



# Accuracy Brexit Index

Integration index between the UK and the EU

October 2019



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*As an international advisory firm present in 13 countries, Accuracy works all over the world on issues often linked to contemporary developments: technological breakthroughs, new globalisation balances, changes in uses.*

*The prospect of the United Kingdom's exit from the European Union is a major political and economic shock, the consequences of which for decision-makers are difficult to predict and interpret. This study proposes an intelligible framework to understand this ever-changing event. As a reflection of the firm's DNA, the Accuracy Brexit Index serves as a tool to grasp the real effects of Brexit: based on figures and in-depth analysis, it relies on the skills and rigour of Accuracy's teams; the fruit of a collaborative effort of different offices in the firm, it is strengthened by our international identity.*

*We are delighted to share this publication with you and hope that it will encourage much debate and inspiration.*

**Frédéric Duponchel**

# In brief

More than three years ago, in June 2016, the British public voted in favour of the UK's withdrawal from the EU. Since then, European and British political leaders have been struggling to find a way to respect the popular vote, whilst preserving the economies and societies of the two partners. Their difficulties can be explained by the high level of integration between the two economies, after several decades of development in the European domestic market.

Accuracy analysed the key economics that unite the two partners, corresponding to the four key freedoms guaranteed by the European single market: the free movement of goods, services, capital and people. The *Accuracy Brexit Index* combines these four elements in one aggregated index, the development of which makes it possible to monitor over time the process of (dis)integration of the two economies.

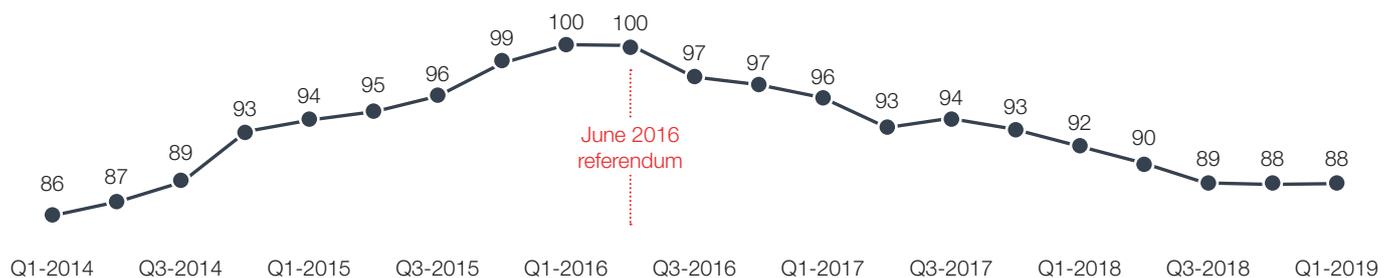


On this basis, five macro-trends stand out:

- A.** Whilst Brexit is still only a future destination towards which the UK is heading, relations with the EU – as measured by the *Accuracy Brexit Index* – have already deteriorated by 12%.
- B.** This effective drop in the level of integration between the two economies can be explained by the uncertainty generated by the 2016 vote. It primarily affects investment flows (13% decrease of the investments index) and migration flows (25% decrease of the migrations index).
- C.** Analysing the development of the exchanges between the two economies reveals two different dynamics. On one hand, the flows of capital and people are largely determined by economic agents' expectations and the level of predictability of economic policy. The psychological impact of the 2016 referendum in addition to the context of uncertainty immediately translated into a decrease in exchanges. On the other hand, the flows of goods and services only show a small decline since June 2016, driven by the fact that these flows depend on shorter-term cost trade-offs. The lack of change in trading conditions before Brexit takes place has made it possible to maintain a certain level of commercial relations.
- D.** Despite experiencing a drop in EU migration, we can already see migration flows into the UK rebalancing, with Asian populations replacing those flows which before came from the EU. This trend is expected to continue in the long term and can be explained by the considerable need for labour in certain sectors of the British economy. European immigrants have been replaced by Asian immigrants to such an extent that the total number of immigrants entering the UK has remained relatively stable.
- E.** It is probable in the long term, after the implementation of Brexit, that the short-term trends observed in the wake of the 2016 referendum will reverse: trade in goods and services is expected to decline structurally, whilst the uncertainty surrounding the terms of the UK's withdrawal will diminish and could ease constraints on investment. However, the level of investment is unlikely to reach its pre-Brexit levels, and migration flows from the EU will depend on new entry conditions. They, too, will be unlikely to reach their historical levels.

