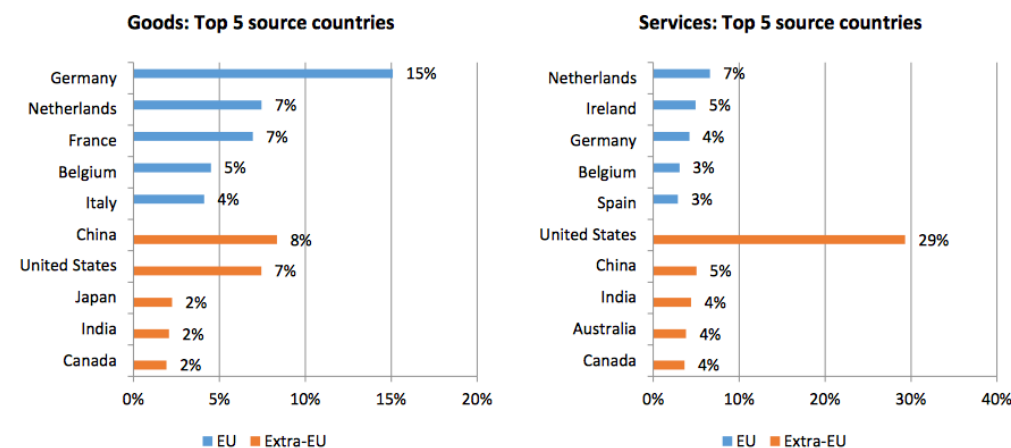
Panel A



Panel B – UK imports

- Germany is the main source country for goods, accounting for 15% of the UK's imports. The Netherlands, France, Belgium and Italy are in the top five source countries.
- UK imports from outside the EU come mainly from China (8%), US (7%), Japan, India and Canada.
- The main source of services is the US, representing 29% of UK imports. All other sources are much less relevant, being 5% or less.

Panel B



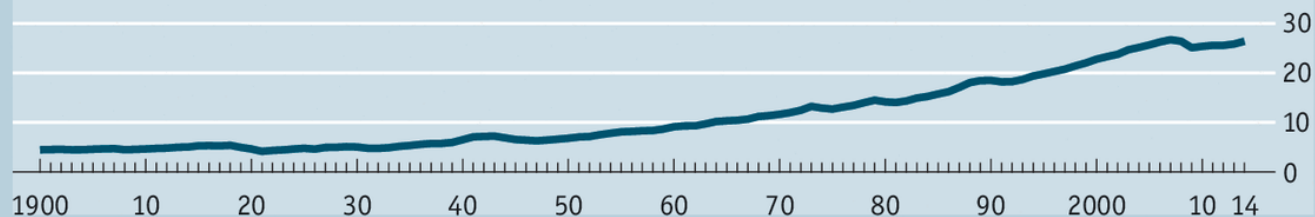
Source: World Bank, Policy Research Working Paper 7947, Deep Integration and UK-EU Trade Relations, January 2017

Note: the study used a 2011 data set for these charts so figures will differ from others quoted in this section.

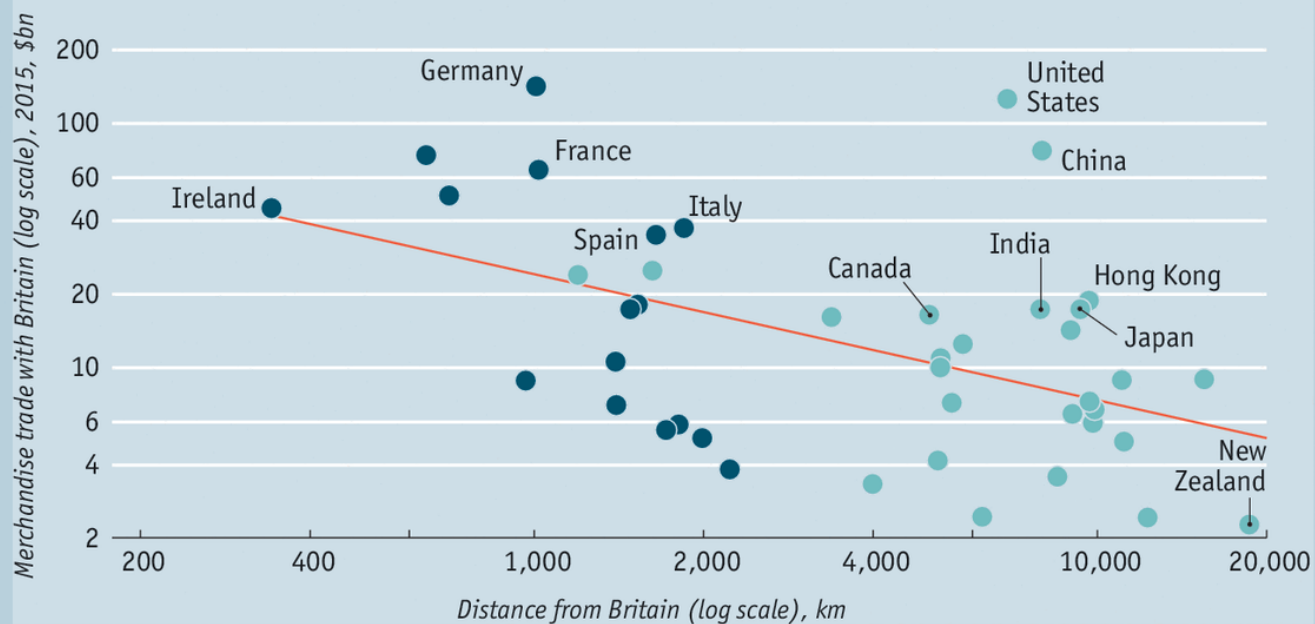
UK main trading partners (2/3): are the UK's nearest neighbours

Keep your friends close

Britain's GDP per person, £'000, 2011 prices



Britain's global trade

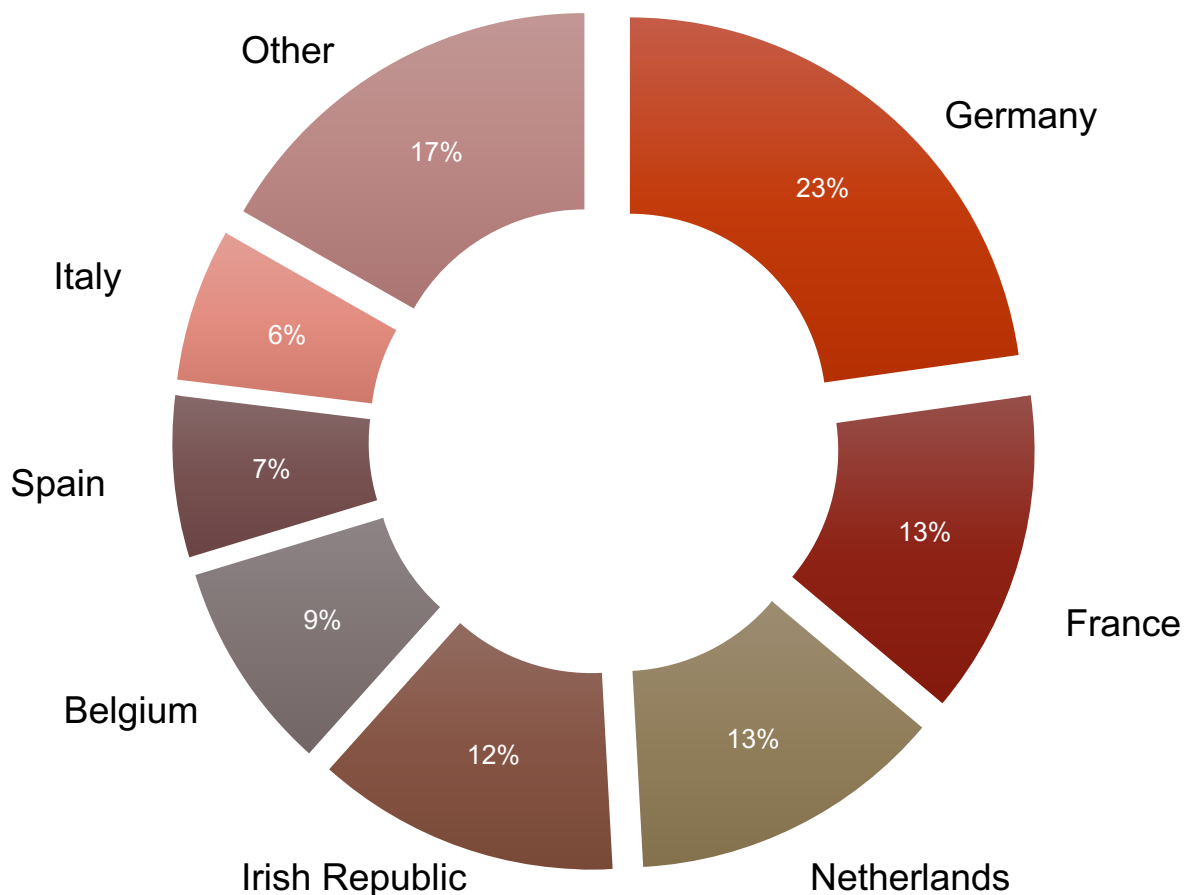


Sources: ONS; IMF; Bank of England

Economist.com

UK main trading partners (3/3): EU export destinations

UK exports of goods and services to EU 2015 - top 7 EU destinations

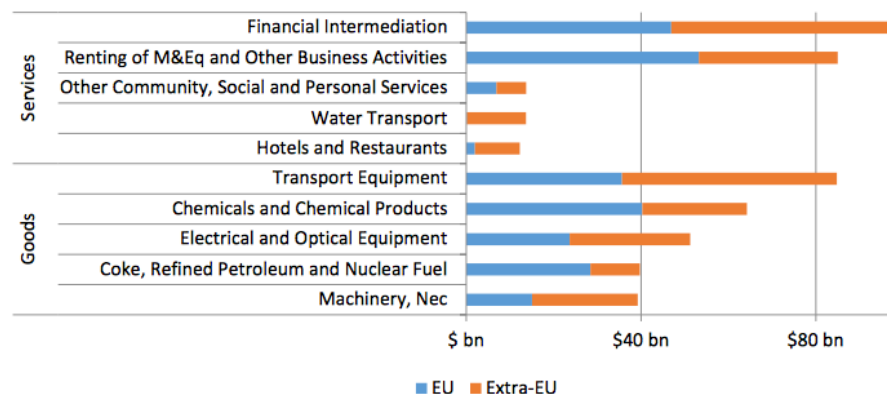


Source: HMRC | OTS

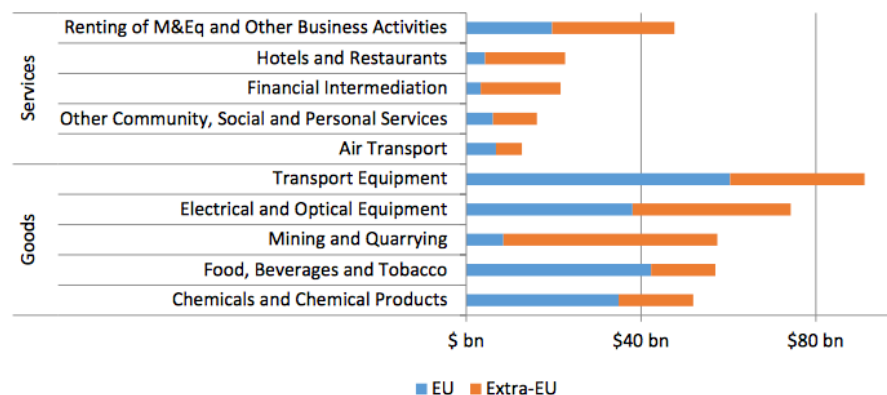
UK's main trading sectors

- For **services**, two sectors stand out as the most important exports: financial intermediation and business services. While roughly half of the value of financial intermediation is provided to the EU, almost two-thirds of the value of business activities is consumed by other EU countries.
- Renting of machinery and equipment and other business services are the most imported services and more than half of the value comes from non-EU countries.
- Tourism-related and financial services are among the top imported sectors, mainly from outside the EU, but in terms of value they account for only about half of the business services sector.
- For **goods**, the most important exporting sector for the UK is transport equipment, followed by chemicals and electrical equipment.
- More than half of transport equipment exports go outside the EU while chemicals are exported mainly to other EU countries. Fuels and machinery complete the list of the top 5 exported goods.
- Transport and electrical equipment are also the largest imported goods in the UK and more than half of the value comes from other EU countries. Imports of mining, food and chemicals are also relatively important for the UK.

UK Exports: Top 10 Products



UK Imports: Top 10 Products



Source: World Bank, Policy Research Working Paper 7947, Deep Integration and UK-EU Trade Relations, January 2017

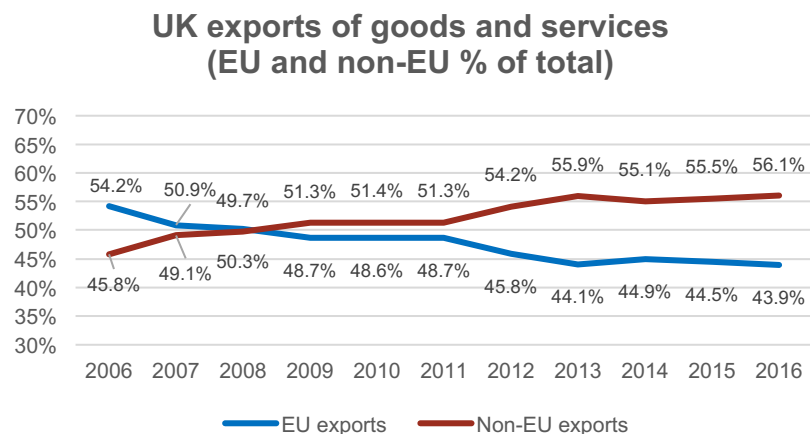
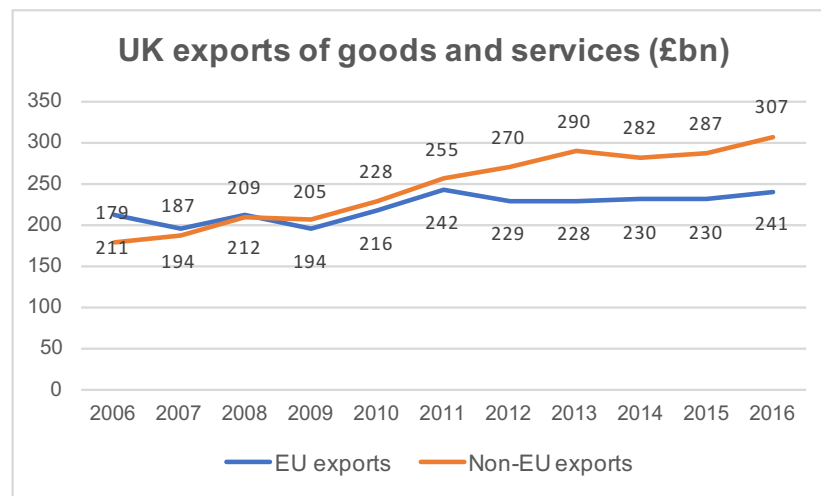
Note: the study used a 2011 data set for these charts

UK trade with EU (1/4): EU and non-EU exports

- 43.9% of UK exports in goods and services went to other countries in the EU in 2016 - £241bn out of £548bn total exports.
- That EU share has declined gradually from 50.3% in 2008, as exports to other countries have increased at a faster rate. This trend reflects the growth of economies outside the EU and the long-lasting impact of the financial crisis on EU economies.
- A further 13% (approx.) of UK exports were with the 53 countries with which the EU has Preferential Trade Agreements (including non-EU EEA countries) (2015).
- In 2015, the US accounted for approx. 20% of UK exports, the BRICs countries 7% and the Commonwealth 9%.**
- The Irish Republic accounted for 5% of total UK exports (12% of UK exports to the EU).

