



BUSINESS BRIEFING

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EU STRATEGIES IN THE FACE OF BREXIT

This note summarises various policy options and their impact on the UK after the decision for leaving the European Union ('Brexit'). Providing information on how deeply the UK and the remaining European Union (the 'EU-27') are integrated in various areas like trade and foreign direct investment and mobility of workers constituting the 'four freedoms' in the EU it shows that there is an asymmetry in the sense that the UK is relatively more dependent on the EU-27 than vice versa. Consequently, the EU-27 is less affected than the UK itself though there is some heterogeneity across countries and industries. Warranting free trade in goods between the UK and the EU-27 would reduce the negative impacts of Brexit, whereas restrictions in services might attract foreign direct investments. UK contributions to the EU budget are to be negotiated though might benefit both parties as allowing further cooperation in various areas.

Introduction

On 23 June almost 52 % of British voters have voted for 'Brexit', i.e. in favour of leaving the European Union. However, they did not have a choice on a specific alternative to EU membership in this referendum. It is still unclear how this alternative relationship between the UK and the remaining European Union – in this note called 'EU-27' – will look like. At this stage, alternative scenarios and specific strategies – both from the UK and the EU – are still being developed.

The impact of different scenarios for the UK has been calculated in a number of studies (mostly before the referendum took place). However, less information is available so far on the potential impact on the remaining EU-27 and its individual

Member States as well as on the industries that might mostly be affected. Such information would be relevant for the EU-27 to formulate their strategy in the negotiations to come. This note contributes to filling this gap.

We will first provide some background by summarizing the most important studies on the consequences of Brexit. Specifically the various estimates of the impacts on the UK and the potential channels are outlined and policy options are sketched. Second, the linkages between the EU-27 and the UK are presented with respect to mobility of persons, FDI flows and bilateral trade. It is shown that there are strong relationships between the UK and the EU-27 in the areas which constitute the 'four freedoms'

of the Union. Third, based on a simple model an estimate of the consequences of the UK leaving the Union on the EU-27 Member States is presented. For these calculations we will use data on value

added trade that have not been available so far. Finally we will present some implications of these results for the negotiating strategy of the EU-27.

Assessments of the impact of Brexit on GDP: An overview

The effects of the decision for leaving the EU on the UK economy are, of course, quite difficult to assess given that the alternative is not yet clear. The longer-term consequences will heavily depend on the new arrangements the UK will negotiate with the EU which is still very vague and under

debate. So far, it is even unclear when the UK will trigger Article 50 of the 'Treaty on the European Union (TEU)' regulating a withdrawal of a Member State from the European Union. Therefore most studies worked on the basis of different scenarios.

Scenarios

Table 1 summarizes the scenarios commonly used in the studies on the impact of Brexit.

Table 1
Scenarios under various policy options

	Current membership	EEA Membership ("Norway model")	Bespoke arrangement ("Swiss model")	Customs Union ("Turkey model")	WTO rules	New EU-UK Free Trade Agreement
Access to Single Market	Yes	Yes	Medium	Tariff free for goods; not for services	Low	Unknown
Passporting rights	Yes	Yes	No	No	No	Unknown
Free movement of people	Yes	Yes	Yes	No	No	No
Fiscal contribution to EU	Full ('UK status')	Likely less than current	Likely less than current	No	No	Unknown
Ability to ignore EU rules	Very limited ('opt outs')	Limited	Partial	Full	Full	Unknown
Say over EU rules	Full voting rights	Limited (some formal engagement)	Very limited/ None	No	No	No
Independence to negotiate trade deals	Represented by EU	Yes (outside EU customs union)	Yes (requires trade agreements with EU Member States); Yes (outside EU customs union)	Yes	Yes	Yes

Source: Adapted from IMF (2016); OECD (2016).

- The UK achieves EEA membership status ('Norway model') which, however, would imply that all four freedoms have to be retained (including no restriction on the free movement of people), but access to the EU Single Market is still high, and passporting rights¹ are still intact. The UK would still contribute to the EU budget (though perhaps with smaller amounts), but would have less scope to ignore EU rules and very limited impact on EU rules if at all. Further, the UK would be in a position to negotiate trade deals independently.
- The so-called 'Swiss option' would as well not allow for an independent immigration policy. However, access to the Single Market would be even more restricted and there are no passporting rights (though Switzerland has specific arrangements with the EEA). Further, the UK would have no say over EU rules but more scope for ignoring EU rules. The fiscal contribution to the EU would be further lowered. Again, the UK would be in a position to negotiate trade deals.
- There could be an arrangement of 'WTO rules', which basically implies that the UK is able to ignore EU rules but has no chance to influence them; it would have no access to the Single Market, nor would passporting rights exist. But of course the UK could independently decide on immigration policies and would need to negotiate trade deals.
- Other options include the negotiation of a specific UK-EU free trade agreement or to engage in a customs union (like EU-Turkey) which however means that the UK would not be able to negotiate their own trade deals with a number of important countries.