## Accuracy Brexit Index [Q1-2014 to Q1-2019]

Integration index between the UK and the EU



Source: Accuracy analysis

## A decline in relations even before Brexit

The Accuracy Brexit index shows that, since the referendum, relations between the British and European economies have already deteriorated, even though in mid-2019, Brexit is still only a future destination towards which the UK is heading



The Accuracy Brexit Index assesses the impact of the June 2016 vote on the bilateral relations between the UK and the EU based on the four freedoms guaranteed by the European single market



The intensity of the economic relations between the two partners can be measured based on the four freedoms guaranteed by membership of the single market: the free movement of goods, services, capital and people. The Accuracy Brexit Index combines these four elements in one aggregated index, the development of which makes it possible to monitor over time the process of (dis)integration of the two economies. The four measures used are the following:

- **Trade in goods integration index:** flows of imports and exports of goods between the UK and the EU, as a percentage of EU GDP (excluding the UK)

- **Trade in services integration index:** flows of imports and exports of services between the EU and the UK, as a percentage of EU GDP (excluding the UK)
- **Financial integration index:** value of foreign direct investment stocks in the UK held by EU economic agents, as a percentage of EU GDP (excluding the UK)
- **Migration integration index:** migration flows of European citizens into the UK as a percentage of total migration flows into the UK

These four sub-indices are then combined at 25% each to obtain the ag-

gregated index. The index is calculated using the end of June 2016 as the base figure, in order to measure the evolution of the relationship of the two partners since the referendum. The Accuracy Brexit Index, which is computed based on quarterly data, will be updated frequently so as to be able to study the impact of the vote over time. This index is not an econometric measurement of the isolated impact of Brexit; it captures more effects, notably the evolution of the world economy. However, the Accuracy Brexit Index offers a factual view on the deterioration of the relationship between the EU and the UK, which is mainly explained by Brexit.

**b**

The strengthening of the link between the two economies has been hit by a sudden halt since the referendum: between June 2016 and March 2019, the intensity of relations has deteriorated by 12%



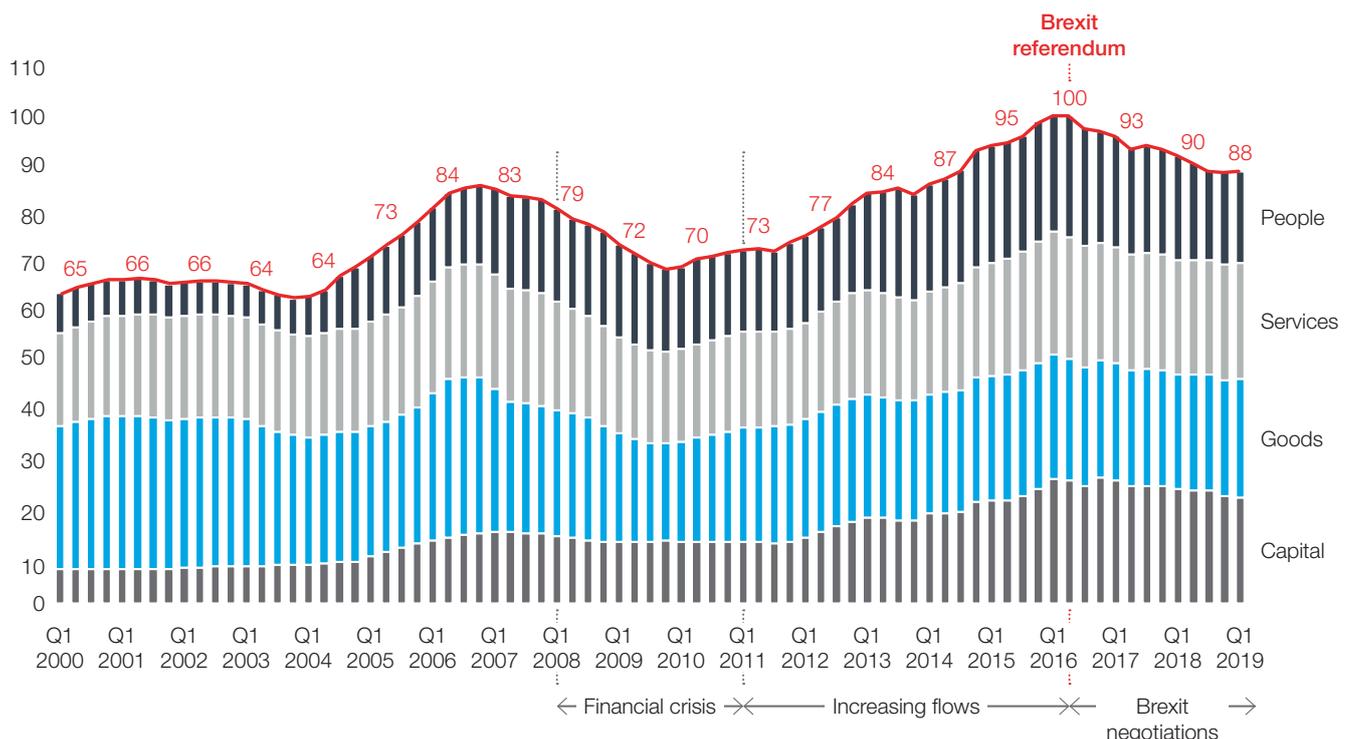
Heavily impacted by the 2008 financial crisis, mostly due to the fall in flows of goods and services and the freezing of FDI, relations between the UK and the EU returned to their pre-crisis level of dynamism from 2010 onwards. The *Accuracy Brexit Index* increases by 30 points between the beginning of 2010 and the date of the Brexit referendum, thanks to the recovery of trade, a boom in investment flows and a significant increase in migration flows, notably from Eastern European countries that

