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The EU Single Market: The value of membership versus access to the UK

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Institute for Fiscal Studies

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E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

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Preface

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Executive Summary

On 23 June 2016, the UK public voted in favour of leaving the European Union. However, important decisions remain about the model for the UK's relationship with Europe outside of the EU, not least whether the UK seeks to remain a 'member' of the Single Market or only seeks (tariff-free) 'access'.

This report looks at exactly what the Single Market is and distinguishes between 'membership' and 'access', including the impact on the financial services sector. It also considers the potential for new trade deals beyond the EU and assesses the economic and public finance implications of the various options. This should inform the likely trade-offs between the level of access to the Single Market and other negotiating objectives such as control of immigration and budgetary contributions.

The Single Market

The 'Single Market' refers to the EU as one territory without any internal borders or other regulatory obstacles to the free movement of goods and services. The concept was central to the founding Treaty of Rome in 1957, which committed to 'the abolition, as between Member States, of obstacles to freedom of movement for [goods,] persons, services and capital'.

However, a genuine single market requires a 'level playing field' of rules across national boundaries. This means removing 'unfair' regulatory restrictions and harmonising, or ensuring mutual recognition of, member-state regulation.

By aiming for free movement of goods *and* services, a single market goes beyond a 'free trade area' or 'free trade agreement', which are predominantly concerned with reducing, and in many cases eliminating, trade tariffs on goods between members. A single market tackles other trade costs – especially non-tariff measures such as licensing and other regulatory barriers to trade. As tariffs on global trade have fallen over time, so these non-tariff barriers have become relatively more important, and especially so in services trade. Estimates suggest the costs affecting services trade may be over twice those in goods.

Creating a more level playing field through reducing trade costs leads to higher living standards – it enables more trade to take place: lowering prices and increasing choice for consumers and businesses; and creating a larger market for firms, which enables more specialisation and competition. These benefits appear evenly spread – poorer consumers have benefited more from lower prices since more of their spending is on traded goods. That said more trade with low wage countries can reduce wages for domestic low-skill workers and increase inequality. Much of the analysis of this effect though has focussed on trade with countries such as China rather than relatively high wage EU countries.

Membership versus access

Full 'membership' of the EU Single Market substantially reduces the costs of trade within the EU. Whilst some costs such as transport costs and cultural barriers such as language

remain, the Single Market eliminates tariffs (border taxes) and customs checks and, importantly, reduces non-tariff barriers, which are particularly important for services trade. Whilst any country has 'access' to the EU as an export destination, membership of the Single Market reduces 'non-tariff' barriers in a way that no existing trade deal, customs union or free trade area does.

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

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

UK service sector and trade role

Service trade does not tend to be affected by tariffs or customs checks – so non-tariff barriers are especially important. Like many developed economies, the UK's economy is predominantly service-sector based. However, the UK is unusual in that services play a significant role in trade – they have grown significantly in the last 15 years and we export considerably more than we import, creating a service 'trade surplus' equivalent to some 5% of national income.

The Single Market has focused increasingly on smoothing trade in services in the last two decades. For UK service exports, the EU is by far the largest market accounting for almost 40%, whereas emerging economies such as Brazil, Russia, India and China together account for less than 5%.

Financial services a key beneficiary of Single Market membership

The financial sector provides a specific example of what membership of the Single Market means for services. For the UK, financial services are particularly important – accounting for 8% of the value created in the UK economy, 7% of tax receipts from earnings and corporate profits, and 65% of the UK's service trade surplus. The EU accounts for a third of financial, insurance and pension services exports.

With the UK a member of the Single Market, 'passporting rights' mean that UK-based financial firms can service EU businesses and customers directly. Without this, UK firms, or non-EU firms with subsidiaries in the UK, could need to establish (or relocate) subsidiaries in the EU. A wide range of studies have identified the importance of passporting rights and related benefits, suggesting that the financial sector would be disproportionately damaged outside of the Single Market, with financial sector output potentially some 7% lower in 2030 than within the Single Market.

Granting substantial access to the EU single market for financial services firms outside of EEA would be unprecedented. However, for the UK, EEA membership would come with the important risk that regulation of the UK's leading international financial centre would be determined largely by decisions made by the EU with relatively limited UK influence. The benefits of passporting and membership will need to be balanced against this risk.

New trade agreements unlikely to substitute fully for EU trade

Outside of the EU, the UK would be able to pursue trade deals with other countries. As part of the European Free Trade Association the UK could strike bi-lateral deals and may be able to benefit from EFTA's existing trade deals which are broadly similar in coverage to the EU's and actually currently cover countries with a higher proportion of global GDP (13.1% versus 8.6%) and cover more of the UK's exports (over 10%). Still, it is not clear that these trade deals would automatically apply to the UK as a new EFTA member, and they offer little enhanced access for services.

Even if UK exports to China grow in line with strong Chinese economic growth through to 2030, export levels are unlikely to reach anywhere near current levels with the US or EU. Trade deals might well facilitate export growth, especially in goods. However, trade deals that cover services are still relatively rare and they are time consuming to agree. In any case, trade deals that genuinely enable service trade, such as Single Market membership, tend to involve mutual regulatory recognition and harmonisation.

Macroeconomic and public finance impact of membership and access

In the short-term, indicators on the strength of the economy since the EU referendum are still emerging but the Bank of England has revised down its forecasts for growth throughout the next three years, with the largest revision to its GDP forecasts since the introduction of the Monetary Policy Committee in 1997.

However, in the medium to long-term, the model the UK chooses will matter significantly to the economy and living standards. Maintaining membership of the Single Market as part of the EEA could be worth potentially 4% on GDP – adding almost two years of trend GDP growth – relative to World Trade Organisation (WTO) membership alone. This would, on average, mean higher living standards and likely be distributed across income levels. Both theory and the available modelling suggest EEA membership would be likely to mean stronger UK economic performance than an FTA with the EU.

In terms of the public finance implications, the macroeconomic effects dominate the direct savings from a reduced direct EU contribution. On top of the £24–31 billion weakening of the public finances by 2020 from the short-term impacts of leaving the EU for an EEA or FTA scenario, WTO membership would leave the government needing to find a further £4–8 billion, and more in the long term. Contrasting EEA and an FTA is more difficult, as the assumptions on budget contributions matter and these are uncertain. Still, overall, even the UK's current net EU budget contribution of £8 billion is small relative to public finance impacts from the economy relating to membership and access, and budget contributions may therefore be an area of potential compromise in negotiations.

1. Introduction

On 23 June 2016, the UK public voted in favour of leaving the European Union (EU). The result has already affected the level of uncertainty and confidence in the economy – in its latest (August 2016) Inflation Report, the Bank of England (2016b) expects the UK economy to be 2½ per cent smaller at the end of the forecast period than it forecast in its May 2016 Inflation Report (2016a). However, the model for the UK's relationship with Europe outside of the EU remains unclear. In particular, the degree of integration with, and access to, the Single Market will be important to trade, the economy and the public finances and therefore, of course, to living standards.

This report aims to set out the main options and what is known about their likely economic and fiscal consequences. In particular, it will distinguish between those options that offer 'membership' of the Single Market from those that offer 'access' to it.

Outside of the EU, there are several possibilities for the UK's new relationship. Some options involve near-full Single Market membership but obligations similar to those within the EU – in particular, on meeting many EU regulations, on budgetary contributions and on the free movement of people. Other options involve fewer obligations but more limited access to the EU market. Even outside the EU, then, there is a trade-off between obligations and the level of EU market access.

In Chapter 2, this report looks at relevant patterns in UK goods and services trade with the EU. In Chapter 3, it assesses what 'membership' and 'access' to the EU Single Market actually mean and looks at trade costs both within and beyond the EU. Chapter 3 also contains a case study that considers the impact of the Single Market on the financial services sector. Chapter 4 looks at the potential for increased trade with non-EU markets. Chapter 5 reviews the economic assessments of different scenarios and their public finance implications. Chapter 6 concludes and identifies important questions for further analysis.

2. Overview of UK Goods and Services Trade

Before we consider how trade could be affected by changed membership and access to the Single Market, we look briefly at the UK's existing trade patterns.

Table 2.1 sets out the UK's export and import trade patterns, highlighting that, in 2015, 44% of exports (in goods and services) went to the EU while 53% of imports came from the EU.

Table 2.1. UK trade values and shares, 2015

	Exports		*Imports*	
	£ billion	**Share**	**£ billion**	**Share**
EU	222	44%	291	53%
US	100	20%	61	11%
Rest of the world	188	37%	197	36%
Total	510	100%	549	100%

Note: Shares may not sum to 100% due to rounding.

Source: Authors' calculations using ONS balance of payments data 2016 Q1, https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/datasets/unitedkingdomeconomicaccountsbalanceofpaymentscurrentaccount/current.

The US is our second-largest destination for exports, and Switzerland is our third-largest, at £19.8 billion (3.9% of UK exports). China's consumption of UK exports has grown rapidly over the last decade and now amounts to £16.3 billion, 3.2% of UK exports or, despite being our fourth-largest destination, just 7% of our exports to the EU. In Section 4.2, we will consider the scope for significant growth in trade with large fast-growing economies such as China's.

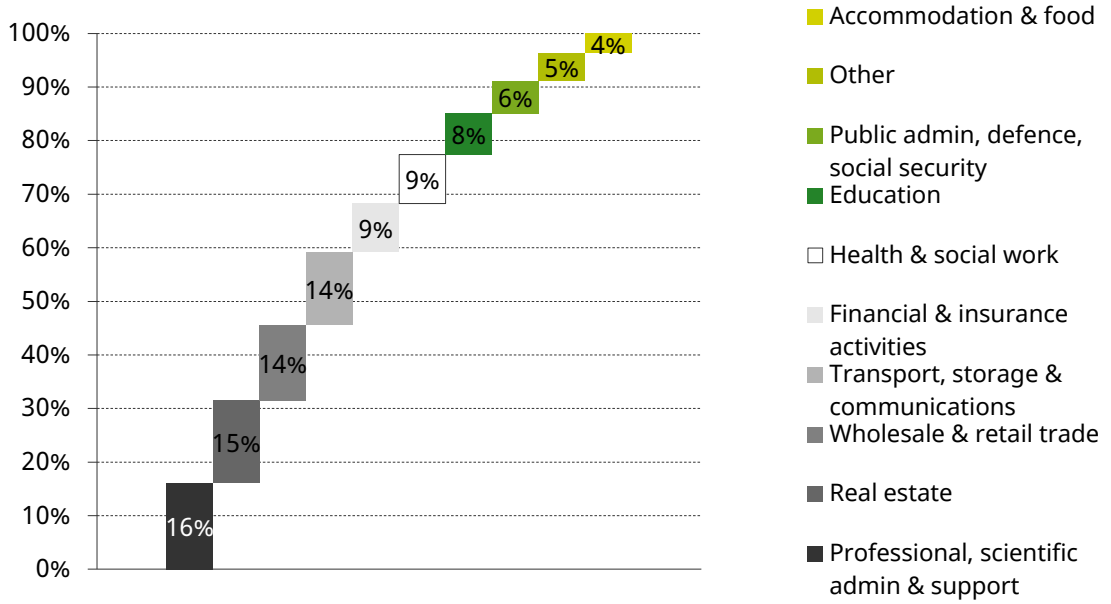
2.1 UK service sector and trade contribution

The UK's service sector accounts for over three-quarters of UK economic output[1] (with the balance comprising production,[2] construction and agriculture). The main service activities include real estate, professional and scientific services, wholesale and retail trade, transport and communications, and financial and insurance services (see Figure 2.1).

[1] Services are weighted 786 out of 1,000 in GDP, with production 149, construction 59 and agriculture 7. See table 1 at https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/grossdomesticproductpreliminaryestimate/januarytomarch2016.

[2] Production includes manufacturing, utilities and mining.

