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# Brexit – potential economic consequences if the UK exits the EU

If the United Kingdom (UK) exits the EU in 2018, it would reduce that country's exports and make imports more expensive. Depending on the extent of trade policy isolation, the UK's real gross domestic product (GDP) per capita would be between 0.6 and 3.0 percent lower in the year 2030 than if the country remained in the EU. If we take into account the dynamic effects that economic integration has on investment and innovation behavior, the GDP losses could rise to 14 percent. In addition, it will bring unforeseeable political disadvantages for the EU – so from our perspective, we must avoid a Brexit.

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#### **Focus**

	Soft exit	Isolation of UK
UK	-0.63 %	-2.98 %
Ireland	-0.82 %	-2.66 %
Luxembourg	-0.48 %	-0.80 %
Belgium	-0.20 %	-0.96 %
Sweden	-0.13 %	-0.48 %
Netherlands	-0.10 %	-0.35 %
Germany	-0.08 %	-0.33 %
Spain	-0.08 %	-0.32 %
France	-0.06 %	-0.27 %
Austria	-0.05 %	-0.18 %
EU without UK	-0.10 %	-0.36 %
World	-0.06 %	-0.25 %

Change in real GDP per capita in 2030 in selected

Depending on the extent of trade isolation resulting from a Brexit, the deadweight welfare losses would differ for the remaining EU member states. For example, Germany's real GDP per capita would be between 0.1 and 0.3 percent lower in 2030 than without a Brexit due to the decline in trade activities. These static deadweight welfare effects are compounded by dynamic effects that could cause a drop in the GDP in Germany by up to 2 percent.

Since the UK joined the European Community in 1973, its relationship to the rest of Europe and the European Union (EU) has been tense, ranging from critical to aloof. It already held a referendum in 1975 on whether to remain in the European Community. In 1984, Prime Minister Margaret Thatcher spoke the now legendary words, "I want my money back!" - and obtained a rebate on British contributions to the EU budget that is honored to this day (see Freund/Schwarzer 2011). The UK still has not signed off on the Schengen Agreement, which took effect 1995 and abolished border checks between the participating EU countries.

»Brexit«, the term coined by the media from the words "Britain" and "exit", is misleading in that Britain would not be exiting the EU, but rather the United Kingdom, which includes England, Scotland, Wales and Northern Ireland. The geographical term "British Isles" also encompasses Ireland, which is not debating whether to leave the EU. The terms "UK" and "British" are used synonymously in this text. For example, when we talk about the British GDP, we mean the GDP of the United Kingdom (UK).

The UK is by no means the only country with voices critical of the EU. Parties in other member states such as "Die (wahren) Finnen," the "Alternative für Deutschland," Italy's "Lega Nord" and the "Partij voor de Vrijheid" headed by Dutch rightwing populist Geert Wilders are EU-skeptic movements that are gaining traction (see Peters 2014, pg. 10 as well as Hoffmann 2014, pp. 2-10). There are a variety of reasons for rejecting the EU. The most important of these include the fear of losing national identity and sovereignty, concerns about overregulation by the EU through transferring too much power to Brussels, and high net payments to the Community. High immigration levels from other EU member states accompanied by the loss of the country's own culture, rising unemployment and the social security systems being overwhelmed are also fueling anxiety in the population. In addition, people are questioning whether EU membership offers any benefits at all for their own country (see Beichelt 2010 and Peters 2014).

Harboring doubts about the advantages of a common Europe is not just unique to the British. However, the EU is facing the greatest skepticism in the UK. At the end of 2014, the market research network WIN/Gallup International conducted a representative population survey in 11 EU countries. Among other things, it asked how the citizens would vote if a referen-

dum were held in their country on remaining in the EU. 64 percent of those surveyed in the 11 member countries supported staying in the EU. The desire to continue EU membership prevailed in 10 countries. In Ger-

many, approval was at 73 percent. In the UK, a scant majority of 51 percent supported exiting the EU (see Euractiv.de 2015).

In light of this fundamentally critical attitude, it is not surprising that the UK has yet again been discussing an EU referendum for some time. British Prime Minister David Cameron announced in January 2013 that he would allow such a referendum if he is reelected (see The Conservative Party Manifesto 2015, pg. 72). The Labour Party as well as the Liberal Democrats reject this referendum.

### Economic effects of a Brexit on the UK

The question of whether a British exit from the EU would increase or decrease the country's economic growth and its real income as measured by the gross domestic product is controversial. There is a whole series of studies that examine the economic advantages and disadvantages of EU membership – and yield a variety of different results. A study by the Open Europe Think Tank, a group critical of Brussels, reaches the following conclusion: If the UK exits the EU on January 1, 2018, the GDP in 2030 would be 2.2 percent lower than if it remained in the EU (in its least favorable scenario). In the most favorable case, a higher GDP of around 1.6 percent is possible. The politically realistic range of growth effects from exiting the EU would come in between 0.6 percent higher and 0.8 percent lower GDP (see Persson et al 2015, pg. 2). The Center for Financial Studies calculates a loss of prosperity for the UK even under optimistic assumptions. According to it, the real GDP losses - taking into account the savings from payments not made to the EU budget - would lie between 1.1 and 3.1 percent. If dynamic effects are also taken into consideration, meaning low productivity growth resulting from exiting the EU, income drops of 6.3 to 9.5 percent are conceivable (see Ottaviano et al 2014, pp. 8-11).