had recently joined the EU.

Since the June 2016 referendum, this increasing trend has reversed. The flows between the two partners have experienced a significant slowdown. At the end of March 2019, the *Accuracy Brexit Index* was down 12% compared with its level in June 2016, which serves as the reference point for the index, driven by the high level of uncertainty regarding the outcome of Brexit.

**Relations between the United Kingdom and the European Union have already deteriorated by 12% since June 2016**

Accuracy Brexit Index  
Index base 100 as of June 2016



Sources: European Central Bank (ECB), OECD, ONS, Eurostat, Accuracy analysis

## 2 The asymmetrical impact of the 2016 vote

The deterioration in relations is mainly due to a decrease in investments and migration flows, whilst trade in goods and services remain relatively stable

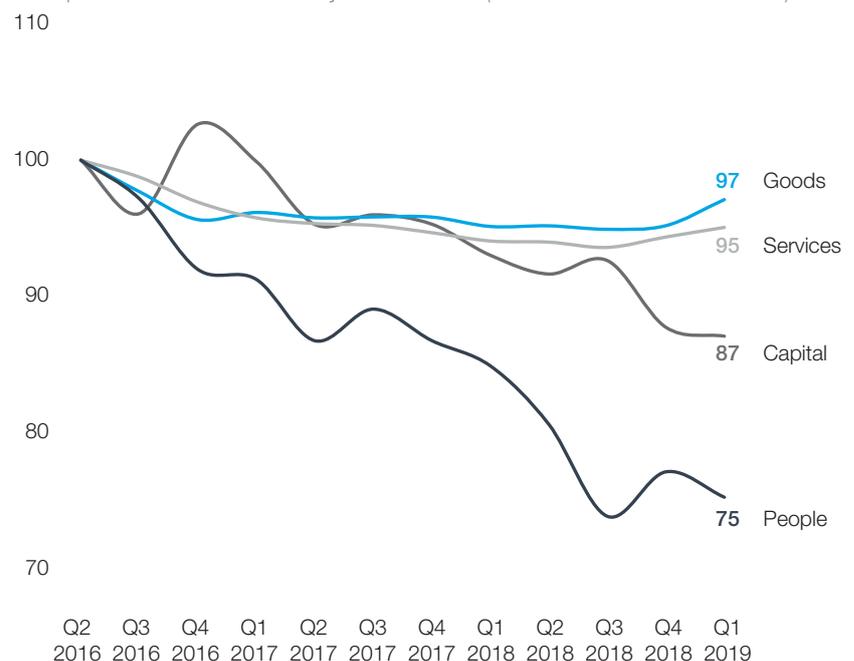


Analysing the development of the exchanges between the two economies reveals two types of flow, the dynamics of which are driven by distinct factors:

- The flows of capital and people are largely determined by economic agents' expectations and the level of predictability of economic policy. The psychological impact of the 2016 referendum in addition to the context of uncertainty immediately translated into a decrease in both flows.
- By contrast, the flows of goods and services depend on shorter-term cost trade-offs. The lack of change in trading conditions between the vote and the actual execution of Brexit has made it possible to maintain a certain level of commercial relations.

### Flows of people and investments are already impacted by the vote on Brexit. Conversely, flows of goods and services remained relatively flat

Components of the Accuracy Brexit Index (base 100 as of June 2016)



Sources: European Central Bank, OECD, ONS, Eurostat, Accuracy analysis



## Since the vote, investors have frozen certain investment decisions in the UK: the FDI index has decreased by 13% since June 2016

Historically, the UK has been a destination of choice for FDI. Between 2005 and 2015, the country attracted 5.6% of global FDI flows cumulatively, compared with only 1.9% in France and 2.4% in Germany. This can primarily be explained by the strong attractiveness of the country, with its deep, rich domestic market where a skilled labour force is easy to find. The entrepreneurial and innovative ecosystem is dense and the law is predictable and stable. However, for investors – particularly American investors – the UK also serves as the English-speaking and pro-business gateway to the European single market.