Figure 2.1. Shares of service activities in UK service sector output, 2015

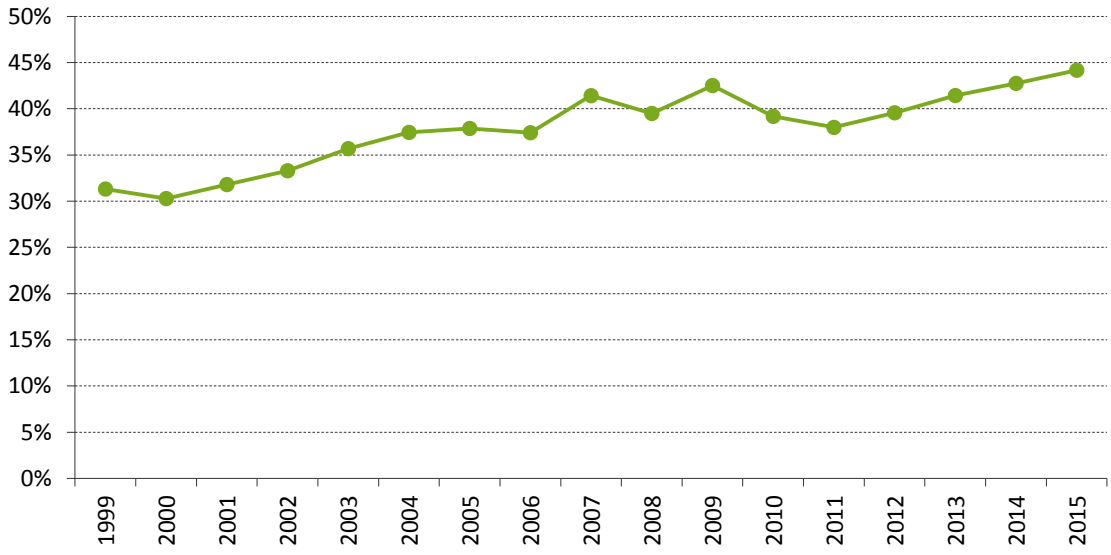


Source: Authors' calculations using ONS data, https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/ukquarterlynationalaccountsdatatables.

Service sector contribution to trade

The importance of services trade to the UK economy has grown significantly in recent years, with service exports rising from 31% of all exports in 1999 to 44% in 2015 (see Figure 2.2).

Figure 2.2. UK service exports as a percentage of total exports



Source: Authors' calculations using ONS balance of payments data 2016 Q1, https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/datasets/unitedkingdomeconomicaccountsbalanceofpaymentscurrentaccount/current.

Service exports play an important role in the UK's trade balance and economic output. In 2015, service exports reached £225 billion and, as service imports are much smaller (see Table 2.2), this strengthens the UK's balance of trade, with net service trade of £88 billion accounting for some 5% of GDP. The EU accounted for nearly 40% of our service exports. The US, the next-biggest destination for service exports, accounted for 24%.

Table 2.2. UK service trade values and shares, 2015

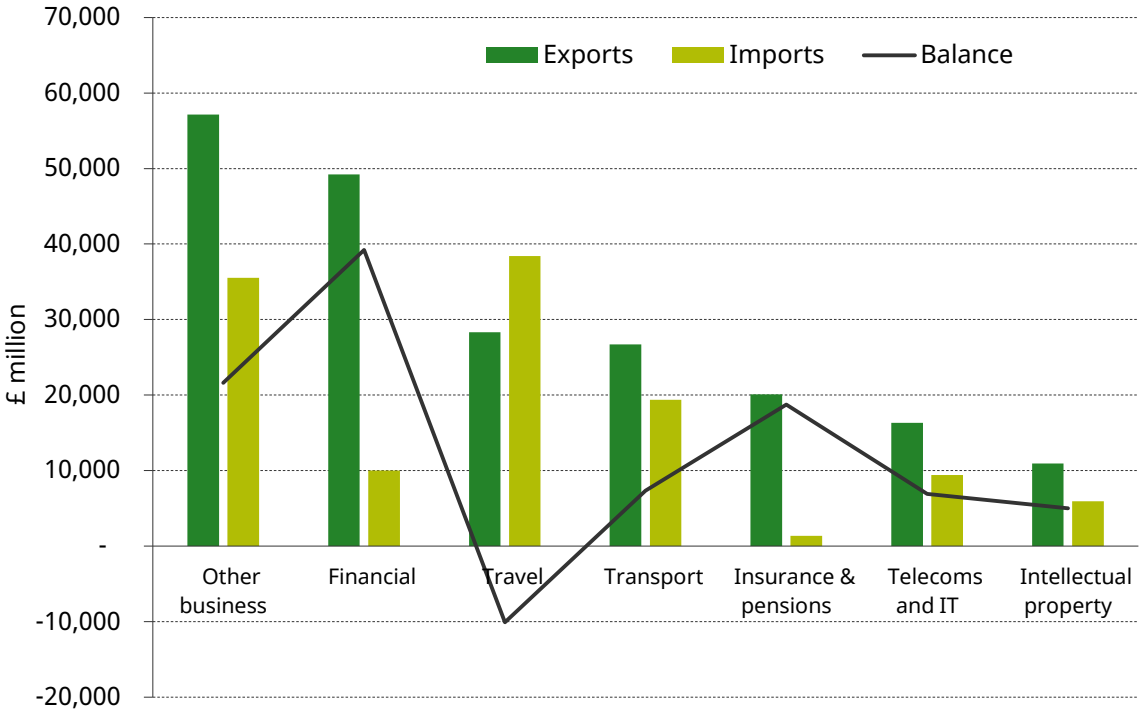
	Exports of services		*Imports of services*	
	£ billion	**Share**	**£ billion**	**Share**
EU	89	39%	68	49%
US	53	24%	26	19%
Rest of the world	84	37%	44	32%
Total	225	100%	138	100%

Source: Authors' calculations using ONS balance of payments data 2016 Q1, https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/datasets/unitedkingdomeconomicaccountsbalanceofpaymentscurrentaccount.

Looking in more detail at our trade exports, business and financial services contribute the highest exports. Figure 2.3 also demonstrates that, along with insurance and pensions, the UK exports substantially more in these subsectors than it imports, which contributes positively to the UK's trade balance (black line). Business,[3] financial, insurance and pensions service sectors together accounted for 58% of all service exports in 2014 and for 89% of the £89 billion service contribution to the 2014 trade balance.

[3] 'Business' comprises 'technical and other business services' (including engineering) and the similarly-sized 'professional and management consulting services'. Together, these accounted for 90% of business exports, with 'research and development' making up the remaining 10%.

Figure 2.3. Largest trading service sectors, 2014



Note: Sectors importing or exporting over £5 billion.

Source: Authors' calculations using ONS Pink Book 2015 data, http://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/compendium/unitedkingdombalanceofpaymentsthepinkbook/2015-10-30.

Service export destinations over time

Table 2.3 looks in more detail at where the UK exports its services to. While its share has dropped marginally in recent years, the EU is much our biggest market, accounting for around 40% of service exports in 2015.

Table 2.3. Top 10 UK service export destinations

	Share of service exports	
	1999	**2015**
EU	40.5%	39.4%
US	22.8%	23.5%
Switzerland	3.4%	5.2%
Japan	4.1%	2.6%
China	0.6%	1.6%
Canada	1.9%	1.5%
Russia	0.4%	1.3%
India	0.8%	1.0%
Hong Kong	1.4%	0.9%
Brazil	0.5%	0.7%

Source: Authors' calculations using ONS balance of payments data 2016 Q1, https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/datasets/unitedkingdomeconomicaccountsbalanceofpaymentscurrentaccount/current.

Service exports tend not to suffer from import tariffs in the same way as goods, partly because of the difficulty for authorities in identifying the trade. But there are substantial non-tariff barriers to trading in services – for example, licensing regimes – which add to the costs of exporting services. We will consider these costs and their importance in detail in Section 3.2, including the extent to which trade agreements and the Single Market reduce them.

2.2 Conclusion: importance of trade and service trade

Overall, the EU is easily the UK's largest trading partner, comprising around half of all trade. Services are a key part of the UK economy, and exports of services have grown significantly as a proportion of the UK's exports in the last 15 years. Service exports are substantially bigger than service imports, creating a sizeable trade surplus in services equivalent to some 5% of GDP.

Service exports are driven by business, financial, insurance and pensions services. Together, they accounted for 89% of the positive trade balance in services.

The EU is by far the UK's largest export market for services, accounting for almost 40%, whereas emerging economies such as Brazil, Russia, India and China together account for less than 5% of service exports.

3. EU Single Market: Membership versus Access

This chapter explains what the Single Market is, how 'access' to it and 'membership' of it differ, and how benefits from increased trade are distributed. It considers the importance of trade costs to goods and services trade and how trade costs are likely to differ in various scenarios outside the EU. It then looks at the example of trade in financial services and concludes on the relative merits of membership and access.

3.1 What is the EU Single Market?

The European Commission uses the following description:

> The Single Market refers to the EU as one territory without any internal borders or other regulatory obstacles to the free movement of goods and services. A functioning Single Market stimulates competition and trade, improves efficiency, raises quality, and helps cut prices.[4]

The Single Market was one of the founding aims of the EU (see later in this section). The European Economic Area (EEA), membership of which may be an option for the UK following Brexit (see Chapter 5), shares this aim:

> … the European Economic Area … brings together the EU Member States and … Iceland, Liechtenstein and Norway … in a single market, referred to as the 'Internal Market'.
>
> The EEA Agreement provides for the inclusion of EU legislation covering the four freedoms — the free movement of goods, services, persons and capital — throughout the 31 EEA States.[5]

By aiming for free movement of goods *and* services, a single market goes beyond a 'free trade area' or 'free trade agreement' (FTA), which are predominantly concerned with reducing, often eliminating, trade tariffs on goods between members. It also goes beyond a 'customs union', which commits members to free trade on goods, removes the need for internal customs checks within the union, and agrees a common external tariff with respect to imports from the rest of the world.[6] Section 5.1 expands on these models and their differences in the context of options for the UK outside the EU. As formal trade barriers such as tariffs have reduced significantly over time, and as services have become

[4] http://ec.europa.eu/growth/single-market/index_en.htm.

[5] http://www.efta.int/eea/eea-agreement.

[6] From the OECD's glossary of terms, https://stats.oecd.org/glossary/detail.asp?ID=3130.

economically more important, so 'non-tariff barriers'[7] have become more important in holding back trade.[8]

The overall economic case for a single market is that, by enabling the free movement of goods and services, a single market:

- **reduces barriers and costs** so more businesses and individuals can trade products across it;
- **increases choice** for consumers (and businesses);
- **lowers costs** for both consumers and businesses;
- **enables firms to access larger markets and specialise**, taking advantage of economies of scale and becoming more efficient. In turn, this:
- **creates additional competitive pressure**, which pushes up productivity.

As we will see below, the economic literature suggests that the sum of these effects can be substantial.

A genuine single market requires a 'level playing field' of rules across national boundaries. This means removing 'unfair' regulatory restrictions, providing a legal right to challenge unfairness and harmonising, or ensuring mutual recognition of, member-state regulation. Regulatory harmonisation may not, in some cases, be in the interest of a single member state – perhaps involving additional costs or accepting policies that are undesirable. Such supranational rules are important for a genuine single market – otherwise, firms in some countries, operating to different regulatory standards, could compete directly and unfairly with those in other countries.

So a single market is quite different from a free trade area or agreement. It lowers the costs of trade in services, and does more to remove regulatory barriers for goods trade. There are substantial economic benefits to such removal of barriers to trade in terms of lower prices and enhanced choice, specialisation and cross-border competition.

Increased trade and distributional impacts

How will these economic benefits of higher trade be distributed across different parts of the income distribution? There is a substantial economic literature and debate on the effect of globalisation and trade on inequality and wages. This subsection briefly touches

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[7] Non-tariff barriers (or non-tariff measures) are barriers, or costs, for trade arising from domestic laws, regulations and practices.