*Brazil, Russia, India, China and South Africa

**Source: ONS

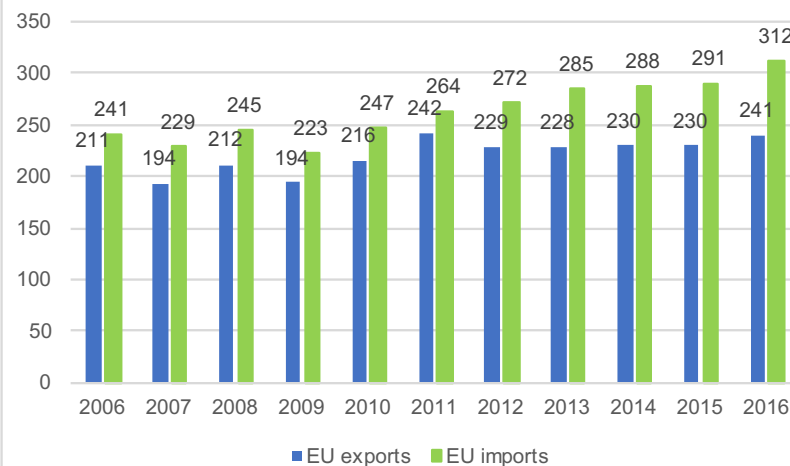


Source: HoC library, Statistics on UK-EU trade, August 2017

UK trade with EU (2/4): imports and exports

- UK imports more from the EU than it exports and the gap has been widening to £71bn in 2016. This was made up of a £24bn surplus on services and a deficit of £95bn on goods. (See Chart 1).

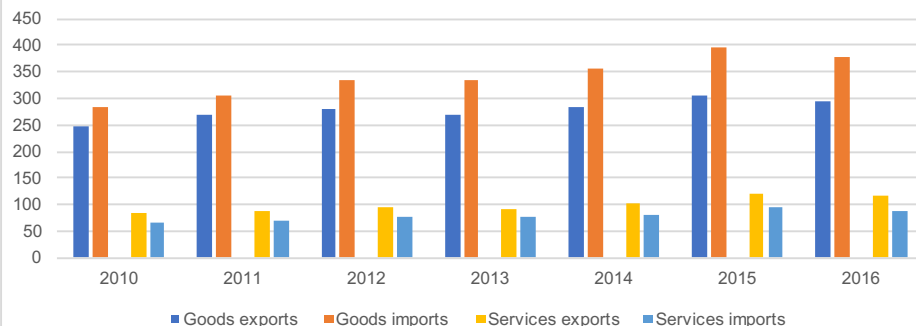
Chart 1 UK trade with EU (£bn)



Source: HoC library, Statistics on UK-EU trade, August 2017

- Most of the UK's trade is in goods, even though services dominate the domestic economy.
- There is a large and growing trade deficit in goods, but a smaller and growing surplus in services trade (see Chart 2).

Chart 2 UK trade with EU : goods and services
€bn

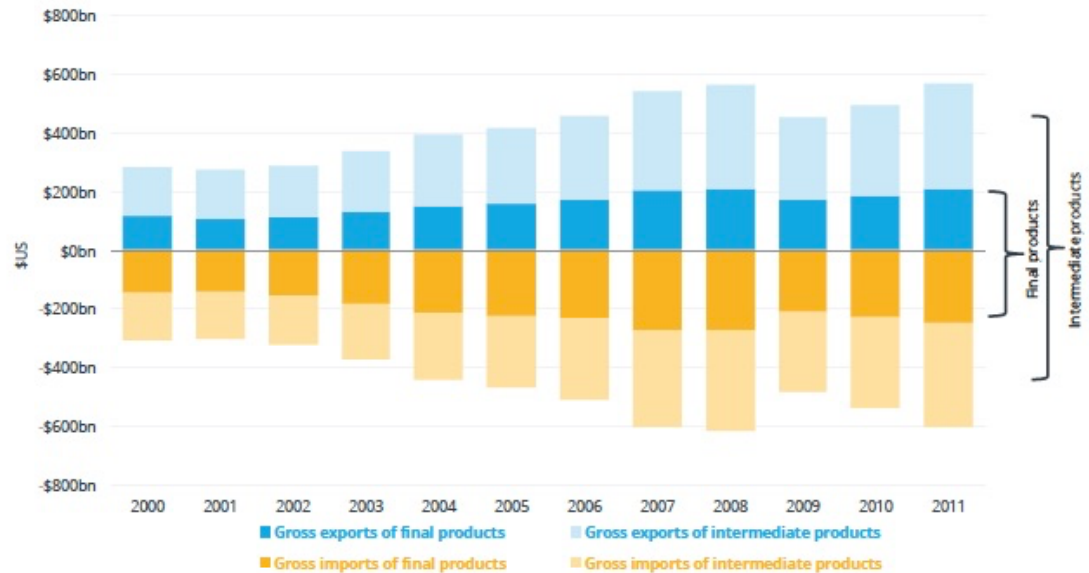


Source: Eurostat

UK trade with EU (3/4): integrated supply chains

- Imports and exports are linked through the flow back and forth of intermediate products (components, assemblies etc.).
- Intermediate exports and imports account for an increasing proportion of UK goods trade. Between 2000 and 2011, two-thirds of the growth in UK exports came from exporting parts, not finished articles (see chart).
- Nearly a quarter of the value of UK exports comes from imports. In the automotive sector, this figure is much higher – 44% of its exports value comes from imports.
- While the EU accounts for around half of the UK's total exports, it accounts for 60% of UK exports of intermediate goods.
- Integrated supply chains and the economic activity arising from them will be put at risk if costs are introduced into UK–EU supply chains through tariffs or non-tariff barriers. Clearly important exports of UK goods to the US depend on UK imports from the EU.

Figure 2: Growth of UK imports and exports of final and intermediate products, 2000–11



Source: Institute for Government analysis of Organisation for Economic Co-operation and Development (OECD) Trade in Value Added (TiVA) data

Source: Institute for Government, Frictionless trade? What Brexit means for cross-border trade in goods, August 2017

UK trade with EU (4/4): importance to the EU of UK trade

- The value of trade (imports and exports) between the EU 27 is much greater than the value of EU trade with the UK. In 2016, the EU's trade with the UK accounted for only 8.3% of the EU's intra-EU trade (i.e. 91.7% of trade in the EU was with other EU countries). See Chart 1 – right-hand bars.
- Intra-EU trade included €3,984 billion of imports in 2016. Of this, the UK imported €379 billion (9.5% of the EU total) of goods and services from the EU. Trade with other countries outside the EU was just over €2 trillion. Frictionless trade within the EU is easier than trading with rest of the world. See Chart 2.
- Exports to the EU are critical for the UK economy. The UK's exports of goods and services to other EU countries were worth about 12% of the value of the British economy in 2015.
- By contrast, exports from the rest of the EU to the UK were worth about 3-4% of the size of the EU27 economy in 2015.

Chart 1

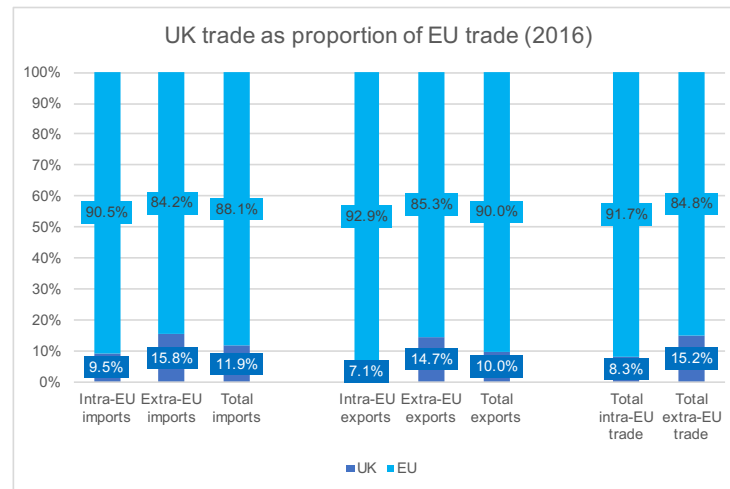
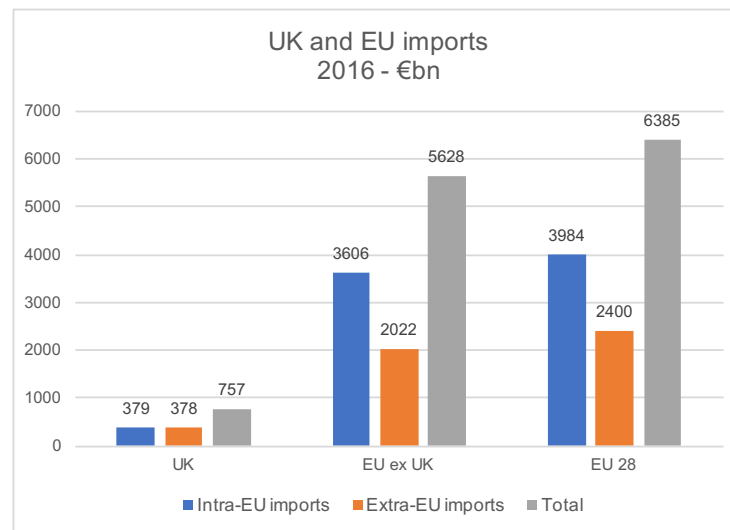


Chart 2



Source: Eurostat

Post-Brexit trade deals (1/4) – considerations for UK outside EU

Recap - why have an FTA?

1. Boost trade by removing barriers:
 - a) Reduce or remove tariffs, taxes that are applied only to imports
 - b) Reduce the non-tariff barriers - cost to business of complying with multiple regulations (e.g. trade regulations, labelling rules, unfair government subsidies)
 - c) Ban discrimination against foreign firms or limits on how much business they can do
 - d) Open up government purchasing to bids by foreign business
 - e) Establish a specified level of protection for intellectual property
2. Encourage inward investment
3. Protect labour rights – child labour/exploitation/union membership

Considerations for the UK outside the EU

1. UK cannot complete trade agreements outside Europe before leaving the EU.
2. UK cannot negotiate seriously until the UK and others know more about our future relationship with the EU, for example on a customs arrangements or regulatory equivalence.
3. The UK's new trade agreements with the EU and with other countries are inextricably linked, because what we agree with one will affect the options available with others.
4. FTAs are difficult to land.
 - Australia took ten years to agree an FTA with China, and India took six years with ASEAN.
 - In China and other BRICS markets, there are bureaucratic or political hurdles, which can include onerous customs requirements, language barriers, legal uncertainty and discriminatory tax.
 - Negotiation of trade deals with some countries may involve risks of bribery and corruption.
5. Even if the UK negotiates agreements successfully with countries that the EU does not, the UK will only achieve a temporary advantage. The scale of the Single Market means that in most cases the EU will be able to negotiate superior terms (possibly quicker than the UK) and put the UK at a competitive disadvantage.

Post-Brexit trade deals (2/4) – current EU status

1. EU has 67 countries covered by agreements in force including South Korea, Mexico and Switzerland. These include 32 Commonwealth countries, mainly in Africa and the Caribbean, that are covered by EU free trade agreements. Three of those agreements are customs unions and the rest are differing types of free trade agreements.
2. The EU has signed a total of 45 agreements with 91 countries. 40 of those agreements with 67 countries are in force, or at least partially in force.
The EU has also reached an agreement in principle for an Economic Partnership Agreement with Japan (7% of world GDP).
3. There are three main types of agreements:
 - Customs Unions: eliminate customs duties in bilateral trade; establish a joint customs tariff for foreign importers.
 - Association Agreements, Stabilisation Agreements, (Deep and Comprehensive) Free Trade Agreements and Economic Partnership Agreements: remove or reduce customs tariffs in bilateral trade.
 - Partnership and Cooperation Agreements: provide a general framework for bilateral economic relation but leave customs tariffs as they are.
4. The EU is negotiating “Trade in Service” agreements (TISA) with 23 WTO members. The participating countries account for about 70% of world trade in services. 21 negotiating rounds have taken place, but there is no agreed deadline for finishing the negotiations.
(see: <http://ec.europa.eu/trade/policy/in-focus/tisa/>)

The agreements and countries mentioned above are listed in **Appendix E**.

You can also find more details at: http://ec.europa.eu/trade/policy/countries-and-regions/negotiations-and-agreements/#_partly-in-place

Post-Brexit trade deals (3/4) – priority countries

- If we lose 10% of our EU trade, we would need a 50% increase with the BRICs just to stand still.
- Of the UK's top 50 export markets for goods in 2015, 10 are covered by EU trade agreements. Of the other 40, 18 are other EU members and 22 are countries with whom the EU has no trade agreement in force. There is, as yet, no trade agreement with the US which is the UK's largest goods export market.
- This implies that the UK would need to negotiate trade agreements with the EU and 32 countries to cover the UK's top 50 export markets.
- Priorities for the UK will be:
 - US because of its scale
 - Norway, Switzerland and South Korea: to replace our existing preferential arrangements with them;
 - Maintaining our trading relationship with the Republic of Ireland (because of scale and proximity).
- Australia and New Zealand are keen for bilateral trade agreements, but they are relatively small economies with small populations and between them account for less than 2% of UK exports.
- China and India: we have been losing market share in India to Germany and France. In China, Germany does 4-5 times more trade than the UK.
- 32 Commonwealth countries are covered by EU foreign trade agreements or have tariff-free access to our markets. As a result:
 - Until we negotiate new agreements we risk having worse trading terms with the Commonwealth countries than the EU.
 - The UK will also no longer be able to champion their access to the EU market.

Source: Chatham House, Bracing ourselves for Brexit, Sir Simon Fraser, April 2017

Post-Brexit trade deals (4/4) – timing and infrastructure

Timing

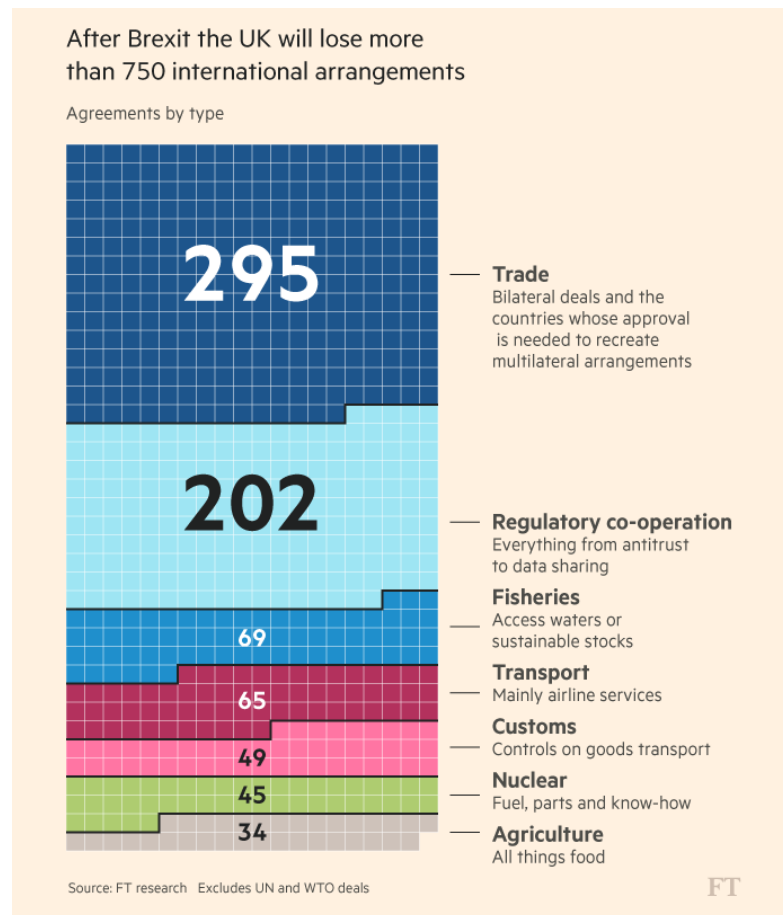
- Donald Tusk, the European Council president, has said many times that the negotiation and ratification process of an FTA with the UK could take between five and seven years.
 - The EU-Canada deal, took seven years to negotiate and was about 22 years in the making.
- A trade agreement cutting across policy areas in the preserve of member states would be classed as a “mixed agreement” and require unanimity in the Council, a majority in the European Parliament, and ratification in all 27 national parliaments as well as in some regional parliaments. That is 36 legislatures, each with a veto.
- Other countries are unlikely to enter into detailed trade discussions with the UK until the EU-UK trade deal is agreed.

