

# BRITAIN'S FUTURE IN EUROPE

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## EXECUTIVE SUMMARY

The direction of UK trade policy with its biggest trade partner – the EU - will be decided in this Election. The Conservatives are committed to holding an ‘in-or-out’ referendum on membership by 2017 while Labour and the Liberal Democrats have opposed this. The political consequences of leaving the EU (so-called ‘Brexit’) are much debated, but less attention is given to the economic consequences.

How would Brexit affect the UK economy and the income of UK citizens? Predicting the likely effects of Brexit is difficult. Leaving the EU would influence the UK economy in many ways. Trade, foreign direct investment (FDI), immigration and economic regulations would all be affected. There is also substantial uncertainty over what form the UK’s relationship with the EU would take following Brexit or any renegotiation. Given the unavoidable policy uncertainty, most analyses of Brexit consider a range of possibilities reflecting different future policies. To reconcile these widely different views on the economic impact of Brexit, this article provides a research-based assessment of the economic impact of Brexit. Building on peer-reviewed studies and on academic research at the Centre for Economic Performance (CEP), we examine the past impact of EU membership, the expected outcomes from Brexit and its implications for Britain’s future in the regional and global economy.

When the issue of Britain’s decision to join the common market was being debated in 1971, there were fears that membership would impact consumer prices and the earning prospects of UK workers. The Single Market programme consisted of a package of reforms to reduce internal barriers to trade and open up competition. Empirical evidence shows these reforms benefited UK consumers through lower prices and higher real wages. Aggregate unemployment fell slightly and increased competition led to greater R&D activity across businesses. The impact of immigration on real wages was positive on average, though with small negative effects for low-wage earners. The crisis period shows a positive overall trend and the negative effect on low wage-earners is reversed. The fear of EU immigrants taking away jobs from UK workers and putting pressure on public finances is not borne out by the facts.

The most direct channel through which the single market programme affected the UK economy is bilateral trade with the European Union (EU). The EU is the UK’s most important trade

partner, accounting for half of all UK exports and imports. EU membership matters to the UK economy primarily because it leads to lower trade barriers. This makes goods and services cheaper for UK consumers and allows UK businesses to export more. Leaving the EU ('Brexit') would lead to lower trade between the UK and the EU because of higher tariff and non-tariff barriers to trade. In addition, the UK would benefit less from future market integration within the EU. The main benefit of leaving the EU would be a lower net contribution to the EU budget.

Taking these channels into account, CEP researchers have estimated the consequences of Brexit on trade and incomes. In an 'optimistic scenario' with small increases in trade costs between the UK and the EU, Brexit reduces UK income by 1.1% of GDP. In the 'pessimistic scenario' with larger increases in trade costs, UK income falls by 3.1% (£50 billion per year). In the long run, reduced trade may lead to slower productivity growth. Factoring in these effects could easily more than double the costs of Brexit and lead to a loss comparable to the decline in UK GDP during the global financial crisis of 2008-09.

Leaving the EU would also impact the ability of the UK to negotiate future trade agreements. The EU is currently negotiating major new free trade agreements with the United States and Japan. Using estimates from previous EU-negotiated free trade agreements, we estimate these trade deals will lower UK prices by 0.6% and save UK consumers £6.3 billion per year. With Brexit, these benefits would be lost or substantially reduced if the UK were to negotiate alone. Leaving the EU would also affect foreign direct investment, immigration and economic regulation in the UK. These effects are harder to quantify than changes in trade, but are likely to lead to further declines in income.

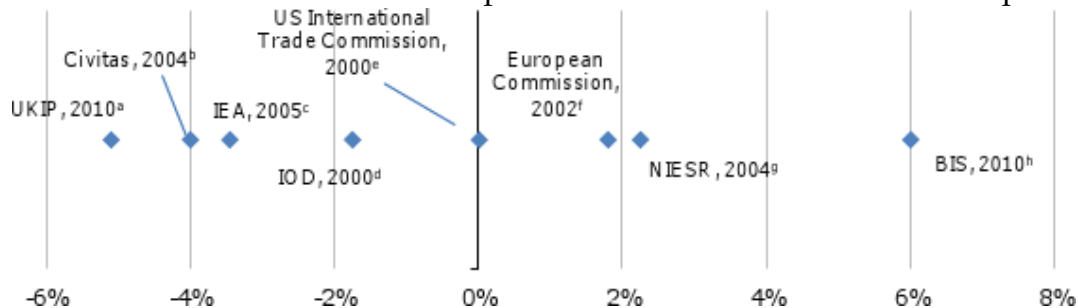
The economic consequences for the UK from leaving the EU are complex. But reduced integration with EU countries is likely to cost the UK economy far more than is gained from lower contributions to the EU budget. Even if the UK maintained full access to the single market following Brexit, it would not have a seat at the table when the rules of the single market are decided.

## 1. MOTIVATION AND OBJECTIVES

The direction of UK trade policy with its biggest trade partner – the EU - will be decided in this Election. The Conservatives are committed to holding an ‘in-or-out’ referendum on membership by 2017 while Labour and the Liberal Democrats have opposed this. The political consequences of leaving the EU (so-called ‘Brexit’) are much debated, but less attention is given to the economic consequences. This is surprising because in the same speech where Prime Minister David Cameron raised concerns about Britain’s relationship with the EU, he emphasized that: “At the core of the European Union must be, as it is now, the single market. Britain is at the heart of that Single Market, and must remain so.” (23 January, 2013)

How would Brexit affect the UK economy and the income of UK citizens? Predicting the likely effects of Brexit is difficult. Leaving the EU would influence the UK economy in many ways. Trade, foreign direct investment (FDI), immigration and economic regulations would all be affected. There is also substantial uncertainty over what form the UK’s relationship with the EU would take following Brexit or any renegotiation. Given the unavoidable policy uncertainty, most analyses of Brexit consider a range of possibilities reflecting different future policies. Figure 1.1 shows a wide range of estimates available from different studies on the expected net benefits of EU membership for Britain. In a note available to the House of Commons, Thompson and Harari (2013) discuss that policy uncertainty justifies a wide range of estimates that appear to be influenced by the prior convictions of those conducting the analysis. For instance, a UKIP study estimates a net loss of 5% of GDP per year from membership while a study by the European Commission (EC) estimates a net gain of about 2% of GDP per year.