[8] The OECD (2011) notes: 'The current level of tariffs in many of the OECD Members of the G20 (at least on industrial goods) are already relatively low, and consequently reductions of trade barriers related to non-tariff measures (NTMs) are a key issue in defining scope for reducing barriers to international commerce'.

In a comprehensive study assessing non-tariff measures between the EU and the US, ECORYS (2009; see figure 3.1) finds that non-tariff measures are equivalent to a trade tariff of 10% – this is almost double the level of tariff measures applied by the EU.

on how increased trade might affect wages and the cost of living differentially for different income groups.

In terms of wages, economic theory suggests that increased trade can increase (within-country) wage inequality (Harrison, McLaren and McMillan, 2011) and even 'reduce the real wages of less educated workers in absolute terms' (Krugman, 2008). There are limited reliable estimates of the size of this effect. Early work on the rise in inequality in the US suggested a modest contribution from trade, although more recent work suggests a potentially bigger, if unquantified, effect (see Krugman (2008)).

Economic gains from increased trade tend to be more than sufficient to compensate those losing out in lower wages – for example, through increased tax credits. Still, that compensation may not occur in practice. And the cost of redistribution can reduce the overall benefits from trade (Antràs, de Gortari and Itskhoki, 2015).

Increased trade reduces the cost of goods and services and, as consumption patterns vary significantly between rich and poor consumers, this may also affect inequality. Fajgelbaum and Khandelwal (2016) present evidence that trade reduces inequality through disproportionally reducing the cost of living for poorer individuals. In particular, they model the consumer price impacts of and responses to recent trade flows compared with a hypothetical world without any trade. They conclude:

> We find a pro-poor bias of trade in every country. On average, the real income loss from losing trade is 63 percent at the 10th percentile of the income distribution and 28 percent for the 90th percentile. This bias in the gains from trade toward poor consumers hinges on the fact that these consumers spend relatively more on sectors that are more traded, while high-income individuals consume relatively more services, which are among the least traded sectors. Additionally, low-income consumers happen to concentrate spending on sectors with a lower elasticity of substitution across source countries.

Overall, then, increased trade can lead to increases in wage inequality and decreases in wages for less-educated workers – but this could be offset with compensatory payments, and trade also reduces inequality through disproportionately reducing the costs of living for poorer groups. The combined effect on inequality is unclear but, in general, the overall economic gains from increased trade are likely to be sufficient to compensate those who may lose out.

The Single Market and the Four Freedoms

Originally, the concept of a 'common market' was central in the Treaty of Rome, which founded the European Economic Community (EEC) in 1957. In effect, the common market first established a customs union (see earlier for a definition) and committed members to the free movement of goods, persons, services and capital. These latter are now known as the Four Freedoms.

It remains the case that the EU must 'establish an internal market', defined as 'an area without internal frontiers in which the free movement of goods, persons, services and

capital is ensured in accordance with the provisions of the Treaties' (Treaty provisions quoted in Department for Business, Innovation and Skills (2013)).

Over time, the legal framework has evolved to reflect the increasing level of integration of the Single Market. While initial efforts were aimed at removing tariff and customs barriers, this gave way to more focus on the free movement of goods ('imports and exports'). The Maastricht Treaty of 1993 largely abolished controls on capital and payments transfers between member states; it also created the concept of European citizenship (this ultimately led to the extension of treaty rights for EU citizens to move freely as long as they are 'self-sufficient' rather than only moving freely for the purposes of work). Since the late 1990s, there has been much more focus on services. The Financial Services Action Plan in 1999 aimed to make it easier to market financial services across the EU. In 2005, legislation was agreed to recognise a range of professional qualifications across the EU. In 2006, the Services Directive was agreed, making it easier for barriers to services provision to be abolished. Given the importance of services in general, and financial services in particular, to the UK economy, recent changes have in general been particularly beneficial to the UK.

A fuller history and description of the origins and legal basis of the EU are contained in Appendix A.

3.2 Costs of trade within and beyond the Single Market

This section sets out the different costs of trade, and sets out which apply in the different policy scenarios considered in Chapter 5.

Costs of trade

Table 3.1 summarises the different types of trade costs and barriers, split into those that apply only to goods and those that also apply to services. This highlights that trade barriers such as language and transport costs will exist regardless. For goods, the combination of tariffs and borders creates costs that are material in terms of the value of those goods. Non-tariff measures are important barriers for services and goods. A comprehensive sector-by-sector study by ECORYS (2009) estimated them to be equivalent to a 10% tariff between the EU and the US. It also suggested that the maximum possible reduction in these costs in a trade deal would be to halve them. Miroudot, Sauvage and Shepherd (2013) estimate trade costs to be much higher in services than in goods – a multiple of two to three times in many cases.

Table 3.1. Overview of trade barriers and costs in an EU context

Trade barrier	Costs within EU	Costs beyond EU	Specific examples
Goods only			
Tariffs and quotas			
Taxes on imports	None	Trade deals reduce most to zero except on agriculture Without a trade deal, goods imports to the EU face an average 5.3% (WTO, ITC and UNCTAD, 2015) but the figure varies significantly between products	Chemicals, clothing and cars would face 4.6%, 11.5% and 10% tariffs
Quantity limits on imports	None	Quotas place a limit on imports in some products	The EU limits the quantities of milk and sugar it imports
Border and customs			
Checks ensuring goods are allowed to enter	None	These are estimated by Ciuriak et al. (2015) to add some 2.3–3.3% to the cost of trade in goods	Time and compliance costs of customs clearance and documentation
Transport costs	Yes	No change (although see border checks above)	Cost of air, train or sea transportation to the EU
Cost of moving goods			
Services and goods			
Non-tariff measures	Limited	Outside of the Single Market, costs likely to grow over time	Professionals (doctors, engineers, accountants) must be licensed to practise
Licensing and right to supply	Single market reduces differences and legal protection against unfair practices		
Regulatory differences		Between the US and the EU, these are estimated by ECORYS (2009) to average 10%	Financial services cannot be sold directly from the US to EU consumers
Standards		Legal recourse to unfair treatment much more limited	Food and labelling standards
Cultural differences	Yes	No change	Cost of translating DVDs or providing business consulting in another language
Including language and risk appetite		Economic models recognise the importance of these variables	

The level of trade the UK enjoys with the EU is above the level we would expect given factors such as the size and proximity of the EU economy. NIESR (2016) reviews several academic studies suggesting that joining the EU increased trade by between 12% and 33%.

Trade deals and reduced costs of trade

Over time, successive trade negotiations at the World Trade Organisation (WTO) have reduced the distortions from tariffs and quotas that apply to goods. Whilst these remain higher in developing and emerging economies, the WTO[9] calculates that tariffs – the level of taxes applied by countries on imports – now average 9% of the value of imports. Tariffs are increasingly seen as less important than 'non-tariff measures' that affect both goods and services (OECD, 2011; WTO, 2012).

Trade deals tend to focus on tariff and quota reductions for trade in goods. Open Europe (2016) suggests only 11 of the EU's deals cover services, and even then only partially. To encourage additional services trade, deals would need to agree mutual recognition of standards or regulatory convergence. China's trade deal with Switzerland does improve service access. Open Europe notes that the deal improved access for China in private sector training services, such as foreign language services, while Switzerland obtained access to China's environmental services sector, such as emission and noise control services. But these are only very limited examples and not much related to those areas in which the UK is strong.

What this means is that the most likely type of trade deal that the UK might negotiate with countries such as China and India would focus on goods and, at best, with only limited agreement on services – the sector in which the UK is strongest. Where agreements are reached, especially in services, this would almost certainly mean agreeing a set of regulatory standards – exactly the sort of agreements that apply within the EU to allow the Single Market to function.

Brexit scenarios and costs of trade

Outside of the EU, there are three broad existing possibilities for the UK's access to the Single Market. We return to these more fully in Section 5.1, but it is useful to note them here.

The three broad existing options are membership of the EEA, an FTA arrangement (like Switzerland or Canada) or relying on WTO rules on trade. These are summarised in terms of trade costs in Table 3.2.

[9] https://www.wto.org/english/thewto_e/20y_e/wto_20_brochure_e.pdf.

Table 3.2. Overview of Brexit scenarios and trade costs avoided

	WTO	FTA	EEA	EU
	Are trade costs avoided?			
Trade tariffs and quotas	No	Reduced	Reduced[a]	Yes
Customs checks and costs	No	No	No	Yes
Non-tariff measures (NTMs)	No	Minor	Yes[a]	Yes
Cultural and transport costs	No	No	No	No

[a] See discussion. EEA's near-full membership of the Single Market effectively eliminates non-tariff measures in the same way as the EU, and reduces tariff measures to zero except in agriculture and fisheries.

As a member of the EEA, the UK would be likely to maintain near-full membership of the Single Market on services and similar access on goods (except on agriculture and fisheries). With an FTA deal, similar to Switzerland's, goods access is similar and non-tariff barriers are eliminated in some sectors but not substantially in services. In a deal like Canada's, the UK would face several new and significant costs to trading with the EU – most notably on financial services trade. In a case where the UK reverted to WTO rules, it would still have 'access' to the Single Market in terms of being able to export there but that trade would be impacted by all the types of cost including tariffs and by non-tariff barriers. It might be possible for the UK to negotiate membership of the Single Market as part of a trade deal, but such a deal would be unprecedented.

3.3 Sector case study: financial services

Since the financial services sector is a major part of the UK economy and an important export sector, this subsection looks at the impact on this sector of different levels of access to the Single Market. Financial services also offer an insight into how a single market can be important for trade in services.

Contribution of financial services to the economy and trade

Financial and insurance services accounted for 8% of the value created in the UK economy in 2014[10] (using gross value added[11] as the measure) and employed 1.15 million people (3.4% of total UK employment), with almost two-thirds of jobs outside London and over half outside the South East.[12] Financial services are unusually important to the economy in the UK, even relative to other developed economies. UK financial services trade is twice the EU average and three times the OECD average.[13]

[10] House of Commons Library, 2015.

[11] Gross value added measures the value of industry output less the value of inputs used and is a widely used measure of an industry's or sector's contribution to the economy.

[12] Office for National Statistics, 'Workforce jobs by region and industry', March 2016 provisional figures, https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/workforcejobsbyregionandindustryjobs05/current.

[13] See chart 1.9 in Bank of England (2015).

The tax contribution of the financial sector is also significant. In 2014–15, HMRC[14] calculates that the 'banking sector'[15] accounted for £17.9 billion of taxes on earnings (PAYE income tax on earnings and National Insurance contributions), £2.3 billion of revenues from corporation tax and £2.7 billion of receipts from the bank levy. In total, HMRC collected £290.8 billion from taxes on earnings and onshore corporation tax in 2014–15, of which the banking sector therefore contributed 7%.

Financial and insurance services exports are equivalent to some 3.9% of total UK economic output. As these exports exceed UK imports of financial services, they contribute to a significant trade surplus. This amounted to £58 billion, or 65% of the overall trade surplus on services in 2014.[16] The EU accounted for 39% of all UK services exports in 2015. Using the latest available Office for National Statistics (ONS) data for 2014, the equivalent figure was 33% for financial, insurance and pension services.

Single Market membership and 'passporting'

As highlighted in Section 3.1, since the mid 1990s, the EU has increasingly focused on 'completing' the Single Market in services and has been active in opening up the cross-EU market.

A particularly important feature of this activity is the development of 'passporting rights',[17] which allow firms in one member state to trade across the entire Single Market. This reduces the costs and administration that would otherwise be involved and means UK financial firms can offer services across the whole of the EU without requiring further authorisations or meeting local regulations (for example, requirements on capital or liquidity). It also avoids the need to set up a subsidiary as a separate legal entity, which would require its own governance and risk management.[18]

Typically, non-EU firms wishing to supply financial services in the EU would need to establish a subsidiary in the EU and would also need EU authorisation to confirm the home-country regulation is 'equivalent'. A number of non-EU financial services firms have significant offices in London for this reason – the US International Trade Commission (2012) notes that 40% of US foreign financial service affiliates are located in the UK.