Belonging to the EU has played a significant role in the FDI flows coming into the UK, both for those coming from the EU as well as those from the rest of the world. In this way, as demonstrated by LSE researchers Dhingra, Ottaviano, Sampson and van Reenen (2016)<sup>1</sup>, the UK's membership of the EU has increased FDI by 28% since 1976, not only with the countries in the EU, thanks to the removal of customs barriers and tariffs, but also with countries outside the EU, which invest in the UK to gain access to the European market.

Investments are long-term decisions that are made based on financial and strategic analyses aiming to evaluate the return on capital invested over a long period. Therefore, given the irreversible nature of these decisions, investors are more likely to play the waiting game in a context of uncertainty. Indeed, in the event of an error, investors would have to bear the costs associated with production overcapacity, whereas waiting could provide useful information. Waiting, therefore, has a positive value: the option value of the investment. If this option is lost, it represents an opportunity cost in addition to the investment cost (Dixit, 1992<sup>2</sup>). Today, this opportunity cost is higher in the UK.

The current halt in FDI from the EU can therefore be explained in part by the uncertainty created by Brexit, in the sense that the conditions to be put in place after the UK's withdrawal from the EU are still unknown. Return on investment will be heavily affected by the future trading conditions applicable to flows between the UK and the EU. We still do not know whether the UK will follow WTO rules ("most-favoured-nation" clause) or whether the two partners will

able to negotiate more favourable trade terms.

This slowdown in European FDI in the UK is part of a global context that is not conducive to transnational investment flows. However, the impact of Brexit is important: the pace of European investment in other regions of the world, except the United States (the US presidential election of 2016 has affected the economic relations between the two areas), remains relatively stable over the same period.

### Notes

1) *The impact of Brexit on foreign investment in the UK*, <https://cep.lse.ac.uk/pubs/download/brexit05.pdf>

2) *Investment and hysteresis*, Avinsh Dixit (1992)



## European citizens who considered migration have given up settling in the UK: the migration index decreased by 25% between June 2016 and March 2019

Similarly to the FDI, migration flows are based on long-term decisions that require knowledge of the socio-economic environment of the destination country, particularly, in this case, the status that will apply to European citizens settled in the UK once Brexit is effective.

Since the 2016 vote, the movement of people between the UK and the other countries in the EU has remained governed by European rules – and therefore free of restriction. No measures have been taken to put an end to this freedom of movement prematurely. However, the migration flows between the EU and the UK have changed significantly:

- On one hand, the flows of EU citizens migrating to the UK have decreased significantly (284,000 over the 12 months before Brexit, against 200,000 over the 12 months Q2-

2018 to Q1-2019, i.e. a decrease of 30%).

- On the other hand, the flows of European citizens leaving the UK have increased (from 95,000 before the vote to 141,000 over a rolling 12-month period at the end of March 2019, i.e. an increase of 48%).

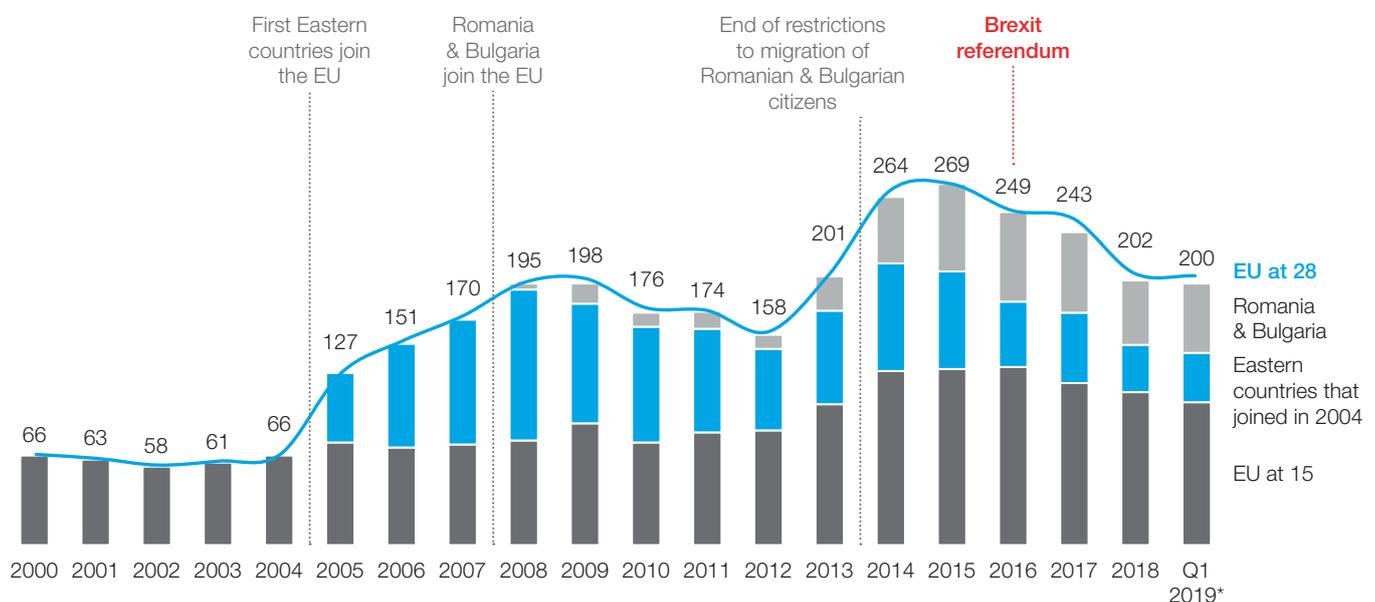
Globally, net migration of European citizens to the UK has drastically declined since the June 2016 vote, from +189,000 to +59,000. At the end of March 2019, European immigrants represented only 33% of total immigration flows into the UK, against 43% at the end of 2015.