FIGURE 1.1. Selected estimates of the expected net benefits of EU membership for Britain



Source: Thomson and Harari (2013), House of Commons Library.

To reconcile these widely different views on the economic impact of Brexit, this article provides a research-based assessment of the economic impact of Brexit. Building on peer-reviewed studies and on academic research at the Centre for Economic Performance (CEP), we examine the past impact of EU membership, the expected outcomes from Brexit and its implications for Britain's future in the regional and global economy.

## 2. TAKING STOCK OF THE SINGLE MARKET FOR UK CONSUMERS, WORKERS AND FIRMS

This Section takes stock of the impact of the Single Market on consumers, workers and firms in the UK to provide background on the past performance of the Single Market from Britain's perspective. When the issue of Britain's decision to join the common market was being debated in 1971, there were fears that membership would impact consumer prices and the earning prospects of UK workers. Figure 2.1 summarizes the campaign by the government to allay some of these fears and garner support for the common market.

Fifty years on, we can draw on the experience of Britain's participation in the Single Market since 1992 to assess the impact on consumers, workers and firms. Empirical studies find the Single Market reduced consumer prices and increased employment and wages in the UK. This Section summarizes the broad findings from these studies, starting with a summary of how integration of product markets affected consumer prices and employment outcomes. Then we discuss the impact of EU immigration on real incomes through availability of jobs and public services.

**2.1. Impact of the Single Market on Consumers.** Evidence on consumer prices shows that the Single Market was beneficial for households. Firms charge a markup on their costs when selling to consumers, and the Single Market reduced the markups charged on manufactured consumer products. Looking at manufacturing goods across ten EU member states, Badinger (2007) estimates markups charged by firms fell from 38% to 28% of costs since the early 1990s. This shows the single market increased competitive forces, that translated into lower prices for consumers.

The level of price dispersion across different cities can also help in understanding how the single market affected consumers. As markets integrate, consumers get easier access to markets

FIGURE 2.1. Campaign for joining the Common Market in 1971

# WHAT THEY DON'T SAY ABOUT THE COMMON MARKET!

Some people complain that membership of the Common Market would cost the British housewife more.



What they don't say is how much greater will be the prospects for her husband to earn more – the economic advantages leading to greater wealth for Britain and more money in wage packets.

Some people say the cost of food will rise substantially if Britain joins. What they don't say is that the additional rise in living costs is likely to be under  $\frac{1}{2}$  per cent a year for five years.

Some people say that membership would make life tough on families. What they don't say is that standards of living in *all* Common Market countries have been rising much faster than in Britain – in some cases, almost three times as fast.

Source: Parliamentary Archives, DR/297, 1971.

in other countries and this ensures prices for the same product become more similar across countries. Rogers (2007) looks at local prices of dozens of tightly specified items such as “white bread (1 kilogram)”, “men’s haircut”, and “cardigan sweater” across different European cities.

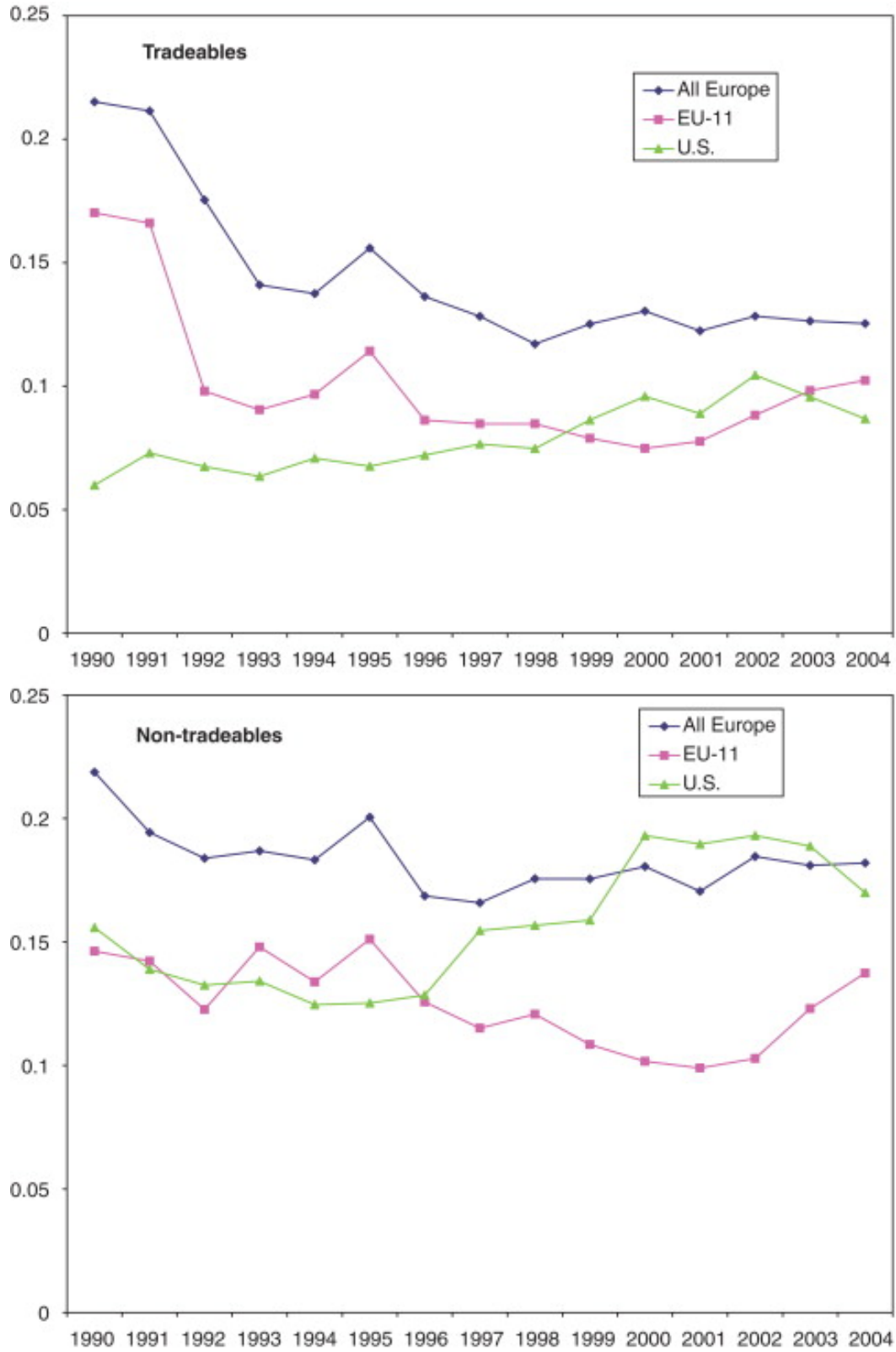
The main finding is that price dispersion fell sharply for goods that are traded across borders over the period 1990-2001 in Europe (Figure 2.2). The decline is more than one-half and gets close to the level of price dispersion across US cities. The findings reveal two striking features. First, price differences fell mainly for products that can be traded across borders but not much for products that are unlikely to be traded internationally. Second, much of the decline in price dispersion of traded products took place during the formation of the Single Market (1991-94), rather than after the introduction of the Euro in 1998. These features suggest that consumer prices responded to competitive pressures arising from the single market.