Without the 'passporting' that comes with Single Market membership, then, UK financial firms would need to establish subsidiaries within the EU. In addition, non-EU (especially

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14 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/455561/PAYE__Corporate_Tax_Receipts_from_the_Banking_Sector_2015.pdf.

15 Defined as 'all banks operating in the UK, and … any organisations undertaking banking activities in the UK' and will include receipts from bank subsidiary activity – for example, insurance.

16 Authors' calculations using ONS Pink Book data, http://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/compendium/unitedkingdombalanceofpaymentsthepinkbook/2015-10-30/unitedkingdombalanceofpaymentsthepinkbook.

17 HM Treasury (2016a) describes this as the shorthand term for 'the collection of measures in EU secondary law, which specify how the EU fundamental freedoms operate in the context of financial services. Once authorised in one member state the passport allows a firm to provide its authorised services across the EU without further authorisations in other member states'.

18 See Bank of England (2015).

Swiss and US) firms with subsidiaries in the UK to service the EU would need to establish an EU subsidiary to service EU customers. One way to do this would be to move their existing subsidiary from the UK to somewhere else in the EU.

Looking at the extent of EU business in the two broad financial services subsectors (see Table 3.3) shows that insurance and pensions have only limited exports to the EU (46% goes to the US). Still, some 41% of 'banking and investment'[19] services exports go to the EU (25% to the US).

Table 3.3. Financial services exports and destinations, 2014

	Insurance & pensions	Banking & investment	Total
Exports (£ billion)	20.1	49.2	69.3
EU share	12%	41%	33%
US share	46%	25%	31%
Other countries' share	42%	34%	36%

Source: Authors' calculations using ONS Pink Book chapter 9, http://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/compendium/unitedkingdombalanceofpaymentsthepinkbook/2015-10-30/unitedkingdombalanceofpaymentsthepinkbook.

In some financial subsectors, the EU is actively developing its regulation to make it easier for countries outside of the EU to supply financial services. This could reduce, but not eliminate, the adverse impact in some areas – for example, on wholesale business (i.e. business-to-business services to banks and other financial institutions), the EU's Markets in Financial Instruments Directive (MiFID) seeks to provide third-country (i.e. non-EU) access (Allen & Overy, 2016).

PwC (2016b) has undertaken a substantial quantitative assessment of the impact of leaving the Single Market on the financial services sector. This considers the impact of the loss of business through an increase in non-tariff barriers to trade with the EU/EEA.[20] The report also considers other impacts, including uncertainty, migration and some regulatory benefits. The overall impact on the financial services sector is negative – PwC estimates the gross value added of the sector would be 5.7–9.5% lower in 2020 but that this would recover in the medium term and be 1.8–4.0% lower by 2030.[21] These effects are greater than PwC's estimated impact on the wider economy. In addition, the report considers the effect of non-EU firms deciding to move their operations from the UK to other financial

[19] In ONS data, this is referred to as 'financial' exports and comprises 'financial institutions and intermediation', as well as 'fund management' and 'securities dealing'. In practice, this covers: deposits and lending; investment and fund management; and related transactions and advice. See Bank of England (2011) for discussion of the measurement of this activity.

[20] PwC assumes that non-tariff barriers (NTBs) on trade with the EU increase the differential between the NTBs faced by UK exports to the rest of the world and those faced by UK exports to the EU, by between one-quarter and three-quarters.

[21] These ranges refer to different exit scenarios in the report. The lower estimate refers to an 'FTA' scenario and the higher refers to a 'WTO' scenario. Whilst the particular assumptions in these scenarios differ by study, we explain these scenarios in general terms in Chapter 5.

centres over time in response to the loss of passporting and mutual recognition. This results in a further additional negative impact, which grows over time from 2.1% in 2020 to 3.3% in 2030 (so indicating a total loss of 4.0% + 3.3% = 7.3%).

In summary, the EU is an important market for financial services and, without passporting rights that come with Single Market membership, a substantial portion of that EU-related activity – either from UK firms or from non-EU firms with subsidiaries in the UK – will consider moving activity elsewhere. Whilst the quantitative estimates are necessarily speculative given uncertainty around the exit scenario, it is clear that the financial services sector is disproportionally affected, with PwC (2016b) estimating the sector could be 7.3% smaller than otherwise in 2030.

Options outside of the EU

Belonging to the EEA provides members, in principle, with full access for services, including passporting, subject to complying with EU regulation. However, City UK (2016) notes that, since the establishment of the 'European Supervisory Authorities' in 2010, the EEA Agreement is yet to incorporate any EU legislation. In practice, this means almost all of the EU's post-crisis financial regulatory measures, including passporting rights, are currently excluded. This highlights that EEA access is not in all cases entirely synonymous with EU membership. Still, as the UK already applies this regulation and enjoys passporting rights, it seems likely that this could continue if the UK joined the EEA.

None of the other existing models provides passporting rights. Switzerland's bilateral agreements with the EU do not cover financial services in the EU. This leads many Swiss financial institutions to establish subsidiaries in the EU (and often London). In other trade agreements, few go far beyond the General Agreement on Trade in Services (GATS)[22] agreed by the WTO's 140 members in 1995. The South Korea–EU FTA is the deepest of the EU's agreements (UK Trade Policy Observatory, 2016); it allows EU firms to offer financial services[23] and relaxes local ownership requirements in telecoms. The (not-yet-applied) EU–Canada 'comprehensive economic and trade agreement' (CETA) does contain a chapter on financial services and, for example, enables the movement of key company personnel between the EU and Canada, improves access to temporary consulting and mutually recognises some professional qualifications.[24] Still, this is a long way short of Single Market membership.

A major drawback of EEA membership is that regulations are set by the EU with very little input from EEA members. This may be a particular risk for the UK which, as a leading international financial centre, may be loathe to relinquish such control over the regulatory framework that applies here. Our previous work (Emmerson et al. 2016) noted that regulatory reform opportunities for the UK were limited outside of the EU. However, this may reflect UK influence over EU regulation and, without that influence going forward, the risk of regulation that is unfavourable to the UK could be considerably higher.

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[22] https://www.wto.org/english/tratop_e/serv_e/gatsqa_e.htm.

[23] In particular, being able to 'freely transfer data from their branches and affiliates to their headquarters' (http://trade.ec.europa.eu/doclib/docs/2009/october/tradoc_145203.pdf).

[24] http://ec.europa.eu/trade/policy/in-focus/ceta/.

Outside of the EEA, the UK would be able to set more of its own financial regulation although large swathes of that regulation is already set internationally. And, of course, the further UK regulation diverges from that in the EU, the less likely it is that we will be able to enjoy passporting rights and unfettered trade in financial services with the EU.

Could the UK more easily supply financial services to or from the rest of the world outside of the EU or EEA? The UK already trades substantially in financial services with non-EU countries, accounting for two-thirds of exports in insurance, pensions, banking and investment services. Trade deals could, in principle, cover services and ensure alignment or mutual recognition of financial regulation. Still, no existing trade deal matches the Single Market in terms of regulatory alignment, and this would effectively involve ceding some control over UK financial services regulation.

Summary of financial service impacts

Financial services are unusually important to the UK, accounting for some 8% of the economy and around 7% of total tax receipts from earnings and corporate profits. Financial services are one of the few areas where the UK exports substantially more than it imports.

Within financial services, banking and investment services are particularly important to trade and the EU accounts for 41% of exports. Insurance and pensions services are smaller and less dependent on EU business.

Membership of the Single Market enables UK firms, and non-UK firms with subsidiaries in the UK, to service EU customers directly through passporting. Anything short of actually being in the Single Market would mean that passporting was forgone, and these firms would be likely to need an EU-based subsidiary to service EU customers.

Whilst the quantitative estimates are necessarily speculative given uncertainty around the exit scenario, it is clear that the financial services sector is disproportionally affected by Brexit, with PwC (2016b) estimating the sector could be 7.3% smaller than otherwise in 2030.

Overall, the financial services sector provides a specific example of what it means to be within the Single Market. No deal short of (near-full) Single Market membership would give similar access, and the UK would be likely to lose high-value economic activity and jobs despite its comparative advantage in services. Granting substantial access for financial services firms outside of EEA membership would be unprecedented but EEA membership would come with the important risk that regulation of the UK's leading international financial centre would be determined largely by decisions made by the EU with relatively limited UK influence.

3.4 Conclusion: Single Market membership versus access

The EU was established with the aim of creating a 'single market' without any internal borders or other regulatory obstacles to the free movement of goods, services, people or capital. Reducing or eliminating these barriers increases trade and improves living standards.

Trading with other countries involves incurring additional costs over supplying the domestic market. As well as transport costs, there are taxes at the border (tariffs), customs checks, 'non-tariff barriers' such as licensing or regulation, and cultural barriers such as language. Membership of the EU Single Market avoids almost all of these costs and therefore reduces the drags on trade. Some costs to trade – such as transport costs and cultural barriers – will always remain.

Increased trade has significant economic benefits – lower prices and increased choice for consumers and businesses; and a larger market, which means more specialisation and competition. All this leads to higher incomes and living standards.

Membership of the Single Market – or near-full membership in the case of membership of the EEA – goes beyond 'access' to a market through a trade deal or a customs union by substantially addressing 'non-tariff barriers', which are particularly important to trading services. Estimates suggest the costs affecting services trade may be over twice those in goods.

Financial services provide a specific example of what it means to be within the Single Market. No deal short of (near-full) Single Market membership would give similar access to that conferred by 'passporting rights'. If the deal was membership of the current EEA, the UK faces the significant risk that, despite being a leading international financial centre, its regulation would be largely determined by the EU with relatively limited UK influence. Without membership though, the UK would be likely to lose high-value economic activity and jobs despite its comparative advantage in services.

Overall, then, full membership of the Single Market is the deepest form of trade integration and reduces trade costs in a way that an FTA or a customs union is unable to do, especially for services. Near-full membership, as in the case of membership of the EEA, therefore differs substantially in economic terms from the 'access' that is currently available to countries that hold an FTA with the EU.

In the next chapter, we look at whether trade beyond the EU might compensate for reduced Single Market access.

4. Trade Deals beyond the EU

Some commentators, and Vote Leave,[25] have suggested a key benefit of Brexit for the UK is the freedom to strike trade deals. This chapter compares the coverage of the EU's current trade deals with that of deals the UK may be able to access if it joins the European Free Trade Association (EFTA). It then looks briefly at the extent to which fast-growing non-EU countries, especially China, might compensate for loss of EU trade.

4.1 EU and EFTA trade deals

As well as the exports that go directly to the EU, the UK benefits from trade deals the EU has struck. The EU currently has some 33 preferential trade deals that lower or eliminate tariffs on goods with over 60 other countries.[26] Open Europe (2016) uses Office for National Statistics (ONS) data for 2014 to calculate the proportion of the UK's trade covered by the EU and its trade deals with third countries. It estimates that these agreements currently cover nearly 63% of the UK's global trade and that this would rise to over 65% once agreements with Canada and Singapore come into force. The remainder is the UK's trade with non-EU countries with which the EU has not negotiated favourable terms, such as the US. If the Transatlantic Trade and Investment Partnership (TTIP) between the EU and the US were agreed, Open Europe estimates coverage would rise further to over 78%.

EFTA and third-party agreements

The European Free Trade Association is 'an intergovernmental organisation set up for the promotion of free trade and economic integration'.[27] Its membership has evolved over time as former members (including the UK) went on to join the EU. The current members are Iceland, Liechtenstein, Norway and Switzerland. If the UK wished to join EFTA, these four members would determine whether, and on what terms, to admit the UK. Although EFTA is distinct from the EU, only Switzerland is not a member of the European Economic Area (EEA) with the EU (see Section 5.1 for more detail).