This decline in migration flows between the UK and the EU is all the more striking considering that immigration of EU citizens into the UK has been significant for the past 20 years, and particularly

between 2011 and 2016. Similarly to the FDI flows, migration flows into the UK had been influenced on one hand by the attractiveness of the UK, through the fluidity of its labour market – more open to foreign nationals thanks to the English language – and more generally through the dynamism of the British economy (2.0% average growth between 2011 and 2017 compared with 1.5% in the rest of the EU). In parallel, migration towards the UK was supported by European policies: the free movement of people within the European single market facilitated flows, and, at the same time, new countries entered the EU in 2004 and 2007, which further increased existing flows. Furthermore, the new member states of the EU in general had lower salaries than in Western Europe, thus encouraging migration to the more developed countries.

## European immigration to the UK has increased sharply from 2004 onwards, due to the integration of Eastern European countries in the European Union

Number of long-term migrants from the European Union to the United Kingdom [thousands]



Sources: ONS

\* Last twelve months as of March 2019

Immigration from Eastern European countries therefore represented more than 52% of European migration into the UK between 2005 and 2015. This mostly involved countries that joined in 2004 (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia), then, from 2014, countries that joined in 2007 and whose migrants were authorised to enter the UK freely in 2014 after a seven-year restriction period (2007–2014). These intra-European flows considerably influenced the profile of immigration in the UK: Polish people now represent the largest foreign community living in the UK, with one million immigrants, overtaking the Indian community.

The influx of Eastern European workers to the UK since the early 2000s was a driver in the Brexit campaign. Leave supporters denounced the competition from Eastern European workers for British workers, a key point in their argument (70% of Europeans that migrated to the UK settled primarily for professional purposes in 2017). In their opinion, Eastern European migrants

have a negative impact on salaries and “[put] unsustainable pressure on our vital public services”<sup>3</sup>, in the words of the current prime minister, Boris Johnson. The question of immigration was the subject of debate throughout the campaign, to the point of being considered as the main reason for the vote to leave the EU by one quarter of leave voters on 23 June 2016, according to a study by the research institute ICM Research.<sup>4</sup>

The Brexit campaign with regard to EU immigration is one of the key drivers for the decline in migration flows from European citizens following the referendum. It brings additional uncertainty to the future status of EU immigrants in the UK once Brexit takes place. This future status depends on the length of time spent on British soil: Europeans living in the UK for less than five years – approximately 30% of Europeans in the UK in 2016 – must request, since 1 January 2019, “pre-settled status” (equivalent to a temporary residence permit), creating a degree of uncertainty in terms of being able to convert it to “settled status”

(equivalent to a permanent residence permit) in the future. The implementation of this system also weighs heavily on the flows of Europeans leaving the UK. However, for now, no statistics are available to understand the profile of those leaving.



## By contrast, the flows of goods and services have only been marginally affected at this stage

Trade flows between the UK and the EU have seen little impact. The index on goods decreased by 3%, whilst the index on services decreased by 5% between June 2016 and March 2019.

The lesser impact of the vote on trade can be explained by the shorter-term nature of the determinants of these flows compared with the investment or migration flows. The decision to import goods from the UK rather than from another country depends mostly on the

trading conditions in place between the two countries when the parties make an agreement.

However, the Brexit vote, by giving rise to uncertainty surrounding the trading conditions to come between the UK and the EU, may have incited the European partners of British businesses to modify certain supply channels in advance, in order to protect themselves from the negative impact of changes in the tariff and non-tariff rules that govern

trade between the two zones. Nonetheless, the ultimate impact on British exports remains limited at this stage, as they have benefitted from the fall in pound sterling (17.5% fall between December 2015 and March 2019) and a favourable economic context between 2016 and 2018.