**2.2. Impact of the Single Market on Workers and Productivity.** The Single Market programme consisted of a package of reforms to reduce internal barriers to trade and open up competition. Increased competition might destroy jobs in the local economy while access to other markets has the potential to expand production and employment. How these two effects play out can be assessed by examining the evidence on employment outcomes during the reform period.

Griffith et al. (2007) examine the product market reforms introduced by the Single Market and find that it did not destroy manufacturing jobs in OECD countries. Product market reforms were associated with an increase in competition (as measured by a reduction in average firm profitability). Increased competition from reforms in turn increased aggregate employment and real wages. In countries with higher levels of collective bargaining and union density, the increase in employment was more pronounced, and the increase in real wages less so. Based on this analysis which also controls for general macroeconomic trends, Griffith et al. estimate that aggregate unemployment in the UK fell by 0.7 percentage points. Real wages rose, and the Single Market did not result in a loss of manufacturing jobs or a decline in real wages.

A concern with this finding is that over time, reduced average profitability would lead to lower growth and deindustrialization. Griffith et al. (2010) show that UK firms expanded their research and development activities, which in turn increased aggregate productivity in manufacturing. What makes this result convincing is that the analysis compares the R&D activity of firms in industries that were more exposed to reforms with those that were not. This has the advantage of disentangling the impact of product market reforms from other country-specific

FIGURE 2.2. Price dispersion in Europe and USA



Source: Rogers (2007).



or industry-specific trends in innovation activity across firms, and makes the positive association between product market reforms and R&D activity more convincing.

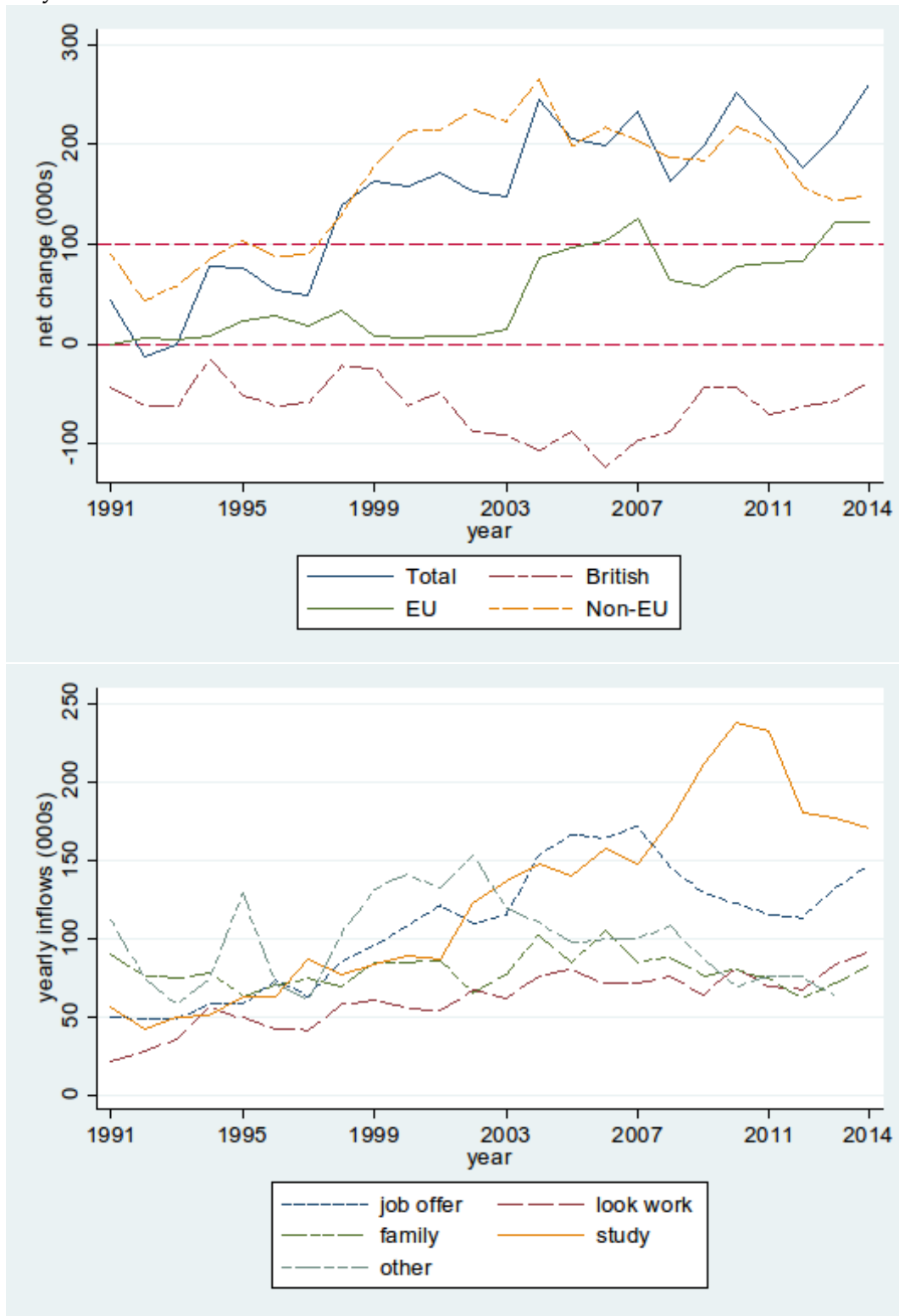
In summary, the product market reforms of the Single Market had the expected impact of increasing competition among firms. This benefited people in the UK through lower prices and higher real wages.