All of these options have different implications for trade and investment flows and mobility patterns as well as for EU budgetary issues and the acceptance of EU rules.² These will be discussed in more detail below.

Channels

In most studies various channels – though all of them are interlinked – of how Brexit impacts on the UK are modelled. These channels are (i) the arising short-term uncertainties, (ii) a reduction of trade and FDI flows and (iii) the productivity losses resulting from these, (iv) changes in migration patterns, (v) productivity gains from deregulation³ and (vi) the lower or even zero contributions to the EU budget. Though all these channels have some impact, the

most important ones are the short-term effects of uncertainty (maybe cushioned by policy measures such as changes in the interest rate and exchange rate policy) as well as the impacts via the trade channels (see e.g. IMF, 2016; Armstrong and Portes, 2016). It should go without saying, that all these channels are heavily interlinked and therefore cannot easily be considered.

¹ *Passporting is the exercise of the right for a firm registered in the European Economic Area (EEA) to do business in any other EEA state without needing further authorization in each country.*

² *Pisani-Ferry et al. (2016) discuss similar issues in a broader context.*

³ *It is stressed, however, that the level of regulation in the UK is on average lower than in the EU-27; and, particularly, that the UK shows higher regulations in domestically-controlled areas (see IMF, 2016). Crafts (2016) even claims that 'Westminster is holding back Britain, not Brussels' (p. 87).*

Results of studies

Table 2 summarises the various studies of the impact of Brexit on UK GDP.⁴ These studies differ with respect to the time frame considered, the scenarios assumed, the relative importance of the channels and the methods; reflecting in detail on these differences would go beyond the scope of this note. There is only one single study pointing towards a strong positive impact of the 'leave decision' on UK GDP; however, this study is heavily criticised for methodological reasons (see Dhingra et al., 2016b).⁵ Some other studies – mostly done

by pro-leave think tanks and pre-May 2016 – show positive or slightly negative impacts depending on the scenarios. Finally, a number of studies arrive at significantly negative impacts, again with the estimated magnitudes depending on the various scenarios and the time frame considered. These estimates range from a loss of UK GDP due to leave between almost 10 % to 2 % in the longer term (or including dynamic effects) and 0 to about 5 % in the short or medium term (or when considering only static effects).

Table 2
Overview of Brexit scenarios on UK GDP

		Upper bound	Lower bound
Bertelsmann Stiftung (2015)	Static/dynamic	0.6 % to -3.0 %	-2 % to -14 %
Minford/Economists for BREXIT		4,0 %	
Iain Mainsfield		1,0 %	-2,5 %
Open Europe	Various scenarios	1,6 %	-2,2 %
Oxford Economics	Long term	-0,1 %	-3,9 %
LSE/CEP (Dhingra et al. 2016a, 2016b)	Static/dynamic	-1.3 % to -2.6 %	-9,5 %
NIESR	Short term/long term	-2,3 %	-7,8 %
HM Treasury	Various scenarios and short/long term	-3,4 %	-9,5 %
OECD	Medium/long term	-3,3 %	-2.7 % to -7.7 %
Ottaviano et al. (2014)	Various scenarios	-1,10 %	-3,10 %
IMF	2021	-1,4 %	-4,0 %
PwC	Medium term/long-term	-3 % to -5.5 %	-1.2 % to -3.5 %

Source: IMF, 2016; OECD, 2016; Campos, 2016; Armstrong and Portes, 2016.

As indicated by Table 2, most studies point towards negative impacts on income development in the UK; however, the ranges of these estimates are quite large (for a comment, see Campos, 2016).

negative effect on the UK. Thus, for the UK there is a trade-off between more independence and less access to the EU Single Market and related income losses.

The general outcome in these studies is that the more disintegration occurs, the larger is the

⁴ Some studies also report effects on employment, fiscal balances, etc.

⁵ Pro-leave arguments are found under http://www.voteleavetakecontrol.org/why_vote_leave.html

Economic relations between the UK and the EU-27

The UK accounts for about 12 % of the EU-28 population and around 16 % of EU-28 GDP. The UK further contributes a large amount to the EU budget, though in terms of its GDP this is small with a net contribution of about 0.3 % due to the rebate (see Richter, 2016; IMF, 2016).⁶

The most important linkages between the UK and the EU-27 are in the areas concerning the movement of goods and services and the freedom of establishment, the movement of persons and

the movement of capital as agreed on the four freedoms in the treaty. In particular, the issue of free movement of people and workers has been one of the issues triggering the discussion and the decision for leave though there is hardly any evidence that immigration from the EU to UK has caused job losses or a lowering of wages (for a quick overview see IMF, 2016). On the other hand, the fear of UK business – and financial business in particular – to lose passporting rights is a heavily debated issue for ‘the City’.