### Notes

3) Boris Johnson quote reported by the BBC (17 June 2016): <https://www.bbc.com/news/uk-politics-eu-referendum-36058513>

4) <https://whatukthinks.org/eu/questions/what-was-the-main-reason-why-you-decided-to-vote-for-the-uk-to-leave-the-eu>

### 3 Towards a new post-Brexit balance

Once the Brexit conditions have stabilised, adjustments to economic agent expectations will lead to a new balance in investment and migration flows; flows of goods and services are, by contrast, expected to structurally reduce due to the new trading conditions.



#### Migration and FDI flows will find a new balance, undoubtedly at a lower level

Investment and migration decisions depend on agents' long-term expectations, which are based on the credibility, stability and predictability of economic policy. Once the conditions to leave the EU are finalised, certainty can again be found and stability is expected to improve long-term expectations.

The UK is not expected to lose all attractiveness by leaving the EU. It will remain a country that is economically strong, innovative and attractive, so much so that a new balance will be found, both by investors and candidates for migration. However, it is likely that the level of this balance will be lower than what it was before the June 2016 vote.

In this way, in terms of migration flows, the number of European citizens migrating to the UK will reduce, particularly given that the British government seems determined to put an end to the free movement of people with the EU from 1 January 2021, as it indicated at the end of August 2019.

In terms of investment flows, the period of uncertainty may continue for several years, with a potentially lasting impact on British economic growth. According to a survey quoted by the Bank of England's Monetary Policy Committee in June 2019<sup>5</sup>, more and more businesses consider that the uncertainty caused by Brexit will continue for several years:

approximately 30% of the businesses surveyed judge that the uncertainty will extend beyond 2020, which risks having a lasting impact on investment and therefore the production capacities of the country.

#### Notes

5) Bank of England, Monetary Policy Summary and minutes of the Monetary Policy Committee meeting ending on 31 July 2019





## Since the vote, Asian immigration has replaced some of the immigration from the EU. This trend should continue in the future

Since the Brexit referendum, an unexpected migration trend has been identified: immigration from Asian countries has increased significantly in the last 12 months (+63,000 immigrants compared with 2014 flows), in similar proportions to the decrease in European immigration into the UK (-69,000 immigrants over the same period). Immigration from European countries has been somewhat replaced by immigration from Asian countries, particularly from south Asia.

This can be explained by the considerable need for labour in certain sectors of the British economy. In the transport

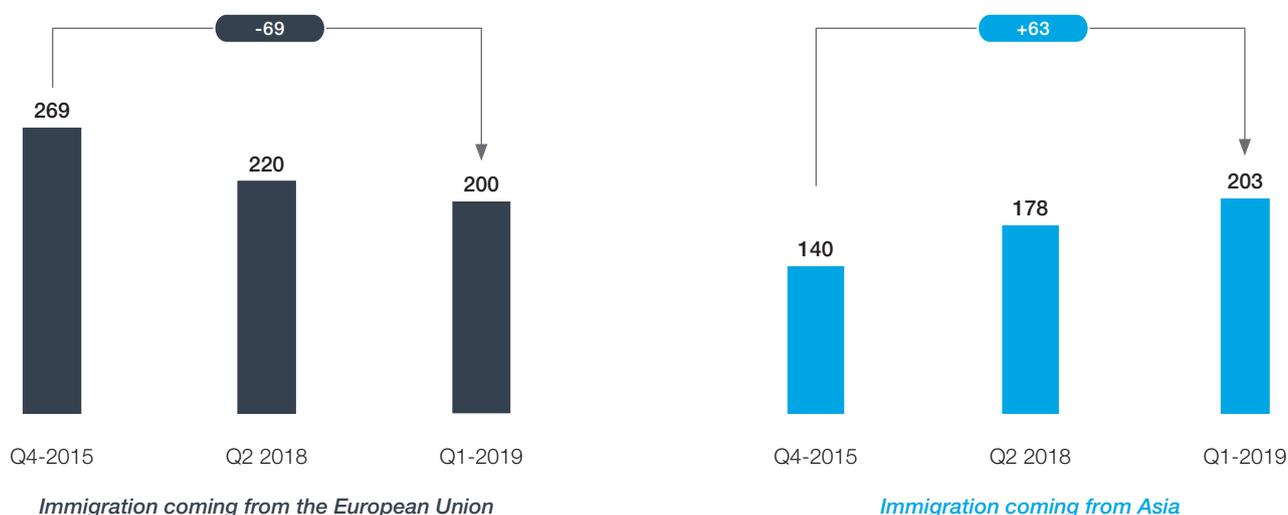
or hospitality sectors, foreign workers represent more than 25% of the total. In the manufacturing industry, they represent 18%, of which 11% are Europeans, whilst the rate of unemployment stood at only 2.7% at the end of March 2018.