**2.3. The Impact of EU Immigration on Workers.** The Single Market removed substantial barriers to movement of people across different EU countries, and currently over a third of the immigrants to the UK come from EU countries (Figure 2.3). Between 1995 and 2014, the share of immigrants among working age adults in the UK more than doubled from 8% to 17%. The decadal increase in the working age population from immigration during this period has surpassed the rise from the baby boom generation reaching adulthood in the previous decade (Manacorda et al. 2012). This has made immigration a hot-button issue in the debate over Brexit. Despite strong concerns about the negative impact of EU immigration on employment outcomes in the UK, there is still no evidence of an overall negative impact of immigration on jobs, wages and public services.

Drawing on the work of Wadsworth (2015), the labour market effects of immigration to the UK can be summarized as having little overall adverse impact on wages and employment for UK-born workers. On average, immigration increased wages of UK-born between 1997 to 2005 (Dustmann et al. 2013). One troubling factor is that immigration depressed wages of workers below the 20th percentile of the wage distribution. Figure 2.4 shows these negative effects however are small: immigration of the size of 1% of the UK-born population would lead to a 0.6% decrease in the wages of the 5th wage percentile and a 0.4% decrease in the wages of the 10th wage percentile.

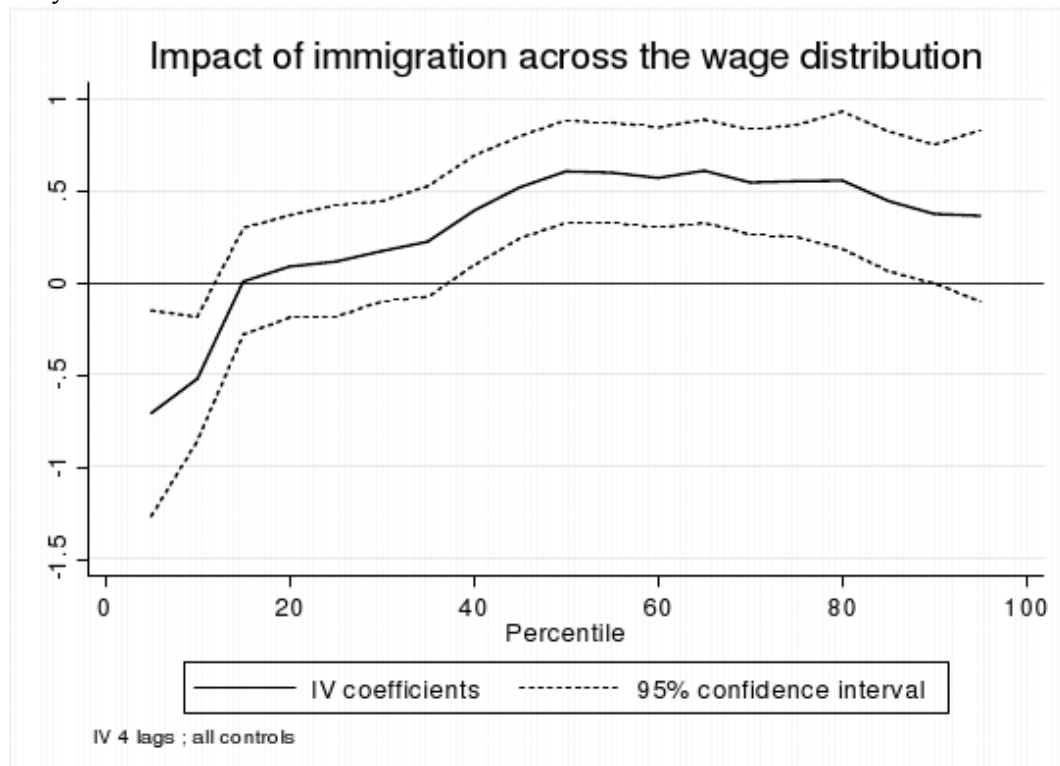
One concern with this analysis is that it relies on data preceding the recession when demand for workers was higher on average. Looking at years since the enlargement of the EU, we can examine how immigration relates to employment outcomes of UK-born workers across different geographical areas. If rising immigration crowds out jobs for UK-born workers, then

FIGURE 2.3. Net UK inflows of migrants (inflows minus outflows) by citizenship and by reason



Source: Wadsworth (2015).

FIGURE 2.4. Net UK inflows of migrants (inflows minus outflows) by citizenship and by reason