Infrastructure

- Trade agreements need specialist skills. As of 1 October 2017 the total number of staff in DG Trade at the European Commission was 697 (many with deep trade experience). The group not only negotiates but also maintains and monitors trade deals for the EU. (Source: DG Trade and Europe Direct, October 2017).
- In November 2016, the DIT launched a recruitment drive for almost 100 extra trade officials. In June 2017, the appointment of a senior trade negotiator was announced. The DIT faces a challenge in building up expertise given the volume of trade and other agreements (750 – see following slide) that will need to be negotiated, many at the same time.
- In addition to trade deal negotiation, new public sector infrastructure will be required to maintain and monitor compliance with trade agreements. HMRC will need to be equipped to collect tariffs.
- UK-based businesses will need to create their own trade infrastructure. Large and small companies will need to recruit trade specialists and build new capabilities to deal with the complexities of trade outside membership of the EU.
- While the UK is a member of the EU, UK-based small and medium-sized businesses (SMEs) benefit from the administrative ease of operating cross-border in the EU. SMEs are likely to be particularly disadvantaged by Brexit as they do not have, and many probably cannot afford, the expertise to deal with the new administrative burden of import duties; transit documentation; additional VAT considerations etc. For EU-based businesses, UK SMEs will become less attractive to deal with.

750 international agreements that need to be replaced (1/2)

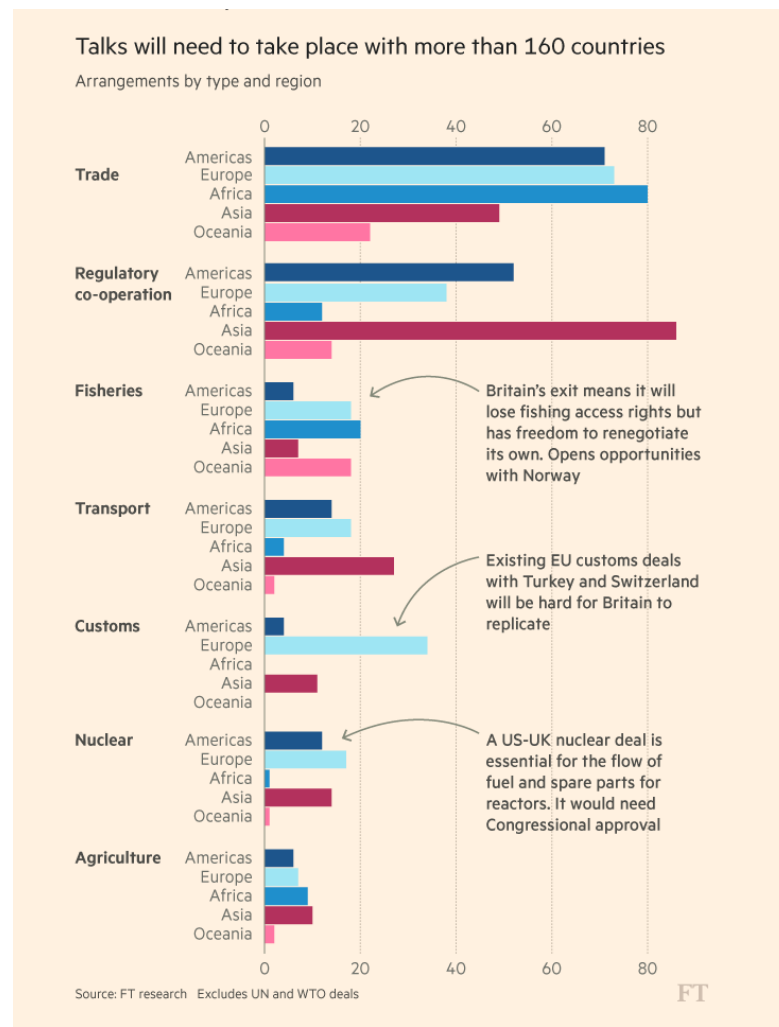
- On Brexit day, 750 agreements that the EU has with 168 countries will fall away (according to research by the FT). This is in addition to any new FTAs.
- By law Britain will overnight be excluded from those EU arrangements with “third countries”, entering the equivalent of a legal void in key parts of its external commercial relations.
- Britain’s exit will open more than 750 separate time-pressured mini-negotiations worldwide with non-EU countries.
- *“We are talking about an enormous number of complex acts that we rely on today,” says Lord Hannay, Britain’s former EU ambassador. “The challenge of replacing them falls in the same category as Alice in Wonderland running furiously to stand in the same spot.”*



Source: FT, After Brexit: the UK will need to renegotiate at least 759 treaties 30 May 2017, Paul Mclean

750 international agreements that need to be replaced (2/2)

- Through analysis of the EU treaty database, the FT found 759 separate EU bilateral agreements with potential relevance to Britain, covering trade in nuclear goods, customs, fisheries, trade, transport and regulatory co-operation in areas such as antitrust or financial services.
- This includes multilateral agreements based on consensus, where Britain must re-approach 132 separate parties.
- Some additional UK bilateral deals, outside the EU framework, may also need to be revised because they make reference to EU law.
- The logistical challenge will be immense. Overall, the FT estimates that the UK will need to approach 160 countries.
- “Each agreement must be reviewed, the country approached, the decision makers found, meetings arranged, trips made, negotiations started and completed — all against a ticking clock and the backdrop of Brexit, with the legal and practical constraints that brings. Most inconvenient of all, many countries want to know the outcome of EU-UK talks before making their own commitments.”*



Source: FT, After Brexit: the UK will need to renegotiate at least 759 treaties 30 May 2017, Paul Mclean

5. Immigration

Section contents
EU citizens in UK
Share of foreign nationals in UK population
UK immigration trends – EU, non-EU and British
Impact of the UK's ageing population
EU law regarding free movement
Migrant workers (1/3) - by industry sector - 2016
(2/3) - additional sector detail
(3/3) - skill levels - 2016
Impact of EU citizens on UK economy
Tax contribution of EU citizens
Impact on public finances of reduced migration

EU citizens in UK - summary

c.3.2 million EU citizens in the UK

- Around 3.2 million people living in the UK in 2015 were citizens of another EU country. That's about 5% of the UK population.
- Around 2.3 million nationals of other EU countries are in work, as of earlier this year. That's about 7% of people in work—the highest on record.
- Figures from 2016 suggested just over half—around 1.6 million—of the EU nationals living here arrived between 2006 and 2014.
- EU nationals of working age are more likely to be in work than UK nationals and non-EU citizens. About 80% of working age EU citizens in the UK are in work, compared to around 75% of UK nationals and 62% of people from outside the EU.

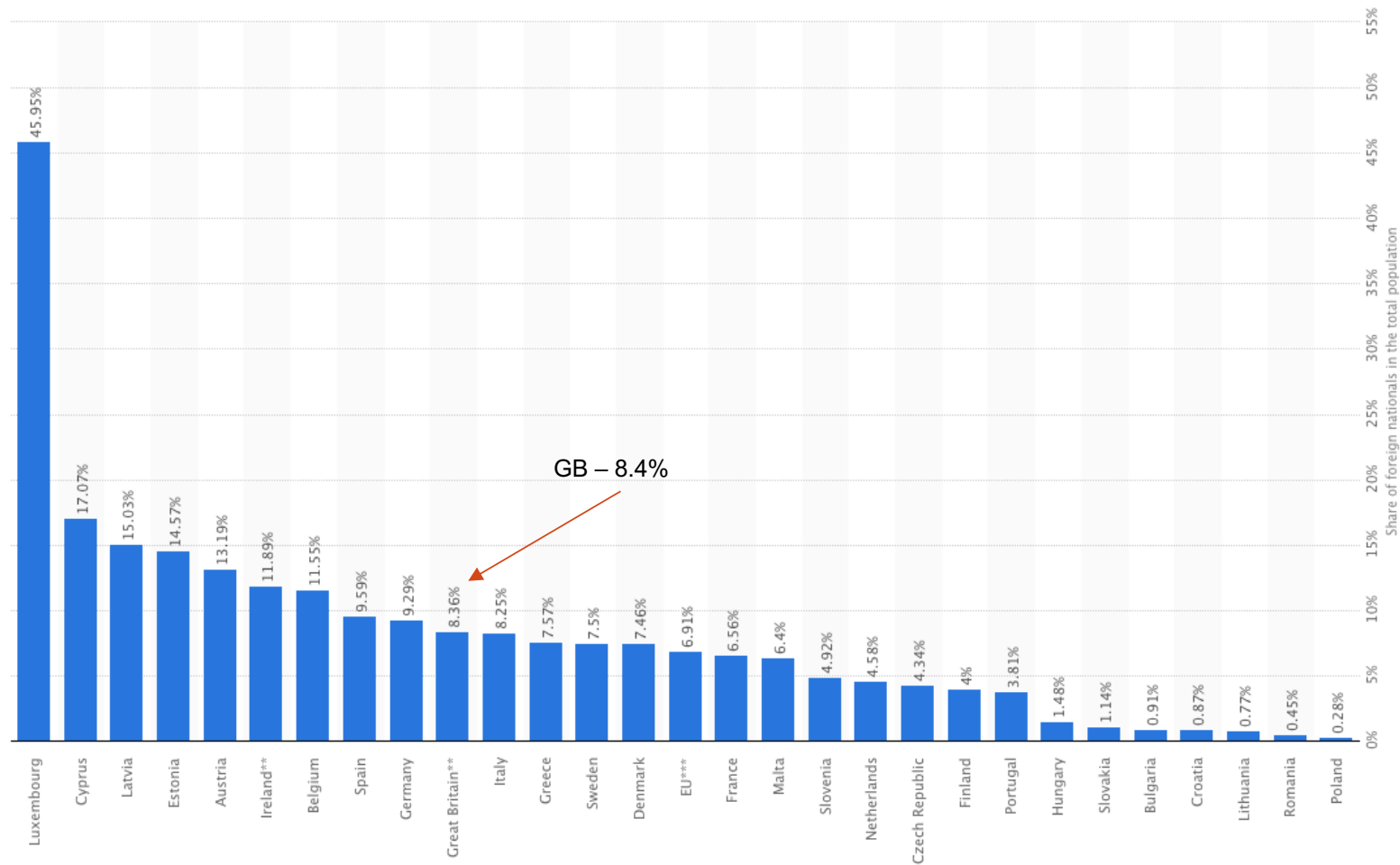
c.1.2 million people from the UK live in the rest of the EU

- Figures for 2015 suggest that 1.2 million people born in the UK live in other EU countries.

Source: <https://fullfact.org/immigration/eu-migration-and-uk/>

Share of foreign nationals in UK population

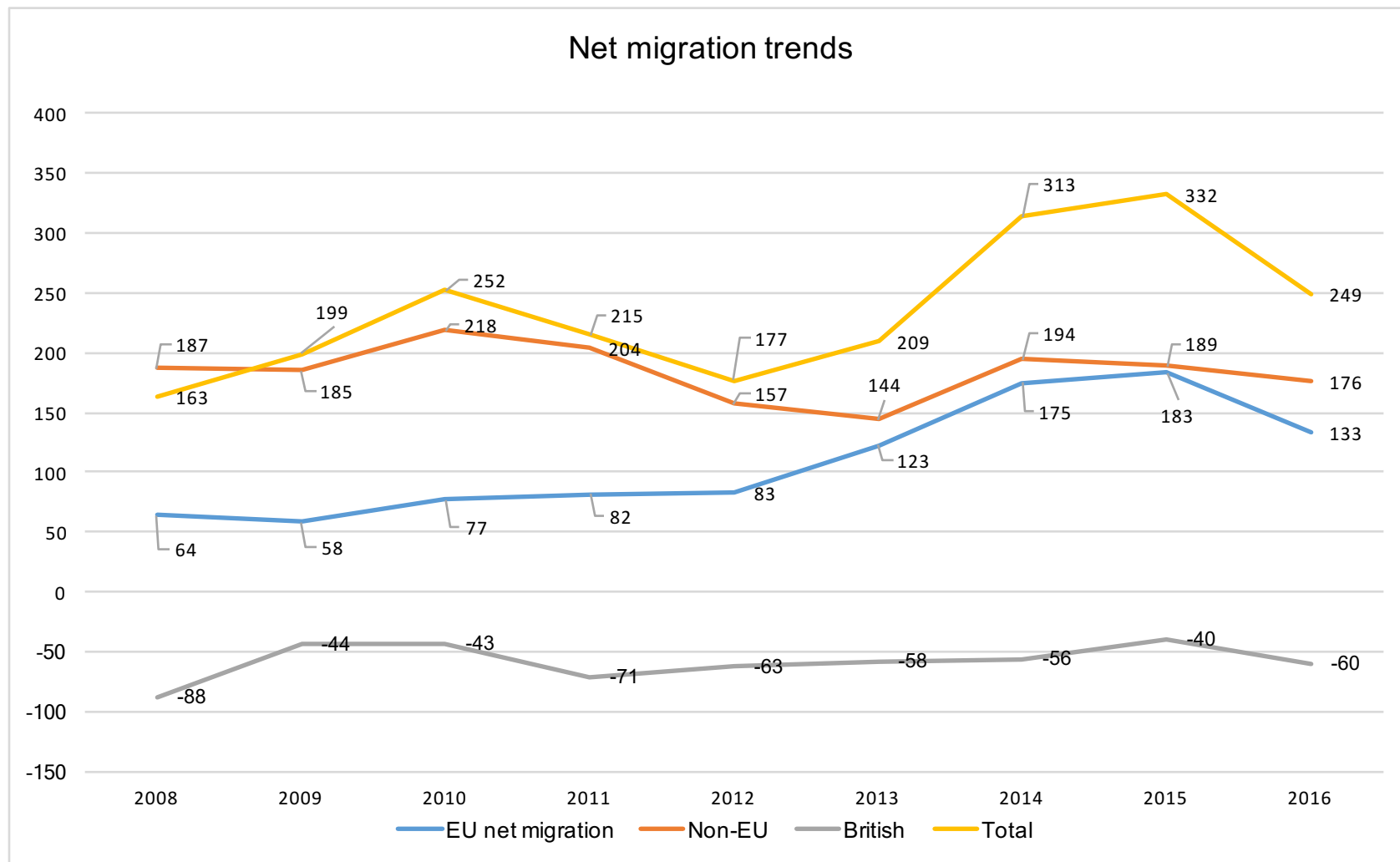
Share of foreign nationals in the total population of EU member states in 2015



Source: Statista, <https://www.statista.com/statistics/266170/share-of-foreign-nationals-in-eu-member-states/>

UK immigration trends (1/4) - EU/non-EU and British

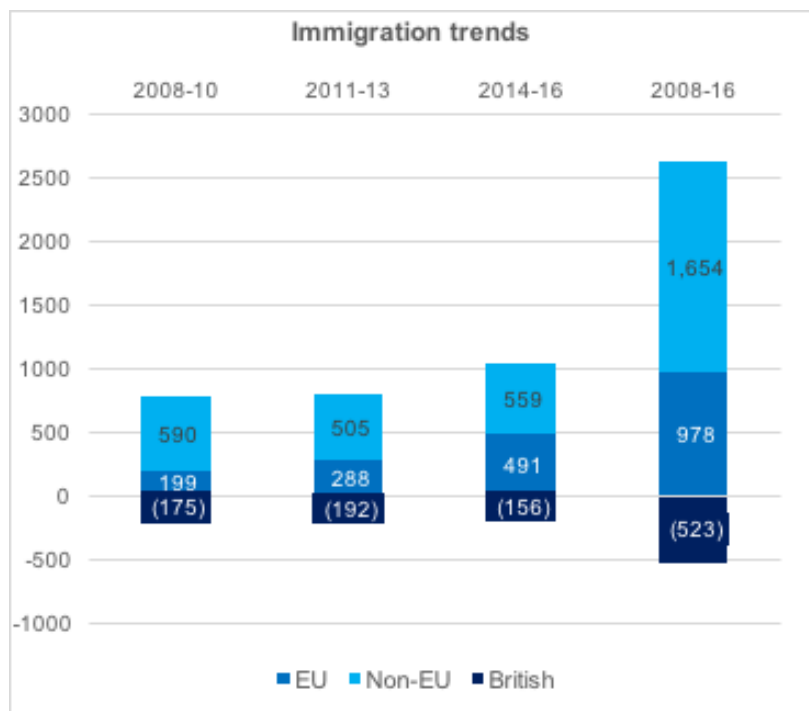
Level of net migration from EU appears to have peaked in 2015 (2016 – 50,000 fewer)



Source: ONS – May 2017

UK immigration trends (2/4): EU, non-EU and British

- Between 2008 and 2016, non-EU migration exceeded EU migration each year. Over the nine years, net migration for non-EU citizens into the UK was 1.7m and for EU citizens was 1m.
- In the same period, there was net migration of 0.5m British citizens out of the UK – so net change in EU citizens in the UK was 0.5m.
- EU migration increased in recent years before declining after the referendum result. If UK citizens are treated as EU citizens, net EU migration averaged 51k/yr over the nine years, but 112k/yr in the last three years.