In this context, the decrease in European migrants coming into the UK, combined with the increase in the number of Europeans leaving the country, raises the question for businesses in these sectors of whether they can meet their need for labour. This explains the use of foreign workers, mostly from Asia, as substitutes.

The Brexiteer promise to reduce European immigration has therefore been kept before Brexit has even taken place. However, British voters certainly would not have anticipated that European immigrants would be replaced by Asian immigrants, and that the total number of immigrants entering the UK (612,000 in the 12 months to the end of Q1 2019 against 631,000 in 2015, according to the ONS) would barely be affected by the reduction in flows from Europe.

### Increasing immigration from Asia has compensated the decreasing immigration from the EU to the UK. Overall, total inward migrants from Asia and the EU to the UK remained stable over the period 2015-2019

Number of long-term migrants over the last twelve months [thousands]



Source: ONS



The increase in tariff and non-tariff barriers is expected to reduce trade flows and cause a lasting decline in British purchasing power

Trading conditions between the EU and the UK after its effective withdrawal will undoubtedly be less favourable than the conditions in place for trade between EU members. This will be the case because, even if the two partners agree to eliminate tariffs between them, non-tariff barriers, in particular the standards applied to traded goods and services, will necessarily reappear. Moreover, the reintroduction of customs controls at the border between the UK and the EU will impose new constraints on trade between the two zones, which will raise the prices of the traded goods. Therefore, the new balance that will be found

will have a lasting negative impact on trade.

The consequence of this new balance is twofold: on one hand, the price of products imported into the UK from the EU will increase; on the other hand, competition in the British domestic market will decrease. This second aspect is all the more damaging for the UK as British trade with the EU is intra-sectoral. The EU and the UK trade goods and services of the same nature, increasing competition in their domestic markets by putting competitive pressure on national producers, thus

promoting innovation and productivity gains.

Looking back over a long period of time, this breakdown in economic relations between the UK and the EU is in stark contrast to the historical trend towards the integration of the European and world economies, resulting from several decades of increasing globalisation.



The June 2016 vote came in a period where relations between the EU and the UK are deepening, under the combined effects of intensifying international flows on a global scale and the development of the domestic market on a European scale

**a** On a global scale, transnational, economic and migratory flows have continued to grow since the beginning of the 21st century, despite the financial crisis

Flows between the UK and the EU cannot be analysed independently of the dynamics of globalisation, which have accelerated since the early 2000s, despite the economic slowdown that followed the 2008 financial crisis. The deepening relations between the UK and the EU are set against a backdrop of increasing interdependence of economies and societies. Indeed, the optimisation of value chains and the reallocation of savings at a global level have led to an increase in trade of goods and services, an increase in investment flows from economic agents to foreign countries and an increase in international migration.

Between 2000 and 2015, the share of world trade in wealth production increased (from 18.6% to 21.8% for goods; from 4.5% to 14.8% for services), as did the share of foreign direct

investment in GDP (from 22% to 35%). Under these combined effects, societies have also started to merge together, to such an extent that the number of people living in a country other than their country of nationality has grown, from 2.8% of the world population in 2000 to 3.3% in 2015.

This global trend towards exchange found in the EU a regional manifestation of unprecedented scale: European countries did not just remove customs barriers and tariffs; they achieved together the integration process theorised by Balassa (1961)<sup>6</sup>, to the point of pooling some of their normative powers.

The EU, which the UK joined in 1973, has heavily influenced the integration of its members into globalisation.