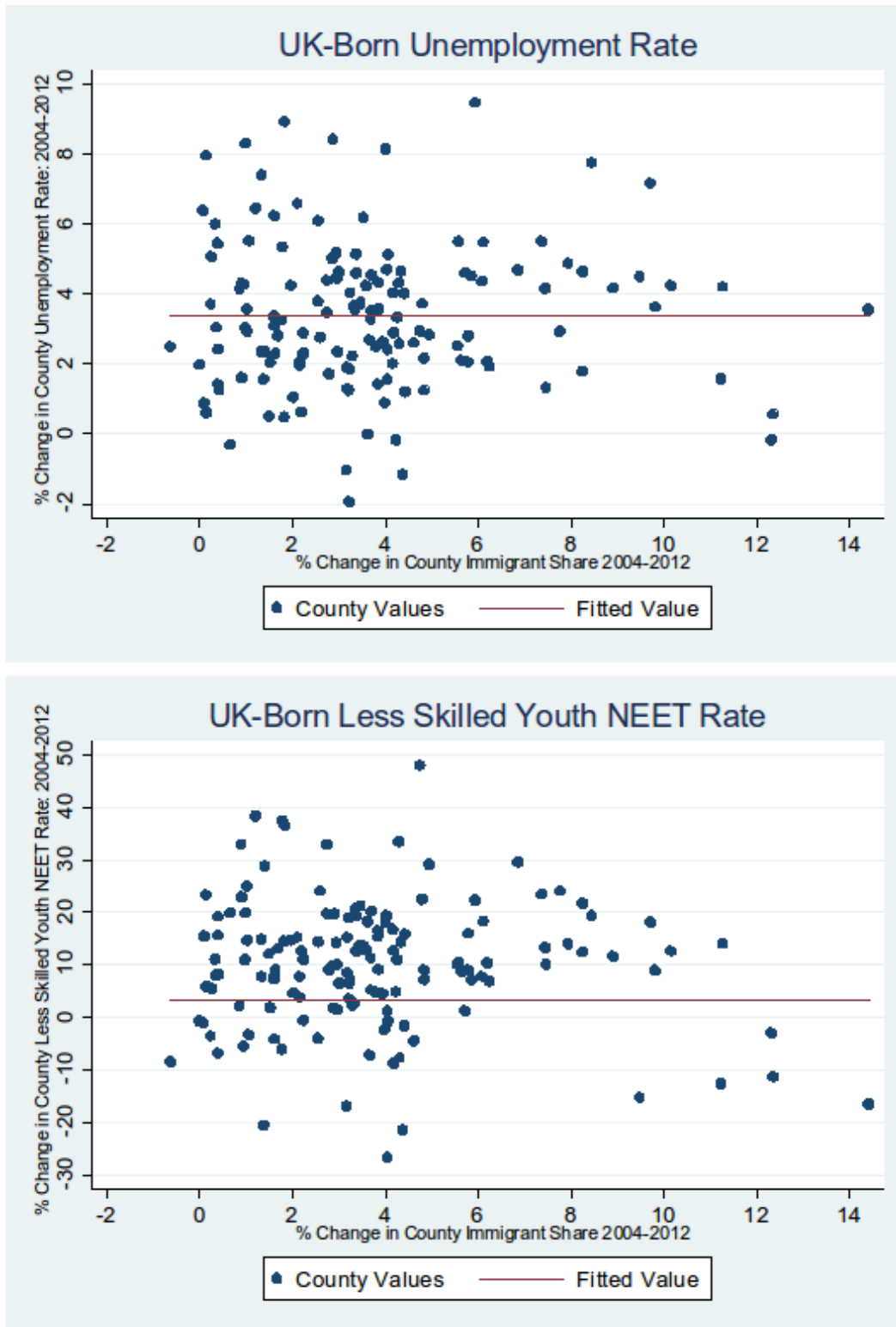


Source: Dustmann et al (2013).

we would expect to see joblessness rise most in areas where immigration has risen most. Figure 2.5 plots the change in each county's unemployment rate for UK-born workers against the change in its immigration share between 2004 and 2012. Counties with the largest increases in immigrants experienced neither larger nor smaller increases in native-born unemployment in 2004-12, and this is true even when we just look at low wage workers. Figure 2.6 shows a similar result for wages. There is little evidence of a strong correlation between changes in local wages of UK-born workers and the immigrant shares in the county over this period.

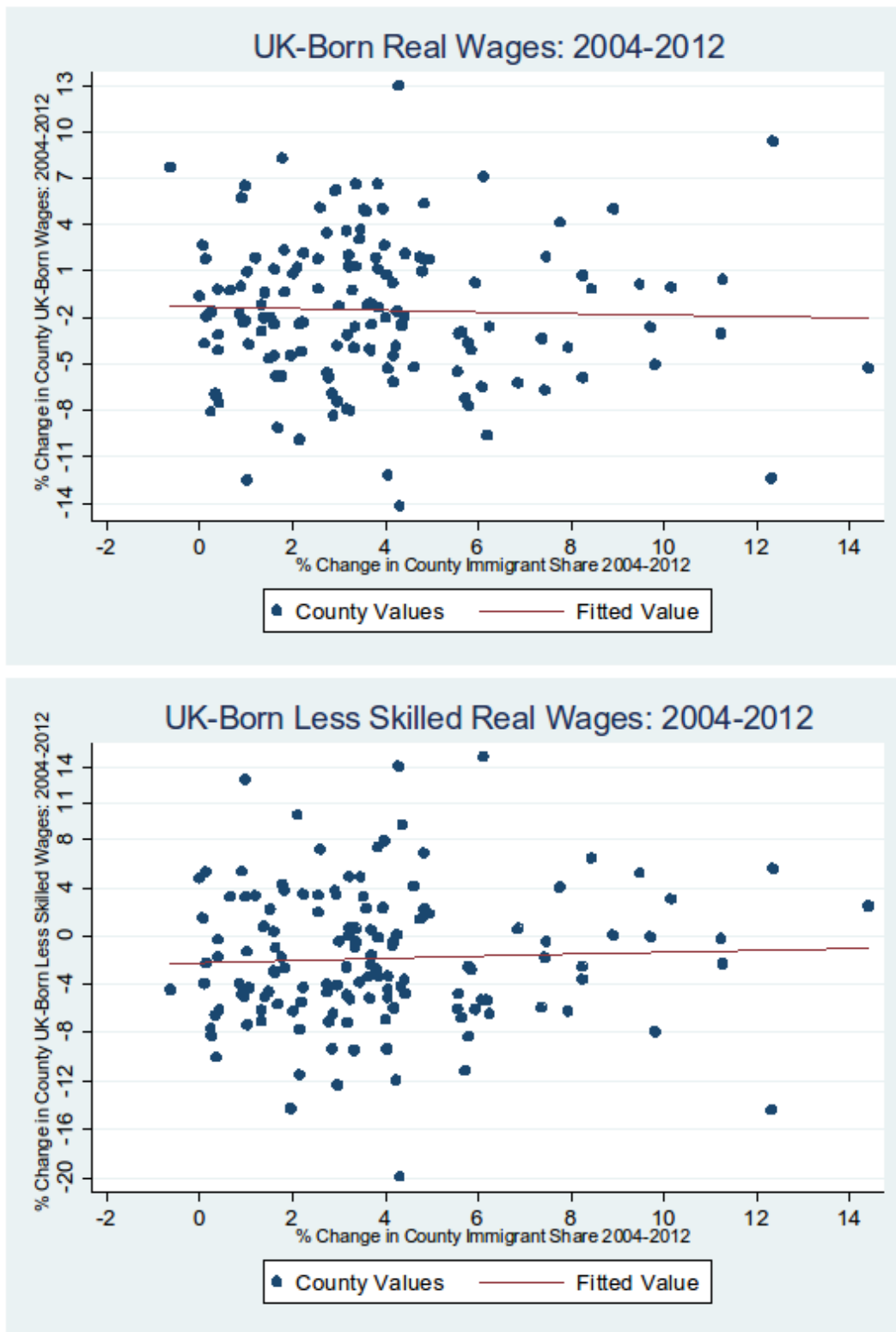
**2.4. Impact of EU Immigration on Public Finances.** Another concern with rising immigration from the EU is that it can put pressure on public finances and services available to UK-born workers. Dustmann and Frattini (2014) examine the fiscal impact of immigration on the UK economy. Accounting for benefit payments, tax credits and socially provided housing, they find immigrants from the European Economic Area made a positive fiscal contribution between 1995 and 2011, even during periods when the UK was running budget deficits. Immigrants from accession countries that joined the EU in 2004 also made positive contributions that amounted

