



## BRIEFING PAPER

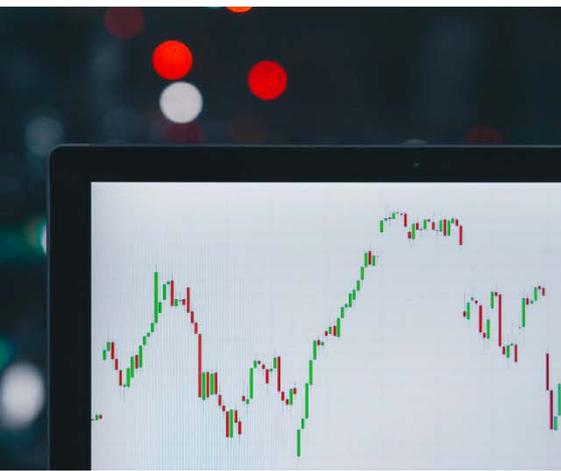
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# Brexit deal: Economic analyses

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## Summary

What are the ways in which Brexit could affect the economy? And what do studies of the potential impact of Brexit on the economy over the short- and long-term show? This briefing answers these questions and provides summaries of the Government's and Bank of England's economic analyses of Brexit, including the assumptions and scenarios used.

### Future trade arrangements are important

Brexit and the terms of the new UK-EU relationship could affect many different aspects of the UK economy, including trade and investment, immigration, regulations and EU budget contributions.

The UK's future trading arrangements with the EU – the UK's largest trading partner – and the rest of the world will likely play a crucial role in determining Brexit's economic impact. At present, the UK is in the EU Single Market and Customs Union ensuring very low barriers to trading within the EU. Most economic research suggests that Brexit will lead to higher trade barriers with the EU. The degree to which this is the case is uncertain and will depend on the shape of the future trade relationship, yet to be determined.

As well as the Withdrawal Agreement setting the terms of the UK's departure, the UK and the EU have agreed the Political Declaration which sets the basis for negotiations on the future relationship, including on trade. The Political Declaration is not legally binding and allows for a relatively broad range of trade outcomes to ultimately be agreed.

Generally speaking, previous economic modelling exercises from the government and others show that the higher the cost of trading with the EU (via tariffs and non-tariff barriers), the larger the negative impact on the UK economy. In other words, a scenario where the UK leaves without a trade deal with the EU and reverts to 'WTO rules' is likely to result in UK economic output (GDP) being lower in the long-term than a scenario where there are fewer barriers to UK-EU trade, such as in a comprehensive free trade agreement.

These "losses" could be mitigated by agreeing new trade deals with other non-EU countries and from other policy areas (such as growth-enhancing changes to regulation for instance). However, the vast majority of economic studies show that these potential benefits do not make up for the higher trade barriers with the EU (given its importance to the UK).

### Government's long-term economic analysis

Ahead of the 'meaningful vote' in the House of Commons on whether to approve the Withdrawal Agreement and Political Declaration, the Government [published](#) its analysis of the long-term impact of Brexit on the economy on 28 November 2018. It compares how big the economy is estimated to be – as measured by GDP – in five different future trading scenarios relative to a 'baseline' scenario of the UK staying in the EU. This is not a forecast as such as it doesn't look at all the factors that affect GDP, just those related to Brexit.

The five scenarios are:

- **Government's proposed deal ('Chequers')** – based on the Government's July 2018 White Paper and its preferred option. In this scenario, the UK is essentially in a customs union with the EU. Barriers to trade with the EU are fairly limited.
- **'Chequers minus'** – similar to the 'Chequers proposal' but incorporating greater trade barriers with the EU. Many commentators argue this is more in line with the

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parameters of the Political Declaration and therefore a more realistic outcome of a future UK-EU trade deal.

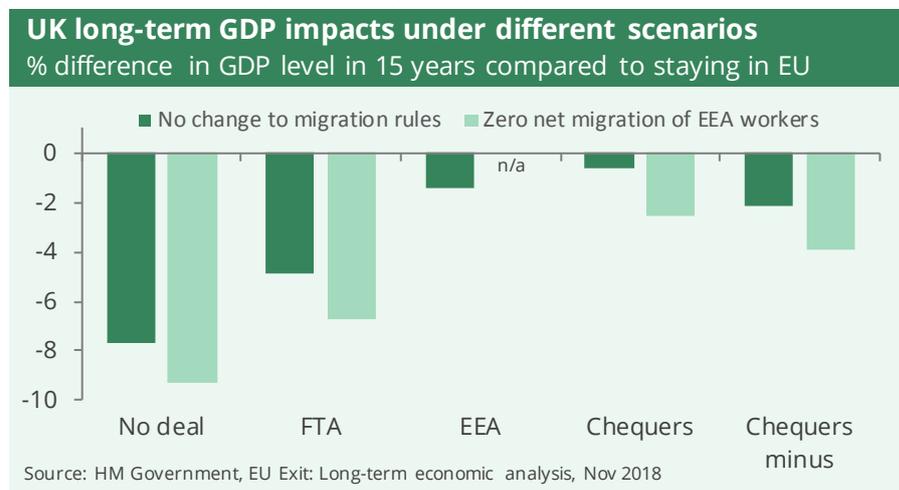
- **EEA (European Economic Area)** – where the UK is a member of the EEA inside the Single Market (including free movement of people) but not in a customs union with the EU.
- **Free Trade Agreement (FTA)** – a scenario where the UK and EU sign a free trade agreement. It is assumed there are no tariffs on goods and non-tariff barriers are equal to those in an average trade deal with the EU.
- **No deal** – the future UK-EU trade relationship is based on World Trade Organisation (WTO) rules, rather than a bilateral trade deal.

The Government do not use the terms 'Chequers' or 'Chequers Minus', instead referring to a 'White Paper' scenario. The Government assessed all five scenarios listed above with two different migration assumptions, neither of which is Government policy:

- **No change to rules** – this assumes the current projected flow of EEA workers with no policy changes.
- **Zero net migration from EEA** – assumes that there is no net migration of workers from EEA countries.

### Impact on GDP

Each of these scenarios is compared with a 'baseline' scenario of the UK remaining in the EU. **The main outcome of the analysis is that the higher the barriers to UK-EU trade, the lower GDP is.** This is in line with other studies examining the potential impact of Brexit on the economy.



The results show that of the five Brexit scenarios modelled, the Chequers outcome leads to the smallest long-term negative impact on GDP, compared with staying in the EU.

Under the more restrictive migration scenario, Chequers Minus results in GDP being 3.9% lower – this figure has been used by some economists and commentators as the scenario closest to what is contained in the UK-EU Political Declaration.

UK long-term GDP impacts under different trade scenarios					
% difference in GDP level in 15 years compared with staying in the EU					
	No deal	FTA	EEA	Chequers	Chequers minus
No change to migration rules	-7.7	-4.9	-1.4	-0.6	-2.1
Zero net migration of EEA workers	-9.3	-6.7	n/a	-2.5	-3.9

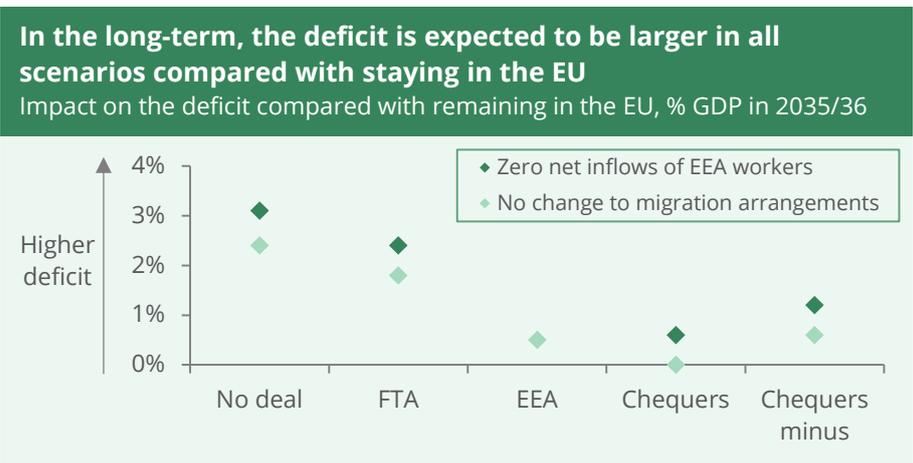
Chequers refers to the July 2018 White Paper  
 Source: HM Government, EU Exit: Long-term economic analysis, Nov 2018

The biggest single influence on GDP comes from non-tariff barriers to trade. This includes regulatory and administrative requirements that make it more difficult for businesses to export and import goods and services.

**Public finances**

The Government’s analysis also looked at how each scenario impacts on the government’s annual deficit, which is the difference between the government’s total spending and revenues from tax and other sources. Under each scenario, the Government estimates that the deficit will be larger compared with staying in the EU in the long-term. The deficit is expected to rise most significantly in those scenarios that introduce the greatest UK-EU trade friction. Scenarios which introduce fewer barriers to trade are estimated to have less of an impact on the deficit.

The Government’s analysis finds that in each scenario assuming lower migration leads to a higher deficit.



The Government’s analysis considers both areas that directly impact on the deficit – such as the savings made from no longer paying into the EU as a member state – and those related to the changes in the size and structure of the UK economy, which indirectly impact on the deficit. The Government’s analysis suggests that the economic impacts of the UK leaving the EU are likely to be the most important for determining the impact on the deficit.

**Regional analysis**

The Government’s analysis models the long-term impact of Brexit on the GDP of the regions and countries of the UK. This only considers the trade impact of Brexit and does

not cover other potential channels by which Brexit could affect the economies, such as migration.

The same trade scenarios are used as for the UK, ranging from no-deal to Chequers as described earlier. For all scenarios, like in the UK analysis, the no-deal scenario results in the largest negative impact on economic output, while the Chequers scenario results in a relatively small negative impact compared with staying in the EU (apart from in Scotland where there is no difference).

### Bank of England's short-term economic analysis

In response to a request from the Commons Treasury Select Committee, the Bank of England [published](#) analysis of different short-term scenarios relating to Brexit on 28 November 2018.

The Bank's analysis looks at two broad Brexit scenarios involving: (i) a deal and (ii) no-deal and how these might affect the economy over the next five years (up to the end of 2023). Each of these scenarios themselves have two different variations within them.

Under the two "deal" scenarios:

- In the **"close relationship" scenario GDP would be 1¾% higher** by end-2023 compared to current Bank forecasts.
- In the **"less close relationship" scenario GDP would be ¾% lower** by end-2023 compared to current Bank forecasts.

Under the two "no-deal" scenarios:

- In the **"disruptive no-deal Brexit" scenario GDP would be 4¾% lower** by end-2023 compared to current Bank forecasts.
- In the **"disorderly no-deal Brexit" scenario GDP would be 7¾% lower** by end-2023 compared to current Bank forecasts.

GDP is also compared to a pre-referendum trend path of GDP estimated by the Bank. This captures the impact of Brexit on the economy since the referendum, which the Bank believes has resulted in lower GDP growth than would have been expected following a 'Remain' outcome. In this comparison GDP at the end of 2023 is lower in all scenarios than this pre-referendum trend path.

The Bank's analysis states that the worst case scenario of a disorderly no-deal would mean GDP falling by 8% at its lowest point, a greater decline than during the financial crisis. In addition, unemployment would peak at 7.5%, inflation would peak at 6.5% and sterling would fall by 25%.

# 1. The ways Brexit could affect the economy

Brexit and the terms of the new UK-EU relationship could affect many different aspects of the UK economy. Analysis and economic modelling that is used to estimate the overall impact generally focus on a few broad areas that Brexit will likely affect the most. These are usually: trade and investment, immigration, regulations and EU budget contributions. This section provides a broad overview of how Brexit might affect these issues and therefore the economy as a whole. It is therefore not an examination of current developments and government policy.