Migration trends ('000s)					
	2008-10	2011-13	2014-16	2008-16	Pct of total
				Total	
Immigration					
EU in	541	533	783	1,857	35.8%
Non-EU in	933	823	830	2,586	49.8%
British - in	274	234	239	747	14.4%
	1,748	1,590	1,852	5,190	100.0%
Emigration					
EU out	(342)	(245)	(292)	(879)	28.5%
Non-EU out	(343)	(318)	(271)	(932)	30.2%
British - out	(449)	(426)	(395)	(1,270)	41.2%
	(1,134)	(989)	(958)	(3,081)	100.0%
Net migration					
EU	199	288	491	978	46.4%
Non-EU	590	505	559	1,654	78.4%
British	(175)	(192)	(156)	(523)	-24.8%
	614	601	894	2,109	100.0%
Average per year					
EU	66	96	164	109	46.4%
Non-EU	197	168	186	184	78.4%
British	-58	-64	-52	-58	-24.8%
Total	205	200	298	234	100.0%

Source: ONS – May 2017

Brexit fact-base

UK immigration trends (3/4) – ONS data 2008-2016

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Immigration									
EU in	198	167	176	174	158	201	264	269	250
Non-EU in	307	304	322	314	260	249	287	279	264
British - in	85	96	93	78	80	76	81	84	74
	590	567	591	566	498	526	632	632	588
Emigration									
EU out	-134	-109	-99	-92	-75	-78	-89	-86	-117
Non-EU out	-120	-119	-104	-110	-103	-105	-93	-90	-88
British - out	-173	-140	-136	-149	-143	-134	-137	-124	-134
	-427	-368	-339	-351	-321	-317	-319	-300	-339
Net migration									
EU net migration	64	58	77	82	83	123	175	183	133
Non-EU	187	185	218	204	157	144	194	189	176
British	-88	-44	-43	-71	-63	-58	-56	-40	-60
Total	163	199	252	215	177	209	313	332	249
<i>EU less British</i>	-22	14	34	11	20	65	119	143	73

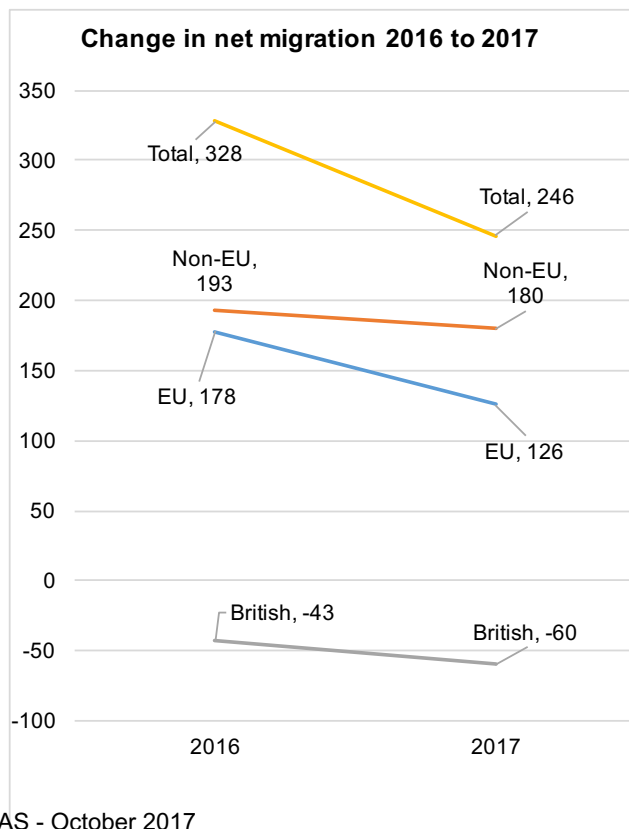
Notes:

- (1) In the year to December, 2016 UK immigration fell by 44,000 to 588,000. In 2016, EU emigration increased by 31,000 to 117,000 compared to 86,000 in 2015.
- (2) When net British emigration is deducted from net EU immigration, the net change in citizens is much less than non-EU immigration (*see bottom line*).
- (3) In the year to December 2016, the number of people arriving in the UK to study was 136,000 (23% of the total immigration), a statistically significant reduction of 32,000 from 168,000 in December 2015. This was the lowest estimate recorded since 2002.

Source: ONS – May 2017

UK immigration trends (4/4): 2017 migration vs 2016

- The most recent ONS statistics (for the year to March 2017, show a marked fall in net migration to the UK from 328k to 246k (a fall of 82k).
- The fall was caused mainly by a fall in net EU migration of 52k. This was due to 33k more EU citizens leaving the UK than in 2016 (122k vs 89k).
- Non-EU net immigration was 180k compared to EU net immigration of 126k
- EU net migration reduces to 66k if net British emigration is deducted.

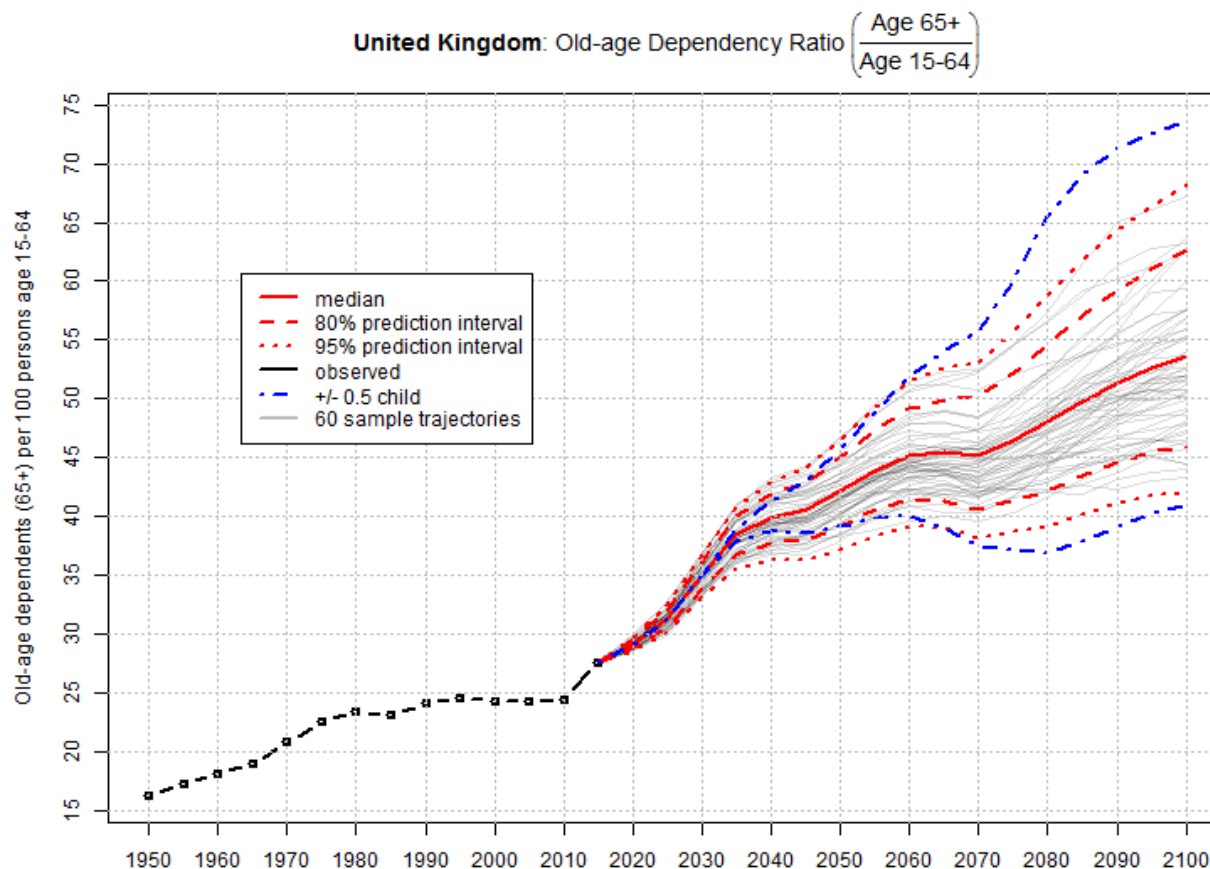


Migration statistics			
	2016	2017	
	Year to Mar	Year to Mar	Change
Immigration			
EU in	267	248	-19
Non-EU in	288	266	-22
British - in	83	74	-9
	638	588	-50
Emigration			
EU out	-89	-122	33
Non-EU out	-95	-86	-9
British - out	-126	-134	8
	-310	-342	32
Net migration			
EU	178	126	-52
Non-EU	193	180	-13
British	-43	-60	-17
Total	328	246	-82
EU-British	135	66	-69

Source: ONS – August 2017

Impact of the UK's ageing population (1/2)

The ratio of older UK citizens to working age population will increase significantly in the remainder of the 21st century. This is expected to increase the UK's demand for migrant workers.

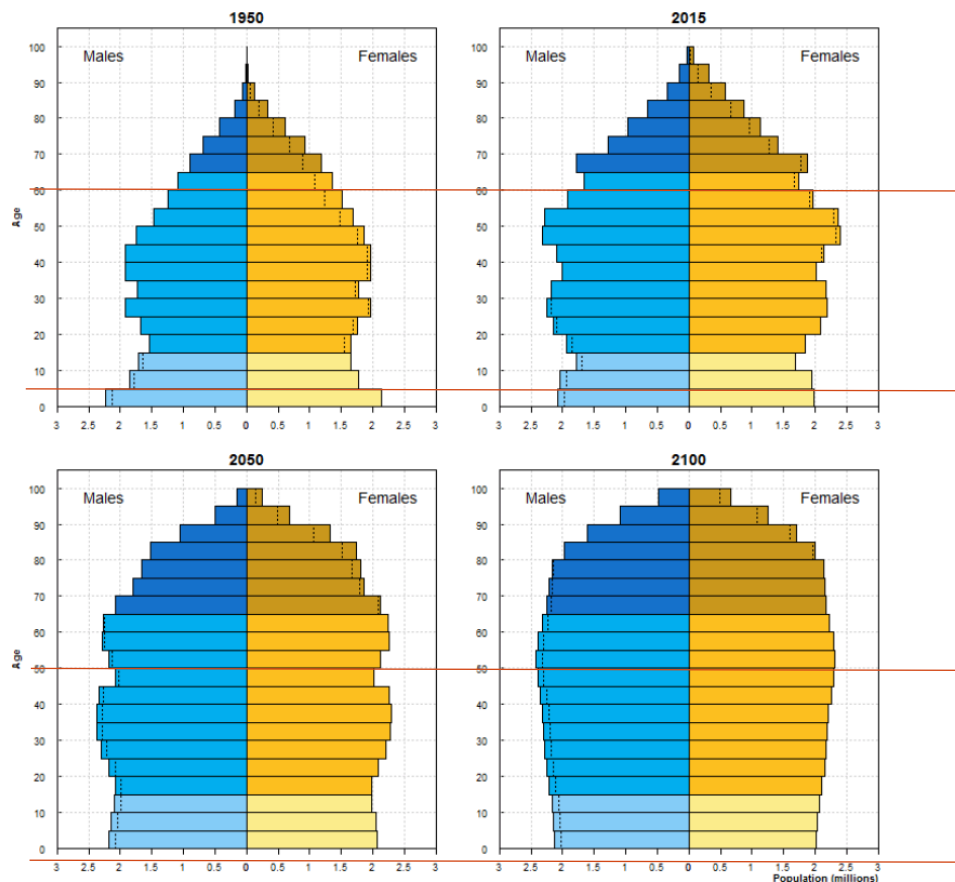


Source: United Nations, Department of Economic and Social Affairs, Population Division (2015).
World Population Prospects: The 2015 Revision. <http://esa.un.org/unpd/wpp/>

Impact of the UK's ageing population (2/2)

The ratio of older UK citizens to working age population will increase significantly in the remainder of the 21st century. This is expected to increase UK's demand for migrant workers.

15-65 age band



15-65 age band

The dotted line indicates the excess male or female population in certain age groups. The data are in thousands or millions.

Source: United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision.

EU law regarding free movement

- EU citizens can reside in another Member State for up to 3 months without conditions. After that point, continued residence is allowed if the individual is working, studying, self-sufficient, self-employed, or - with some conditions - actively looking for work.
- EU jobseekers have limited access to out of work benefits. Individuals in the UK receive no Jobseeker's Allowance for the first 3 months of their stay; they are then entitled to a maximum of 90 days' support.
- If someone fails to find work within 6 months and continues to be a burden on the welfare system, they can be deported - though the numbers who are removed in this way are thought to be small.

Free Movement Directive

EU citizens (anyone with the nationality of an EU country) possessing a valid identity card or passport may:

- Enter another EU country (with family members, whether EU citizens or not) without an exit or entry visa;
- Live in another EU country for up to 3 months without any conditions;
- Live in another EU country for longer than 3 months if employed or self-employed. Other people not working for payment or retired are required to have sufficient resources and sickness insurance.
- Register with relevant authorities if living in the country longer than 3 months. Family members if not EU nationals require a residence card.
- Be entitled to permanent residence if they have lived legally in another EU country for a 5 year continuous period.
- Have the right to be treated equally to nationals of the host country.

Source: European Parliament and Council, Directive 2004/38/C, 29 April 2004

Source: Nick Clegg, Brexit Challenge Paper, Freedom of Movement, 16 November 2016.

Migrant workers (1/3) - by industry sector - 2016

- UK labour market comprised 89% UK (26.9 million) and 11.2% non-UK nationals (3.4 million): 2.2 million (7.2%) from the EU and 1.2 million (4.0%) from other countries.
- The sectors with the most EU workers are wholesale and retail (507k); financial and business services (382k); public sector (362k); and, manufacturing (312k).
- The industry sector most dependent on migrant workers is transport and communication where 14.4% of workers are non-UK, followed by manufacturing (13.9%).

Industry sector	Analysis of 2016 workforce				Total	EU	Non-EU	Non-UK
	UK	EU	Non-EU	Non-UK				
	000's	000's	000's	000's	000's	%	%	%
Wholesale and retail trade, hotels and restaurants	4,861	507	254	761	5,623	9.0%	4.5%	13.5%
Financial and business services	4,528	382	233	615	5,143	7.4%	4.5%	12.0%
Public admin, education and health	8,362	362	339	701	9,063	4.0%	3.7%	7.7%
Manufacturing	2,439	312	82	394	2,833	11.0%	2.9%	13.9%
Transport and communication	2,361	243	156	399	2,760	8.8%	5.6%	14.4%
Construction	1,901	185	47	231	2,132	8.7%	2.2%	10.9%
Other services	1,569	84	71	155	1,724	4.9%	4.1%	9.0%
Energy and water	471	23	15	38	510	4.6%	3.0%	7.5%
Agriculture, forestry and fishing	263	22	-	22	285	7.7%	0.0%	7.7%
Not allocated to sectors	159	60	9	69	228			
	26,915	2,181	1,206	3,387	30,302			
Total %	88.8%	7.2%	4.0%		100.0%			

Note: the ONS figures are not seasonally adjusted and probably understate short-term and temporary workers.