FIGURE 2.5. No relationship between changes in immigration and unemployment, 2004-2012



Source: Wadsworth (2015).

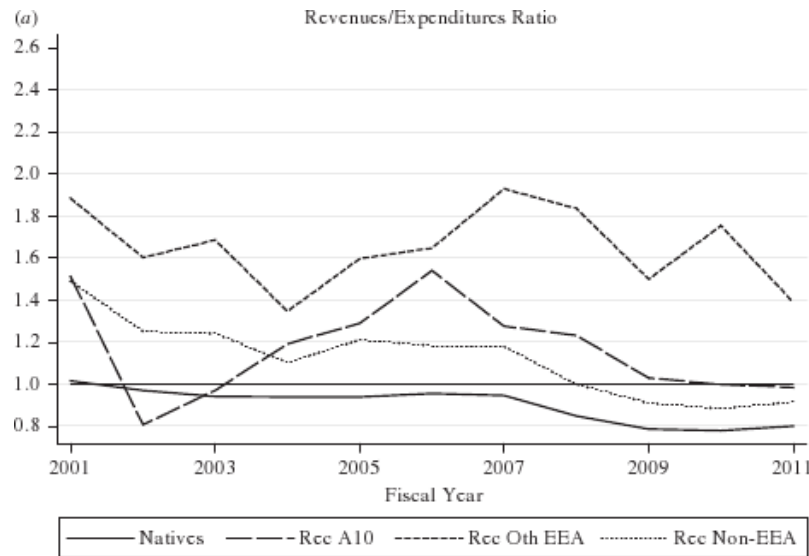
FIGURE 2.6. No relationship between changes in immigration and local wages, 2004-2012



Source: Wadsworth (2015).

to £5 billion between 2001-2011. The positive contributions reflect the fact that immigrants are on average younger and in work, contribute relatively more to tax revenues and use fewer public services. Figure 2.7 shows recent immigrants from accession countries A10, other EEA or non-EEA countries have made higher fiscal contributions than native workers (as measured by the contribution to government revenues relative to expenditures) in all years including the crisis period.

FIGURE 2.7. Net UK inflows of migrants (inflows minus outflows) by citizenship and by reason



Notes: The A10 countries are Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia and Romania.

Source: Dustmann and Frattini (2014).

In summary, the impact of EU immigration to the UK has had little impact on the job prospects of UK-born workers and put no strain on public finances in the UK.

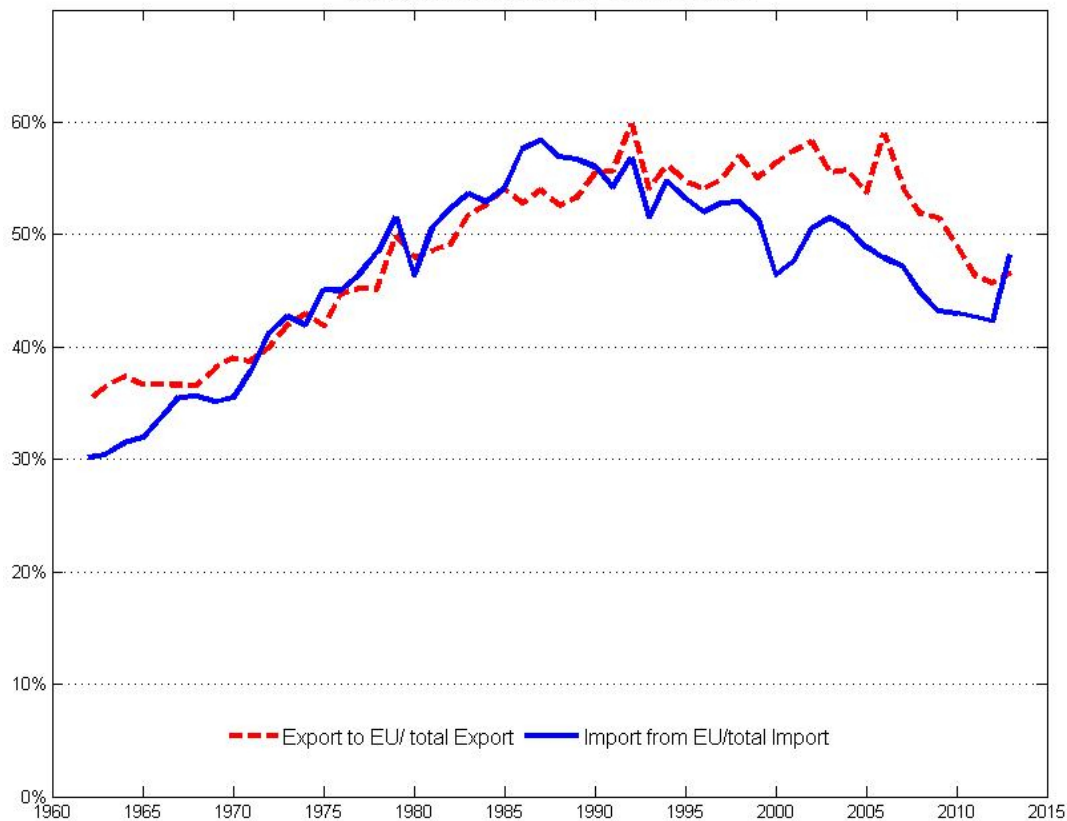
Having discussed the empirical evidence on the past performance of the Single Market, we proceed in the next Section to an analysis of how leaving the EU would impact the UK economy.