## 1.1 Trade and investment

The UK's future trading relationships with the EU and the rest of the world will have a crucial role in determining Brexit's impact on the UK economy. At present there is uncertainty as to what these relationships will look like.

### UK-EU trade

The Political Declaration agreed between the UK and EU describes some broad parameters and intentions of what their future trade relationship could look like. This document is not legally binding and allows for a relatively broad range of outcomes to ultimately be agreed.<sup>1</sup> If the Brexit deal is approved then full trade negotiations will begin following Brexit.<sup>2</sup>

Whatever the ultimate outcome, it is likely that the new UK-EU trade relationship will make it more difficult for UK companies to trade with the EU and for EU companies to trade with the UK, compared with EU membership. The degree to which this is the case will depend on the type of trade relationship that is negotiated.

This is because being a member of the EU means being part of the single market and the customs union, which lowers and removes many trade barriers – for instance by providing regulatory harmonisation and very minimal customs checks between EU countries. Even a scenario where the **UK remains in the single market** – sometimes referred to as the 'EEA' or 'Norway' option – would entail leaving the customs union and lead to increased compliance costs related to 'rules of origin' rules (these check where a product has come from).<sup>3</sup>

A scenario where the **UK remains in a full customs union** with the EU would still see new non-tariff barriers (NTBs) being created. This would hinder trade between the UK and EU (see below for a description of NTBs). Although it should be noted that the UK and EU would start from the same place in terms of regulations.

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<sup>1</sup> [Political Declaration setting out the framework for the future relationship between the European Union and the United Kingdom](#) [accessed 3 December 2018]

<sup>2</sup> For more information see Library Briefing paper, [The Political Declaration on the Framework for Future EU-UK Relations](#), 30 November 2018

<sup>3</sup> For more see Institute for Government, [Rules of Origin explainer](#)

In a scenario where the UK leaves the single market and customs union but negotiates a **comprehensive free trade agreement** with the EU, the UK is very unlikely to get the same level of access to the EU market as it does as an EU member.<sup>4</sup>

Additional barriers to trading will probably mean that UK trade with the EU will be lower than if it was still a member. With the EU being the UK's largest trading partner – 44% of UK exports go to the EU and 53% of UK imports come from the EU – any change in the UK's level of trade with the EU will have important implications for overall UK trade levels.<sup>5</sup>

### Trade with non-EU countries

As a member of the EU customs union, the UK currently does not operate its own independent trade policy and can't negotiate trade agreements separately from the EU. The EU has trade agreements with around 70 countries. The UK is currently in the process of seeking agreement with all these countries in order to roll over, or continue, these trade deals.<sup>6</sup>

In leaving the EU, and in particular the customs union, the UK will be able to sign its own free trade agreements as part of a new independent trade policy. The UK Government has developed an export strategy which aims to boost UK exports, partly by pursuing new trade opportunities around the world.<sup>7</sup>

By being able to negotiate on its own, the UK may be able to negotiate deals more quickly than the EU does and in ways that are more beneficial to the UK economy. Set against this is the fact the UK is a much smaller economy than the EU – UK GDP is around one-fifth the size of the EU excluding the UK – and will therefore likely have less bargaining power in trade negotiations.

### Barriers to trade

We can divide barriers to trade into two categories. The first is **tariffs on goods**. These are effectively taxes on imported products, which differ depending on the type of product and the country it is imported from. There are no tariffs on any goods traded between EU member states.

Regarding the future UK-EU trade relationship, if this is based on World Trade Organisation (WTO) rules – a 'no-deal' scenario – tariffs would be applied on many UK goods sold in the EU. In this situation the UK would be free to set its own tariff rates, but would have to follow the WTO's most-favoured nation (MFN) rules which state the same tariffs need to be applied to all countries that it does not have a trade deal

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<sup>4</sup> House of Lords European Union Committee, [Brexit: the options for trade](#), 5<sup>th</sup> Report of 2016-17, HL Paper 72, 13 December 2016, para 163

<sup>5</sup> For more statistics see Library Briefing Paper, [Statistics on UK-EU trade](#)

<sup>6</sup> HM Government guidance, [Existing free trade agreements if there's no Brexit deal](#), 12 October 2018

<sup>7</sup> HM Government, [Export Strategy: supporting and connecting businesses to grow on the world stage](#), August 2018

with. Some economists advocate the UK unilaterally removing all tariffs in this circumstance.<sup>8</sup>

Tariffs may also apply to some products following a free trade agreement, although the Political Declaration states that a UK-EU deal will result in there being no tariffs. There would be no tariffs if the UK remained in the single market (the 'EEA' or 'Norway' scenario) or a full customs union.<sup>9</sup> (It should be noted that EU tariffs on imports are on average low at 3.0%, although are high for some products, e.g. agricultural goods.<sup>10</sup>)

The second category is **non-tariff barriers**. At present, the UK is part of the EU's regulatory regime. If the UK leaves the single market and customs union it will have control over its own regulatory regime.<sup>11</sup> Over time, there may be a divergence in regulations – and the introduction of other administrative procedures – making it more costly for UK companies who export to the EU to obey EU rules. The same would apply to EU companies trading with the UK. The greater the divergence, the higher the non-tariff barriers become and the more costly trading is.

A trade deal between the UK and EU would also determine the extent to which the UK's standards and regulations will diverge from the EU. Modern trade deals often cover areas such as technical barriers to trade<sup>12</sup>, services, competition policy and trade-related investment measures. The closer the UK and EU remain in these areas, the greater the access the UK will have to the single market, but the less freedom the UK will have to change regulations. This reflects the inherent trade-off in such trade deals between control over your economy's rules – such as regulating products and markets – and the degree of access to the other economy's market.<sup>13</sup>

Differences in laws and regulations are particularly an issue for services. In addition, trade agreements historically have not contained much on removing barriers to services trade, although some more recent deals such as the one between the EU and Canada (CETA) have to some extent.<sup>14</sup> The UK is the world's second largest exporter of services by value<sup>15</sup> and is generally viewed as a world leader in many service activities (such as financial services).<sup>16</sup> Therefore, additional obstacles to

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<sup>8</sup> See for instance: Economists for Free Trade, [From Project Fear to Project Prosperity](#), August 2017

<sup>9</sup> Non-EU members of the EEA are not included in agriculture and fisheries elements of the EU single market, and tariffs are applied on these products

<sup>10</sup> Data for 2015, trade weighted average (WTO, [World Tariff Profiles 2017](#), p. 82)

<sup>11</sup> As mentioned earlier, this section provides a general overview of how Brexit could affect the economy and does not consider possibilities such as the Northern Ireland backstop

<sup>12</sup> For example different technical standards and regulations that must be met in different countries – such barriers can be reduced by agreements that countries will have the same standards (harmonisation) or that they will recognise each other's standards (mutual recognition).

<sup>13</sup> Treasury Select Committee, [The economic and financial costs and benefits of the UK's EU membership](#), HC 122, pp39-40, para 153

<sup>14</sup> Library briefing paper, [CETA: the EU-Canada free trade agreement](#), June 2018

<sup>15</sup> World Bank data for 2017, [Service exports \(BoP, current US\\$\)](#)

<sup>16</sup> HM Government, [HM Treasury analysis: the long-term economic impact of EU membership and the alternatives](#), 18 April 2016, p.32, Chart 1.A

services trade between the UK and EU could be especially harmful to the UK export sector.

### Investment

The UK is a large recipient of foreign direct investment (FDI), which is overseas investment that usually involves a lasting interest. FDI can be viewed as the “overseas operations of a multinational”.<sup>17</sup> The total value of all FDI in the UK – the FDI stock – was £1,336 billion in 2017. £573 billion of this total (43%) was held by investors from other EU countries.<sup>18</sup>

Brexit may make the UK a less attractive place for investment. Being in the EU single market and customs union allows firms – including foreign firms – to trade with the rest of the EU without tariffs and few non-tariff barriers. This also allows firms to set up supply chains across the EU. Without access to the single market, the UK may become a less attractive destination for multinational companies.<sup>19</sup>

However, the UK’s attractiveness as a location for investment goes deeper than being part of the EU single market and customs union. The UK, for example, has flexible labour markets, a language spoken widely around the world, an educated workforce and a strong rule of law which are attractive for investors.<sup>20</sup>

Trade and investment are closely linked and the economic models that are used to estimate the impact of Brexit on the UK economy reflect that. Not all studies include estimates of the impact of FDI on GDP. Those that do usually find a relatively small direct impact. However, some studies also include indirect effects where FDI also affects productivity, which result in larger impacts.<sup>21</sup> See box 1 below for more on trade and investment impacts on productivity.

### Impact on the economy of trade and investment

The end result of all the changes to the UK’s trading arrangements with the EU and rest of the world will take time to develop and come into effect.

There are plenty of uncertainties. For instance, how close to current arrangements the UK’s new trading relationship with the EU will be? And how successful will the UK be in negotiating beneficial trade deals with non-EU countries?

In addition, there is the uncertainty that comes from the unprecedented economic event that Brexit is – in recent history, a developed economy the size of the UK has not left a large trading bloc such as the EU.

The reason this matters is because the body of empirical studies that are used to build and run the economic models do not include a relevant

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<sup>17</sup> Bank of England, *EU membership and the Bank of England*, October 2015, p36

<sup>18</sup> ONS, *Foreign direct investment involving UK companies: 2017*, 4 December 2018

<sup>19</sup> Institute for Government, *Understanding the economic impact of Brexit*, October 2018, pp14-15

<sup>20</sup> London School of Economics, “[Foreign investors love Britain - but Brexit would end the party](#)”, CentrePiece magazine, Summer 2016

<sup>21</sup> Institute for Government, *Understanding the economic impact of Brexit*, October 2018, pp41-42

precedent. To calculate the impact on the economy, it is necessary to estimate the future costs of trading with the EU. With no real precedent to draw on, the economic studies generally – though not in all cases – assume that the reduction in trade barriers and the subsequent increase in trade that accrued from joining the EU will be fully unwound. In other words, there is an assumption of symmetry in the effects of joining and leaving the EU.<sup>22</sup>

Few doubt the direction of travel: that by leaving the EU, the UK will trade less with it than would be the case as a member state. But the precise magnitude is very difficult to estimate with any certainty; it may not be symmetrical.

This is an important reason why there is a range of different estimates of the impact of Brexit on GDP. Researchers use different methods in trying to put a quantitative estimate on the increase in UK-EU trade costs resulting from higher trade barriers. This then feeds into the different conclusions of the impact on GDP.

In summary, most studies that attempt to calculate the impact of Brexit on the economy often take the following path with regards trade:

- Estimate the additional cost to trade between the UK and EU depending on the trade scenario modelled, and estimate any changes in trade costs with non-EU countries.
- Model the effect of these changes to trading costs on the total level of exports and imports, and on GDP.

### Box 1: Trade and investment impact on productivity

There are a number of channels by which trade and investment impacts of Brexit could filter through the economy. For example, all studies incorporate the well-understood direct effects of trade. These relate to specialisation and comparative advantage. Trading allows specialisation in the sectors where an economy has a comparative advantage, improving the allocation of resources in the economy and leading to higher levels of productivity and GDP. Sometimes another effect is also included. This relates to economies of scale: more trade enables domestic firms to expand, lowering per unit production costs as companies expand.

By increasing the costs of trade, the economy does not realise all the benefits from these effects. This is a one-off shift that lowers the level of GDP and these are therefore often labelled **“static effects”**.

A crucial factor in determining the size of the impact of trade and investment on GDP is whether to include an additional impact. This additional channel by which Brexit could affect the economy is related to changes in productivity *growth* and are often labelled as **“dynamic effects”**.