Movement of people

One of the hotly debated issues in the referendum campaign was the issue of the mobility of people within the EU (which constitutes one of the four freedoms in the European Union). This issue will also be one of the most important stumbling blocks – if not the most crucial one – of the negotiations concerning the relationship between the remaining EU and the UK after the Brexit.

Almost 3 million people from the EU-27 Member States reside in the UK, accounting for about 4.5 % of the UK population. The largest groups of mobile persons are from Poland with almost 25 %, from Ireland with 17 % and Germany with slightly less than 10 %. These three countries account for 50 % of total migrants from the EU-27 in the UK. In the other direction, about 1.2 million UK (born) persons

– less than 2 % of the UK population – reside in the EU-27, accounting for 0.3 % of the total population in the EU-27. More than 60 % of these mobile UK persons live in Spain (25 %), Ireland (20 %) and France (15 %). In net terms, the UK is a net immigration country with respect to the EU-27, with more than 1.5 million persons; this is also about half of the total net immigration into the UK (IMF, 2016).

As for the movement of people between the UK and Austria, 11,000 persons from the UK reside in Austria, accounting for 0.13 % of the Austrian population. Almost 22,000 Austrians (0.25 % of the Austrian population) are living in the UK, which in terms of UK population account for a marginal share of 0.03 %.

Movement of capital

A similar picture emerges when considering FDI flows. In total about 50 % of the UK inward FDI stocks are coming from the EU-27. The main countries contributing to this are the Netherlands (33.5 % of the UK inward stock from the EU-27), Luxembourg

with 15.3 %, France with 14.9 % and Germany with 11.5 %. Similarly, the UK outward stock to the EU-27 is about 40 % of the UK’s total outward stock. Again, the main partners are the Netherlands (31.1 % of the UK outward stock in the EU-27), Luxembourg

⁶ For details on the EU budget see, e.g., Richter (2016). Ferrer and Rinaldi (2016) argue that the effect on the EU budget can be rather small and might be compensated by tariff revenues if the UK stays outside the Single Market.

(27.7 %) and France and Ireland with slightly less than 10 % each. The share of Austria in the UK's inward FDI stock from the EU-27 is less than 1 %. In terms

of the Austrian outward stock the UK ranks seventh, with about 3.5 % of the total Austrian outward stock.

Movement of goods and services

There are of course strong linkages between the UK and the EU-27 in terms of trade flows. The EU-27 is the UK's most important trading partner, accounting for a share of about 40 % of UK exports. The ratio of total UK exports to GDP is about 27 % and therefore exports to the remaining EU in per cent of GDP amount to about 11 %. Further, more than 50 % of UK imports are from the remaining EU Member States. Of course the relative importance of exports and imports to and from the EU differs across countries. Germany, France, Ireland and the Netherlands are the most important trading partners from the EU in both exports and import flows. Further, the UK runs a trade deficit in goods, whereas it maintains a surplus in services.

From the perspective of the total remaining EU, the UK accounts for about 12 % of EU exports (not including intra-EU trade), which is similar in magnitude to the share of EU-27 exports to the US.⁷ Also, about 12 % of total EU imports (again not including intra-EU trade) is coming from the UK.⁸

From an Austrian perspective⁹, the UK accounts for about 3.2 % of Austrian exports and is therefore Austria's tenth most important trading partner in terms of goods trade; in terms of services exports, the UK even ranks fifth with a share of 4 %. Less than 2 % of Austrian goods imports come from the UK (rank 13 of Austrian import partners), but the UK is Austria's third most important import partner of services (with 4.7 % coming from the UK).

How important is trade between the UK and the EU-27 for a particular country's income?

However, these numbers do not fully reflect the importance of the impact of exports on a country's income (GDP) for two reasons: First, from the viewpoint of the UK, exports embody value from intermediate inputs imported beforehand – for production purposes – which amount to about 20 % of UK exports (i.e. the 'foreign value added content' of UK exports is 20 %). About half of this value stems from EU countries; the most important are Germany (2.5 %), France (1.5 %), and the Netherlands (1.1 %). Second, the UK is exporting also to non-EU destinations; these exports might, after several

stages of production, finally be absorbed in the EU. When taking these considerations into account one can indicate how much value added generated in the UK is dependent on demand in the rest-of-EU, which is termed 'value added exports'.

Applying this concept of 'value added trade' one finds that about one-fifth of UK GDP depends on the country's export activities, and the – direct and indirect – value added exports to the EU account for roughly 7 % of the UK's total income.¹⁰ Of course, the individual EU economies are of varying

⁷ When including intra-EU trade these shares are about 6 % (as about half of EU trade is intra-EU trade).