### 3. ECONOMIC IMPACT OF BREXIT ON THE UK ECONOMY

Predicting the likely effects of Brexit is difficult because leaving the EU would influence the UK economy in many ways and there is a lot of policy uncertainty regarding its future relationship with the EU. The best understood channel through which Brexit would affect the UK economy is via changes in UK trade. EU membership has reduced trade barriers between the UK and EU countries, leading to increased trade. When the UK joined the European Economic

Community in 1973, just over 30% of UK exports went to the EU. By 2008, over 50% of UK exports went to EU countries (see Figure 3.1). Drawing on work by researchers at the Centre for Economic Performance (CEP), we quantify the economic impact of Brexit on UK trade, and other aspects such as FDI and immigration.

FIGURE 3.1. UK Trade with EU members  
Share of UK Trade with EU Countries



Source: Ottaviano et al. (2014).

**3.1. Jumping the trade train.** According to economic theory, reductions in barriers to trade increase welfare through gains for consumers, businesses and workers. Consumers benefit from reductions in trade costs that reduce the price of imported goods and services. Businesses benefit from new export opportunities that lead to higher sales and profits. Workers benefit from trade that allows the UK to specialise in industries where it has a comparative advantage. All these channels raise efficiency and therefore income. Standard models of the global economy incorporate these channels, and can be estimated to quantify how leaving the EU would affect the UK economy through changes in trade. Accounting for trade in 35 sectors among the 40

major countries of the world, Ottaviano et al. (2014) analyse two scenarios for how leaving the EU would affect trade costs:

- (1) An optimistic scenario, in which the UK continues to have an FTA with the EU (much like Switzerland and Norway currently do through the European Free Trade Association, EFTA).
- (2) A pessimistic scenario, in which the UK is not able to negotiate such favourable terms and there are larger increases in trade costs.<sup>1</sup>

We also account for fiscal transfers between the UK and the EU. The UK transfers some resources to the EU, mainly to subsidise agriculture and poorer member states. Ignoring transition costs and any direct or indirect benefit to the UK from these fiscal transfers, leaving the EU would bring home the equivalent of about 0.53% of national income (HM Treasury, 2013). This is the main potential benefit of Brexit.

Taking these channels into account, Table 1 summarises the results of our analysis for the impact of changes in trade barriers on incomes in the UK. In the optimistic scenario, there is an overall welfare loss of 1.1%, which is driven by current and future changes in non-tariff barriers. Non-tariff barriers play a particularly important role in restricting trade in service industries such as finance and accounting, an area where the UK is a major exporter.

In the pessimistic scenario, the overall loss swells to 3.1%, with most of the impact coming from non-tariff barriers (2.55%). Leaving the EU would increase non-tariff barriers to trade (arising from different regulations, border controls, etc.) and reduce UK's ability to participate in future steps towards deeper integration in the EU. The costs of reduced trade far outweigh the fiscal savings. In cash terms, the loss is £50 billion in the pessimistic scenario and a still substantial £18 billion in the optimistic scenario.

While the estimates of Table 1 directly relate tariff and non-tariff barriers to welfare, they do not account for the dynamic gains from trade such as productivity growth from trade and the impact of other channels (such as FDI, transaction costs, etc). An alternative way to evaluate the consequences of Brexit is to use the results of empirical studies that impose less theoretical structure on the effects of EU membership. Baier et al. (2008) show that after controlling for

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<sup>1</sup>Precise details of the trade costs are in the Appendix.



TABLE 1. The Effect of Brexit on UK Welfare (Net Static Gains)

Welfare Changes due to UK Withdrawal from the EU	
<i>Optimistic Scenario (0% Tariffs)</i>	
	% of GDP
Due to Increase in EU/UK Tradable Tariffs (0%)	0%
Due to Increase in EU/UK Non-Tariff Barriers (+2.01%)	-0.4%
Due to Future Falls in EU/UK Non-Tariff Barriers (-5.68%)	-1.26%
Due to Fiscal Benefit	+0.53%
<b>Total Welfare Change</b>	<b>-1.13%</b>
<i>Pessimistic Scenario (MFN Tariffs)</i>	
Due to Increase in EU/UK Tradable Tariffs (MFN EU Tariffs)	-0.14%
Due to Increase in EU/UK Non-Tariff Barriers (+5.37%)	-0.93%
Due to Future Falls in EU/UK Non-Tariff Barriers (-10.54%)	-2.55%
Due to Fiscal Benefit	+0.53%
<b>Total Welfare Change</b>	<b>-3.09%</b>

Notes: Welfare measured by change in real consumption in the UK.

Source: Ottaviano et al, 2014.

other determinants of bilateral trade, EU member states trade 40% more with other EU countries than they do with members of EFTA. Combining this with estimates that a 1% decline in trade reduces income by between 0.5% and 0.75% (Feyrer 2009) implies that leaving the EU and joining EFTA will reduce UK income by 6.3% to 9.5% (Table 2). These estimates are much higher than the costs obtained from the static model, which suggests that the dynamic gains from trade are important. To put these numbers in perspective, during the 2008-09 global financial crisis the UK's GDP fell by around 7%.

TABLE 2. The Effect of Brexit on UK Welfare (Dynamic Gains)

Implied changes in UK incomes from leaving the EU and joining the EFTA	
Implied change in UK's bilateral with EU	-25%
Implied change in per capita income in the UK	-6.3% to -9.5%

Notes: Welfare measured by change in real consumption in the UK.

Source: Ottaviano et al, 2014.

**3.2. Missing the next trade train?** It is sometimes argued that Brexit would allow the UK to increase trade with fast-growing economies such as China and India and with other important trade partners such as the US and Japan. Being part of the EU does not restrict the ability of UK companies to trade with the rest of the world, and our analysis above accounts for the effects

of Brexit on both trade with the EU and trade with the rest of the world. The EU is currently negotiating major new free trade agreements with the United States and with Japan, and the UK is likely to get more favorable terms from these prospective agreements if it were to go with the EU rather than on its own.