Productivity growth is a crucial contributor to a country’s long-term economic growth potential – the rate at which it can grow sustainably over many years. If productivity growth is affected by Brexit then there will be ongoing effects as well as one-off effects.

<sup>22</sup> See Crafts, N. (2016), [UK Economic Growth Performance in a European Context: Has EU Membership Made Much Difference?](#), for estimates of the impact of joining the EU (the EEC as it was in 1973) on the UK economy

Dynamic effects boost innovation and technical progress in the economy, leading to higher productivity growth. Some of these effects include:<sup>23</sup>

- New technologies – foreign investment is often associated with the introduction of technological innovation and better work practices that are then adopted by domestic firms, via supply chains for example (knowledge spillovers)
- Competition – with more foreign companies in the domestic market comes greater competition amongst firms, which drives innovation.

These effects are based on economic theory and empirical evidence (for example, in evaluating the impact of trade deals).<sup>24</sup> However, as the Office for Budget Responsibility, the UK's independent fiscal watchdog, states: "There is little consensus regarding the size of dynamic effects from trade."<sup>25</sup> Disentangling where productivity growth originates from is very difficult, adding to the uncertainty.

The way that studies treat productivity makes a big difference in the outcomes. Those that include just the static effects of Brexit produce lower impacts on GDP and living standards than those that also include the dynamic effects.

## 1.2 Immigration

Higher levels of immigration can boost GDP in a purely mechanical way, with more workers producing more output. The degree to which immigration affects GDP *per person*, more relevant to living standards, is less clear cut. Whether this happens depends on the profile of migrants relative to the existing population. For example, the proportion of migrants that are in work and, if so, how productive those jobs are (in terms of output per hour worked). In addition, migrant labour that complements the skill-set of the existing population is more beneficial to the economy than if they are substitutes.<sup>26</sup>

In a summary of evidence, the Migration Advisory Committee (MAC) concluded that studies suggest that migration raises productivity, particularly when migrants are high skilled.<sup>27</sup> The magnitude of the positive impact is less clear cut. There are also distributional consequences, such as the impact on high- and low-skilled workers, which are usually not considered in the studies on Brexit's economic impact.<sup>28</sup>

Government immigration policy will play a large role in determining the impact of immigration on the economy post-Brexit.

<sup>23</sup> OBR Discussion paper No.3, [Brexit and the OBR's forecasts](#), October 2018, pp35-39 and HM Government, [EU Exit: Long-Term Economic Analysis Technical Reference Paper](#), 28 November 2018, Section 4

<sup>24</sup> HM Government, [EU Exit: Long-Term Economic Analysis Technical Reference Paper](#), 28 November 2018 and OBR Discussion paper No.3, [Brexit and the OBR's forecasts](#), October 2018, para 2.48

<sup>25</sup> OBR Discussion paper No.3, [Brexit and the OBR's forecasts](#), October 2018, para 2.51

<sup>26</sup> For more see Library Briefing Paper, [Impacts of immigration on population and the economy](#), July 2016

<sup>27</sup> Migration Advisory Committee, [EEA migration in the UK: final report](#), September 2018

<sup>28</sup> OBR Discussion paper No.3, [Brexit and the OBR's forecasts](#), October 2018, p68

## 1.3 Regulations

Depending on the terms of the future UK-EU relationship, the UK will to a greater or lesser degree have more control in setting regulations that are no longer subject to EU laws. The UK may therefore have scope to change business regulations, potentially in a way that boost GDP, although this will be subject to domestic political debate.

The UK is already ranked as having one of the most deregulated product markets among developed economies, limiting the potential benefits of future changes.<sup>29</sup> The policy areas that appear to offer the largest boost to GDP are related to the environment, climate change and social and employment protection.<sup>30</sup> However, the scope for such changes will depend not only on government policies but also on the terms of any future trade deals, including with the EU.

Many studies do not include changes in regulation when estimating the impact of Brexit on the economy. The majority of those that do suggest that the gains are small, although these results are very subjective and somewhat speculative (we don't know the policy agendas of future Governments).<sup>31</sup>

## 1.4 EU budget contributions and the public finances

As a member state, the UK has been a net contributor to the EU budget, paying in more than it has received from EU programmes. This payment is roughly equivalent to 0.4% of annual GDP.<sup>32</sup> Upon leaving the EU, the UK will make payments to the EU related to the financial settlement as stated in the Withdrawal Agreement, but will not be contributing to the EU budget at the current scale.

This contribution is relatively small in the context of other factors, such as trade, that are expected to impact the economy as a result of Brexit. In addition, the wider economic impact resulting from Brexit is likely to have a greater impact on the public finances. Higher economic output generates higher tax revenues. So if the economic modelling shows that, for example, Brexit results in the economy being smaller than it otherwise would be, tax revenues would also be smaller.

In summary, the overall net impact on the public finances from Brexit will likely be determined by the wider impact on the economy rather than the direct savings from EU budget contributions.

For more see [section 2.4](#) on the Government's analysis of the impact of Brexit on the public finances.

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<sup>29</sup> HM Government, *EU Exit: Long-term economic analysis*, 28 November 2018, p.23

<sup>30</sup> Institute for Government, *Understanding the economic impact of Brexit*, October 2018, p43

<sup>31</sup> Institute for Government, *Understanding the economic impact of Brexit*, October 2018, p43; One [study from the Institute for Economic Affairs](#) suggests large gains from regulation of above 7% of GDP by 2034 are possible

<sup>32</sup> Library briefing paper [The UK's contribution to the EU budget](#), November 2018

## 2. Government's long-term economic analysis

The Government published *EU Exit: Long-term economic analysis* on 28 November 2018.<sup>33</sup> This report contains analysis and economic modelling of the potential long-term impact of Brexit on the UK economy. It examines different post-Brexit scenarios related to the UK's future trading relationship with the EU.

This section explains the assumptions used in each scenario and provides a summary of the main findings in terms of GDP and public finances, as well as analysis of impacts on the regions and countries of the UK. In addition, comparisons with other external studies are made, highlighting the similarities and differences in approach and outcome.

The main outcome of the analysis is that the higher the barriers to UK-EU trade, the lower GDP is and, in turn, the weaker the public finances are.

### Box 2: Timing and scope of the Government's Brexit economic analysis

Following leaks to the media of preliminary Government economic analysis in January 2018,<sup>34</sup> the Government stated that Parliament would have "appropriate analysis" before a vote on a Brexit deal.<sup>35</sup> This was confirmed in a July White Paper on the process of legislating for the Withdrawal Agreement.<sup>36</sup> In August, the Chancellor confirmed in a letter to Nicky Morgan, Chair of the Treasury Committee, that economic analysis of a deal would be published ahead of the vote.<sup>37</sup>

The scope of this analysis was confirmed on 19 November 2018 during the Commons Committee Stage of the *Finance (No. 3) Bill*. Chuka Umunna tabled an amendment to the Bill requiring the Government to use the scenario of the UK remaining a member of the EU as the basis for comparison in its forthcoming economic analysis of Brexit. In response, the Government stated that its analysis of different UK-EU future trading scenarios would indeed all be "compared against the status quo of the current institutional arrangements within the EU".<sup>38</sup> Mr Umunna was satisfied with this commitment and did not press the amendment to a vote.<sup>39</sup>

### 2.1 What the modelling does and doesn't show

The economy is extremely complex. Economic models are therefore simplifications of how different parts of the economy, such as businesses and consumers, interact with other. Assumptions about how

<sup>33</sup> HM Government, [EU Exit: Long-term economic analysis](#), 28 November 2018 [here referred to as HM Govt analysis]. Accompanying this was a second paper: HM Government, [EU Exit: Long-Term Economic Analysis Technical Reference Paper](#), 28 November 2018 [here referred to as HM Govt technical paper]

<sup>34</sup> DExEU, [EU Exit Analysis: Cross Whitehall Briefing \(January 2018\)](#) published by Exiting the European Union Commons Select Committee, 8 March 2018

<sup>35</sup> [HC Deb 30 January 2018, c679](#)

<sup>36</sup> DExEU, [Legislating for the Withdrawal Agreement between the United Kingdom and the European Union](#), Cm 9674, July 2018, para 147

<sup>37</sup> Treasury Committee, [Correspondence with the Chancellor of the Exchequer relating to Brexit analysis, dated 23 August 2018](#)

<sup>38</sup> [HC Deb 19 November 2018, cc660-1CWH](#)

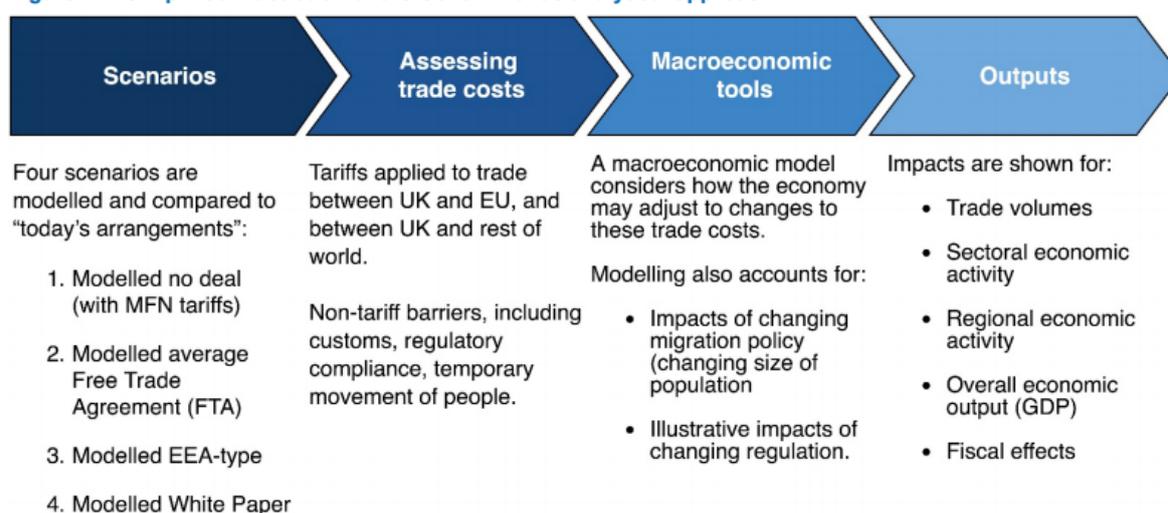
<sup>39</sup> [HC Deb 19 November 2018, cc672-3CWH](#)

changes to one aspect of the economy affect others are crucial in determining the overall economic impact of those changes.

Under the Government's scenarios for Brexit, different assumptions are made relating to areas like trade (these scenarios are described below). These assumptions are based on analysis of empirical literature but some of them are subjective. Brexit is unprecedented – there is no comparable past example of a large developed economy leaving a large trading bloc.<sup>40</sup> The result is that there is a great deal of uncertainty in how Brexit will affect the economy.

The approach the Government takes in this analysis is illustrated in the graphic below, taken from their report.<sup>41</sup>

**Figure 2.1: Simplified illustration of the Government's analytical approach.**



*[Note: "today's arrangements" refers to staying in the EU; "White paper" is referred to as the Chequers scenario in this briefing (see below)]*

The analysis calculates the long-term effects of Brexit on the economy under different scenarios. There is no fixed date for when this comparison is made; it is when the economy has fully adjusted to the changes related to Brexit.<sup>42</sup> The Government's analysis states that this can be assumed to be around 15 years after the UK's new relationship with the EU has come into effect and 2035 is referred to on a few occasions, such as in the public finances section.

The analysis is not a forecast as it only examines changes linked to Brexit, while other factors that affect the economy, such as tax rates, are not considered. This is done in order to isolate the impact of Brexit on the economy, and then to compare how different types of future relationship compare against each other – it is a comparative analysis.