Source: ONS, International immigration and the labour market, UK: 2016, April 2017

Migrant workers (2/3) – additional sector detail

- **Logistics industry:** nearly **300,000** (14%) EU workers are employed. 93,000 EU nationals work in warehousing and other storage jobs, 23% of the total workforce. 31,500 Large Goods Vehicle drivers (10% of the total), 22,500 van drivers (9%), and 20,500 forklift truck drivers (21%) are from elsewhere in the EU. As with the food and drink industry, EU workers are filling the gap left by an undersupply in the domestic labour market. This is partly a reflection of the ageing workforce: 67% of LGV drivers are aged over 45.
- **Construction industry:** **176,000** (8%) EU workers (source: RICS)
- **NHS and social care:** There are approximately **135,000** (6%) EU nationals working in England. This represents about 5% of the NHS workforce and 6% in adult social care. In 2014, more than 10,000 doctors working in the NHS (6.6% of the UK medical workforce) received their primary medical qualification in another EEA country.
- **Food and drink industry:** more reliant on EU workers than any other sector of the UK economy. c29% of the UK's food and drink manufacturing workforce are non-British EU nationals (almost **120,000** (5%) workers).
- **Creative industries:** According to the Creative Industries Federation, EU workers currently constitute 25% of all workers in the UK visual effects industry, with non-EU workers accounting for another 12%. Similarly, UK video games companies currently draw 20%-30% of their staff from the EU.
- **Higher education:** The UK sector employs significant numbers of non-UK EU nationals. Non-UK EU nationals make up 16% of the UK-based academic workforce.

Source: Nick Clegg, Freedom of movement, Nov 2016 <http://www.libdems.org.uk/brexit-challenge-movement-paper>

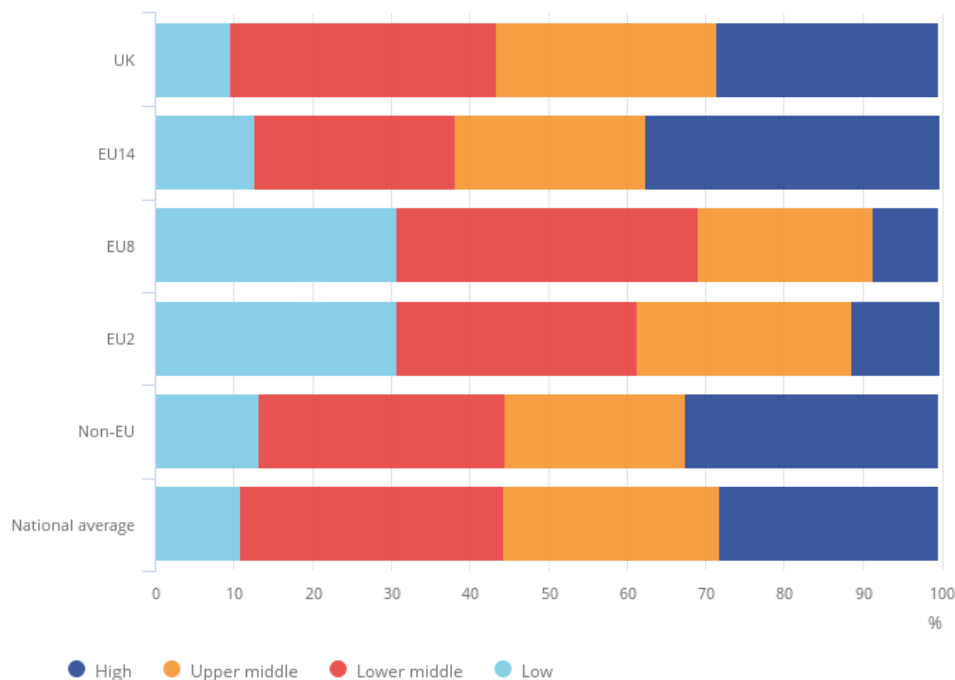
Migrant workers (3/3) - skill levels (2016)

- Majority of EU migrant workers are in lower-middle or upper-middle skilled groups (see chart).
- A minority of EU migrant workers are low skilled (see chart).
- Of those of working age (16-64): 80% of EU migrants were in employment: cf 74% for UK and 62% for non-EU (see table below).

Working age population			
In employment			
	Estimate (000s)	%	% of total
UK	26,915	74	88.8%
EU14	863	76	2.8%
EU8	1,015	83	3.3%
EU2	281	83	0.9%
EU Other	18	74	0.1%
Non-EU	1,206	62	4.0%
Total	30,299	74	100.0%
EU	2,177	80	7.2%

Figure 13: Distribution of workers in each nationality group by skill level of occupation

UK, 2016



Source: Annual Population Survey, Office for National Statistics

See Appendix C for ONS definitions

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/articles/migrationandthelabourmarketuk/2016>

Impact of EU citizens on UK economy (1/2)

Current situation : existing evidence of impact on economy

- There is strong evidence that migration has a positive impact on productivity and GDP per capita.
- The literature suggests that reducing worker inflows would reduce overall employment (more or less one for one, since there would likely be no significant impact on native employment), would increase (by small amounts) wages for some low-paid groups, and would significantly reduce overall GDP per capita and productivity.

Impact from Brexit of reduced migration on economy

- Broad scenarios (not forecasts) imply that the negative impacts on per capita GDP will be significant, potentially approaching those resulting from reduced trade. By contrast, the increase in low-skilled wages resulting from reduced migration is expected to be, if at all, relatively modest.
- The OBR forecast that Brexit-induced reductions in migration will reduce trend output growth by 0.3% per year is based solely on the impact on the growth in the labour force (it is assumed that there is no impact on productivity).
- The OBR forecasts continue to assume that net migration will fall to 185,000 a year from 2020-21 onwards, from 273,000 over the year to September 2016. This would still be above the Conservative manifesto ambition to reduce it to the “tens of thousands”.

National Institute of Economic and Social Research, The Economic Impact of Brexit-induced Reductions in Migration, Jonathan Portes and Giuseppe Fortez., December 2016

Impact of EU citizens on UK economy (2/2)

CEP BREXIT ANALYSIS NO. 5 Brexit and the impact of immigration on the UK (2016) - Summary

- EU immigrants are more educated, younger, more likely to be in work and less likely to claim benefits than the UK-born. About 44% have some form of higher education compared with only 23% of the UK-born. About a third of EU immigrants live in London, compared with only 11% of the UK-born.
- Many people are concerned that immigration reduces the pay and job chances of the UK-born due to more competition for jobs. But immigrants consume goods and services and this increased demand helps to create more employment opportunities. Immigrants also might have skills that complement UK-born workers. So we need empirical evidence to settle the issue of whether the economic impact of immigration is negative or positive for the UK-born.
- New evidence in this Report shows that the areas of the UK with large increases in EU immigration did *not* suffer greater falls in the jobs and pay of UK-born workers. The big falls in wages after 2008 are due to the global financial crisis and a weak economic recovery, not to immigration.
- There is also little effect of EU immigration on inequality through reducing the pay and jobs of less skilled UK workers. Changes in wages and joblessness for less educated UK-born workers show little correlation with changes in EU immigration.
- EU immigrants pay more in taxes than they take out in welfare and the use of public services. They therefore help reduce the budget deficit. Immigrants do not have a negative effect on local services such as crime, education, health, or social housing
- The refugee crisis has nothing to do with EU membership. For example, refugees admitted to Germany have no right to live in the UK. The UK is not in the Schengen passport-free travel agreement so there are border checks on migrants.

Source: Centre for Economic Performance, LSE, **Brexit and the Impact of Immigration on the UK** Jonathan Wadsworth, Swati Dhingra, Gianmarco Ottaviano and John Van Reenen

<http://cep.lse.ac.uk/pubs/download/brexit05.pdf>

Tax contribution of EU citizens

- HMRC conducted detailed analysis of recently-arrived EU citizens for the tax year 2013/14.
- HMRC calculated the contribution to taxes as £11.2bn for these EU citizens as follows:

Collected:			
Income tax	8,260		
National Insurance	<u>6,100</u>		
		14,360	
Paid:			
Tax credits	1,875		
Child benefits	<u>730</u>		
		(2,605)	
			<u>£11,175m</u>

Note:

- The analysis was restricted to benefits administered by HMRC: tax credits and Child Benefit. It did not include benefits administered by the Department of Work and Pensions (DWP), such as Housing Benefit, State Pension, working-age benefits, and other benefits.
- It also did not include other taxes paid by individuals such as VAT or business taxes such as Corporation Tax or Business Rates.

Source: HMRC, August 2017

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/639816/Income_Tax_NICs_Tax_Credits_and_Child_Benefit_Statistics_for_EEA_Nationals_2013_to_2014.pdf

Impact on public finances of reduced migration

OBR – November 2016

- The Office for Budget Responsibility (OBR, 2016) forecasted fiscal aggregates—such as net government borrowing and debt as a percentage of GDP—under alternative scenarios of net migration.
- In their central forecast the OBR uses the ONS principal population projection, which assumes net migration of 329,000 in 2015 and 256,000 in 2016, declining to 185,000 in 2021.
 - In the ‘high migration’ scenario, net migration falls to 265,000 by 2021.
 - In the ‘low migration’ scenario, net migration falls to 105,000 by 2021.
- The OBR estimates suggest that the government budget surplus in 2020-2021 would be higher under the high migration scenario and lower in the low migration scenario:
- OBR projected a £16.9bn surplus in 2010-2021 under the high migration scenario, compared to £5.2bn in the low migration scenario. **This implies that cost to the public finances of achieving the government migration target would be c£11.7bn by 2021**

CEBR – May 2017

- The numbers are “quite shocking” – they show is that if the UK cuts off migration without making adjustments to boost productivity, especially productivity in the public sector, the scale of the economic damage could be huge.
- In the *slow reduction scenario* (reducing inward migration by 200,000 p.a. over 8 years from 2019) Assuming public spending would be scaled to the population, the net impact on the deficit is **£9.5 billion in 2025**; £25.9 billion in 2030 and **£57.7 billion in 2040**.
- The analysis of the *fast reduction scenario* (reducing inward migration by 200,000 p.a. in 2 years from 2019) shows tax receipts down by £32.7 billion in 2025; £60.2 billion in 2030 and £109.3 billion in 2040. Allowing for the reduced need for public services the net impact on the deficit is **£20.0 billion in 2025**; £36.3 billion in 2030 and **£64.5 billion in 2040**.

Sources: Office of Budget Responsibility, Economic and Fiscal Outlook, November 2016

Centre for Economics and Business Research, <https://cebr.com/reports/cebr-special-report-economic-consequences-of-limiting-migration/>

6. Impact of "no deal"

Section contents
Seven key implications of 'no deal'
1. Ongoing disputes over the exit "bill"
2. Uncertainty and confusion for UK citizens in the EU and EU citizens in the UK
3. Trading on World Trade Organisation terms
4. A 'regulatory gap' and legal uncertainty in areas not covered by the "Great Repeal Bill"
5. Uncertainty over UK participation in the EU's common foreign and security policy
6. Sudden return of a customs border between Northern Ireland and the Republic of Ireland
7. No transitional legal and regulatory arrangements
Economic impacts of no deal
Quantitative impact 1 - import tariffs
2 - non-tariff barriers
3 - EU trade substitution
4 - impact on UK trade with EU
5 - costs of foreign trade
6 - tariffs and value added
7 - conclusion

Seven key implications of 'no deal'

- The government refused the request of the House of Commons Foreign Affairs Committee (HCFAC) to submit evidence to it of the implications of 'no deal'. As a result, the Committee requested the Bar Council and Professor Kenneth Armstrong of Cambridge University to provide evidence on the main issues. This section draws extensively from their report*.
- The HCFAC noted that (p15): *"the key issues that would be left outstanding if the UK and EU fail to agree a deal by the end of the Article 50 period are relatively clear"*. The key issues noted by the HCFAC include, but are not limited to:
 1. Ongoing disputes over the exit "bill";
 2. Uncertainty and confusion for UK citizens in the EU and EU citizens in the UK;
 3. Trading on World Trade Organisation (WTO) terms;
 4. A 'regulatory gap' and legal uncertainty in areas not covered by the "Great Repeal Bill";
 5. Uncertainty over UK participation in the EU's common foreign and security policy;
 6. The sudden return of a customs border between Northern Ireland and the Republic of Ireland; and
 7. No transitional legal and regulatory arrangements.
- The HCFAC concludes:

"It is clear from our evidence, however, that a complete breakdown in negotiations represents a very destructive outcome leading to mutually assured damage for the EU and the UK. Both sides would suffer economic losses and harm to their international reputations.

Individuals and businesses in both the UK and EU could be subject to considerable personal uncertainty and legal confusion. It is a key national and European Union interest that such a situation is avoided."
- **The next seven slides deal with each issue in turn.**

*See House of Commons Foreign Affairs Committee Article 50 negotiations: Implications of 'no deal' 7 March 2017.
<https://www.publications.parliament.uk/pa/cm201617/cmselect/cmfaaff/1077/1077.pdf>

1. Ongoing disputes over the exit “bill”

- If the UK and EU fail to agree an exit deal, any liabilities that the EU claims are owed by the UK will be left outstanding. It is probable that there would need to be ongoing debate over the precise formula used to calculate the bill, and over the final number

“The political and economic consequences of the UK leaving the EU without responding to claims under the EU budget are likely to be profound”

European Union Committee, 15th Report of Session 2016–17, Brexit and the EU budget, HL Paper 125, para 137

- Asked whether the UK could simply refuse to pay any bill under these circumstances, and if this in turn would give the UK a strong hand in the negotiations, Professor Armstrong said (p16):

“It is strong in the sense of “We don’t care what the consequence is”. It is only strong in that sense. If we don’t care about having any kind of deal with the EU for the future and we don’t care about having a future relationship with the EU, of course we could do that, but how is that putting the UK in a strong position?”

- It is important to keep the exit bill in perspective:

“Take a look at the numbers and you see that our long-term trading relationship is the real prize – dwarfing any potential divorce settlement. A one-off EU divorce bill of, some suggest, tens of billions of euros, compared with EU-UK trade worth well over €600bn euros every year, the economic case for making rapid progress on a trade agreement is clear.”

Carolyn Fairbairn, CBI Director General, 27 April 2017

2. Uncertainty and confusion for UK citizens in the EU and EU citizens in the UK

- The rights of EU citizens in the UK and UK citizens in the EU are not wholly dependent on a deal being struck under Article 50. In both cases, national governments could decide unilaterally to guarantee the rights of those individuals, and may even choose to do so before the Article 50 period is over.
- The individuals affected would face considerable uncertainty around issues including their residency rights, access to employment, ability to claim pensions and other social security benefits, and access to healthcare.
- Tourists and short-term travelers would also face some confusion and uncertainty. For example, UK nationals visiting the EU would no longer be entitled to European Health Insurance Cards, which permit unplanned access to healthcare on the same basis as local residents.

3. Trading on World Trade Organisation terms

- If the UK leaves the EU with no deal in place—or with a very narrow withdrawal agreement that does not include transitional arrangements or a framework for future relations—it will leave the Customs Union and trade with the EU on World Trade Organisation (WTO) terms. (The UK has been a WTO member since 1 January 1995. All EU member States are WTO members, as is the EU in its own right).
- The UK would face the EU's common external tariff, so all British exports to the EU would face EU tariffs.
- While tariffs on UK exports to the EU would on *average* be low at 4%, in some sectors they would be high enough to inflict serious damage on UK trade. For example, imports and exports of cars would face 10% tariffs.
 - Trade on WTO terms would mean the transfer of the EU-facing business of numerous UK banks and other financial businesses from London to subsidiaries in the EU, involving the transfer of highly paid jobs whose holders would in future pay their tax in EU countries rather than in the UK.
 - Trade on WTO terms would be a blow to the expectations of those inwardly investing manufacturers which had chosen the UK as an investment destination because it was a tariff-free and paperwork-free gateway to the EU market.
- The UK's departure from the Customs Union would mean that rules of origin immediately come into force to determine the national origin of any product. *"This process would be time-consuming and costly and many firms . . . would be unable to comply and would cease exporting to the EU."* (Centre for European Reform, May 2017)
- Questions would also arise as to the applicability to the UK and legal status of the Free Trade Agreements (FTAs) that the EU currently has with third countries, such as South Korea and Canada. The Bar Council's evidence argues that *"It might be that even in the case of an unplanned Brexit, the UK could in most cases continue to trade on the same basis with those countries, if it could secure simplified agreements to do so"*, for example by agreeing an exchange of notes (in the international law sense).
- *"A 'no deal' scenario would open a Pandora's box of economic consequences. The UK would face tariffs on 90 per cent of its EU exports by value and a raft of new regulatory hurdles. Let's remember these barriers would hurt firms on both sides of the Channel"*. Paul Drechsler, President, CBI, 2 March 2017
- Professor Wyatt took the view that the imposition of WTO-only terms of trade between the UK and EU would be likely to push both sides toward the swift conclusion of an agreement, since the costs for both sides would be high.