EFTA has a number of trade deals with third countries. Figure 4.1 compares these with the EU's free trade deals (full details are given in Appendix B). Several countries have left EFTA to join the EU, the most recent being Austria, Finland and Sweden in 1995. No countries have joined EFTA in the past 25 years (Liechtenstein was the last, in 1991) and as such it is difficult to know how the UK, as a large economy and previous member from 1960 to 1973, would be incorporated. It seems unlikely that a new EFTA member would automatically participate in existing EFTA trade agreements, but perhaps it could do so with the permission of existing parties to the agreement. For example, the UK could join the EFTA–Canada agreement if both the UK and Canada (together with the existing EFTA members)

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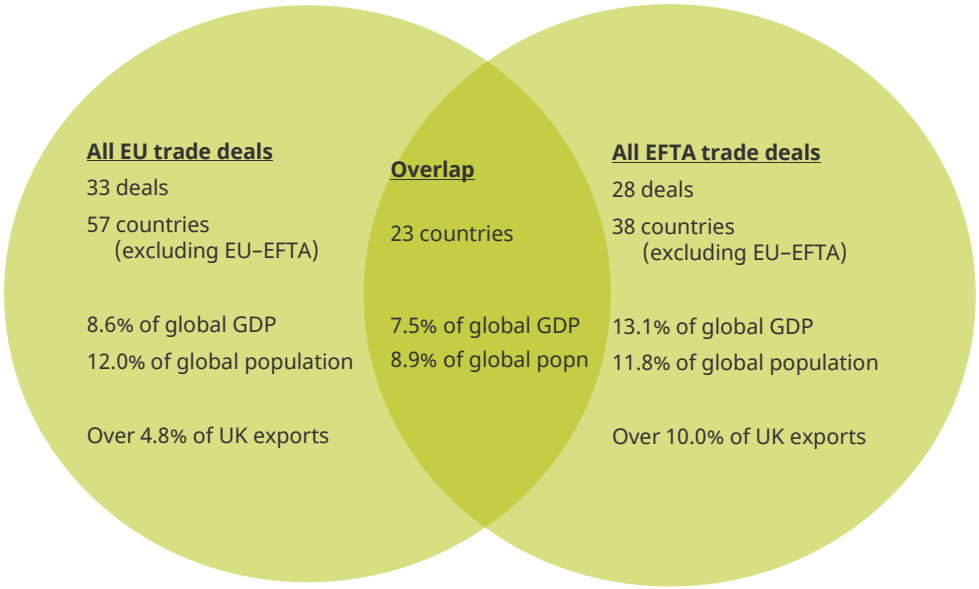
[25] 'If we Vote Leave and take back control of our trade policy, we can speak for ourselves and sign new deals with countries all over the world, creating new jobs and new investment opportunities', http://www.voteleavetakecontrol.org/briefing_trade.

[26] Different estimates exist for the level of EU trade agreement country coverage. Our analysis suggests 57 non-EFTA countries (see below and Appendix B) plus the four EFTA members.

[27] http://www.efta.int/.

concurred. This would be more difficult if EFTA partners have given market concessions that they would not want to give to a larger economy such as the UK.

Figure 4.1. Simple comparison of EU and EFTA trade deals



Note: Excludes EU–EFTA trade deals. EU and EFTA's combined GDP and population are respectively some 7% and 23% of the global totals. UK export figures are based on largest trading partners and are therefore an under-estimate.

Source: Authors' calculations using World Bank Development Indicators, http://wdi.worldbank.org/tables and ONS Pink Book 2015.

Looking at the shares of global GDP and population taken by the third-party countries involved, as in Figure 4.1, is a relatively simplistic approach. A country's GDP is not necessarily a good guide to its prospects as a trade partner, not least because of distance, language and other barriers (see Section 3.2). In addition, the comparison in Figure 4.1 does not take any account of the depth or breadth of each deal (for example, how many tariffs or restrictions are reduced or removed). Still, it is clear that there is significant overlap in country coverage, and that EFTA's deals cover countries with more global output than those of the EU. Only five of the countries covered are large in the sense of having at least 1% of global GDP (see countries in bold in Table B.1). EFTA has trade deals with Hong Kong, Canada, Saudi Arabia and Singapore who together account for over 5% of the UK's exports in 2014 and so EFTA's deals (over 10.0% of exports) seem likely to cover a higher proportion of UK exports than the EU's deals (over 4.8%). Few of the trade deals significantly enable trade in services. The EU's agreement with South Korea is perhaps the deepest, with enhanced access on telecommunications, financial (see Section 3.3) and legal services, and shipping (UK Trade Policy Observatory, 2016). The forthcoming EU–Canada deal (not included here as it is not yet in place) will also cover services to some extent. EFTA's deal with Canada primarily covers goods, though there are plans to extend it.[28] EFTA's other large deals, with South Korea, Mexico and the Gulf Cooperation Council, do not appear to go far beyond incorporating the General Agreement on Trade in Services

[28] http://canadians.org/blog/will-new-canada-efta-agreement-also-include-isds-provision.

(GATS) rules established by the World Trade Organisation (WTO) in 1995. EFTA's deal with Turkey does not cover services at all.

In Chapter 5, the macroeconomic assessments of Brexit make assumptions about whether the UK benefits from these EFTA, or similar, trade deals in different exit scenarios.

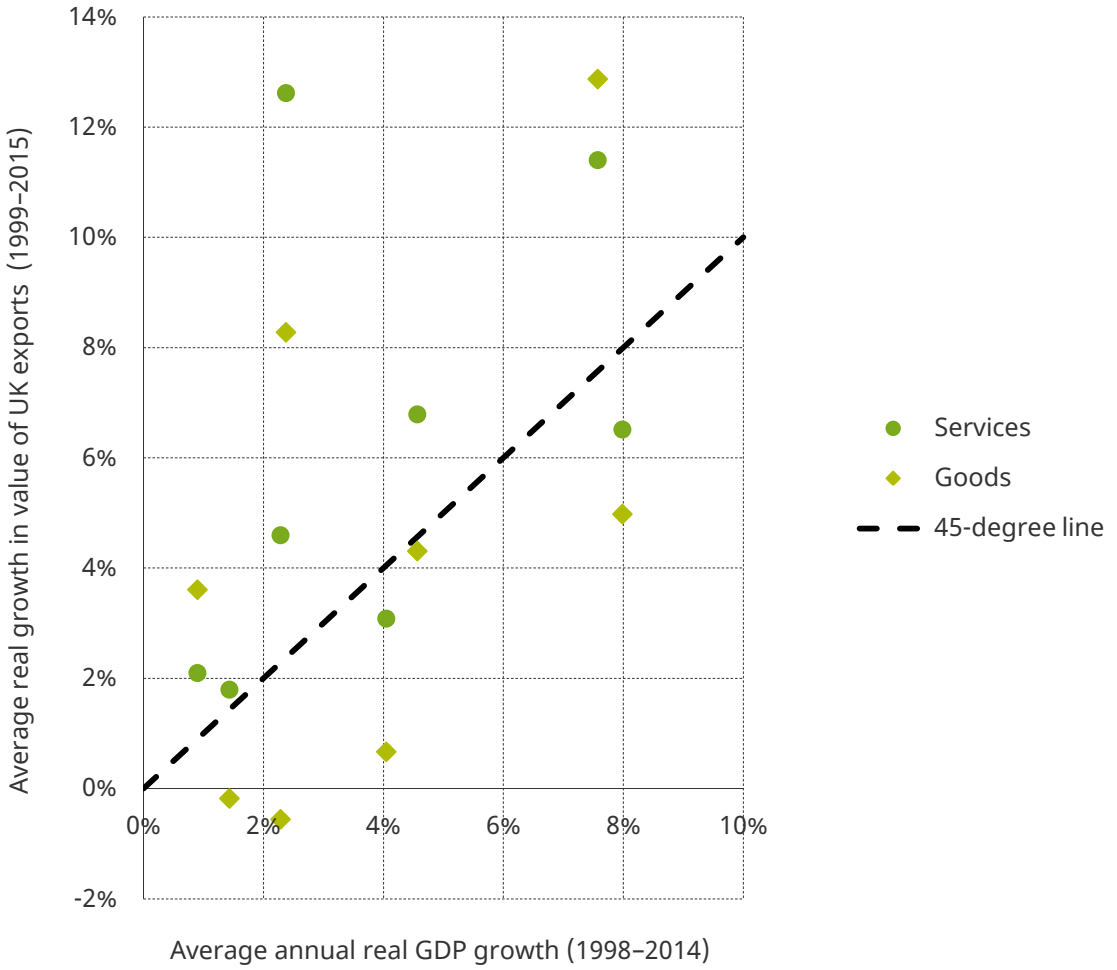
4.2 Potential trade growth with fast-growing economies

This section looks at whether rapid economic growth in non-EU countries means that trade with those countries might become more important for the UK than trade with the EU.

Economic models suggest that trade between nations depends significantly on economic size and distance both geographically and culturally (for example, language). Indeed, economic models that look at these relationships ('gravity models') could in principle be developed to look forward at potential economic growth and possible changed trade levels. Still, here we take a simpler approach.

Figure 4.2 compares the average growth in the UK's exports to each of its 10 biggest trading partners with the GDP growth in the recipient country over the past decade and a half. It shows a relationship, not necessarily causal, between growth in an economy's GDP and growth in the UK's exports to that country.

Figure 4.2. Growth in UK exports and recipient GDP for the top 10 export destinations since the late 1990s



Source: Authors' calculations using World Bank Development Indicators and ONS balance of payments data 2016 Q1, https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/datasets/unitedkingdomeconomicaccountsbalanceofpaymentscurrentaccount/current.

We have not identified any significant studies of the UK's likely future trading patterns and highlight this as an important gap in the evidence. However, given suggestions that the UK can build trade alliances outside of the EU, we use a highly simplified illustration here. Despite significant recent growth in emerging economies, UK exports are low relative to closer and more developed markets – for example, China and India together accounted for 4.6% of all exports, and 2.6% on services as compared to 44% of all exports and 39% on services which go to the EU. Looking forward with China as an example, if we assume that exports to China grow in line with expectations on GDP growth in China (this effectively assumes the relationship implied by the dotted 45-degree line in Figure 4.2), then, at a rate of 5%[29] or 10% (compounded) annual growth, they would grow to £34 billion or £68 billion in 2030. Even if all other exports stagnated for 15 years, this would still put

[29] The IMF World Economic Outlook anticipates 6–6.5% real growth in China's GDP from 2016 to 2021 (http://www.imf.org/external/pubs/ft/weo/2016/01/weodata/index.aspx).

China well behind the EU (£222 billion in 2015) and the US (£100 billion in 2015) as an export destination.

If the UK were successful in agreeing a trade deal with China, this could reduce tariffs on trading in goods. Applied tariffs on imports to China average 9.6%,[30] but even their elimination would seem unlikely to lead to transformatively higher growth rates. In addition, such a deal would also mean reducing tariffs currently faced by Chinese imports to the UK – concerns around the current low prices of steel imports and the future of Port Talbot[31] illustrate that this may not be straightforward. Finally, as we have seen above, trade deals that cover services are still rare and difficult, not least as they would require mutual recognition of regulation or regulatory harmonisation.

4.3 Conclusion: trade deals beyond the EU

Outside of the EU, the UK would be able to pursue trade deals either alone or as part of EFTA. EFTA's deals cover a smaller number of countries than the EU's (38 non-EU versus 57 non-EFTA countries respectively) but – in terms of the GDP of recipient countries – coverage is slightly larger (13.1% versus 8.6%). However, these trade deals are primarily relevant to goods. Very few cover services and, even where they do (for example, in the case of South Korea's agreement with the EU), the level of access is still limited compared with membership of the EU Single Market.