## 2.2 Scenarios and assumptions used

The UK is scheduled to leave the EU on 29 March 2019. The nature of the future UK-EU relationship will be crucial in determining the impact of Brexit on the UK economy.

<sup>40</sup> OBR, [Economic and fiscal Outlook](#), October 2018, p98, para 5.16

<sup>41</sup> HM Govt [analysis](#), p15

<sup>42</sup> This means that issues such as the Northern Ireland 'backstop' are not covered at all

As well as the Withdrawal Agreement setting the terms of the UK's departure, the UK and the EU have agreed the Political Declaration which sets the basis for negotiations on the future relationship, including on trade. The Political Declaration is not legally binding and allows for a relatively broad range of trade outcomes to ultimately be agreed.<sup>43</sup>

More information on these two documents is available in the Library briefing papers [The UK's EU Withdrawal Agreement](#) and [The Political Declaration on the Framework for Future EU-UK Relations](#).

## Trade scenarios

The Government's economic analysis focuses on post-Brexit scenarios related to the UK's future trading relationship with the EU. These are:

- **Government's proposed deal ('Chequers')** – this covers the Government's preferred future relationship with the EU (based on the Political Declaration agreed between the UK and EU) as detailed in the Government's July 2018 White Paper (often called the Chequers proposal).<sup>44</sup> In the model, the UK is essentially in a customs union with the EU. Barriers to trade with the EU are fairly limited and lower than in a standard free trade agreement. In the Government's analysis this scenario is called 'Modelled White Paper'.
  - **'Chequers Minus'** – similar to the 'Chequers proposal' but incorporating greater trade barriers with the EU.<sup>45</sup> Many commentators argue this is more in line with the parameters of the Political Declaration and therefore a more realistic outcome of a future UK-EU trade deal.<sup>46</sup> In the Government's analysis this scenario is called 'Modelled White Paper with NTB sensitivity: 50%'.
- **EEA (European Economic Area)** – where the UK is a member of the EEA inside the single market (including free movement of people) but not in a customs union with the EU.<sup>47</sup> The UK and EU agree a deal where there are no tariffs on goods between them. Overall there are relatively low barriers to trade.
- **Free Trade Agreement (FTA)** – a scenario where the UK and EU sign a free trade agreement. It is assumed there are no tariffs on goods and non-tariff barriers are equal to those in an average trade deal with the EU. Overall there are more barriers to trade compared with the Chequers and EEA scenarios, but fewer than under a no-deal scenario.
- **No deal** – the future UK-EU trade relationship is based on World Trade Organisation (WTO) rules, rather than a bilateral trade deal.

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<sup>43</sup> [Political Declaration setting out the framework for the future relationship between the European Union and the United Kingdom](#) [accessed 3 December 2018]

<sup>44</sup> HM Government, [The future relationship between the United Kingdom and the European Union](#), Cm 9593, July 2018

<sup>45</sup> To be clear, the Government do not use the terms 'Chequers' or 'Chequers Minus'

<sup>46</sup> For example, see Financial Times, "[Theresa May concedes any Brexit will leave UK worse off](#)", 28 November 2018

<sup>47</sup> Current non-EU EEA members are Norway, Iceland and Liechtenstein

This introduces greater barriers to trade compared with the other scenarios.

Each of these scenarios is compared with a 'baseline' scenario of the **UK remaining in the EU**.<sup>48</sup> For example, the level of GDP in a no-deal scenario are compared with a scenario where the UK remained in the EU.

The Government's economic analysis makes clear that none of the 'no deal', 'EEA', or 'Free Trade Agreement' scenarios meet the Government's objectives and are included for "analytical purposes only."<sup>49</sup>

## Migration scenarios

Across all trade scenarios except the EEA scenario (where free movement would continue) two different "illustrative migration variants" are considered:

- **No change to rules** – this assumes the current projected flow of EEA workers with no policy changes.
- **Zero net migration from EEA** – assumes that there is no net migration of workers from EEA countries.<sup>50</sup>

Neither of these options are Government policy.<sup>51</sup> Given that the Government stresses that free movement will end as the UK leaves the EU (although not before the transition period ends<sup>52</sup>), one may interpret these options as high and low possibilities of future net migration from the EEA. However, projecting future immigration flows is difficult at the best of times and in these circumstances even more so.

Projected net migration from the rest of the world, i.e. non-EEA countries, and for students is assumed to remain flat at their 2013-2015 average levels.<sup>53</sup>

## Other assumptions

All analysis is based on the long-term, assumed to be around 15 years after the UK leaves the EU. At this point the UK economy has fully adjusted to its new relationship with the EU. **No short term or transitional impacts are considered.**<sup>54</sup>

Some additional assumptions included in the analysis:

- In all scenarios the UK retains all existing free trade deals between the EU and third countries.<sup>55</sup>

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<sup>48</sup> More specifically, it is assumed the EU remains as it is today, with rules and trade deals unchanged from today

<sup>49</sup> HM Govt [analysis](#), p.16, para 24

<sup>50</sup> HM Govt [analysis](#), p27

<sup>51</sup> The Government's White Paper on post-Brexit immigration policy was [published](#) after the economic analysis on 19 December 2018

<sup>52</sup> The Transition Period is the period immediately following Brexit – up to end-2020 with the possibility of extension up to end-2022 – where the UK remains in the EU Single Market and Customs Union, and therefore free movement will continue during this time.

<sup>53</sup> HM Govt [technical paper](#), p.44, para 144

<sup>54</sup> HM Govt [analysis](#), p.50, para 154

<sup>55</sup> HM Govt [technical paper](#), p.23, para 66

- In all scenarios the UK signs new free trade deals with a number of countries including the US, China and India.<sup>56</sup> This adds 0.1% or 0.2% to GDP depending on the scenario (due to the fact that GDP is different in each scenario).<sup>57</sup>
- In all scenarios except the EEA scenario it is assumed the UK has some regulatory flexibility which results in a 0.1% boost to GDP.<sup>58</sup>
- The analysis does not consider future domestic policy choices. It also does not consider global trends – such as demographics and technological advancement – that may affect the UK in future.<sup>59</sup>

## Summary of assumptions

The table below reproduced from the Government's analysis provides a summary of the key assumptions underlying each future trading scenario.<sup>60</sup>

**Table 2.1: Summary of headline analytical assumptions for each scenario compared to today's arrangements.**

Coverage	Impact channel	Modelled no deal scenario	Modelled average FTA scenario	Modelled EEA-type scenario	Modelled White Paper scenario
UK - EU	<b>Tariffs</b> <sup>55</sup> (as per cent of trade value)	UK and EU apply the shared UK-EU MFN tariff schedule. <i>Agri-foods: 20 per cent</i> <i>Manufactured goods: 3 per cent</i>	Zero tariffs	Zero tariffs	No tariffs
	<b>Non-tariff barriers</b> <sup>56</sup> (as per cent of trade value)	Customs administration costs and delays  Significant additional barriers in goods and services.  <i>Goods: 6 to 15</i> <i>Services: 4 to 18</i>	Customs administration and rules of origin costs, and delays  Additional barriers to goods and services trade.  <i>Goods: 5 to 11</i> <i>Services: 3 to 14</i>	Customs administration and rules of origin costs, and delays <sup>57</sup>  No additional barriers to goods and services trade.  <i>Goods: 3 to 7</i> <i>Services: 1 to 3</i>	No customs-related costs  Minimal additional barriers to goods trade. New barriers to service trade.  <i>Goods: 0 to 1</i> <i>Services 2 to 10</i>
UK - Rest of world	<b>Tariffs</b>	Illustrative ambitious elimination of tariffs between the UK and potential trade agreement partners following EU exit. Existing EU FTAs are rolled over to UK specific arrangements  <i>Zero tariffs for FTA partners, MFN tariffs for RoW (see WTO assumptions)</i> <i>Current EU MFN tariffs with other countries.</i>			
	<b>Non-tariff barriers</b> (as per cent of trade value)	No change in NTBs for all current EU trade deals. Illustrative ambitious reductions in NTBs with potential trade agreement partners. <sup>58</sup> <i>Goods: 2 to 4</i> <i>Services: 3 to 5</i>			
UK	<b>Regulation</b>	Some flexibility assumed for the UK to decide regulatory policy  <i>(Illustrative economic impact: 0.1 per cent of GDP).</i>		No regulatory flexibility.	Some flexibility assumed for the UK to decide regulatory policy (0.1 per cent GDP).

*These are assumptions made to enable economic modelling, rather than statements of government policy.*

*For UK-EU NTBs, ranges reflect uncertainty around the central estimates and are calculated using statistical distributions from econometrics. For UK-RoW NTBs, ranges reflect the range of NTBs estimated across UK bilateral trade with RoW trade partners.*

<sup>56</sup> Trade deals with the US, Australia, New Zealand, Malaysia, Brunei, China, India, Mercosur (Brazil, Argentina, Paraguay and Uruguay) and the Gulf-Cooperation Council (UAE, Saudi Arabia, Oman, Qatar, Kuwait and Bahrain) are assumed to be completed [HM Govt [analysis](#), p.22, para 49]

<sup>57</sup> HM Govt [analysis](#), p.71, table 4.12

<sup>58</sup> HM Govt [analysis](#), pp23-24

<sup>59</sup> HM Govt [analysis](#), pp30-31

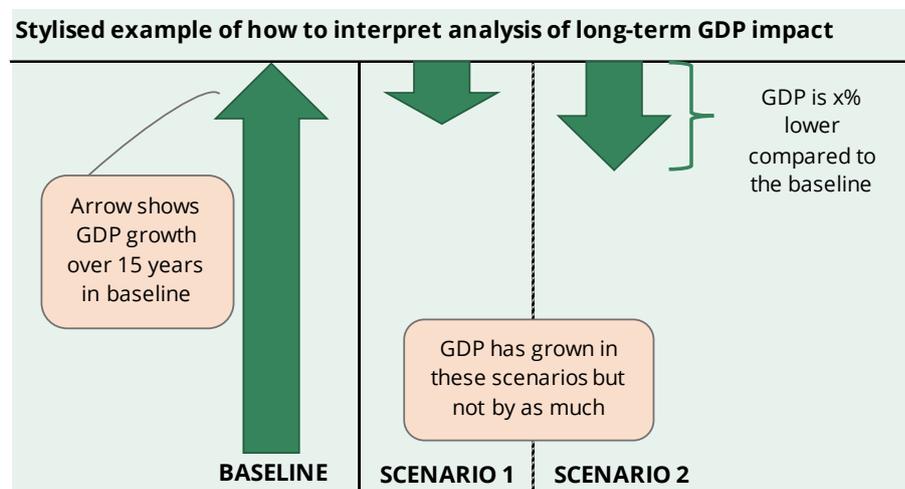
<sup>60</sup> HM Govt [analysis](#), p25

## 2.3 Impact on GDP

The long-term analysis the Government has conducted compares how big the economy will be – as measured by economic output (GDP) – in each of the scenarios relative to a ‘baseline’ scenario of the UK staying in the EU. As noted above, this is not a forecast as such as it doesn’t look at all the factors that affect GDP, just those related to Brexit.

### Box 3: A guide to interpreting the GDP figures in this analysis

The analysis doesn’t include any estimates of GDP growth rates over the 15-year period in which the economy adjusts to its new steady state. Instead it provides estimates of how much higher or lower the level of GDP is in each scenario compared the others at the end of this 15-year period. For example, GDP is 3.9% lower in the Chequers Minus scenario in 15 years’ time compared with the scenario of the UK remaining in the EU.