CEP researchers (Breinlich et al. 2015) have quantified the impact of recent EU free trade agreements (FTAs) on consumers in the UK. Table 3 shows recent FTAs negotiated by the EU with non-member countries increased the quality of imported products in the UK by 33% and lowered their quality-adjusted prices by 36%. These gains are higher for UK consumers than for consumers in other pre-enlargement EU countries. On aggregate, the non-EU FTAs lowered prices by 0.5% in the UK, and this saves UK consumers £5.3 billion per year.

TABLE 3. Impact of non-EU FTAs on the Quality and Prices of Imported Products, 1993-2013

Impact of non-EU FTA on Imported Products		
	Quality	Quality-Adjusted Price
Consumers in the UK	33%	-36%
Consumers in EU-12 countries	17%	-14%

Notes: The EU-12 countries are Belgium, Luxembourg, Germany, France, Italy, the Netherlands, the United Kingdom, Ireland, Denmark, Greece, Portugal and Spain.

Source: Breinlich et al, 2015.

Based on this historical experience, the FTAs with the US and Japan would save UK households £6.3 billion every year. It is unlikely that these benefits would be as high if the UK were to negotiate alone. As a stark example, we can look at the experience of Colombia which recently negotiated a FTA with the US. Bernard and Dhingra (2015) find that this agreement increased the ability of US exporters to consolidate their import market in Colombia, leading to higher prices for many products imported by Colombia. The size of the EU economy gives the UK a stronger bargaining position in trade negotiations, and this would lead to greater benefits for the UK from future agreements with its major trade partners.

**3.3. Foreign direct investment and immigration.** Leaving the EU would also affect foreign direct investment, immigration and economic regulation in the UK. These effects are harder to quantify than changes in trade, but are likely to lead to further declines in income. Part of the attraction of the UK for foreign companies is as an export platform to the rest of the EU, so if

the UK is outside the trading bloc, this position is likely to be threatened (Treasury 2010; Barrell and Pain 1998). This matters because foreign multinationals tend to be high productivity firms and they bring new technologies and management skills with them (Bloom et al. 2012). Given the large sunk costs involved in FDI, the uncertainty generated by the possibility of an in-or-out referendum may have a negative impact on investment in the run-up to the vote (see Bloom et al. 2007).

An argument used to support Brexit is that immigration from the EU has harmed UK-born workers in terms of jobs, wages and access to public services. But there is no compelling evidence that these negative effects exist as discussed earlier. Economically, migration acts much like trade, as people tend to move to countries where they can be more productive and earn higher incomes, increasing total welfare. Restricting this mobility will, just like restricting trade, reduce overall UK welfare. Giovanni et al. (2014) estimate that the maximum size of such effects would be a loss of 1.5% of income.

In summary, trade costs from Brexit would reduce UK GDP by between 1.1% to 3.1%. These static losses will be doubled when we account for the dynamic benefits of membership in the EU, and will be even higher as the UK would become a less attractive destination for FDI and skilled migrants.

#### 4. CONCLUSION

At the eve of joining the Single Market, there were concerns that the Single Market would increase prices and reduce the living standards of households in the UK. There were even greater fears that it may result in job losses and lower wages for UK workers. Empirical evidence shows this has not been the experience over the past two decades in the UK. The single market increased product market competition, resulting in lower prices for consumers. Employment outcomes, if anything, were positively impacted, and businesses expanded in response to the market access provided by the single market.

Empirical work shows the widespread fear of immigrants taking away good jobs is also unfounded. Immigration had positive effects on average employment and wages. There were small negative effects on the bottom end of the wage distribution, and these were not sustained

during the crisis period. While this calls for remedies to overcome the pinch felt by low wage earners, it does not necessitate an exit from the EU as the overall impact of the Single Market has been positive for UK consumers and workers.

The economic consequences for the UK from leaving the EU are complex. But reduced integration with EU countries is likely to cost the UK economy far more than is gained from lower contributions to the EU budget. Static losses due to lower trade with the EU would reduce UK GDP by between 1.1% in an optimistic scenario and 3.1% in a pessimistic one. The losses due to lower FDI, less skilled immigration, lower bargaining power and the dynamic consequences of reduced trade could also be substantial. Even if the UK maintained full access to the single market following Brexit, it would not have a seat at the table when the rules of the single market are decided. This becomes even more important as future reforms in the EU involve sectors, such as banking and services, where the UK has a comparative advantage and a greater stake in being part of the negotiations.

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## APPENDIX A. TRADE COSTS OF BREXIT

There are three main reasons why trade costs may increase after Brexit:

- (1) Higher tariff barriers between the UK and the EU.
- (2) Higher non-tariff barriers to trade (arising from different regulations, border controls, etc.) between the UK and the EU.
- (3) Non-participation in future steps the EU takes towards deeper integration and the reduction of non-tariff barriers.

In the pessimistic scenario, we assume that MFN tariffs on goods apply to UK-EU trade.<sup>2</sup> This seems reasonable immediately following withdrawal, but in the medium term, the UK may be able to negotiate an FTA with the EU. Hence, in the optimistic scenario, we assume that tariffs continue to be zero.

Another important source of trade costs lies in non-tariff barriers related to regulations and other legal obstacles that affect trade in both goods and services. In the pessimistic scenario, we assume that the UK faces two thirds of the reducible non-tariff barriers faced by the United States when trading with EU countries. In the optimistic scenario, we assume that the UK faces one quarter of the reducible non-tariff barriers.<sup>3</sup>

Finally, over a period of time, intra-EU trade costs have been falling approximately 40% faster than trade costs between other OECD countries. In the event of Brexit, the UK would not benefit from future reductions in non-tariff barriers within the EU. In the pessimistic scenario, we assume that intra-EU non-tariff barriers continue to fall 40% faster than in the rest of the world over the next decade, leading to a cumulative fall in trade costs of 10%. In the optimistic scenario, we assume that intra-EU barriers fall only 20% faster than in the rest of the world, leading to a total fall in trade costs of only 5.7%.

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<sup>2</sup>Most Favoured Nation Status (MFN) is the highest level of tariffs allowed between members of the World Trade Organization.

<sup>3</sup>These correspond to an increase of non-tariff costs of 5.4% in the pessimistic scenario and 2% in the optimistic scenario.