In terms of potential trade growth with major emerging economies, even if UK exports grow in line with strong economic growth in China to 2030, export values are unlikely to match current levels with the US or EU. Trade deals might well facilitate export growth, especially in goods. However, trade deals that cover services are still relatively rare, and time consuming, and in any case would require regulatory harmonisation in a similar way to the Single Market.

[30] Simple average of applied 'MFN' tariff from Summary Table in WTO, ITC and UNCTAD (2015).

[31] For example, see 'Could the government save UK steel?' http://www.bbc.co.uk/news/business-34392379.

5. Brexit Options and Economic Impact

This chapter draws on the previous review of Brexit analysis that was published by IFS (Emmerson et al., 2016) and gives an overview of the macroeconomic studies of the options outside the EU.

5.1 What are the options?

This section gives an overview of the broad policy options that appear to be available to the UK outside of the EU, with a focus on the level of EU market access they offer. Each option below starts with a summary of the implications for Single Market access before describing the wider features of the options.

1. **EEA membership** (for example, Norway).[32] Membership of the European Economic Area is the option closest to membership of the EU.[33] It offers near-full membership with largely the same access as enjoyed by members for services.[34] Goods face customs/border checks to ensure their origin, and agricultural and fisheries products also face tariffs. Whilst goods therefore face some additional costs, EEA members enjoy substantial access to the Single Market.

   However, they have to make budget contributions, meet the vast majority of EU regulations and accept free movement of people.[35] Despite this, EEA members have virtually no say in how EU regulations are set. Finally, trade with countries outside the EU is governed by **EFTA**, which has 28 free trade agreements (FTAs) covering 38 countries. These are separate from the EU's FTAs and include, for example, Canada and Singapore (which the EU's FTAs do not yet) and Mexico (where the EU has a separate agreement). We looked at the coverage of these trade deals in Section 4.1.

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[32] EEA members (Iceland, Liechtenstein and Norway) are all members of the European Free Trade Association along with Switzerland.

[33] The EEA Agreement does not cover the following EU policies: common agriculture and fisheries policies (although the EEA Agreement contains provisions on trade in agricultural and fish products); customs union; common trade policy; common foreign and security policy; justice and home affairs (the EEA EFTA states are, however, part of the Schengen area); direct and indirect taxation; or economic and monetary union. See http://www.efta.int/eea/eea-agreement/eea-basic-features#5.

[34] As noted in the financial services case study in Section 3.3, whilst in principle the EEA incorporates all EU legislation, in practice the EEA is yet to incorporate financial services legislation, including the important 'passporting rights'. The UK currently enjoys these, so it may be that if EEA membership is pursued, the EEA Agreement would be updated accordingly.

[35] The EEA rules on free movement do differ from those of the EU. First, the 'safeguarding measures' contained in both the EU and EEA agreements extend to free movement only in the EEA. These would enable an EEA member under Article 112 of the agreement to unilaterally take time-limited measures (including restricting free movement) 'If serious economic, societal or environmental difficulties of a sectorial or regional nature liable to persist are arising'.

Separately, it may be relevant to note that Liechtenstein effectively limits the number of new residence permits according to a quota (of just 72 per year against a population of some 37,000), reflecting its unique geographical situation. See section 3.2.2.2 of Pelkmans and Böhler (2013).

2. **An EU–UK FTA** (for example, Canada or Switzerland). This option reflects a broad range of possibilities (see below). In terms of access to the EU single market, although some of the EU's trade deals touch on services (for example, the forthcoming deal with Canada), they stop well short of granting full access. Switzerland has a number of sectoral deals but does not enjoy a financial services passport – see the financial services case study in Section 3.3 – and also accepts EU regulation and free movement of people. On goods, several existing FTAs eliminate almost all tariffs. Still, goods would face customs checks and potential non-tariff barriers.

   An FTA covers a broad range of possibilities from a straightforward trade agreement such as the EU's deal with Canada or Mexico, to a more complicated deal such as Switzerland's, which includes a bilateral EU deal alongside EFTA membership. An FTA would involve tariffs and potentially other barriers being lowered from the 'most favoured nation' (MFN) level faced by those exporting to the EU without a trade deal. In addition, it could enable the UK to strike its own deals with other countries, including with those countries the EU has an existing deal with (potentially 'grandfathering' them on similar terms). Outside of trade deals, other countries would levy tariffs on their imports from the UK up to the levels agreed at the World Trade Organisation (WTO), and the UK could set its own tariffs on imports in the same way. This option is unlikely to involve budget contributions, accepting free movement of people or EU regulation. It is likely to mean that UK exports to the EU face customs checks, adding a friction to trade. Finally, UK exporters would not automatically be able to provide services in the EU as now. Service providers would still need to meet EU standards but may also face more onerous requirements (for example, licensing or establishing a subsidiary) to enable them to trade.

   Switzerland has a bilateral trade deal with the EU that includes the right to supply the EU tariff-free and without restrictions in a number of sectors (though customs checks still apply to goods). In those areas, Switzerland is bound by EU regulation (though has very limited say in it) and, as part of the wider agreement, accepts free movement of people. Still, Switzerland does not have access on financial services.[36] The UK may wish to attempt to retain access to part of the Single Market in a similar way, though of course this implies agreeing to adopt EU regulations and, perhaps, to free movement of people.

3. **WTO**. Under this scenario, the UK would set its own tariffs on imports from other countries up to ceilings allowed by the World Trade Organisation. For services, there would be no special access to the EU market. Similarly, goods would face the EU's full common external tariffs as well as customs checks and non-tariff/regulatory barriers. The UK would only be bound by EU regulations in terms of goods and services supplied to the EU and would take full control over immigration policy.

   The WTO sets binding limits on import tariffs and, unless they are part of an FTA, these tariffs must be the same for all countries (i.e. the same as the MFN). So, if no FTA were in place with the EU, the UK would face the EU's MFN tariffs – the EU would be obliged

[36] In practice, to serve EU customers, this has meant Swiss companies establishing subsidiaries within the EU, and in particular in London. This increases their costs and displaces economic activity that might otherwise have occurred in Switzerland.

to levy these tariffs unless and until an FTA was in place. Similarly, the UK would face other countries' external tariffs on UK exports.

This option would give the UK the ability to strike its own trade deals and would not involve budgetary contributions, EU regulation or free movement of people. However, to strike trade deals that go beyond tariffs into, for example, investment and services, some degree of sovereignty would be ceded in agreeing common rules with another trading partner.

4. **Unilateral 'free trade'** is usually a variant of the WTO option[37] and describes a situation where UK exports would face the trade tariffs agreed at the WTO but the UK would 'unilaterally' remove all tariffs, and probably customs checks, on its imports. Market access to the EU is as in the WTO option.

   In effect, this is one scenario of many under WTO rules where the UK sets its own import tariffs. Relatively few countries have taken this approach. New Zealand unilaterally reduced tariffs in a wide range of sectors throughout the 1980s and 1990s,[38] with some success in driving productivity improvements in its domestic sectors. Singapore and Hong Kong are even closer to unilateral free trade, with average tariffs near zero. Of course, unilateral liberalisation does not affect non-tariff barriers, which will remain important, especially to trade in services.

Brexit scenarios and access to the Single Market

The above scenarios vary significantly in terms of their obligations and features. Whilst several of the options address trade costs and access for goods, only membership of the EEA offers near-full membership of the Single Market, which would minimise the costs to the UK's service exports to the EU. Whilst this access could be granted under an FTA, it would be unprecedented, especially in the absence of agreement on the free movement of people.

In summary, each of the scenarios offers different levels of cost to trade, with EEA membership doing most to reduce these and with the WTO option reducing them the least. The quantitative estimates below reflect these differences in trading costs.

5.2 What are the important elements of the economic assessment?

In the previous section, we highlighted the degree of EU Single Market access in the main Brexit scenarios. Before we move on to quantifying the economic impact of that access, we briefly consider the other economic issues inherent in these options.

Our previous study (Emmerson et al., 2016) examined each of the key Brexit issues in detail. Specifically, it drew on all the substantive economic assessments to assess the likely

[37] The UK could unilaterally lower its tariffs on imports after agreeing trade deals (with the EU or others). Still, after doing so, trade deals would be more difficult to agree as the UK cannot offer to reduce tariffs further in exchange for better access for UK exports.

[38] New Zealand's simple average of applied tariffs is just 2.0%, compared with 5.3% in the EU and around 9% globally (WTO, ITC and UNCTAD, 2015).

impact of uncertainty, the UK's budget contribution, EU regulation, trade, migration, foreign investment and productivity. This produced the summary in Table 5.1 in relation to an FTA scenario.

Table 5.1. Synthesis of key issues and indicative impacts in FTA scenario

Issue	Uncertainty in estimates	Summary assessment
Short-term impacts (2020)		
Uncertainty	Low	Wide agreement that there would be a negative economic impact from increased uncertainty. Several studies suggest –1% for each year it takes to agree a new relationship with the EU.
Long-term impacts (2030)		
Budget	Low	If the UK does not join the EEA, there would be direct budgetary savings of 0.4% of GDP.
Trade	Low	Robust estimates suggest reduced trade, with NIESR suggesting a central estimate of just greater than –1.8%.
Trade openness and productivity	High	Strong link between trade openness and productivity but little UK-specific evidence. Still, this represents a significant downside risk which HM Treasury not implausibly estimates at around –4.5%.
Foreign direct investment (FDI)	Low	Wide agreement on impact on FDI flows with a direct knock-on to GDP which NIESR estimates at just greater than –0.2%.
FDI and productivity	Medium	Evidence that FDI improves productivity – a downside risk which HMT estimates would be –0.7%.
Regulation	Medium	UK lightly regulated but scope for some net benefits, contributing perhaps +0.3% (OECD) to +0.7% (Open Europe).
Migration	High	Significant reductions in migration are a downside risk, which PwC estimates at –0.7%. Also the possibility of improving skills mix of migrants, which could have a smaller but unquantified positive impact.
Overall impact		NIESR's estimates of uncertainty, budget savings, trade and FDI impacts suggest GDP would be 2.1% lower. There is more uncertainty over the other impacts. OECD and Open Europe highlight upside risks of improvements to regulation, and perhaps migration, but these seem unlikely to exceed 1% of GDP. The downside risks are more significant – if trade or investment falls affect UK productivity, then GDP could plausibly fall by a further 5%.

Source: Emmerson et al. (2016), who used HM Treasury (2016a and 2016b), NIESR (2016), OECD (2016), Open Europe (2015 and 2016) and PwC (2016a).

To summarise briefly, there is broad agreement in the substantive economic analyses that, even after the negative short-term effects from uncertainty, the effects of Brexit from reduced EU access and trade are likely to be quantitatively most important in considering the effects on GDP. In most estimates, in most possible states of the world, these effects will be negative as costs of trade increase. The effects are bigger in a world in which the UK does not join the EEA and biggest if it cannot agree a trade deal with the EU (i.e. the WTO scenario).

These negative impacts from reduced EU market access and trade, along with the likely negative effect from foreign direct investment, outweigh much smaller potential positive impacts from a reduced budgetary contribution and lower costs of regulation. It is also worth noting that these small positives (in monetary terms), along with control over immigration, only arise in scenarios (FTA or WTO) where the negative impacts from reduced Single Market access and less trade with the EU are highest.