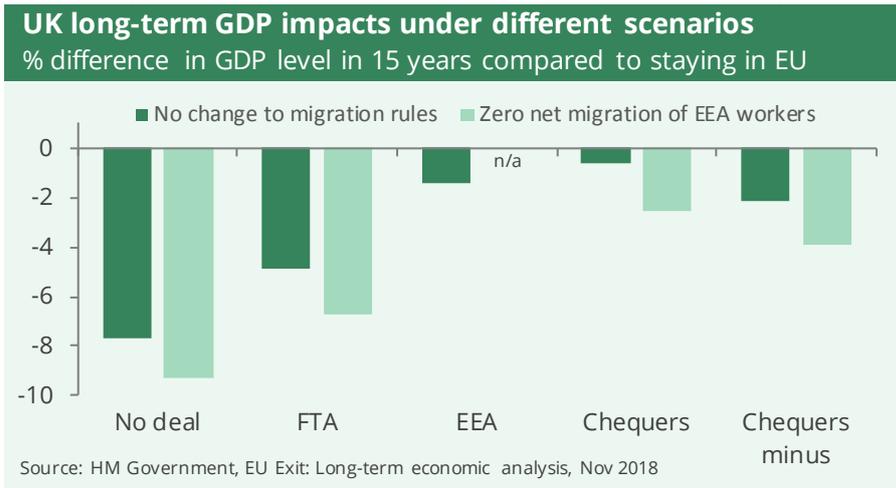
If we assume that the economy were to grow at 1.5% per year over these 15 years in the baseline scenario of the UK remaining in the EU, GDP would rise by 25% in total over this period (the arrow on the left in the diagram above). This means the level of GDP would rise from £2.0 trillion to £2.5 trillion by the end of this 15-year period (in today’s prices).

In the alternative scenarios considered, the level of GDP is compared against this hypothetical £2.5 trillion baseline figure. For example, in the no-deal scenario, GDP would be 9.3% lower than this – approximately £200 billion lower with GDP at £2.3 trillion. Note that in this extreme no-deal scenario where GDP is £2.3 trillion in 15 years’ time, GDP will still have grown by 14% overall.

The main outcome of the analysis is that the higher the barriers to UK-EU trade, the lower GDP is. The chart and table below provides a summary of these results for each of the future trade scenarios outlined above.

The Government stresses the uncertainty inherent in its analysis. In this briefing we have only considered the Government’s central estimates. To reflect uncertainty, the Government’s report also provides ranges with their central estimates.<sup>61</sup>

<sup>61</sup> HM Govt [analysis](#), p51, table 4.1 provides these ranges



	No deal	FTA	EEA	Chequers	Chequers minus
No change to migration rules	-7.7	-4.9	-1.4	-0.6	-2.1
Zero net migration of EEA workers	-9.3	-6.7	n/a	-2.5	-3.9

Notes: A description of all scenarios is provided earlier in this briefing paper. Chequers refers to the July 2018 White Paper

Source: HM Government, EU Exit: Long-term economic analysis, Nov 2018, table 4.1

The results show that of the five Brexit scenarios modelled, the Chequers outcome leads to the smallest long-term negative impact on GDP, compared with staying in the EU. The EEA scenario results in GDP being 1.4% lower under the ‘no change to migration rules’ assumption, while the Chequers Minus scenario results in GDP being 2.1% lower. Under the more restrictive migration scenario, Chequers Minus results in GDP being 3.9% lower – this figure has been used by some economists as the scenario closest to what is contained in the UK-EU Political Declaration.<sup>62</sup>

Of the two migration scenarios modelled, the lower immigration scenario – zero net migration of workers from the EEA – has a more negative effect on GDP, as there are fewer workers generating output, but also on GDP per capita as it is assumed that a higher proportion of EEA migrants are of working age and in employment than the population as a whole.<sup>63</sup> The table below shows the impacts on GDP per capita under all scenarios.

<sup>62</sup> For example, see Gemma Tetlow, “[The Government’s Brexit economic analysis deserves to be taken seriously](#)”, Institute for Government blog, 28 November 2018 and Financial Times, “[Official Brexit forecasts show Britain getting poorer](#)”, 28 November 2018

<sup>63</sup> HM Govt [technical paper](#), p.47, para 165

UK long-term GDP per capita impacts under different trade scenarios					
% difference in GDP per capita level in 15 years compared with staying in the EU					
	No deal	FTA	EEA	Chequers	Chequers minus
No change to migration rules	-7.6	-4.9	-1.4	-0.6	-2.1
Zero net migration of EEA workers	-8.1	-5.4	n/a	-1.2	-2.7

Notes: A description of all scenarios is provided earlier in this briefing paper.  
Chequers refers to the July 2018 White Paper  
Source: HM Government, *EU Exit: Long-term economic analysis, Nov 2018*, table 4.1

The analysis also provides a breakdown of the impact of the different factors, such as trade, that affect GDP for each scenario.<sup>64</sup> The biggest single influence on GDP comes from non-tariff barriers to trade. This includes regulatory and administrative requirements that make it more difficult for businesses to export and import goods and services.

Factors affecting UK long-term GDP impacts					
% -point contribution to change in GDP compared with staying in the EU					
	No deal	FTA	EEA	Chequers	Chequers minus
<b>Total trade impact</b>	<b>-7.6</b>	<b>-4.9</b>	<b>-1.4</b>	<b>-0.7</b>	<b>-2.2</b>
of which:					
<i>Tariffs</i>	-1.4	0.0	0.0	0.0	0.0
<i>Non-Tariff Barriers (NTBs)</i>	-6.5	-5.1	-1.5	-0.9	-2.3
<i>New trade deals</i>	0.2	0.1	0.1	0.2	0.1
<b>Regulatory flexibility</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>
<u>Migration scenario 1:</u>					
No change to migration rules	-0.2	-0.1	0.0	0.0	0.0
<b>Total GDP impact</b>	<b>-7.7</b>	<b>-4.9</b>	<b>-1.4</b>	<b>-0.6</b>	<b>-2.1</b>
<u>Migration scenario 2:</u>					
Zero net migration of EEA workers	-1.8	-1.8	n/a	-1.8	-1.8
<b>Total GDP impact</b>	<b>-9.3</b>	<b>-6.7</b>	<b>n/a</b>	<b>-2.5</b>	<b>-3.9</b>

Notes: A description of all scenarios is provided earlier in this briefing paper.  
Chequers refers to the July 2018 White Paper  
Source: HM Government, *EU Exit: Long-term economic analysis, Nov 2018*, table 4.12

In addition, the Government analysis also provides estimates of the impacts of some "additional sensitivities" to these central assumptions. In other words, some of the key assumptions are changed to see what effect the new assumption has. These include modelling the impact of implementing a policy of zero tariffs on all imported goods – unilateral tariff liberalisation – in the no-deal scenario. This adds 0.8%-points to GDP in the no-deal scenarios.<sup>65</sup>

<sup>64</sup> HM Govt [analysis](#), p71, table 4.12

<sup>65</sup> For more on the results of these additional sensitivities see [section 4.9 of the Government's analysis](#), pp76-78

#### Box 4: Comparisons with other studies

Shortly before the Government's analysis was published, the think tank **UK in a Changing Europe** published an estimate of how Brexit might affect GDP per capita in the long-term (defined as 10 years).<sup>66</sup> Their findings are broadly in line with the Government's analysis: the greater the trade friction in a future UK-EU relationship, the larger the negative impact on GDP per capita compared with staying in the EU.

UK in a Changing Europe consider two scenarios for the long-term UK-EU relationship under two different assumptions about productivity:

- 'The deal' scenario is based on the backstop in the Withdrawal Agreement and it assumes that the UK remains in a permanent customs union with the EU, but only Northern Ireland remains in the single market. This scenario is probably somewhere between the Government's 'Chequers Minus' scenario and the Free Trade Agreement scenario.
- The WTO scenario is similar to the no-deal scenario modelled by the Government: tariff barriers would be introduced to UK-EU trade and non-tariff barriers would increase, but the UK would gain greater freedom over regulations and trade policy.

UK in a Changing Europe modelled how different assumptions about productivity would play out in the two scenarios. The assumption closest to that used in the Government's analysis is that productivity increases as a result of greater trade integration and therefore decreases when barriers to trade are introduced. The other assumption used by UK in a Changing Europe is that there is no such effect on productivity.

The overall impact on GDP per capita using the productivity assumption is that it would be 5.5% lower in the 'deal' scenario compared with staying in the EU. The Government's 'Chequers Minus' scenario shows GDP per capita 2.1 to 2.7% lower depending on the migration assumption. For their Free Trade Agreement scenario, the Government analysis showed GDP to be 4.9 to 5.4% lower.

In a 'no-deal' scenario, UK in a Changing Europe finds GDP per capita to be 8.7% lower than if the UK stayed in the EU. This compares with the Government's estimate that GDP per capita would be 7.6% to 8.1% lower (depending on which of their two migration assumptions is used).

Also published during the same week was a study by the **National Institute for Economic and Social Research (NIESR)**.<sup>67</sup> This looked at three scenarios:

- 'Orderly no deal' – trade between the UK and EU is based on WTO rules. Emergency arrangements are made to avoid disruption to trade and travel.
- 'Deal and backstop' – after a transition period the Northern Ireland 'backstop' comes into effect, with the whole of the UK in a customs territory with the EU. There is an agreement in services trade with some important restrictions and there would be constraints on regulatory divergence.
- 'Deal and Free Trade Agreement' – after the transition period ends in December 2020, the UK leaves the EU customs union and single market, and there is a UK-EU free trade agreement. The FTA is largely related to goods trade, with trade in services heavily restricted.

GDP in all three scenarios is lower in 2030 than compared with staying in the EU. Under the 'no deal' scenario GDP is 5.5% lower, compared with the Government's estimate of GDP being 7.7% to 9.3% lower (depending on migration assumptions). NIESR's FTA scenario

<sup>66</sup> UK in a Changing Europe, [The economic consequences of the Brexit deal](#), 27 November 2018. The work was undertaken by researchers at the London School of Economics, King's College London and the Institute for Fiscal Studies

<sup>67</sup> NIESR, [The Economic Effects of the Government's Proposed Brexit Deal](#), 26 November 2018. This study was funded by the campaign group People's Vote.

results in GDP being 3.9% lower, compared with 4.9% to 6.7% lower in the Government's analysis.

NIESR's backstop scenario is probably closest to the Government's Chequers Minus scenario, given the UK effectively remains in a customs union with the EU and some barriers to UK-EU services trade are introduced. The results are broadly similar. GDP is 2.8% lower in NIESR's backstop scenario compared with staying in the EU, while the Government's analysis shows GDP 2.1% to 3.9% lower under Chequers Minus.

### Summary of these three studies

The table below provides a summary of outcomes of the three studies and was produced by one of the authors of the NIESR report, Arno Hantzsche (it has been slightly amended from its original form).<sup>68</sup> The table uses the 'Chequers Minus' scenario for the Government's analysis.

		Close relationship	FTA	Orderly no-deal
<i>Long run</i>				
NIESR	% GDP	-2.8%	-3.9%	-5.5%
	% GDP per capita	-1.9%	-3.0%	-3.7%
UK in a Changing Europe	% GDP	n/a	n/a	n/a
	% GDP per capita		-5.5%	-8.7%
HM Government	% GDP	-2.1% to -3.9%	-4.9% to -6.7%	-7.7% to -9.3%
	% GDP per capita	-2.1% to -2.7%	-4.9% to -5.4%	-7.6% to -8.1%

Notes: 'Close relationship' encompasses comparable scenarios with stronger regulatory convergence compared to a free trade agreement but characterised by non-tariff barriers in particular to services trade. This includes NIESR's 'Deal + Backstop' scenario and the scenario by HM Government called 'White Paper w/ 50% NTB sensitivity'.

Source: NIESR.