4. A 'regulatory gap' and legal uncertainty in areas not covered by the "Great Repeal Bill"

- The Great Repeal Bill is supposed to leave all existing EU legislation behind in the UK, but that legislation only works if the UK has people who can administer it, regulatory bodies and civil servants who can co-operate with one another.
- Professor Armstrong: *"In terms of disruption, there is potentially massive disruption in the ordinary, day-to-day boring business of administering legal frameworks. It is the iceberg below the top level of the legislation that we see in the Great Repeal Bill."*
- With no deal, many British products would no longer be accredited for sale across the continent. Sales of British pharmaceuticals or chemicals in the EU would not be authorised; UK-based financial firms would lose their passporting rights; airlines would not be able to fly between airports in the union. All this would happen overnight.
- For example, there are currently some 33 EU regulatory and other bodies covering sectors such as aviation, food safety, medicines, law enforcement and financial services. The government is looking to keep Britain under the remit of some EU agencies after Brexit because the UK does not have the time or expertise to set up new ones.
- Before withdrawing from these 33 bodies, the UK would need to be prepared to expand the capacity of UK regulatory bodies and to establish new UK-only regulatory bodies. Five examples of where new or improved UK regulatory bodies could be required to take over the responsibilities of the EU counterparts include:
 - European Food Safety Authority (which evaluates products involved in the food chain and provides scientific advice and technical support);
 - European Chemicals Agency (which reviews chemicals registered under REACH by manufacturers and importers)
 - Financial Services Supervisory Agencies (a number of agencies and institutions have a regulatory or policy function in relation to financial services).
 - European Medicines Agency (which provides for a single assessment and marketing authorisation valid throughout the EU for pharmaceutical products);
 - European Aviation Safety Agency (which regulates aviation safety through a certification system for equipment, aircrew and undertakings involved in civil aviation)

5. Uncertainty over UK participation in the EU's common foreign and security policy

- Legal and political uncertainty could be cast over the status of UK assets deployed as part of ongoing EU Common Security and Defence Policy (CSDP) missions.
- The absence of any withdrawal deal or separate agreement on CSDP would also be likely to make it impossible for the EU to continue basing the Operational Headquarters of its anti- piracy mission on the Horn of Africa, Naval Force ATLANTA, at its current location in Northwood.
- Leaving the EU without any withdrawal deal would also mean immediately leaving the European Defence Agency (EDA), which was established in 1994 to foster co-operation in capabilities-building, procurement and the defence industry across the Member States. The UK would drop out of the many projects in which it is currently participating, such as building air-to-air refuelling capabilities and improving the commercial satellite communications market across Europe.

6. Sudden return of a customs border between NI and ROI

- With no deal in place, the UK will exit the EU's customs union. This means that even if the UK and Ireland were to maintain complete free movement of people within the UK/Ireland Common Travel Area, there would have to be some form of customs checking arrangement put into place immediately.
- The sudden imposition of a customs border between Northern Ireland and the Republic of Ireland would be difficult, if not impossible, to reconcile with a “seamless and frictionless” border with Ireland.
- The Bar Council concludes that it would be difficult to maintain an open border even in the event of “a planned and orderly Brexit”, because of the need to check imports of products in both directions and the need to check people moving in either direction.
- If trade between Ireland and Northern Ireland were conducted on WTO terms, there would be tariffs of up to 40% on products regularly traded in both directions. Tariff levels as high as this might in some cases bring lawful cross-border trade to a standstill, and provide huge incentives for smuggling.

Note: The Irish border issue has emerged as one of the most difficult Brexit problems to solve. At the time of writing, no detailed, workable solution has been found.

The UK's August position paper describes the UK's objectives and provides proposals for dialogue but does not propose any specific solutions. The EU's subsequent paper lays out guiding principles but sees it as the UK's responsibility to propose solutions.

The UK and EU are agreed that: ““we will not accept physical infrastructure at the border.” (Theresa May, Florence).

7. No transitional legal and regulatory arrangements

- Continuity and legal certainty in commercial relations between the UK and EU is vital in the period between the UK's formal withdrawal from the EU and the coming into force of the new relationship. This can best be provided by transitional arrangements agreed as part of the UK's withdrawal agreement.
- There are two parts of the transition period:
 - To bridge the gap between the UK exit from the EU and a new partnership between the UK and the EU.
 - To create the time required by users, providers and market infrastructure (including any new UK regulatory bodies) to adapt to the new framework.
- No deal would mean a cliff edge after two years (when existing rights and obligations may disappear overnight) with no transitional legal and regulatory arrangements.
 - This would create unnecessary disruption and increase the risk of businesses making precipitous, costly – and potentially premature – decisions about the structure of their operations and their dealings with customers, suppliers or other cross-border relationships.
 - Existing contracts / agreements could be subject to legal uncertainty with the potential for contracts to become unenforceable.
- For example, UK banks or other financial operators relying on passporting rights to carry on cross-border business in the EU, would lose its ability to carry on that business, unless it set up a subsidiary which was regulated within the EU. In many cases, the lead times to do this would take more than two years. Banks have requested a minimum transition period of at least three years (i.e. five years in total).

Economic impacts of no deal (1/2)

- The government has not yet carried out a full assessment of the potential economic impact of Britain leaving the EU without a trade deal. Its argument is that this cannot be assessed without an understanding of how mitigating actions will work (such as digital customs checks).
- Hilary Benn, Chair of the Commons Brexit Committee said (April 2017): *“Without an economic impact assessment of ‘no deal’ and without evidence that steps are being taken to mitigate the damaging effect of such an outcome, the government’s assertion that ‘no deal is better than a bad deal’ is unsubstantiated.”*
- In November 2016, the Office of Budget Responsibility estimated the cost of Brexit to the public finances at £59bn over five years (source: Economic and Fiscal Outlook, November 2016). The OBR used the same assumptions for Brexit in its updated Outlook in March 2017:
 - Based on leaving the EU in 2019, the OBR assumes reduced trade with the EU and reduced net inward migration but does not assume ‘no deal’ – which would lead to a greater reduction in trade and a worse economic outcome. Following a hard brexit, the shocks to trade and immigration would be greater than the OBR assumed - the cost to the UK would be significantly higher.
 - OBR assumes that net migration reduces to less than 185,000 by 2021 (net migration was 249,000 in the year to December 2016).
 - Includes no allowance for any one-off or ongoing EU exit-related payments – the ‘divorce settlement’. Adding in an estimate for the exit bill, the estimated **cost of Brexit to public finances would rise from £59bn to £93bn - £112bn**. The cost of hard brexit - no deal - would be greater.

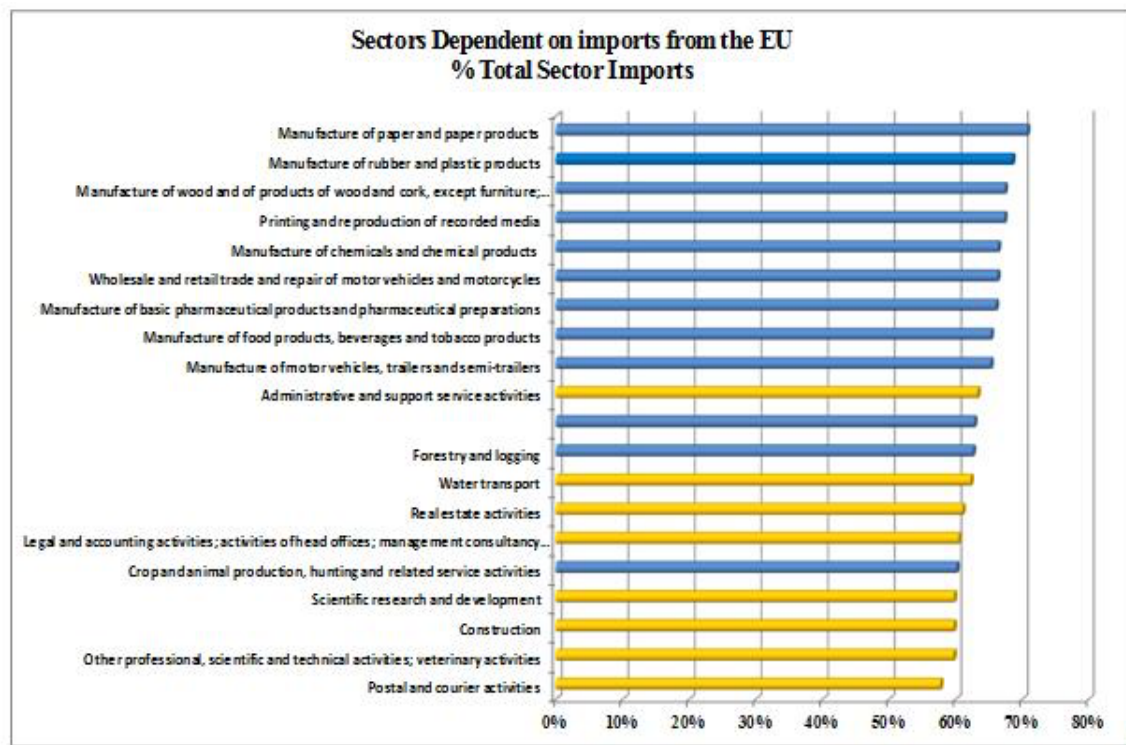
Economic impacts of no deal (2/2)

- The **Centre for European Reform** (a pro-Europe think tank), published a paper entitled '**Why no deal would be much worse than a bad deal**', **24 May 2017**.
- Their qualitative assessment of the economic impacts concludes:
 - British *exports of goods and services would shrink very sharply*. The hit to exports and to the attractiveness of the UK as a place to invest would in all likelihood provoke a sharp fall in the value of sterling.
 - *Inflation would rise* as the weakening of sterling and the imposition of tariffs boosted the prices of goods, in turn *eroding disposable incomes and consumption*.
 - The result would be a *deep recession*, which *would hit tax revenues* and weaken the government's ability to impart a fiscal stimulus to support the economy.
 - The *loss of investor confidence* in the UK economy might present the Bank of England with the choice of either having to stabilise sterling by raising interest rates, or to stimulate the economy.
- The paper argues that the *EU can mitigate harm to itself* from the failure to reach a deal:
 - The EU could grant the UK temporary equivalence in those forms of transaction that are critical to financial stability. For example, the EU could grant UK-based clearing houses temporary equivalence for a year, so eurozone banks could still clear and settle derivatives contracts in London.
 - In aviation, the EU could grant UK-based airlines a reprieve, allowing them to continue to fly to the EU and even between EU airports.
 - But, where the EU has other options than British suppliers – e.g. meat, cheese and car parts – the EU's leaders could allow trade barriers to rise. Importers of these products could switch to suppliers within the EU – or to the many countries that already have free trade agreements with the EU.

Source: Centre for European Reform, <http://www.cer.org.uk/publications/archive/bulletin-article/2017/why-no-deal-would-be-much-worse-bad-deal>

Quantitative impact (1/7) – import tariffs

- The EU is a significant source of imports to Britain. The chart shows the share of imports coming from the EU in the 20 most exposed sectors – all well above 50%.
- The blue bars show sectors for which import tariffs will be directly levied. The yellow bars refer to sectors, mostly in the service sector, for which there are no direct tariffs.
- For the most exposed 15 sectors, the EU share of imports is currently over 60%.
- Sectors that stand to be most seriously affected by the imposition of tariffs are:
 - rubber and plastic products;
 - wood and cork products;
 - printing and reproduction of recorded media;
 - chemicals;
 - production and sale of motor vehicles; and
 - food products.
- For some sectors, there are no distinct tariffs set for them under WTO rules. However, service sectors with no direct tariff exposure will still be negatively affected by the “ripple” effects as decreases in domestic demand affect them.



Source: “Hard Brexit”, International Trade and the WTO Scenario, Dr Andrew Black for The Federal Trust for Education & Research, May 2017

<http://fedtrust.co.uk/our-work-on-europe/hard-brexit-international-trade-and-the-wto-scenario/>

Quantitative impact (2/7) – non-tariff barriers

- **Non-tariff barriers (NTBs) are significant.**
In the medium-term, NTB impacts are likely to be much larger than tariff effects, at current WTO Most Favoured Nation tariff rates.
 - Examples of NTBs are: import licences and quotas, certificates of origin, technical standards and norms, environmental standards, requirements for labelling and packaging, health and safety requirements, etc.
- The Federal Trust paper estimates that they are likely to be at least in the order of 1.5% of GDP, and probably much higher.
- To which should be added the negative impact of **border controls on business**, estimated at another 1.2% of GDP
 - Small businesses, which have been free of borders in the EU environment, will bear the additional costs disproportionately since larger companies are already geared up for extra-EU trade.
- The analysis suggests a total of a **near to 3% drop in GDP just from NTB and border controls on business.**

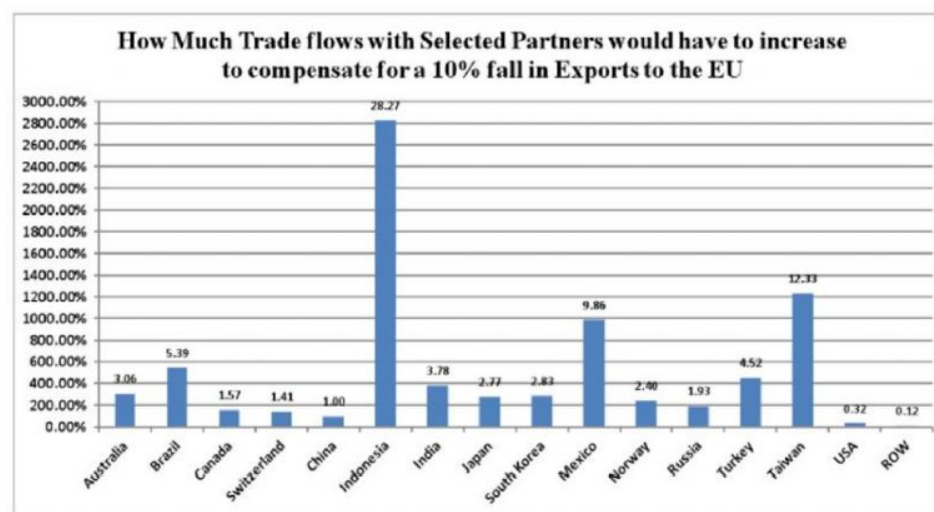
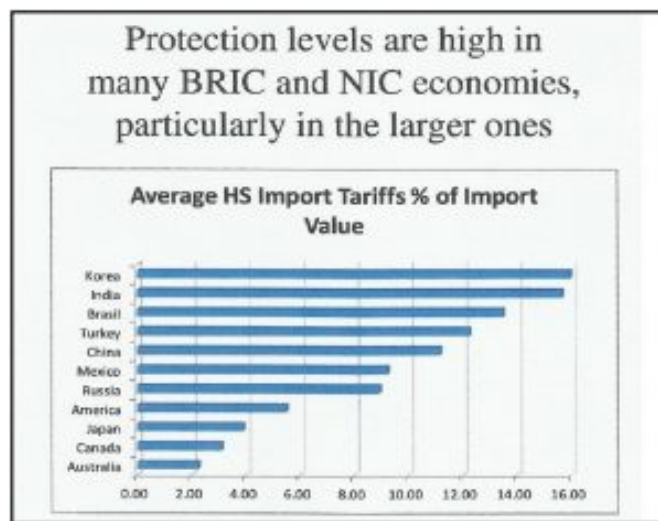
Author	NTB estimate applied to:	Quantitative result
CEPR (2013)	NTBs generally	5.8 times tariff effect
Ciuriak (2015)	National impact	-2.6%
Ciuriak (2015)	Transport equipment	57.7% of tariff effect
Ciuriak (2015)	Food manufacturing	33.3% of tariff effect
Ciuriak (2015)	Transport goods	28.6% of tariff effect
Ciuriak (2015)	Accommodation	175% of tariff effect
Ciuriak (2015)	Financial services	88.6% of tariff effect
Ciuriak (2015)	Border costs	-1.2% GDP
WTO	Overall NTB effect	75% of tariff effect
Loi Kee et al (2009)	Overall NTB effect	87% of tariff effect

Source: "Hard Brexit", International Trade and the WTO Scenario, Dr Andrew Black for The Federal Trust for Education & Research, May 2017

<http://fedtrust.co.uk/our-work-on-europe/hard-brex-it-international-trade-and-the-wto-scenario/>

Quantitative impact (3/7) – EU trade substitution

- For the UK to make good any losses in EU exports resulting from a hard Brexit, UK exporters have to overcome a much tougher tariff regime in markets geographically distant from the country. (See first chart below). Brazil, India and China all have average tariff levels of over 10%, compared to the EU average tariff of 5.3% for goods (excluding agriculture).
 - In China and India, we have been losing market share in India to Germany and France. In China, Germany does 4-5 times more trade than the UK.
- The second chart shows the amount by which exports would have to increase to compensate for a 10% fall in the value of exports to the EU. The higher the bars, the lower the current share of UK exports to these countries.
 - If we lose just 10% of our EU trade, we would need a 50% increase with the BRICS - just to stand still.