5.3 Macroeconomic assessments of Brexit scenarios

A wide range of academics, consultancies, think tanks and others have made substantive quantitative economic assessments of the UK leaving the EU over both the short term and the long term. We reviewed these extensively in our prior report (Emmerson et al., 2016). Since our last report, the Bank of England (2016b) has updated its forecasts of GDP to the third quarter of 2019. The central projection suggests that GDP at the end of this period would be 2½ per cent below the level in the Bank's May projection. This short-term forecast is not predicated on any particular Brexit scenario though the Bank recognises the importance of trading arrangements to the UK's the long-term prospects. Of the other independent forecasters who have produced a revised forecast since the referendum the vast majority have – like the Bank of England – revised down their forecast for growth in 2017, with average forecast growth in 2017 now down to just 0.5%.[39]

The scenarios and coverage of the studies differ but we have focused in this report on studies that consider all three potential trade scenarios for the UK – EEA membership, an FTA with the EU, and WTO membership. The studies make some different assumptions but they are broadly similar and sensible (see Emmerson et al. (2016) for a full review of approaches used).

Table 5.2 reports long-term estimates in terms of GDP, showing static and dynamic assessments separately. The latter include the 'dynamic' effect where lower overall trade leads to lower productivity (than otherwise) in the economy. The link between higher trade and higher productivity has been shown in several robust economic studies (see CEP (2016a) for a summary). Still, academics are cautious about how this might work in the UK and in a scenario where trade is falling rather than growing. Appendix C contains the full table of estimates considered in our previous study.

[39] See HM Treasury (2016c) for a survey of independent forecasts.

Table 5.2. Assessments of 2030 economic impact of Brexit scenarios

Scenario	Organisation	Static (% of GDP)	Dynamic (% of GDP)
EEA	CEP (2016a)	–1.3 (N/A)	
	HM Treasury		–3.8 (–3.4 to –4.3)
	NIESR	–1.8 (–1.5 to –2.1)	
FTA	CEP (2016a)		–7.9[a] (–6.3 to –9.5)
	HM Treasury		–6.2 (–4.6 to –7.8)
	NIESR	–2.1 (–1.9 to –2.3)	
WTO	CEP (2016a)	–2.6 (N/A)	
	HM Treasury		–7.5 (–5.4 to –9.5)
	NIESR	–3.2 (–2.7 to –3.7)	–7.8 (N/A)

[a] This is the mid-point of CEP's stated range.

Note: Estimates are for the impact on GDP in 2030 relative to EU membership.

Source: Estimates from organisations above. Emmerson et al. (2016)'s assessment of impacts modelled.

All of the scenarios show a negative impact on the UK economy and living standards, in line with the strong consensus in the robust economic assessments available (Emmerson et al., 2016). Within the static and dynamic approaches, across each of the three studies, there is a clear hierarchy of impacts, with EEA being the least economically damaging, the WTO scenario the most and an FTA scenario in between.

In broad terms, the WTO scenario is around twice as economically damaging as an EEA scenario. Central estimates see GDP being between 2.6% and 7.8% lower than would otherwise be the case.

The FTA estimates vary more than the EEA ones, partly reflecting the various assumptions made. For example, NIESR uses the Switzerland model, so in this scenario the UK enjoys full access to EFTA's trade agreements. In terms of static impacts, NIESR sees this scenario as only slightly more damaging than EEA membership. With dynamic impacts, HMT's FTA scenario involves GDP being 2.4% lower than in the EEA. Still, CEP's dynamic FTA estimate is over 4 percentage points more damaging than HMT's dynamic EEA scenario.

Overall, maintaining access to the Single Market in an EEA scenario could be worth potentially 4% on GDP – adding almost two years of trend GDP growth – relative to a WTO scenario. Whilst the terms of an FTA matter significantly to the impact on GDP, the

modelling estimates here and economic theory and the wider evidence we saw in Chapter 3 all suggest EEA would mean stronger economic performance than an FTA scenario.

5.4 Public finance implications

This section looks at the public finance implications of the different potential Brexit scenarios.

The direct impact on the UK public finances of the UK leaving the EU is to strengthen them. This is because we would no longer have to make a net financial contribution to the EU. As discussed in Emmerson et al. (2016), this impact could be expected to be about £8 billion a year – equivalent to about £150 million a week – over the next few years. This means that if we choose to fund directly all of the EU-funded spending that currently takes place in the UK – such as spending on agricultural and regional policy – the direct impact of leaving the EU would be to leave us with an additional £8 billion a year to allocate elsewhere. So we could choose a combination of lower taxes, lower borrowing and higher spending.

Unfortunately, this is far from the end of the story. Economic performance is a key determinant of the strength of the public finances. In particular, weaker growth than forecast in the March 2016 Budget would be expected to lead to:

- lower-than-forecast receipts of taxes as, for example, lower-than-expected wages, profits and consumer spending depress receipts of income tax, corporation tax and VAT;
- greater-than-forecast social security spending as higher-than-expected unemployment – and prevalence of low incomes – pushes up spending on working-age benefits and tax credits;
- unchanged (at least by default) spending on the delivery and administration of public services.

In the near term, this could potentially be slightly offset by reduced borrowing costs to the UK government. But the overall impact of weaker growth would be to leave the UK public finances in a worse state. In cash terms, the larger impact would be through reduced tax receipts rather than greater public spending, but when measured as a share of national income we would expect to see spending pushed up by more than tax receipts are depressed.

Our previous analysis (Emmerson et al., 2016) described the impact of changes to growth on the public finances in more detail. This included an estimate of the possible impact on the public finances of a range of different projections for what impact the UK leaving the EU would have on the UK's national income. In the vast majority of these cases, the strengthening of the UK public finances from no longer making a financial net contribution to the EU budget was much more than outweighed by the impact of weaker growth depressing receipts and pushing up spending. So, overall, the public finances can be expected to be in a worse state as a result of Brexit. This means that one cost of Brexit

is that, most likely, we will need to choose from a combination of higher taxes, higher borrowing and lower spending.

We judged that the projections for national income produced by the National Institute of Economic and Social Research (NIESR) in Ebell and Warren (2016) are based on a particularly comprehensive economic modelling exercise. They also happen to lie towards the middle of the range of estimates that we surveyed with GDP between 1.7% (optimistic EEA) and 3.3% (pessimistic WTO) lower in 2020 than otherwise. In Table 5.3, we summarise the size of the impact on the UK public finances in 2019–20, which is the scheduled final year of this current parliament, under each of the scenarios that NIESR considers.

Table 5.3. Tightening required to return public finances to the path forecast in the March 2016 Budget

	Deficit in 2019–20	Tightening to restore £10.4bn surplus	Additional years of austerity at current pace to restore £10.4bn surplus
NIESR – EEA			
– pessimistic	£20bn	£31bn	1.3 years
– optimistic	£17bn	£27bn	1.1 years
NIESR – FTA			
– pessimistic	£17bn	£27bn	1.2 years
– optimistic	£13bn	£24bn	1.0 years
NIESR – WTO			
– pessimistic	£28bn	£39bn	2.0 years
– optimistic	£21bn	£31bn	1.4 years

Source: Office for Budget Responsibility (2016); Ebell and Warren (2016); authors' calculations based on Emmerson et al. (2016).

At the time of the March 2016 Budget, the Office for Budget Responsibility forecast that in 2019–20 there would be a surplus of £10.4 billion, or 0.5% of national income. We calculate that, under the scenarios projected by NIESR, there would still be a deficit of between £13 billion and £28 billion in that year. In other words, the public finances would be weakened by between £24 billion and £39 billion. Relative to the EEA scenario, the WTO scenario would weaken the public finances by between £4 billion and £8 billion.

Faced with this situation, one option for the new Chancellor, Philip Hammond, would be to announce a combination of further tax rises and spending cuts – on top of those already planned for the next few years – in order to attempt to still deliver a £10.4 billion surplus in 2019–20. The tightening required to achieve this is shown in the middle column of Table 5.3 for each NIESR scenario. An alternative course of action, which may well be preferable to additional austerity in the current parliament, would be to extend the period of austerity. As shown in the table, continuing austerity for a further one to two years would be expected to be sufficient to return the public finances to a surplus of 0.5% of national income. This would mean the era of austerity coming to an end in 2021–22 or 2022–23. Under the WTO scenarios, part of this austerity would come automatically from the tariff

income received on imports from EU and EEA countries; but note that in the first instance this would represent a new tax on UK consumers purchasing goods imported from EU and EEA countries.

Of course, another alternative is to aim for a smaller surplus, or indeed decide to live with an ongoing deficit. One possibility would be to borrow only for investment purposes: this was the intention of both the fiscal rule that the coalition government put in place between 2010 and 2015 and the one that the Labour Party has said it would favour.

The impact of each of the scenarios presented in Table 5.3 is for the public finances to be in a worse state than if they UK had chosen to remain in the EU. Given the UK's decision to leave, unsurprisingly the biggest damage to the UK public finances would be expected to come from a WTO-style trade agreement. This would give the UK the least favourable access to the Single Market and would therefore reduce national income by the most. However, when choosing between an EEA-style deal and an FTA-style deal, it is the latter that is likely to result in the smallest weakening of the public finances. This is despite the fact that national income is projected to be lower in the FTA scenario than under the EEA scenario. It results from our assumption that, under the EEA scenario, a net financial contribution to the EU (of about half the size of our current contribution) would still need to be made, whereas under the FTA arrangement we assume that no financial contribution to the EU budget would be needed. Budget contributions are necessarily uncertain at this point and, as such, using NIESR's scenarios effectively suggests that the fiscal situations under EEA and an FTA would be broadly similar. In any case the NIESR modelling in the scenarios used here does not allow for dynamic effects, meaning that, as the authors of that study acknowledge, they are more likely than not an underestimate of the true effect.

In our previous report, we also considered the impact on the UK's public finances of different projections for the long-run impact on the economy of the UK leaving the EU. These focused on 2030. In that analysis, we simply assumed that public spending would be 37.0% of national income (on the basis that that is the level implied by Mr Osborne's March 2016 Budget plans for 2019–20) and that reduced national income would therefore feed automatically into reduced public spending. Under the NIESR scenarios, the long-run reductions in national income would reduce the amount to be spent publicly by between £7 billion and £48 billion a year, with the worst public finance outcomes from the WTO scenarios.

6. Overall Conclusions and Further Analysis

By aiming for free movement of goods *and* services, a single market goes beyond a 'free trade area' or 'free trade agreement', which are predominantly concerned with reducing, and in many cases eliminating, trade tariffs on goods between members. A single market tackles other trade costs – especially non-tariff measures such as licensing and other regulatory barriers to trade. As tariffs on global trade have fallen over time, so these non-tariff barriers have become more important, and especially so in services trade.

The UK financial services sector is particularly important to the UK economy, and to tax receipts, and is likely to be disproportionally hit by loss of Single Market membership because of the access it currently enjoys from 'passporting' – that is, the ability to supply financial services to consumers and businesses across the EU.

If the UK can secure near-full membership of the EU Single Market as part of the European Economic Area (EEA) or otherwise, this could have substantial economic benefits relative to relying on World Trade Organisation (WTO) rules. Although economically inferior to EEA membership, 'access' (that is, largely tariff-free goods trade with the EU as part of a trade deal) is also economically very important compared with WTO membership.

Outside of the EU, the UK will be able to strike new trade deals beyond the EU as part of the European Free Trade Association (EFTA) and/or bilaterally as other EFTA members have. The simplistic coverage of deals in terms of global GDP is slightly higher in EFTA's trade deals than in the EU's. However, the UK is unlikely to be granted automatic access to these agreements and, in any case, few of either EFTA's or the EU's deals cover services, where the UK has a comparative advantage over most countries.

Our initial analysis suggests UK exports to China in 2030 are, on current trends, unlikely to reach current trade levels with the EU. Trade deals might help, especially in goods. However, trade deals that cover services are still relatively rare, and time consuming, and in any case would require regulatory harmonisation in a similar way to the EU Single Market.

The macroeconomic impacts of membership and access are much larger than the importance of direct budgetary issues, even relative to the UK's full EU contribution, and an ongoing budget contribution could be an important bargaining chip.