### Assessments prior to the Withdrawal Agreement and Political Declaration

A number of studies were published prior to the release of the Government's analysis and the two other studies covered above. These are covered extensively in two reports from October 2018:

- Institute for Government, [Understanding the economic impact of Brexit](#), October 2018
- Office for Budget Responsibility (OBR) Discussion paper No.3, [Brexit and the OBR's forecasts](#), October 2018

The three more recent studies are broadly in line with the majority of these older studies. They find that the higher the barriers to future UK trade with the EU, the greater the negative impact on UK GDP, compared with the UK staying in the EU. There are differences in terms of the magnitude of the impacts, mostly due to the assumptions that are used in the economic models, but this central conclusion is common across almost all studies – that, for example, a no-deal scenario would lead to lower GDP than scenarios with closer links to the EU. The Institute for Government in their report provided the following summary of these studies:

As we have summarised in this report, numerous studies have now been published setting out a range of projections for how Brexit is likely to affect UK economic growth in the longer term (typically up to 2030). The vast majority of these studies predict that the UK economy will be smaller following Brexit than it would have been, had the UK remained a member of the EU. This is because most studies predict that Brexit will increase trade barriers between the UK and other countries on average – and there is an extensive body of economic evidence which demonstrates that stronger trade, investment and migratory links in the past between countries have been associated with faster economic growth.<sup>69</sup>

<sup>68</sup> Arno Hantzsche (NIESR), [Twitter](#), 3.55pm 29 November 2018

<sup>69</sup> Institute for Government, [Understanding the economic impact of Brexit](#), October 2018, p60

## 2.4 Impact on public finances

The Government’s analysis estimates the impact of each future trading scenario on the government deficit,<sup>70</sup> relative to continued EU membership. The analysis shows that in the long-term, compared with staying in the EU:

- all scenarios result in a higher deficit;
- those scenarios with the greatest UK-EU trade friction are estimated to increase the deficit most significantly;
- assuming lower levels of migration leads to a larger deficit in each scenario.

### In the long-term, the deficit is expected to be larger in all scenarios compared with staying in the EU

Impact on the deficit compared with remaining in the EU, % GDP in 2035/36

	No deal	FTA	EEA	Chequers	Chequers minus
No change to migration rules	+2.4	+1.8	+0.5	+0.0	+0.6
Zero net migration of EEA workers	+3.1	+2.4	n/a	+0.6	+1.2

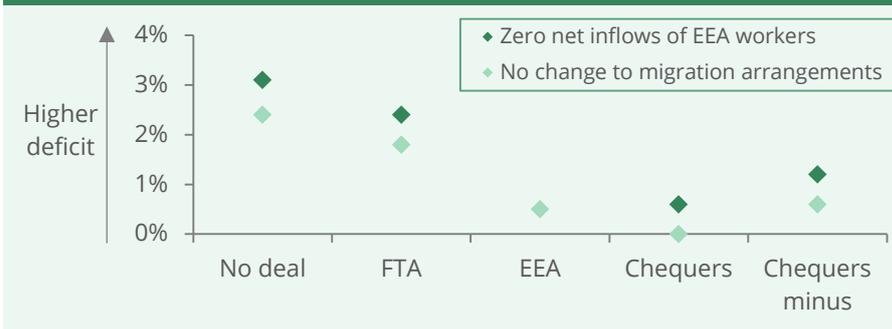
Notes: A description of all scenarios is provided earlier in this briefing paper.

Chequers refers to the July 2018 White Paper

Source: HM Government, *EU Exit: Long-term economic analysis, Nov 2018*, table 4.13a and 4.13b

### Assuming lower migration leads to larger increases in the deficit in all scenarios

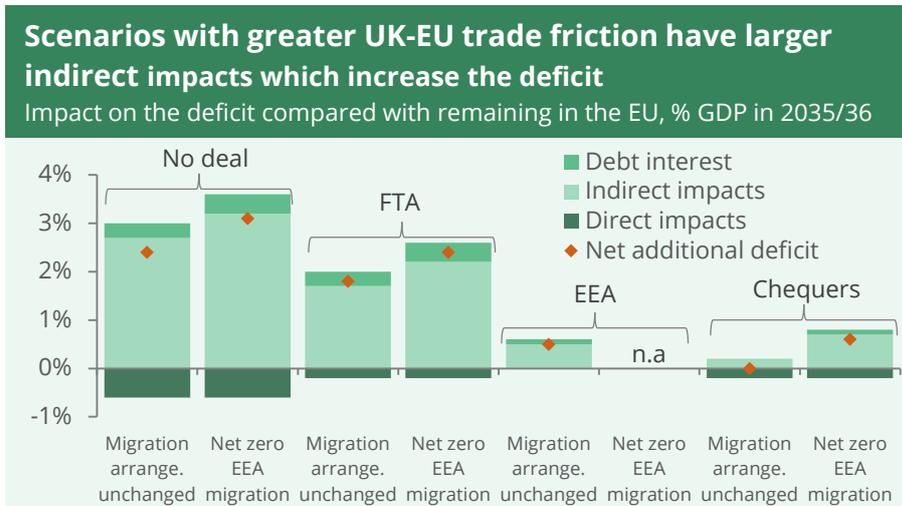
Impact on the deficit compared with remaining in the EU, % GDP in 2035/36



The Government’s analysis incorporates both the direct and indirect effect on the deficit from leaving the EU. The direct effects are those that directly impact on the public finances, such as no longer making contributions to the EU as a member state. The indirect effects are those related to the changes in the size and structure of the UK economy, which have implications for tax receipts and welfare spending. The Government’s analysis suggests that the economic impacts of the UK

<sup>70</sup> Officially described as public sector net borrowing: the amount the government borrows to make up the difference between spending and tax

leaving the EU are likely to be the most important for determining the impact on the deficit.



The Government stresses the uncertainty inherent in its analysis. Here we have concentrated on the Government’s central estimates. To reflect uncertainty, the Government’s report also includes upper and lower estimates of the long-term impact on the deficit.<sup>71</sup>

### What are the direct impacts?

The direct impacts cover areas of government spending or tax – in the case of customs revenues – that are directly affected by the UK leaving the EU.

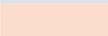
For most of the direct impacts the cash terms effect on the deficit is the same across each scenario, although there may be some variation when expressed relative to GDP because the size of the economy is expected to be different in each scenario. As an example, no longer paying into the EU as a member state decreases the deficit to the same extent in cash terms under all Brexit scenarios.

Across all scenarios the largest direct impact on the deficit is the **EU budget saving** – the UK’s saving from no longer making budget contributions as an EU member state. In nominal terms the saving is estimated to decrease the deficit by £23 billion in 2035/36 across all scenarios, but the saving differs a little when expressed as a % of GDP.

The UK will retain **customs revenues** after Brexit. Currently the UK is part of the EU customs union which sees the majority of customs revenues passed to the EU.<sup>72</sup> Customs revenues decrease the deficit across all scenarios, but the impact is most significant in the no-deal scenario. This is because the no-deal scenario assumes that goods imported from the EU are subject to customs tariffs, whereas such imports are assumed to be tariff free in all the other scenarios.

<sup>71</sup> See HM Govt analysis, [Table 4.15a and Table 4.15b](#)

<sup>72</sup> The UK retains 20% of customs revenues to cover the cost of collection

<b>Direct impacts on the deficit. Change relative to remaining in the EU, % GDP in 2035/36</b>				
	No deal	FTA	EEA	Chequers
<i>Migration assumption 1: No change to migration arrangements</i>				
EU budget saving	-0.6	-0.6	-0.5	-0.5
Customs revenue	-0.4	-0.0	-0.0	-0.0
Replicating/continuing EU programmes	+0.3	+0.3	+0.3	+0.3
UK/EU financial settlement	+0.0	+0.0	+0.0	+0.0
Overseas development aid	+0.0	+0.0	+0.0	+0.0
Departmental admin spending	+0.1	+0.0	+0.0	+0.0
Future Financial Contributions	..	..	+0.1	..
<b>Net direct impact</b>	<b>-0.6</b>	<b>-0.2</b>	<b>-0.0</b>	<b>-0.2</b>
<i>Migration assumption 2: Zero net inflows of EEA workers</i>				
EU budget saving	-0.6	-0.6	n/a	-0.6
Customs revenue	-0.4	-0.0	n/a	-0.0
Replicating/continuing EU programmes	+0.4	+0.3	n/a	+0.3
UK/EU financial settlement	+0.0	+0.0	n/a	+0.0
Overseas development aid	+0.0	+0.0	n/a	+0.0
Departmental admin spending	+0.1	+0.1	n/a	+0.0
Future Financial Contributions	..	..	n/a	..
<b>Net direct impact</b>	<b>-0.6</b>	<b>-0.2</b>	<b>n/a</b>	<b>-0.2</b>
Item lowers the deficit:				
Item increases the deficit:				
notes:				
.. no measurable impact				
figures may not sum due to rounding				
source:				
HM Government. EU Exit: Long-term economic analysis, Technical reference paper				

The UK currently receives funding from **EU programmes** for areas such as agriculture, regional development and research and innovation. The Government's analysis assumes that the UK will continue to fund these activities at the current level, whether through programmes it administers itself or by participating in EU programmes and making a contribution for doing so. The spending, which is the same across all scenarios in cash terms, increases the deficit. Once outside the EU, **UK government departments may need to make additional spending** to administer services and functions that are currently provided by the EU. The spending is the same across all scenarios but may differ as a percentage of GDP across scenarios.

**Future financial contributions** only arise in the EEA-type scenario, reflecting that non-EU EEA members, such as Norway, make contributions to the poorer EU Member States in exchange for preferential access to the single market.<sup>73</sup> The Government assumes that entering an EEA-type relationship with the EU would involve a similar contribution from the UK. While the Chequers scenario involves

<sup>73</sup> European Commission, [protocol 38C on the EEA Financial Mechanism \(2014-2021\)](#), March 2016

preferential access to the single market, the Government's analysis doesn't include a future financial contribution for such access and says that future contributions remain 'subject to negotiation'.<sup>74</sup>

The UK-EU **financial settlement** sets out how the two parties will settle their outstanding financial commitments to each other, once the UK has left the EU.<sup>75</sup> The Government estimates the total cost of the settlement at around £35-£39 billion. Much of the cost is expected to come in the years immediately after the UK's withdrawal during the transition period and then as the UK pays for any spending commitments outstanding from the EU's 2014-2020 budget plan. The UK's annual payments arising from the settlement will then fall and by 2035/36 it is estimated that the UK will make a payment of £0.1 billion. Across all scenarios the payment is small enough to be equivalent to 0.0% of GDP.

The UK has committed to spending 0.7% of its national income on **Overseas Development Aid** (ODA). Currently, some of the UK's contribution to the EU counts towards this target. The Government's analysis assumes this EU-related spending is replaced by other types of ODA spending. The spending is the same across all scenarios and small enough to be equivalent to 0.0% of GDP.

### What are the indirect impacts?

Each modelled scenario is expected to change the size and structure of the economy after the UK leaves the EU. These economic impacts indirectly affect the deficit through their impact on tax receipts and welfare spending.

There is more variation in the indirect impacts across the scenarios than there is in the direct impacts, particularly where they relate to future UK-EU trade barriers. The greater the friction in UK-EU trade assumed in each scenario, the larger the increase in the deficit. This is largely reflected in the impact of non-tariff barriers introduced under each scenario, but in the case of no-deal the introduction of tariffs in UK-EU trade brings further estimated increases in the deficit.

Increased regulatory flexibility and benefiting from rest of world trade lower the deficit, but the impact is small relative to the costs associated with greater UK-EU trade friction.

The Government's analysis suggests that lower migration increases deficit. In the illustrative case of zero net inflows of EEA workers, lower migration results in a higher deficit across all scenarios where this could be relevant. The illustrative case is not relevant to the EEA-type scenario, as EEA membership requires free movement of people.