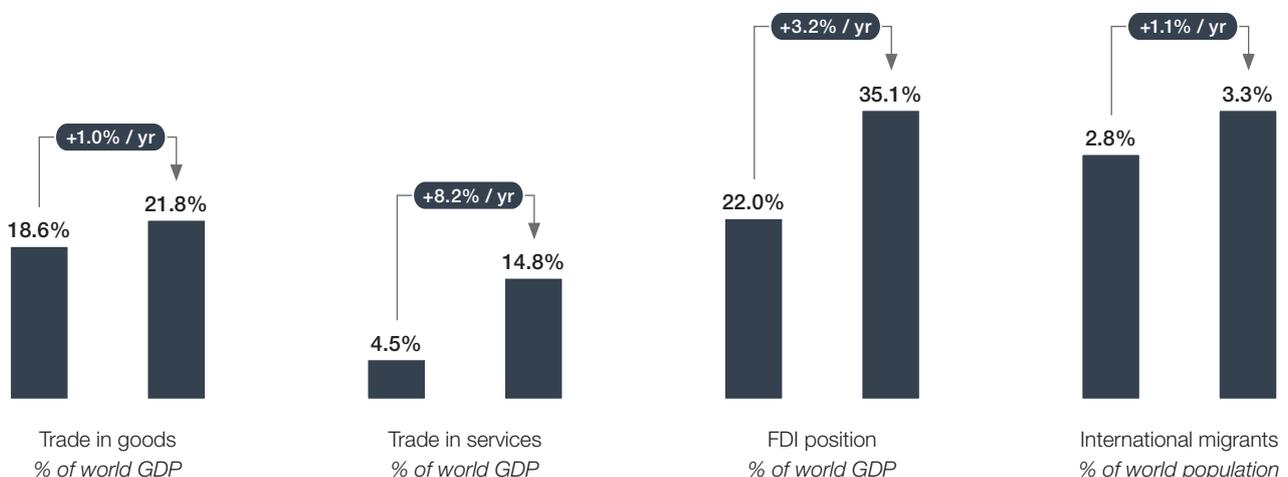


**Notes**

6) Balassa, *The theory of economic integration*, 1961

## Globalisation has increased international flows between countries [2000-2015]

Flows of goods, services and foreign investments as a % of world GDP. International migrants as a % of world population



Sources: World Bank, UNCTAD



## British flows have naturally been orientated towards the EU due to the increasing integration of the single market

British foreign trade has been marked by the European project, which has given rise to a single market where goods, services, capital and people can move freely across the national borders of its member states.

The volume of the reciprocal flows between the UK and the EU has grown as the single market has matured, thanks to the advantages that it offers to economic agents, such as:

- The removal of customs barriers and tariffs, which reduces the price of foreign products for national consumers and therefore encourages their consumption;

- The harmonisation of standards, which facilitates trade by reducing product adjustment costs and administration costs.

These two advantages combined enable European companies to optimise their supply chains at a European level, without any constraints with regard to regulations or tariffs. This makes it possible to put in place business structures conceived on a European scale, increasing intra-European transnational flows.

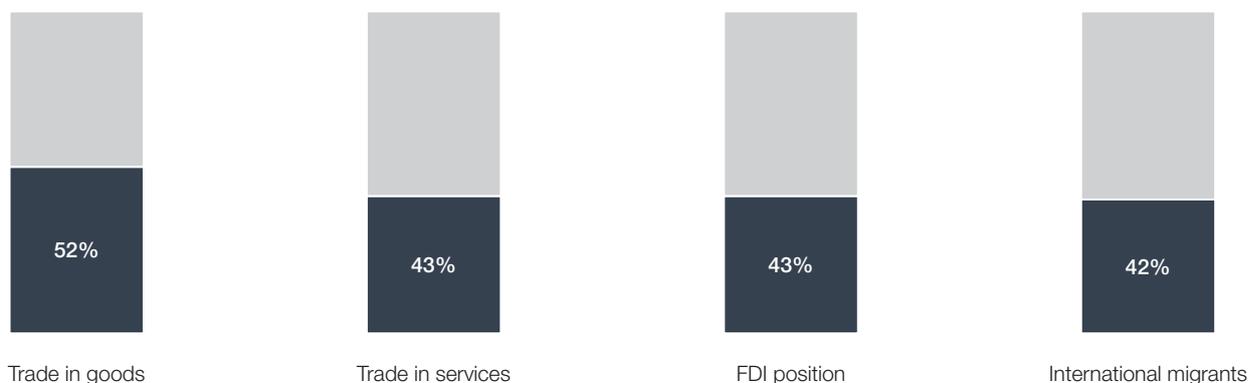
As a result, the EU is, by far, the UK's top business partner. In 2015, the EU represented over half of the goods ex-

ported by the UK, and 43% of services. European investors held 43% of foreign direct investment (FDI) stock, and 42% of immigrants settling in the country were EU citizens. This interdependence is particularly pronounced in certain key economic sectors: the pharmaceutical, automotive and financial industries.

In this regional and global context, Brexit is seen as an abrupt ending, similarly to the new direction of US trade policy. A new cycle of globalisation has likely begun, and the new global balances that are emerging are still uncertain.

### In 2015, the EU represented almost half of UK flows with foreign countries

Share of flows with the EU as % of UK flows with foreign countries: goods, services, FDI, migrations



Source: ONS

## Conclusion

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Ultimately, we are likely to witness in the long term, once Brexit has taken place, a reversal of the short-term impacts identified in the wake of the 2016 referendum: trade in goods and services is expected to decline structurally, whilst the end of uncertainty surrounding the withdrawal conditions could

ease the constraints on investments. These investments will be unlikely, however, to return to their pre-Brexit level of dynamism, and the ratchet effect on potential growth in the current period of underinvestment could leave a lasting impact. As for migration flows from the EU, they will depend on new entry

conditions and, in all probability, will not return to their historical levels. Monitoring the evolution of the *Accuracy Brexit Index* will make it possible to keep track of these emerging trends.



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