The UK's exit from the EU is one of the most significant economic and policy events in the last 70 years, and it poses substantial challenges for the policy and research community. In particular:

- **Forward-looking trade patterns**. Whilst forecasting trade patterns is difficult, recent progress in developing gravity models would allow projections of economic growth to be used with those models to provide potential future trade scenarios. For example, given the relative slow growth in Europe, what will the UK's trade patterns look like based on strong economic growth in more distant and less culturally similar areas? What are the implications for UK prosperity and for the trade deals we prioritise?

- **Immigration**. The level and mix of immigration are important both to the economy and to the public finances. The macroeconomic assessments of Brexit identify immigration as an issue of wide uncertainty, and further work should inform the wide range of policy options facing the UK government in terms of both the scale and mix of migrants to the UK, and the system designed to achieve them.

- **Trade tariff income**. Outside of the EU, any tariff income due on imports to the UK will accrue to the UK exchequer. Currently, tariff income collected on behalf of the EU is around £2.5 billion per year,[40] but this could be substantially affected by the level of tariffs the UK chooses to apply with the EU and elsewhere, and by shifts in trade patterns in response to the UK's exit.

- **Agriculture policy**. Even under the EEA, the UK will need to develop a new agriculture policy from scratch. The design of such a policy will have important implications not just for the agriculture sector but also for the prices faced by consumers, who spend around 11% of their budget on food,[41] for the environment and for land prices and use in the UK.

[40] See table C.3 of HM Treasury (2015).

[41] Department for Environment, Food and Rural Affairs, 2016.

Appendix A. The EU Single Market: Legal and Economic Background

This appendix gives fuller detail on how the EU Single Market was established and how it has evolved, and reviews the summaries of its economic impact.

Origins and legal basis of the Single Market

The concept of a 'common market' was central in the Treaty of Rome, which founded the European Economic Community (EEC) in 1957. Article 3 agreed:

> (a) the elimination, as between Member States, of customs duties and of quantitative restrictions on the import and export of goods, and of all other measures having equivalent effect;
>
> (b) the establishment of a common customs tariff and of a common commercial policy towards third countries;
>
> (c) the abolition, as between Member States, of obstacles to freedom of movement for persons, services and capital.[42]

In other words, the common market established a customs union and the free movement of goods, people, services and capital. These latter are now known as the Four Freedoms.

Evolution of the Single Market

The level of integration of the Single Market has evolved significantly over time. In the first decade of its operation, to 1968, the Customs Union was completed and duties between Member States abolished. However, this only eliminated formal trade restrictions. The Court of Justice of the European Union did rule on cases where Member-State rules restricted the Four Freedoms, but it was not until 1985 that the European Council received a White Paper on *Completing the Internal Market* (European Commission, 1985), which the Department for Business, Innovation and Skills (2013) suggests 'essentially set the agenda for the Single Market as we know it today'. This White Paper was a direct response to 'Eurosclerosis', the perceived stagnation of European economies, by planning a genuine single market for Europe. In particular, it argued for a more active strategy based on mutual recognition *and* on more legislative harmonisation; most of these measures were adopted by 1992.

Since the early 1990s, further efforts have been made to remove barriers to intra-EU trade. The Department for Business, Innovation and Skills (2013) summarises these as follows:

> The Maastricht Treaty (1993) added new EU competences in areas relevant to the Single Market such as consumer protection and trans-European

[42] http://ec.europa.eu/archives/emu_history/documents/treaties/rometreaty2.pdf#page=4.

> networks; modified other areas such as the environment; gave Treaty standing to the 1988 legislation that largely abolished controls on capital and payments transfers between Member States; and created the concept of European citizenship, which would turn out to have major implications for freedom of movement within the EU.

Since 1996, there has been much more attention to the level of integration on services. In particular, as summarised by the Department for Business, Innovation and Skills (2013):

> The Financial Services Action Plan in 1999 set out a range of proposed legislation aiming to make it easier to market financial services across the EU; in 2005 legislation was agreed, consolidating the system for mutual recognition of a range of professional qualifications across the EU; and in 2006 the Services Directive was agreed, consolidating jurisprudence and making it easier for unjustified barriers to services provision to be abolished.

In summary, the EU was founded with the aim of establishing a 'common market' with the 'Four Freedoms' of goods, services, persons and capital. Initially, efforts were focused on eliminating or reducing formal trade and customs barriers between members, but since the early 1990s, in response to sluggish economic performance, the EU has focused increasingly on 'completing the Single Market' with an emphasis on services, including financial services.

Valuing the impact of the Single Market

In Chapter 3, we consider the value of membership and access to the Single Market for the UK's economy. Here, we highlight prominent studies that have attempted to assess the value of the Single Market more widely and which look forward to the potential benefits of further reform.

As part of the previous UK government's 'Balance of Competency' exercise in 2012, BIS reviewed a number of economic assessments of the Single Market. The full review is available in appendix 1 of Department for Business, Innovation and Skills (2013); here, we reproduce the summary table of these studies (Table A.1).

Table A.1. Summary of Single Market impact studies

Study	Headline results	Geographical coverage	Time period	Static Impacts	Dynamic Impacts	Other considerations
Cecchini (1998)	+4.25-6.5% GDP	EU 12 (no enlargement)	5-6 years	Included	Not included	Ex-ante
Baldwin (1989)	+0.3-0.9% long-term GDP growth	EU 12 (no enlargement)	Long-term	Included	Included	Ex-ante Provisional findings
Monti (1996)	+1.1-1.5% GDP; 300,000-900,000 jobs. in 1994	EU 12	Impact to 1994	Included	Limited (data availability)	Ex-post – limited data
Minford *et al* (2005)	-3% GDP to remaining in EU	EU15 (no enlargement)	Forward look (baseline = status quo)	Included	Not fully included	Forward assessment Broader than Single Market
Ilzkovitz *et al* (2007)	+2.2% GDP in 2006; + 2.75 million jobs	EU25	1992-2006	Included	Included (e.g. impact on TFP)	Ex-post
Boltho & Eichengreen (2008)	+5% GDP in 2008	EU25	Impact to date	Not explicit in numbers	Not explicit in numbers	Ex-post – greater focus on counterfactual Common Market and Single Market

Source: Department for Business, Innovation and Skills, 2013.

Clearly, these studies cover different time periods and take a variety of approaches to estimating the contribution of the Single Market. Some highlight changes to the level of economic output achieved by the Single Market, while one suggests it would cause the EU growth *rate* to increase.

Only one of the six studies – Minford et al. (2005) – finds a negative impact. We reviewed this study in our previous report (Emmerson et al., 2016) and found that the counterfactual policy scenario considered was politically very unlikely. In addition, it used inaccurate assumptions that exaggerated the negative impact and a modelling approach that ignored important features of international trade. A subsequent paper by CEP (2016b) has confirmed several fundamental problems with the approach.

Among the studies that find a positive impact, there is a wide range. The three ex-post assessments suggest an impact of 1.3% (to 1994; Monti (1996)), 2.2% (in 2006 using the period 1992–2006; Ilzkovitz et al. (2007)) and 5% (in 2008 using the full period since 1950; Boltho and Eichengreen (2008)). The ex-ante assessments suggest potentially higher figures, from 4.25% over the mid 1990s (Cecchini, 1998), to an ongoing growth effect that, even over just a decade, would amount to 3–9% (Baldwin, 1989).

In summary, amongst these studies, there is a consensus that the Single Market has had a positive impact on EU economic output. A figure in the region of a 5% increase to EU GDP, relative to a situation where a Single Market was not pursued, would not seem implausible. If that were the case, the Single Market's impact would mean an average EU citizen enjoys annual income and public service spending at a level 5% higher than otherwise. Still, we should exercise caution – several of the studies suffer from methodological issues that could bias the results upwards or downwards. In addition, the impact for individual member states could certainly differ from the EU average figure.

Whilst these studies provide relevant context, the estimates reviewed in Chapter 5 are UK-specific – they take into account the characteristics of the UK economy, including its openness to trade and higher-than-average contribution of services. In addition, almost all the studies in Chapter 5 were undertaken in the last two years and as such are able to draw on more up-to-date data and the latest economic thinking.

Appendix B. EU/EFTA Trade Deals

Table B.1. EU and EFTA trade deals and country coverage

EU only	EU & EFTA	EFTA only
Europe & Central Asia • Kosovo • Faroe Islands • San Marino • Andorra	• **Turkey** • Bosnia & Herzegovina • Serbia • Ukraine • Montenegro • Albania • Macedonia	• Georgia
Americas • Ecuador • Central American States (El Salvador, Honduras & Nicaragua)[a] • CARIFORUM States • (15 Caribbean & the Dominican Republic)	• **Mexico** • Chile • Colombia • Peru • Some Central American States (Costa Rica, Guatemala & Panama)	• **Canada**
Middle East & Mediterranean • Algeria • Syria • Iraq	• Egypt • Lebanon • Jordan • Israel • Morocco • Tunisia • Palestinian Authority	• Gulf Cooperation Council (Bahrain, Kuwait, Oman, Qatar, **Saudi Arabia** & the United Arab Emirates)
South and East Asia	• **South Korea**	• Hong Kong • Singapore • Philippines
Africa & other • Cameroon • Papua New Guinea & Fiji • Madagascar, Mauritius, the Seychelles & Zimbabwe	• South Africa	• Southern African Customs Union (Botswana, Lesotho, Namibia & Swaziland)[b]
EU only 13 deals, 34 countries EU total 33 deals, 57 countries	Both – 23 countries	EFTA only 7 deals, 15 countries EFTA total 28 deals, 38 countries

[a] Includes the Central American States in the 'EU & EFTA' column.
[b] Includes South Africa recorded in the 'EU & EFTA' column.
Note: The five countries in bold have GDP of at least 1% of global GDP. Table excludes the 28 EU and 4 EFTA members. Andorra, San Marino and Turkey are each treated by the EU as a customs union.

Source: http://ec.europa.eu/trade/policy/countries-and-regions/agreements/index_en.htm#_other-countries; http://www.efta.int/free-trade/free-trade-agreements.

Appendix C. Modelling Results by Brexit Scenario

This table summarises the quantitative economic assessments of Brexit according to the broad scenario considered. In the main text, we only look at those that consider all three scenarios. A full description of these assessments and their coverage is contained in our previous work (Emmerson et al., 2016).

Table C.1. Assessments of 2030 economic impact of Brexit scenarios

Scenario	Organisation	Estimate (% of GDP)	Range (% of GDP)
EEA	CEP (2016a) static	–1.3	N/A
	HM Treasury	–3.8	(–3.4 to –4.3)
	NIESR	–1.8	(–1.5 to –2.1)
FTA	CEP (2016a) dynamic[a]	–7.9	(–6.3 to –9.5)
	HM Treasury	–6.2	(–4.6 to –7.8)
	NIESR	–2.1	(–1.9 to –2.3)
	PwC (2016a)	–1.2	N/A
	Oxford Economics[b]	–2.0	(–0.1 to –3.1)
	Open Europe[a]	–0.1	(–0.8 to +0.6)
	OECD	–5.1	(–2.7 to –7.7)
WTO	CEP (2016a) static	–2.6	N/A
	HM Treasury	–7.5	(–5.4 to –9.5)
	NIESR	–3.2	(–2.7 to –3.7)
	NIESR with productivity	–7.8	N/A
	PwC (2016a)	–3.5	N/A
	Oxford Economics[c]	–2.7	(–1.5 to –3.9)
	Open Europe	–2.2	N/A
	Economists for Brexit	+4.0	N/A

[a] Estimate is mid-point of FTA range.

[b] FTA with moderate policy scenario used as central estimate; range includes 'liberal customs union' (–0.1) to 'populist FTA' (–3.1).

[c] Central estimate is mid-point of the range. Range includes 'populist MFN' (–3.9) to 'liberal MFN' (–1.5).

Note: Estimates are for the impact on GDP in 2030 relative to EU membership.

Source: Estimates from organisations above. Emmerson et al. (2016)'s assessment of impacts modelled.

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