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<sup>74</sup> HM Govt [technical paper](#), footnote 226

<sup>75</sup> Further information is available in the Library briefing [Brexit: the exit bill](#)

<b>Indirect impacts on the deficit. Change relative to remaining in the EU, % GDP in 2035/36</b>				
	No deal	FTA	EEA	Chequers
<i>Migration assumption 1: No change to migration arrangements</i>				
Tariffs	+0.5	..	..	..
Non-tariff barriers	+2.2	+1.7	+0.5	+0.3
Migration	+0.0	+0.0	+0.0	+0.0
Regulatory flexibility	-0.0	-0.0	..	-0.0
Rest of world trade	-0.1	-0.0	-0.0	-0.1
<b>Net indirect impact</b>	<b>+2.7</b>	<b>+1.7</b>	<b>+0.5</b>	<b>+0.2</b>
<i>Migration assumption 2: Zero net inflows of EEA workers</i>				
Tariffs	+0.5	..	n/a	..
Non-tariff barriers	+2.3	+1.8	n/a	+0.3
Migration	+0.5	+0.5	n/a	+0.5
Regulatory flexibility	-0.0	-0.0	n/a	-0.0
Rest of world trade	-0.1	-0.0	n/a	-0.1
<b>Net indirect impact</b>	<b>+3.2</b>	<b>+2.2</b>	<b>n/a</b>	<b>+0.7</b>
Item lowers the deficit:				
Item increases the deficit:				
notes:				
.. no measurable impact				
figures may not sum due to rounding				
source:				
HM Government. EU Exit: Long-term economic analysis, Technical reference paper				

### Box 5: Comparisons with other studies

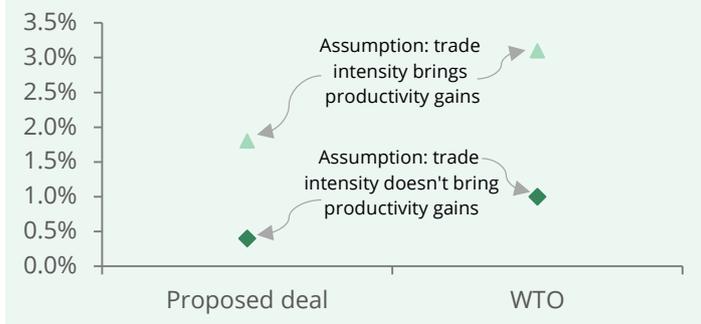
Shortly before the Government's analysis was published, the think tank [UK in a Changing Europe](#) estimated how the UK's withdrawal from the EU might impact on the deficit.<sup>76</sup> Their findings are broadly in line with the Government's analysis: the greater the trade friction in a future UK-EU relationship, the larger the cost to the deficit.

UK in a Changing Europe consider two scenarios for the long-term UK-EU relationship under two different assumptions about productivity. The scenarios they consider are 'the deal' and a WTO outcome. 'The deal' scenario is based on the backstop in the Withdrawal Agreement and it assumes that the UK remains in a permanent customs union with the EU, but only Northern Ireland remains in the single market. The WTO scenario is similar to the no-deal scenario modelled by the Government: tariff barriers would be introduced to UK-EU trade and non-tariff barriers would increase, but the UK would gain greater freedom over regulations and trade policy.

<sup>76</sup> UK in a Changing Europe, [The economic consequences of the Brexit deal](#), November 2018

### UK in a Changing Europe: impact on deficit of scenarios for future UK-EU relationship in 10 years

Impact on deficit compared with EU membership, % GDP



UK in a Changing Europe modelled how different assumptions about productivity would play out in the two scenarios. The assumption closest to that used in the Government's analysis is that productivity increases as a result of greater trade integration. The other assumption used by UK in a Changing Europe is that there is no such gain to productivity.

The results for the economic impacts are used to approximate the potential indirect impact on the

deficit. In terms of direct impacts on the deficit, the researchers estimate that the UK makes a net saving equivalent to 0.4% of GDP from no longer making EU budget contributions.

It is hard to make direct comparisons with the Government's analysis of the impact on the deficit because each study uses different assumptions. For instance, the Government's approach considers two different outcomes for migration, whereas UK in a Changing Europe uses one assumption for migration; that it will be lower than it would be if the UK remained in the EU.

The closest comparison that can be made is between the WTO outcome (including the improved productivity assumption) and the Government's no deal scenario. UK in a Changing Europe estimate that a WTO outcome would increase the deficit by 3.1% of GDP, which is the same as the Government's estimate for no deal when lower migration is assumed. The Government estimates that no deal will have less of a negative impact on the deficit (2.4% of GDP) if migration arrangements are unchanged. There is no obvious scenario in the Government's analysis to compare with UK in a Changing Europe's 'proposed deal' scenario. The main features of 'proposed deal' is a customs with no preferential access to the single market for most of the UK; the Government doesn't consider such a scenario.

#### Previous assessments

Studies were published estimating how Brexit might impact on the deficit, before and after the EU referendum. A selection of studies is provided below:

- HM Treasury. [The long-term economic impact of EU membership and the alternatives](#), paras 3.68 – 3.75, April 2016
- IFS. [Brexit and the UK's Public Finances](#), section 4.3, May 2016
- DExEU, [EU Exit Analysis: Cross Whitehall Briefing \(January 2018\)](#) published by Exiting the European Union Commons Select Committee, 8 March 2018

The size of the impact on the deficit varies between studies depending on the scenarios they consider and the assumptions they use, but two findings are fairly common: the greater the impact on the economy, the larger the estimated impact on the deficit; and, changes to the size and structure of the economy are likely to be the most significant determinant of the impact on the deficit.

## 2.5 Impact on labour market

This type of economic analysis presents a long-term picture of the economy where everything is in balance. In other words, the economy is in a steady state with "full employment" – the unemployment rate is at the level where there is no inflationary pressure.

This structural unemployment rate is not published in the analysis. Under each scenario it may differ. However, based on other studies it is likely to be very similar in all scenarios, as the UK labour market is judged to be very flexible.<sup>77</sup> This means it is assumed to adjust to a new economic environment without causing the unemployment rate to change a great deal over the long-term.<sup>78</sup> For example, although rising during the financial crisis and economic recession of 2008-2009, the unemployment rate in the UK eventually returned to pre-crisis levels.

The way in which the labour market adjusts to this long-term steady state, say to relatively lower levels of economic output, is assumed to be via wages. Using the example of the financial crisis again, the “lost” economic output relative to historic trends since then has been felt in wages and not in the unemployment rate.

The Government’s analysis provides comparisons of real (inflation-adjusted) wage levels under the different trade scenarios. All estimates are based only on the impact of trade and do not include effects from migration or changes in regulation.

As with the impact on GDP, wage levels in the scenarios with higher trade barriers are lower than in those with fewer barriers to trade. In all scenarios modelled real wages are lower than under the scenario where the UK remained in the EU.<sup>79</sup>

Trade impact on UK real wages under different scenarios					
% difference in real wage level in 15 years compared with staying in the EU					
	No deal	FTA	EEA	Chequers	Chequers minus
Real (inflation-adjusted) wages	-10.0	-6.4	-1.5	-0.9	-2.7

Notes: A description of all scenarios is provided earlier in this briefing paper.  
This does not include other factors such as migration or regulatory effects that are modelled for GDP elsewhere in the Government’s analysis  
Source: HM Government, *EU Exit: Long-term economic analysis, Nov 2018*, table 4.4

## 2.6 Regional analysis

The Government’s analysis models the long-term impact of Brexit on the GDP of the regions and countries of the UK. This analysis only considers the trade impact of Brexit and does not cover other potential channels by which Brexit could affect the economies, such as migration.

The same trade scenarios are used as for the UK, ranging from no-deal to Chequers as described earlier in this section. Results are shown in the table below.<sup>80</sup> For all scenarios, like in the UK analysis, the no-deal scenario results in the largest negative impact on economic output, while the Chequers scenario results in a relatively small negative impact

<sup>77</sup> For example, NIESR, [The Economic Effects of the Government’s Proposed Brexit Deal](#), 26 November 2018, p20

<sup>78</sup> Any impact on unemployment from a weaker economic performance in getting to this long-term steady state has come and gone and is not captured here

<sup>79</sup> HM Govt [analysis](#), p54, table 4.4

<sup>80</sup> HM Govt [technical paper](#), pp64-65, table 7.A

compared with staying in the EU (apart from in Scotland where there is no difference).

<b>Trade impact on economic output (GVA) of regions/countries of the UK</b>					
% difference in GVA level in 15 years compared with staying in the EU					
	No deal	FTA	EEA	Chequers	Chequers minus
North East	-10.5	-6.5	-1.5	-0.4	-2.1
North West	-9.4	-5.8	-1.4	-0.5	-2.2
Yorkshire and the Humber	-8.5	-5.4	-1.3	-0.3	-2.1
East Midlands	-8.5	-5.1	-1.4	-0.4	-1.9
West Midlands	-9.6	-5.7	-1.5	-0.4	-2.0
East of England	-8.4	-5.3	-1.3	-0.4	-2.0
London	-6.0	-4.0	-0.9	-1.0	-2.5
South East	-7.8	-5.0	-1.2	-0.7	-2.1
South West	-7.6	-4.7	-1.4	-0.4	-1.9
Wales	-8.1	-4.9	-1.2	-0.1	-1.8
Scotland	-8.0	-4.8	-1.0	0.0	-2.0
Northern Ireland	-9.1	-5.6	-1.6	-0.2	-1.9

Notes: A description of all scenarios is provided earlier in this briefing paper.  
 GVA is Gross Value Added, which is very closely related to GDP  
 This does not include other factors such as migration or regulatory effects modelled elsewhere in the Government's analysis  
 Source: HM Government, *EU Exit: Long-term economic analysis Technical Reference Paper*, Nov 2018, table 7.A

The degree to which a region's exports are relatively specialised in goods or services plays a role in determining the relative impact of each scenario. For example, in London services account for a relatively high share of exports – this means leaving the single market (like in the Chequers scenario) will have a bigger negative effect on London than on a region that is more specialised in goods (all else being equal).<sup>81</sup>

<sup>81</sup> HM Govt [analysis](#), pp62-64

## 3. Short-term economic analyses

This section provides a review of analysis of the impact of Brexit on the economy over the short term. The short-term is usually defined as the next few years.

### 3.1 Difference between short-term and long-term economic analysis

Most research that has been conducted on the economic effects of Brexit have concentrated on the long-term implications rather than the short-term. This is because, somewhat counterintuitively, it can be easier to estimate the long-term impact.

As discussed in the previous section, the long-term analysis usually involves comparing different assumptions about an economy that is in its “steady state”; the ups and downs of the business cycle are not covered. These long-term comparative studies of Brexit typically look at how big the economy is, as measured by GDP, in each scenario and compares them.

Short-term forecasts are the kind that you see on a more regular basis, for example from the Office for Budget Responsibility at Budget time, the Bank of England and numerous other private forecasters. These may include GDP growth and inflation forecasts for this year and next year, for instance. The purpose behind them is to try and predict what will happen to the economy based on recent economic performance and expected future economic and policy developments.

Forecasting short-term developments is easier when there are smooth economic conditions. Sudden changes can affect business and consumer confidence – crucial to economic performance but difficult to predict and incorporate in economic models – making life tricky for forecasters.

This is the case with Brexit and the large degree of uncertainty there is relating to the circumstances of the UK’s departure from the EU.