Source of charts: "Hard Brexit", International Trade and the WTO Scenario, Dr Andrew Black for The Federal Trust for Education & Research, May 2017
House of Lords, Brexit Trade in Goods, March 2017

Quantitative impact (4/7) – impact on UK trade with EU

The World Bank, in January 2017, published an in-depth study of the UK's trade relationship with the EU and looks at the impact of no deal.

There's one table (below) which provides a salutary reminder about how bad no deal could be for UK-EU bilateral trade (imports and exports) and its ranking against other scenarios. In the event of no deal, trade in goods between the UK and the EU is estimated to drop by 50% and services by 62%.

The reason for the dramatic drops is the immediate loss of the extensive benefits of frictionless trade within the Single Market.

Table 6: Changes in UK's bilateral trade with the EU under different scenarios

	"Norway" scenario (36)	"average PTA" scenario (14)	"no-agreement" scenario (0)
Goods	-12%	-38%	-50%
Services	-16%	-48%	-62%
Domestic Value Added	-6%	-20%	-28%
Intermediates Value Added	-5%	-18%	-26%
Foreign Value Added	-7%	-25%	-34%

Notes: Depth decreases from 44 to 36 in the "Norway" scenario, to 14 in the "average PTA", and to 0 in the "no-agreement" scenario. Calculations are based on estimates in Table 3, column 5 for goods and column 6 for services trade, while results for value added trade use estimates from column 2 in Table 5

Even a preferential trade agreement (PTA) would fall a long way short of the benefits of Single Market membership - especially for services. The report is only 24 pages long and, if you have not seen it before, is well worth a read.

Source: World Bank, Deep integration and UK-EU trade relations, January 2017

<http://documents.worldbank.org/curated/en/853811484835908129/Deep-integration-and-UK-EU-trade-relations>

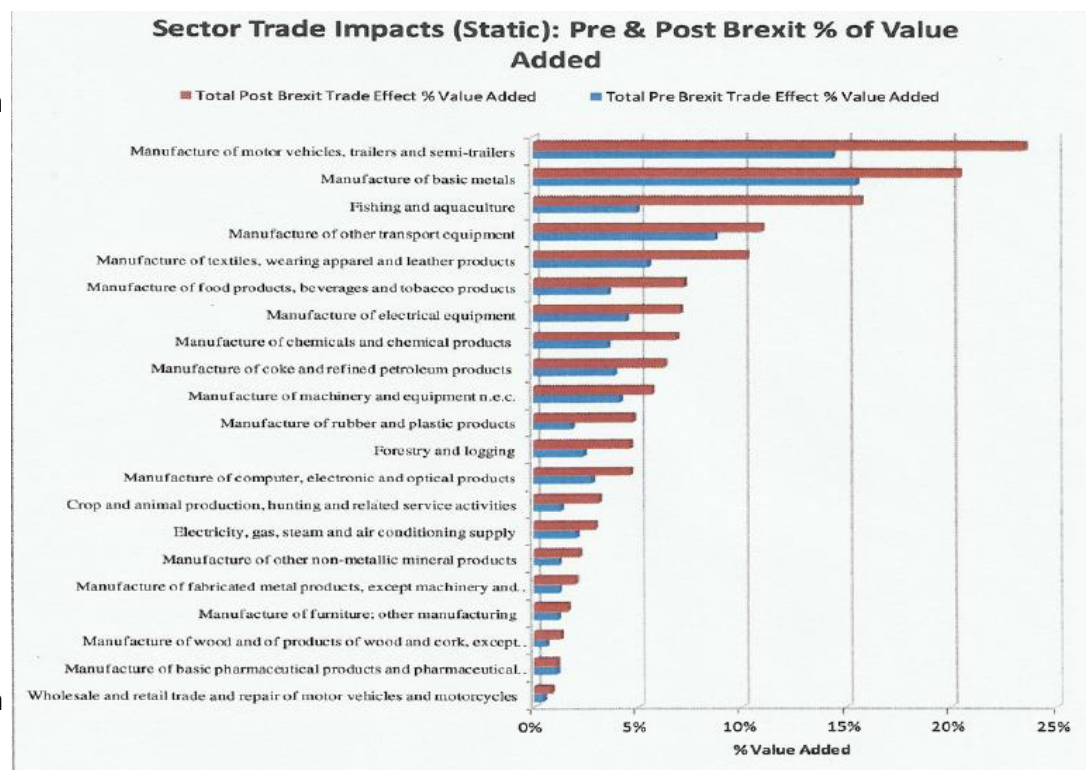
Quantitative impact (5/7) – costs of foreign trade

- Foreign trade is notably more complex than within a customs free trading zone. Trading conditions in the rest of the world are generally much more difficult than they are in the EU.
- In addition to difficulties with product standards, quality issues, recognition of different processes and techniques, the imposition of tariffs has a number of consequences for companies:
 - It immediately increases the paper work and bureaucracy associated with international trade.
 - It increases uncertainties as to when products will be delivered to customers.
 - It involves setting up and funding new export or import departments, and complicates book-keeping arrangements.
 - Import tariffs have to be paid on entry into the country, increasing cash flow requirements. If the goods are part of a longer supply chain, then they have to be financed before they are sold.

Source: “Hard Brexit”, International Trade and the WTO Scenario, Dr Andrew Black for The Federal Trust for Education & Research, May 2017

Quantitative impact (6/7) – tariffs and value added

- The chart shows the total tariff burden, post a hard Brexit in terms of value added*:
 - It is equivalent to nearly 25% of sector value added for the motor vehicle industry (highlighting the concerns shown by companies such as Renault-Nissan, Honda, and Toyota).
 - For basic metals, fishing, other transport equipment, and textiles the impact is more than 10% of value added.
 - Food manufacturing, chemicals, oil refining, and other machinery also face additional costs equivalent to 5% or more of their value added.
- These impacts may not sound significant, but they may effectively cut profitability to zero in some cases, and jeopardise the continuation of these trading arrangements.
- In the absence of local substitutes, this could lead to further problems affecting the longer-term economic viability of some UK sectors.
- NB: The results shown here exclude the effects of the imposition of non-tariff barriers (NTB).*

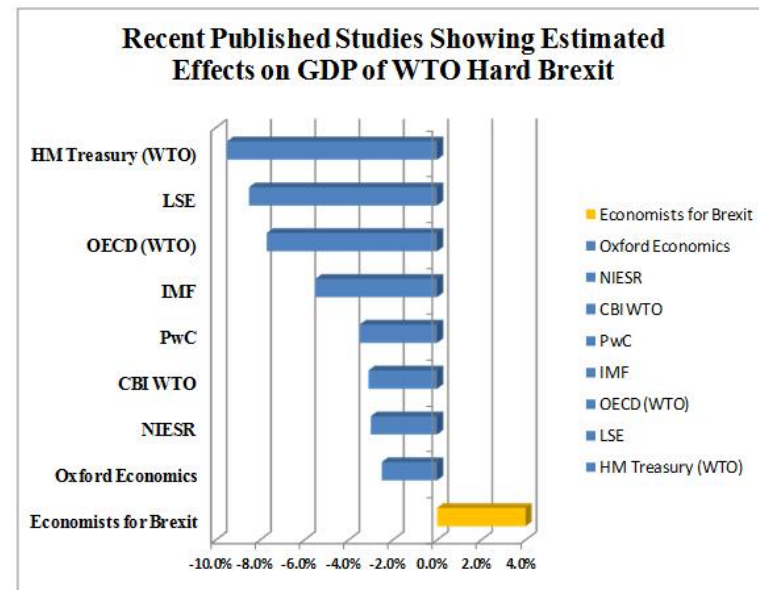


*Value added consists of payments to labour, and retained profits. This forms the basis on which salaries and wages are paid, and profits are earned for shareholders.

Source: "Hard Brexit", International Trade and the WTO Scenario, Dr Andrew Black for The Federal Trust for Education & Research, May 2017

Quantitative impact (7/7) – conclusion

- The preceding analysis rebuts the assertion that “no deal is better than a bad deal”.
- The Federal Trust paper reinforces the academic and business consensus that a hard Brexit would make the UK significantly poorer (see chart). Their view is that **the impact on the UK economy of a no-deal Brexit is likely to be comparable (if not greater) than the impact of the 2007/8 financial crisis.**
- From a practical perspective, the idea of being in a position to operate under no deal by March 2019 is unrealistic. To do so would require extensive new administrative procedures governing certification of compliance with regulatory standards, customs processes etc. These would all have to be negotiated, agreed and put in place in 2018, well ahead of March 2019, which leaves insufficient time.
- **In summary, no deal would be disastrous for the UK.**



Source: “Hard Brexit”, International Trade and the WTO Scenario, Dr Andrew Black for The Federal Trust for Education & Research, May 2017

Source: World Bank, Policy Research Working Paper 7947, Deep Integration and UK-EU Trade Relations, January 2017

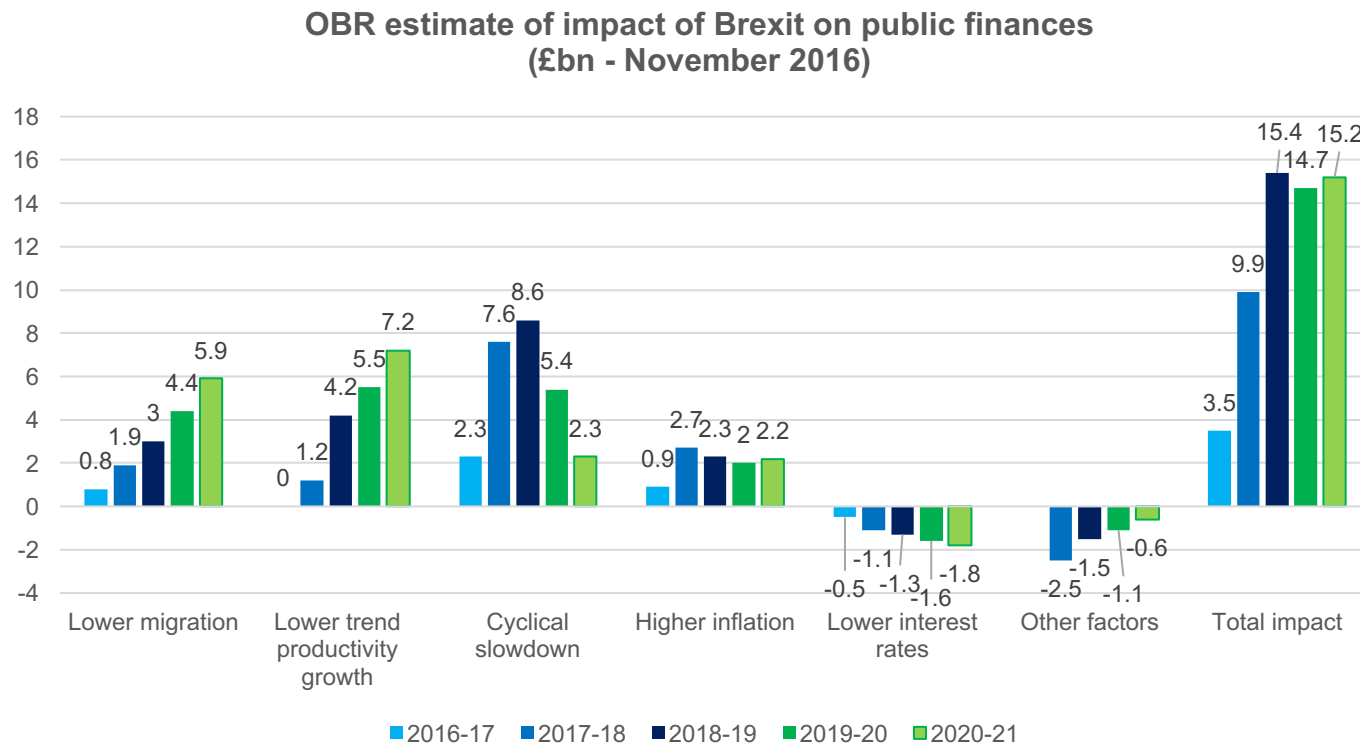
7. Impact on industry sectors and regions

The aim of this section is to provide a high-level summary of selected industry sectors and regions - and to provide examples of the main Brexit impacts. The impacts at a granular level are beyond the scope of this presentation.

Section contents
Overall impact of Brexit
Agriculture and food
Financial and professional services
Manufacturing
Aviation
Regions

Overall impact of Brexit (1/2) – OBR estimate

- The initial OBR estimate is that Brexit will have a £59bn negative impact on public finances over the five years, running at £15bn a year after 2019.
- The costs of lower migration and lower productivity growth are the main factors after 2019.



Source: Office of Budget Responsibility, Economic and Fiscal Outlook, November 2017 – page 249

Overall impact of Brexit (2/2) – OBR assumptions

- The overall impact cannot yet be assessed properly because it is unclear what the UK's trading relationship with the EU will be.
- The Office of Budget Responsibility made an initial assessment in November 2016 to create a forecast of the public finances, but without any specific outcome in mind. OBR assumed:
 - UK leaves the EU in April 2019.
 - New trading arrangements with EU and others slows pace of import and export growth for the next 10 years.
 - UK adopts a tighter migration regime than that currently in place.
- In addition, the OBR judged that exiting the EU will lead to:
 - Uncertainty that will lead to some investment being postponed/cancelled, which reduces productivity growth;
 - Fall in the pound squeezes households' real incomes by pushing up import prices, adding almost 2 per cent to consumer prices over the next two years. Real earnings growth will fall close to zero in 2017;
 - The fall in the pound boosts net trade over two years, with UK exports more competitive and imports less attractive. This provides a temporary boost to GDP growth. Net trade is also boosted as weaker domestic demand reduces imports growth;
 - Reduced growth in exports and imports during the transition to a less trade-intensive economy; and
 - Lower net migration but not reduced to 'tens of thousands'.
- OBR also assumed that any reduction in payments to the EU are fully recycled into extra domestic spending but there are no exit settlements above existing forecast payments to the EU.

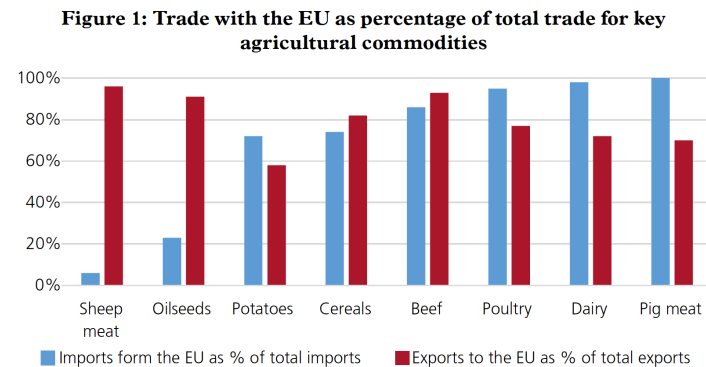
Source: Office of Budget Responsibility, Economic and Fiscal Outlook, November 2016 – pages 9 and 15

Brexit impact on agriculture and food (1/2)

Current situation

- UK does not produce enough food to feed itself. Indigenous food production is 61% of consumption (Defra - 2015).
- UK's trade in food and agriculture is tied to the EU:
 - 94% of the UK food shortfall is imported from the EU or countries with EU FTAs.
 - 80% of UK's agricultural exports go to the EU and 97% of food exports go to the EU or countries with which EU has an FTA.
 - UK receives c.€4bn a year in Common Agricultural Policy (CAP) payments (average of 2014-20 EU financial plan)
 - Agricultural and food production supply chains are integrated between EU and UK (e.g. with Republic of Ireland).
- EU food prices are higher than world market prices.
 - The average duty levied on food imports to the EU is 12.2%, EU average MFN tariffs, which vary considerably, are: on dairy products are 54%; on sugar 31%; and, on cereals 22%. Some items like cheese and wine are charged 30-40%, and some meats > 90%.