The problem lies in the fact that the results of simulation calculations depend substantially on the underlying assumptions of how the UK would organize its relations with the remaining EU states and other trade partners after a Brexit. Exiting the EU can have far-reaching consequences: The four basic freedoms of the European domestic market (free movement of goods, services, capital and people) with the other

EU members would no longer apply. The EU's trade agreements - currently 38 active agreements and 12 agreements still in negotiation – would be invalid. Many areas of government, some of which fall under the EU's jurisdiction, would need to be adjusted or re-established. For those reasons, there is a great deal of uncertainty regarding the specific consequences under international law of a country exiting the EU. Therefore, quantifying the economic effects of this exit can only be approximate and heavily driven by assumptions. To illustrate these uncertainties, we present the following three scenarios in which the ifo Institute has calculated the effects on GDP using a variety of empirical simulation techniques. Unlike the above-mentioned studies, it determines not only effects on the UK, but the consequences for the rest of the world and Germany as well. In all three scenarios, the UK loses its trade privileges with the EU:

- 1. In the most favorable case from the British perspective ("soft exit"), the UK receives a status similar to that of Switzerland or Norway and thereby has a trade agreement with the EU. While there would be non-tariff barriers to trade, there would be no tariffs.
- In the second most favorable scenario ("deep cut"), this trade agreement does not exist. As a result, there are higher non-tariff barriers to trade as well as to tariffs in trade between the UK and EU. These tariffs reach the level found in foreign trade relations between the EU and USA.
- 3. In the least favorable scenario ("isolation of the UK"), the country also loses all privileges arising from the EU's 38 existing trade agreements with other countries. Although the UK can reach new trade agreements through independent negotiations, experience has shown that this is a lengthy process. Moreover, the UK's negotiating power would be less than that of the EU.

All of these scenarios show an increase in the cost of British exports as well as for imported consumer goods and advance payments. Declining exports and rising prices result in a downturn in economic activities and a lower real GDP.

Aside from the economic disadvantages of exiting the EU, we must also take into account the canceled annual payments to the EU budget. In 2013, the net contribution that the UK paid to the EU was approximately €8.64 billion, or around 0.5 percent of British economic strength as measured by the GDP. Savings from canceling these payments represent the UK's greatest economic benefit from a Brexit.

### 2. EU exit would damage British economic growth

The UK is closely intertwined economically with the EU. Currently, more than 50 percent of British exports go to EU member states. Over 50 percent of the country's imports also come from the EU. In the mid-1960s, these were both significantly less than 40%.

The terms "loss of income" or "GDP losses" describe the difference expressed in percentages between the observed real GDP in the base year (2014) and the simulated (counterfactual) value for a situation in which the UK is not an EU member. Based on experience, trade policy measures take 10 to 12 years after they are introduced to reach full effect. If a Brexit occurs in 2018, the high-lighted effects would be fully felt by 2030. No prognosis is made for global GDP numbers with and without a Brexit for the year 2030 due to the associated additional uncertainties.

Exiting the EU would increase the costs of trade between the UK and EU and reduce bilateral trade activities. The specific extent of associated changes in real income is shown for the selected countries in the focus graphic (pg. 1). Depending on the de-

gree of assumed trade isolation, real income losses for the British economy range between 0.6 and 3 percent. The severity of the impact will differ for individual industries. In particular, the chemicals, mechanical engineering and automotive industries will see steep losses in value added because they are heavily incorporated in European value chains. The chemicals industry will face the greatest drop – nearly 11 percent. For the more important area of financial services, anticipated losses in value added reach around 5 percent in the unfavorable scenario.

The losses in income shown above result exclusively from lower trade levels due to a Brexit. However, the dynamic effects must also be taken into account in addition to these static effects. The following two aspects are among the most important:

1. Declining cross-border trade activities also have a negative impact on a country's productivity growth: If the pressure from international competition weakens, domestic companies have less need to improve their competitiveness through investments and innovation. Therefore, productivity growth falls. According to studies that estimate the

influence of decreasing trade openness on the long-term real GDP (Freyer 2009 and Felbermayr/Gröschl 2013), a Brexit could lead to a long-term drop in the UK's real

GDP per capita ranging from 2 percent ("soft exit") to 14 percent ("isolation of the UK") compared to remaining in the EU.

2. The EU is currently in negotiation with a number of countries on bilateral free

trade agreements that are close to ratification (Canada, USA, Japan, Singapore, India, Malaysia, Vietnam, etc.). The EU is expecting positive growth momentum from the accompanying heavier trade integration. By exiting the EU, the UK would forgo this impetus for growth. The long-term GDP losses associated with this would range from 1.4 percent in case of a soft exit to 7.5 percent with a deep cut scenario.