### 3.2 Bank of England’s short-term economic analysis

In response to a request from the Commons Treasury Select Committee, the Bank of England published analysis of different short-term scenarios relating to Brexit.<sup>82</sup> This analysis, *EU withdrawal scenarios and monetary and financial stability*, was published on 28 November 2018.<sup>83</sup> The report assesses how leaving the EU could affect the Bank’s ability to deliver on its objectives for monetary policy and for UK financial stability.

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<sup>82</sup> Treasury Committee, [Letter from Mark Carney, Governor, Bank of England to the Chair on Brexit Analysis, 16 October 2018](#)

<sup>83</sup> Bank of England, [EU withdrawal scenarios and monetary and financial stability](#), 28 November 2018, here referred to as Bank of England analysis.

## Scenarios and assumptions used

The Bank's analysis looked at two broad Brexit scenarios involving: (i) a deal and (ii) no-deal and how these might affect the economy over the next five years (up to the end of 2023). Each of these scenarios themselves have two different variations within them. Assumptions are made for each scenario and then quantified using empirical evidence as a guide. The Bank notes the "inherent uncertainty" in some of the empirical literature given the lack of an event similar to Brexit in the past.

The key aspects of these scenarios are:

- **Economic Partnership under the Withdrawal Agreement and Political Declaration ("deal")** – involves a transition period to end-2020 and then a UK-EU trade agreement takes effect. Net migration is assumed to be 100,000 per year from 2021. The assumptions for the two variations in this "deal" scenario are:
  - **Close economic partnership with the EU** – assumes comprehensive arrangements for free trade in goods, including no customs checks, with some barriers to services trade.
  - **Less close economic partnership with the EU** – assumes customs checks and greater regulatory barriers to trade.<sup>84</sup>
- **No deal and no transition** – involves the UK leaving the EU without a withdrawal agreement or a transition period. The Bank says these assumptions are based on preparing the Bank's Financial Policy Committee (FPC) – responsible for ensuring financial stability – for a worst case scenario. Under this scenario, there would be immediate application of tariffs by the EU on UK goods and other barriers to trade would be introduced suddenly. WTO rules form the basis for UK-EU trade. There is disruption for the financial services sector and confidence among UK business and consumers deteriorates. Two variations are modelled:
  - **Disruptive no-deal Brexit** – as described above, with the Bank of England raising interest rates to 1.8% (to combat above-target inflation).
  - **Disorderly no-deal Brexit** – as above, with additional "severe assumptions" including: severe disruption at the border due to customs checks; UK loses access to all EU trade deals with third countries; financial markets react very negatively; and the Bank of England raises interest rates to 5.5% (to combat above-target inflation).<sup>85</sup>

**Monetary policy** is assumed to "react mechanically" to inflation not being at its target rate. This means, in simplified terms, if inflation rises above the 2% target, the Bank will raise rates.

Some additional assumptions are common across all scenarios:<sup>86</sup>

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<sup>84</sup> More specific assumptions for each of these scenarios can be found on pp42-43

<sup>85</sup> More specific assumptions for each of these scenarios can be found on pp39-43

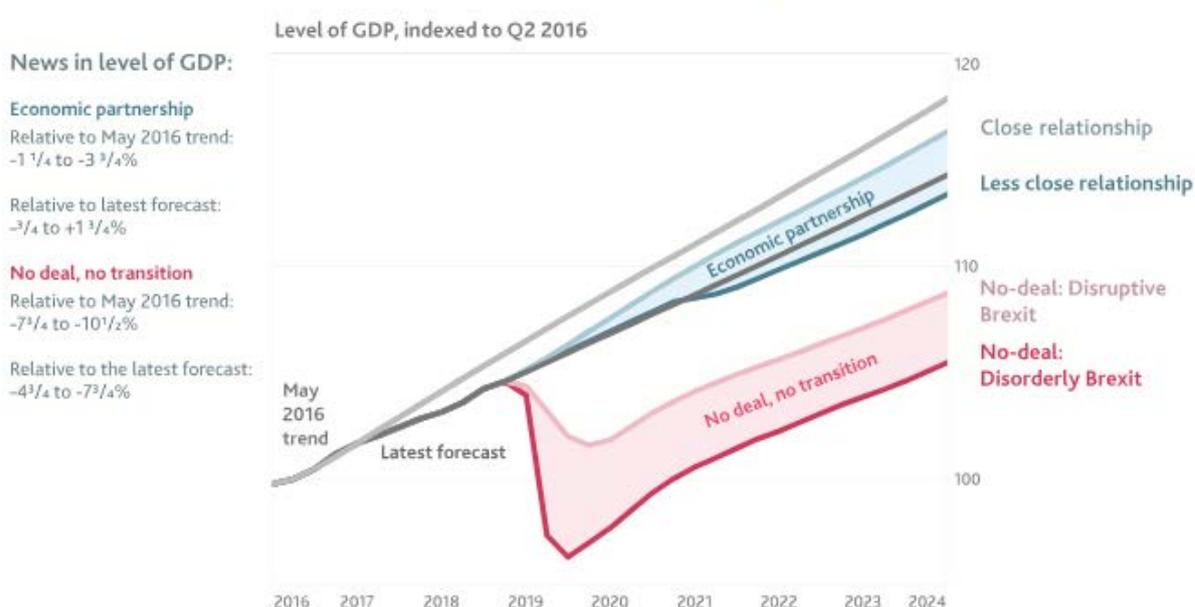
<sup>86</sup> Bank of England [analysis](#), pp40-41

- No changes to **fiscal policy** ('automatic stabilisers' operate as normal, e.g. spending on benefits rises during a recession).
- None of the scenarios include the introduction of the Northern Ireland '**backstop**'.<sup>87</sup>
- The UK does not implement any **new trade deals** with third countries.

## Results

GDP and some other economic indicators are estimated for each quarter up to the end of 2023 for all four scenarios. The estimated paths for GDP are summarised in the chart below, produced by the Bank.<sup>88</sup>

### Modelled scenarios based on different assumptions about Brexit



Under the two "deal" scenarios:

- In the "**close relationship**" scenario GDP would be **1 3/4%** higher by end-2023 compared to current Bank forecasts.
- In the "**less close relationship**" scenario GDP would be **3/4%** lower by end-2023 compared to current Bank forecasts.

Under the two "no-deal" scenarios:

- In the "**disruptive no-deal Brexit**" scenario GDP would be **4 3/4%** lower by end-2023 compared to current Bank forecasts.<sup>89</sup>
- In the "**disorderly no-deal Brexit**" scenario GDP would be **7 3/4%** lower by end-2023 compared to current Bank forecasts.

GDP is also compared to a pre-referendum trend path of GDP estimated by the Bank. This captures the impact of Brexit on the economy since the referendum, which the Bank believes has resulted in lower GDP growth than would have been expected following a 'Remain' outcome.

<sup>87</sup> Bank of England [analysis](#), p39

<sup>88</sup> Bank of England, [EU withdrawal scenarios and monetary and financial stability](#), 28 November 2018

<sup>89</sup> Current forecasts based on November 2018 [Inflation Report](#)

In this comparison GDP at the end of 2023 is lower in all scenarios than this pre-referendum trend path (the top line in the chart above).

The Bank's analysis states that the worst case scenario of a disorderly no-deal would mean GDP falling by 8% at its lowest point, a greater decline than during the financial crisis. In addition, unemployment would peak at 7.5%, inflation would peak at 6.5% and sterling would fall by 25%.<sup>90</sup>

### 3.3 Comparison with other short-term studies

Most 'regular' economic forecasts, such as those from the OBR, assume there is a Brexit deal and a transition period. If assumptions are made about the future trading arrangements, they tend to assume there will be a smooth transition to them.

There are therefore few publically-available analyses that attempt to compare the different possible circumstances of the UK leaving the EU such as no-deal versus deal. The National Institute for Economic and Social Research (NIESR) in its recent Brexit analysis (mentioned in Box 4 earlier in this briefing) provided estimates for 2023 that could be broadly compared.<sup>91</sup>

The table below was produced by one of the authors of the NIESR report, Arno Hantzsche (it has been slightly amended from its original form).<sup>92</sup> The table uses the Bank's estimates that are compared with the pre-referendum trend (and not current forecasts).

Comparison of Brexit deal impact studies		Close relationship	FTA	Orderly no-deal
<i>Medium run (2023)</i>				
NIESR	% GDP	-2.6%	-2.0%	-3.2%
Bank of England	% GDP	-1.25% to -3.75%		-7.75%

Notes: 'Close relationship' encompasses comparable scenarios with stronger regulatory convergence compared to a free trade agreement but characterised by non-tariff barriers in particular to services trade. This includes NIESR's 'Deal + Backstop' scenario and the scenario by HM Government called 'White Paper w/ 50% NTB sensitivity'.  
Source: NIESR.

Estimates for a 'deal' scenario are broadly comparable between NIESR and the Bank of England. Meanwhile, under their respective orderly 'no-deal' scenarios, however, the Bank's estimates show a larger negative impact on GDP than NIESR's do.

#### No deal

There has been much discussion about the immediate effects of a 'no-deal' Brexit, where the UK leaves the EU on 29 March 2019 without a withdrawal agreement or transition period with the EU. In terms of the economic impacts, the OBR has warned over the possible disruption this would cause, although it noted the high level of uncertainty:

<sup>90</sup> Bank of England [analysis](#), p51

<sup>91</sup> They are not in the published report but were provided in a tweet by one of the report's authors Arno Hantzsche, see footnote below

<sup>92</sup> Arno Hantzsche (NIESR), [Twitter](#), 3.55pm 29 November 2018

... a disorderly exit is not impossible and it could have a severe short-term impact on demand and supply in the economy and on the public finances. UK asset prices could fall sharply which, together with heightened uncertainty, would cause households and businesses to rein in their spending. A fall in the pound would also raise domestic prices, squeezing households' real incomes and spending. And there could be temporary constraints on supply if, for instance, a lack of customs preparedness led to significant delays at the border. It is next to impossible to calibrate this sort of scenario with confidence because of the lack of precedent.<sup>93</sup>

Further discussion of possible economic impacts of a no-deal Brexit is available in section 5 of the Library briefing paper, [\*What if there's no Brexit deal?\*](#)

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<sup>93</sup> OBR Discussion paper No.3, [\*Brexit and the OBR's forecasts\*](#), October 2018, p98, para 5.15

## 4. Further information

### Commons Library research:

- Briefing paper, [The UK's EU Withdrawal Agreement](#), 2 December 2018
- Briefing paper, [The Political Declaration on the Framework for Future EU-UK Relations](#), 30 November 2018
- Graeme Cowie, [Meaningful Vote explain...Brexit and the "meaningful vote": The Final Countdown?](#), Library Insight, 30 November 2018
- Library briefing, [Brexit: the exit bill](#), 21 November 2018
- Briefing paper, [What if there's no Brexit deal?](#), 12 October 2018
- Briefing paper, [Statistics on UK-EU trade](#), 30 November 2018
- Brexit hub: [Research and analysis from Parliament's libraries and committees on issues related to leaving the European Union](#)

### Commons Treasury Select Committee

- [Evidence sessions](#) on the Withdrawal Agreement and Political Declaration, including on the economic analysis conducted by the Government and Bank of England

### External papers:

- HM Government, [EU Exit: Long-term economic analysis](#), 28 November 2018
- HM Government, [EU Exit: Long-Term Economic Analysis Technical Reference Paper](#), 28 November 2018
- Bank of England, [EU withdrawal scenarios and monetary and financial stability](#), 28 November 2018
- National Institute of Economic and Social Research (NIESR), [The Economic Effects of the Government's proposed Brexit Deal](#), 26 November 2018
- UK in a changing Europe, [The economic consequences of the Brexit deal](#), 27 November 2018
- Institute for Government, [Understanding the economic impact of Brexit](#), October 2018
- OBR Discussion paper No.3, [Brexit and the OBR's forecasts](#), October 2018

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