	Agriculture	Food manufacture
GVA (2015)	£10.8bn	£26.1bn
Workforce	440,000	400,000
EU workers*	27,000 permanent 73,000 seasonal	116,000
Exports (2015)	£18.0bn	
Imports (2015)	£38.5bn	
Trade deficit	(£20.5bn)	



Source: Agriculture & Horticulture Development Board, Brexit: implications for agriculture and trade (January 2017): <http://www.ahdb.org.uk/brexit/documents/SAOSBrexit26Jan17.pdf> [accessed 21 April 2017]

*Source: House Of Commons Library Briefing Paper, Migrant workers in agriculture, June 2017

Brexit impact on agriculture and food (2/2)

Some impacts of Brexit

- The Government's intends to preserve the EU's external tariffs after Brexit. Without these, the level of UK agriculture self-sufficiency would plummet. The NFU view is that :

"A potential unilateral lowering of British tariffs would be damaging"; "many UK farm businesses would be put at significant competitive disadvantage if current tariff barriers were removed or slashed without great care being taken to ensure a level playing field".

"Any Brexit outcome that results in the UK importing cheaper food would be hugely damaging to the farming, food and drinks sectors of Scotland and the UK"

- The farming industry's loss (with its consequences for employment) could be the food consumer's gain. With lower tariffs, UK food imports would be cheaper. However the devaluation of sterling (of about 20%) caused by Brexit has increased import prices, which would reduce and, in some cases, outweigh the impact of tariff reductions.
- Non-tariff barriers are important because they reduce the efficiency of the supply chain and create delays in time-critical processes. As the House of Lords notes:

"It is imperative that a UK-EU trade deal should avoid the imposition of tariffs on trade in both directions, to minimise the potential for disrupting those supply chains. Non-tariff barriers could be equally if not more disruptive to trade in agricultural products and food".

- The government has said that it will maintain the equivalent of EU CAP subsidies to the farming industry until 2020 but has not yet said what will happen after this. This uncertainty is delaying investment decisions.

Source: House of Lords, European Union Committee, 20th Report of Session 2016–17, HL Paper 169, Brexit: agriculture, May 2017

Brexit impact on financial and professional services (1/2)

Current situation

- UK financial services provided a trade surplus of £42.1bn in 2015. Professional services provides a surplus of £11.5 bn, making a total of £53.6bn.
- The financial services industry also contributed GVA of £120bn (7.2% of the UK total). Professional services contributed a further £66bn (3.9% of total). The tax contribution from financial services was £71bn.
- The UK industry is closely interlinked with the EU. For example, 5,500 UK-authorized firms hold passports to the Single Market; 8,000 EU-based firms use passports to access the UK market.
- 25% of UK financial services revenue is related to the EU (Oliver Wyman).
- EU migrants account for 17% of the combined workforce in both industries.

	Financial services	Professional services	Total
GVA (2015)	£120bn	£66bn	£186bn
Workforce	1.0m	1.2m	2.2m
EU workers	382,000		382,000
Exports (2015)	£50.8bn	£21.5bn	£72.3bn
Imports (2015)	£8.7bn	£10.0bn	£18.7bn
Trade surplus/(deficit)	£42.1bn	£11.5bn	£53.6bn
Tax contribution (2015/16)	£71bn	N/A	N/A

* Revised November 2016

Source: ONS employment statistics, ONS Pink Book (tables 3.5 and 3.8) and Oliver Wyman, The impact of the UK's exit from the EU on the UK-based financial services sector, 2016

The definition of professional services includes total legal, accounting and management consulting services. Part of these services does not relate directly to financial services.

Brexit impact on financial and professional services (2/2)

Some impacts of Brexit

- The October 2016 Oliver Wyman report concluded:
 - Because of the interconnectedness of the activities and firms, the effects of the UK's exit from the EU could be felt more widely than simply in business transacted directly with EU clients. If the UK moves to a third country status with the EU without any regulatory equivalence, the impact could be significant. Severe restrictions could be placed on the EU-related business that can be transacted by UK-based firms.
 - If the UK's relationship with the EU rests largely on World Trade Organisation (WTO) obligations, 40-50% of EU-related activity (approximately £18-20bn in revenue) and up to an estimated 31-35,000 jobs could be at risk, along with approximately £3-5bn of tax revenues per annum.
 - The knock-on impact on the ecosystem could result in the loss from the UK of activities that operate alongside those parts of the business that leave or close due to increased costs. An estimated further £14-18bn of revenue, 34-40,000 jobs and ~£5bn in tax revenue per annum might be at risk.
- Most major UK-based banks have now prepared their plans for a hard Brexit and are starting to implement them. The lead times required to implement complex changes in operations and technology mean that the banks cannot delay. See the Association for Financial Markets in Europe (AFME) report mentioned below for a detailed description of the complexities involved. As the two-year period to March 2019 is not long enough for many banks, AFME concludes that a further transition period of three years is needed
- At June 2017, Deutsche Bank has said up to 4,000 of its UK jobs could be moved to Frankfurt and other locations in the EU as a result of Brexit - the largest potential move of any bank. Goldman Sachs, JP Morgan and HSBC have each indicated that about 1,000 of their jobs will move. UBS has indicated 1,500 jobs.

Sources:

Oliver Wyman, The impact of the UK's exit from the EU on the UK-based financial services sector, 2016 (commissioned by City UK) – Executive summary

AFME, Planning for Brexit - Operational impacts on wholesale banking and capital markets in Europe, February 2017

Reuters (May 2017) <http://uk.reuters.com/article/uk-britain-eu-banks-idUKKBN184132>

Brexit impact on manufacturing (1/2)

Current situation

- Manufacturing makes up 9.8% of UK GVA, delivers 45% of UK exports, and directly employs 2.7 million people. The production of goods is also often closely intertwined with the provision of services, multiplying the importance of the manufacturing sector to the UK economy.
- The EU is the UK's biggest trading partner in goods. 47% of goods exported go to the EU (worth £134bn) ; 54% of goods imported come from the EU (worth £154bn).
- 11% of the manufacturing workforce is from the EU.
- The UK's manufacturing supply chain is closely integrated with the EU. UK imports contain a high proportion of intermediate goods (such as auto components) which go into goods (both finished and intermediate) produced in the UK, often for export. Nearly half of the UK's intermediate imports and exports are with other EU countries.* For example, around 60% of the parts that go into a UK-assembled car are not made in the UK and there is no domestic supplier. 80% of UK-assembled cars are exported.
- Integrated supply chains are finely tuned to be as efficient as possible. They have limited tolerance for delays, additional process steps (such as new documentation of origin requirements or customs checks) or additional costs.

Manufacturing	
GVA (2015)	£163bn
Workforce	2,700,000
EU workers	312,000
Exports (2015)	£285bn
Imports (2015)	£411bn
Trade deficit	(£126bn)

Sources:

Is the UK's role in the European supply chain at risk?, Bruegel Institute, December 2016

What does Brexit mean for the UK's automotive industry? Professor David Bailey, June 2016

ONS employment statistics

Brexit impact on manufacturing (2/2)

Some impacts of Brexit

- Three manufacturing sectors are crucial for the UK economy, accounting for half of the UK's non-food manufacturing value added: transport equipment, chemicals/minerals and electrical/optical equipment. Within transport equipment, the automobile sector is particularly relevant in terms of employment, with about 169,000 workers in auto manufacturing (according to the Society of Motor Manufacturers and Traders, over 800,000 work in the auto sector when related services and activities are included).
- A hard Brexit without a favourable trade agreement between the EU and the UK will affect UK automobile production extensively.
- Tariffs would be particularly damaging for sectors with a highly integrated EU supply chain, such as the automotive, chemical and pharmaceutical sectors—tariffs could be levied multiple times in the production process as sub-components and intermediate goods move back and forth across borders. In terms of tariffs, there would be less impact on other important manufacturing sectors, especially chemicals and minerals.
- Non-tariff barriers would have an important affect on all manufacturing sectors. Compliance with rules of origin requirements would introduce a significant additional administrative burden, with a particularly negative impact on sectors with a highly integrated EU supply chain.
- The devaluation of sterling assists exporters because their products are cheaper for foreign buyers, but imports of goods (including intermediate goods) are more expensive.

Sources: Is the UK's role in the European supply chain at risk?, Bruegel Institute, December 2016

<http://bruegel.org/2016/12/is-the-uks-role-in-the-european-supply-chain-at-risk/>

House of Lords, European Union Committee, 16th Report of Session 2016–17, Brexit: trade in goods, 14 March 2017

<https://www.publications.parliament.uk/pa/ld201617/ldselect/ldeucom/129/129.pdf>

SMMT, https://www.smmt.co.uk/wp-content/uploads/sites/2/SMMT-Motor-Industry-Facts-2016_v2-1.pdf

Brexit impact on aviation (1/2)

Current situation

Britain has the largest aviation network in Europe and the third largest in the world. The EU is the single biggest destination market from the UK, accounting for 49% of passengers and 54% of scheduled commercial flights. The chart below shows airlines' exposures to Brexit.

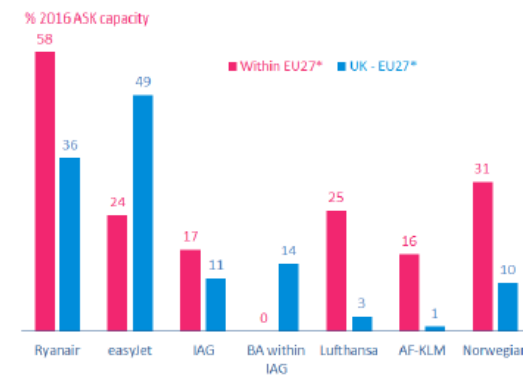
Traditionally, bilateral international aviation agreements are very restrictive e.g. specifying individual flight slots for specific airlines. By contrast, the EU arrangements are comprehensive and flexible: any British airline can fly anywhere in EU; sell tickets to anyone in the EU; fly to another member state and within it. In addition to market access, the UK participates in numerous technical programs to facilitate the movement of both passengers and cargo. Through the EU, the UK has secured deals with key countries across the world e.g. the EU-USA "open skies" agreement in 2008 enabling EU or US-based carriers to fly any transatlantic route between the two.

The Single European Sky is an EU initiative that sets common rules for the European Common Aviation Area (ECAA), which includes 36 countries, including Iceland and Norway. The European Aviation Safety Agency (EASA) deals with the safe operation of civil aviation including air traffic management, and aerodromes. EASA, whose standards are recognised worldwide, sets regulations for safe flying in Europe. EASA's approval is necessary for aircraft to fly and for airlines to operate. In 2015 the European Commission delegated greater powers to EASA to define regulation.

EU consumers have benefitted greatly from these initiatives. Fares across Europe have fallen markedly in real terms, with greater choice and competition and new routes across the EU. EU consumers have a common system of Passenger Rights. Airline passengers can claim compensation for delayed and cancelled flights anywhere in the EU. Airlines have a duty of care to delayed passengers and the needs of disabled passengers and others in need of assistance.

Aviation	
GVA (2015)	£52bn
Workforce (2015)	961,000
EU workers (estimated at 7.2% - national average)	69,000
Exports (2015)	£26bn
Imports (2015)	Tbc
Trade deficit	Tbc

Figure 5: Share of Intra-EU air capacity exposed to Brexit implications



Sources: OAG, Morgan Stanley Research. *EU27 = 28 member States less the UK.

Sources: <http://www.richardcorbett.org.uk/brexit-and-aviation/>, March 2017 ; IATA, The impact of 'BREXIT' on UK Air Transport, June 2016; CBI, Making a success of Brexit – Aviation. Bird& Bird, How will Brexit affect the airline industry from a regulatory perspective?, June 2017

Brexit impact on aviation (2/2)

Some impacts of Brexit

Unless the government negotiates a specific deal, the UK will be out of the European single aviation market at the end of March 2019. This would mean that there will be no legal right to operate flights to in the EU or anywhere else covered by the current EU-level framework. If the UK is forced to fall back on our previous bilateral agreements (e.g. the Bermuda agreements) it would only allow a restricted number of airlines and flights. (Note that there is no World Trade Organisation framework for aviation).

Brexit is unlikely to have a significant effect on EASA or the current European aviation safety regime. However, Brexit would deprive European airlines of automatic access to the UK aviation market, a market which undoubtedly is one of Europe's most important.

The UK would leave EASA and the regulatory and operational system, and would need to set up its own, unless it negotiates otherwise. There would also be significant implications for UK aerospace engineering and manufacturing, not least Airbus. The trade/single market related parts of any Brexit deal would be crucial for the UK (see also impact of Brexit on manufacturing).

For consumers, Brexit could undermine the right of British airline passengers to claim compensation for delayed and cancelled flights under EU consumer protection legislation. The aviation minister, has so far refused to pledge that the laws would remain in force after Brexit.

The UK could be excluded from the Single European Sky and SESAR (Single European Sky Air Traffic Management Research) programme, both of which seek to increase safety, efficiency and capacity while reducing delays within European airspace. Britain could lose its place at the negotiating table in shaping future regulation, undermining a sector where it enjoys international leadership.

Possible responses

The government will need to reach agreement with the EU27 on the air services market, or, failing that, secure a transition period pending negotiation of a new settlement. It must also seek something similar from third countries where we currently rely on the EU.

The UK could seek to remain a member of ECAA, to give access to the Single Aviation Market, but the UK would have to comply with the range of EU aviation law, but would no longer have any role in shaping new legislation. Securing agreement to fly to other EU countries from the UK should not be a problem, but it may be more difficult to secure continued rights for UK airlines to operate between other member states, or within them.

We could also seek to retain membership of the EASA. It is possible that only observer status will be on offer, if that, with diminished influence within it (although our influence is likely to diminish anyway as a non-EU member). But the alternative – of setting up our own separate agency and negotiating equivalency agreements, would be costly, needlessly duplicative and would take considerable time.

Airlines like EasyJet are already in the process of establishing new and separate operations outside the UK to ensure that they can continue to operate as now. This is an example of Brexit economic losses, similar to the way that banks are moving activities out of the UK.

Brexit impact on regions

- At a high-level, the firms that stand to lose the most from Brexit are those which:
 - Employ a large number of EU migrants;
 - Export a large amount to the EU; and
 - Export goods which are subject to high tariffs from the EU.
- The regions which stand to lose most from Brexit are those which:
 - Export a large amount to the EU;
 - Employ large numbers of EU migrants; and
 - Receive large amounts of funding from the EU.
- London is particularly reliant on EU labour, making it specifically at risk from any restrictions on migration.
- All regions are significant exporters to the EU, so they all face risks from leaving the customs union. However, Wales and the North East are most dependent on the EU for exports.
- Wales and Northern Ireland are likely to be worst affected by the loss of EU structural funds.

See Demos report for supporting methodology, detail and analysis.

Region	Risk from loss of EU workers	Risk from loss of exports of goods to EU	Risk from loss of EU funds
South East	Medium	Medium	Low
London	High	Medium	Low
East	Medium	Medium	Low
East Midlands	Medium	Medium	Medium
North West	Low	Low	Medium
Yorkshire and Humber	Low	Medium	Medium
West Midlands	Low	Low	Medium
South West	Low	Low	Medium
Scotland	Low	Low	Medium
North East	Low	High	Medium
Northern Ireland	Medium	Medium	High
Wales	Low	High	High

Source: Demos, Tom Startup and Claudia Wood, Making the most of Brexit, March 2017.

<https://www.demos.co.uk/project/making-the-most-of-brexit/>