## 3. The Brexit's economic effects on Germany and Europe

If the UK's economic growth slows down due to exiting the EU, this also has economic consequences for its trade partners. A lower real income leads to declining demand for goods and services – and also for imports. For trade partners, this means lower exports and therefore lower production as well. Nevertheless, the GDP losses for the rest of the world are relatively moderate compared to the economic disadvantages for the UK. For example, the effects of decreasing trade activities in Germany (static effects, see focus graphic, pg. 1) would be relatively minor with a real GDP per capita drop of 0.1 to 0.3 percent in the year 2030. Individual industries would be impacted differently by lower exports to the UK. The automotive industry would see the greatest drop in value added by sector with a decline of up to 2 percent.

For the entire remaining EU-27 (without the UK), the expected reduction in real GDP per capita due to lower trade activity with the UK would fall between 0.1 percent with a soft Brexit and around 0.4 percent in case of UK isolation, although significant regional differences would emerge (see focus graphic, pg. 1). Ireland would be hit particularly hard with real income losses of

between 0.8 and 2.7 percent. Other countries that would see above average GDP drops include Luxembourg, Belgium and Sweden as well as Malta and Cyprus, which are not shown in the focus graphic. Germany's static deadweight welfare losses described above would lie slightly below the EU-27 average.

If the dynamic effects of a Brexit are taken into account, the impact is greater: Depending on the Brexit scenario and underlying econometric estimates, the long-term real GDP per capita in Germany would range between 0.3 and 2 percent below the value projected if the UK were to remain in the EU.

In addition, we must also take into consideration that the remaining EU member states would need to compensate for the lost British contributions to the EU budget in case of a Brexit. For Germany that would add approximately  $\[ \in \] 2.5$  billion (gross) to its annual expenditures. France would have to pay an additional  $\[ \in \] 1.9$  billion, Italy almost  $\[ \in \] 1.4$  billion and Spain around  $\[ \in \] 0.9$  billion (see Fig. 1).

### 4. Assessment and outlook

The assessments presented here regarding the costs of the UK exiting the EU are associated with significant uncertainties. No one knows what the international economic relationships between the UK and the rest would look like should the UK leave the EU. However, it is certain that the UK's integration in the global economy would decline and that this de-integration would shrink British economic growth.

Although these deadweight welfare losses are countered by savings in the form of canceled contributions to the EU budget, according to the calculations presented here even the most favorable scenario from

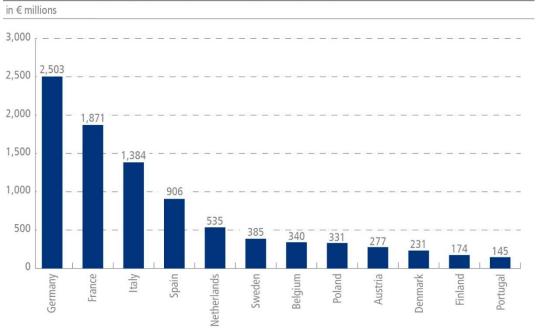
the British perspective (soft exit with exclusively static effects) yields expected GDP losses of around 0.6 percent, which is higher than the savings from the net payments to the EU budget of around 0.5 percent of the GDP. Even in this case, a Brexit clearly poses an economic loss for the UK. With more severe economic isolation and taking into account the dynamic effects (shrinking productivity growth resulting from lower competitive pressure, departure of EU migrants, declining investment due to less freedom of movement for capital transactions), the GDP losses are significantly higher. In the worst case scenario, the UK's real GDP per capita in 2030 could be 14 percent lower than if it remained in the EU. Even if such extreme isolation is politically rather unlikely from our perspective, this theoretically conceivable value shows how heavily the UK's economic growth would depend on trade policy goodwill after a Brexit. The lost growth effects from future EU free-trade agreements are not even taken into consideration here.

The economic weakening of the British economy would also have consequences for the remaining EU countries. Even if real income losses there fall below the UK values, costs would arise from a lower GDP growth and the need to compensate for lost British contributions to the EU budget.

Beyond the purely economic considerations, the political disadvantages must be taken into account. A Brexit would be a significant setback for European integration and would inevitably weaken the EU.

Therefore, we are firmly convinced that the combination of economic and political disadvantages of the UK exiting the EU would be detrimental for everyone involved and must be avoided.





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### Policy Brief 2015/03: Wage inequality in Germany – What role does global trade play?

Wage inequality in Germany has increased significantly since the mid-1990s. The intensification of international trade relations is a frequently cited cause for this issue. However, an empirical study revealed that global trade can only directly explain around 15 percent of the increase in wage inequality in Germany. Primarily, the growing heterogeneity among companies in Germany plays a greater role. The decline in collective bargaining is the primary company-specific driver of wage inequality. Nevertheless, protectionist measures would not be effective for achieving greater wage equality.

### Policy Brief 2015/04: Labour Mobility in Europe – An untapped resource?

Despite the public perception in many member states, intra-EU migration remains low. The limits to the potential of labour mobility became evident during the economic crisis as high unemployment rates in the periphery have only caused limited mobility from crisis countries. Hence, the bulk of labour mobility still flows from east to west. The Commission and member states should improve existing tools for cross-border job matching and adopt a longer-term view on labour mobility.

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