⁸ The share is about 5 % when including intra-EU trade.

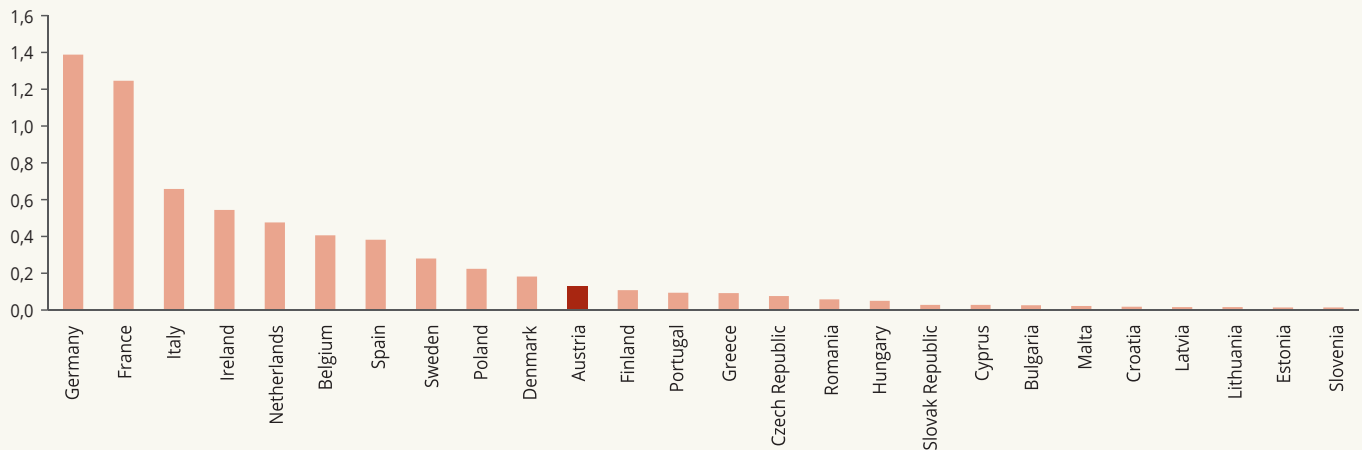
⁹ See Holzner (2016).

¹⁰ This share has declined in recent years; in 2012 it stood at about 10 %.

importance for UK exports and GDP creation. Figure 1 illustrates the share of value added

exports in UK GDP by destination country in the EU-27.

Figure 1
UK value added exports by EU destination (in % of UK GDP), 2014



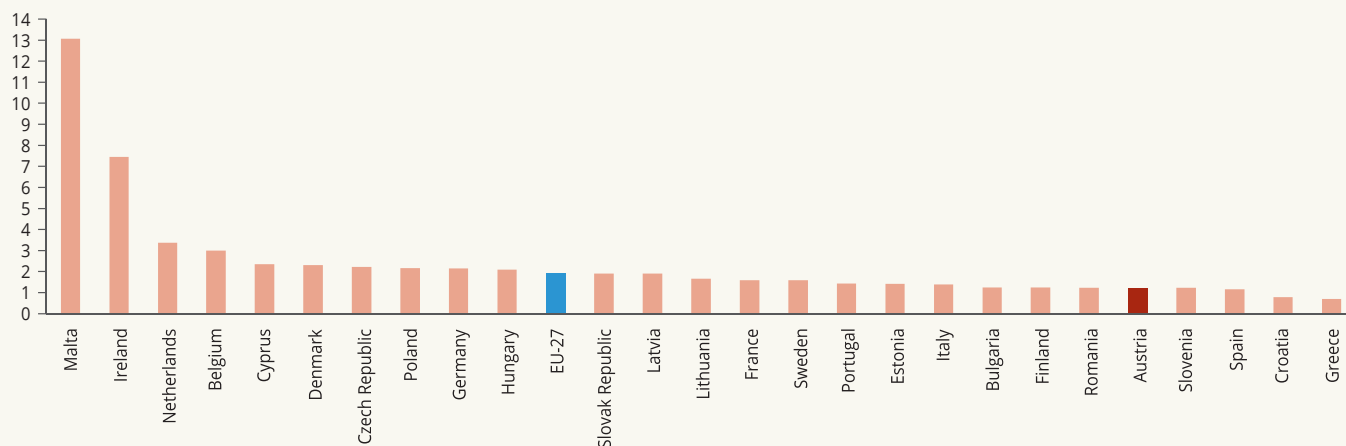
Note: Luxembourg is missing due to data issues.
Source: WIOD, release 2016 (preliminary version); own calculations.

The same argument holds in the other direction as well. The UK accounts for about 2 % of EU-27 value added exports (as a per cent of EU-27 value added). Again, there are naturally significant differences across countries as shown in Figure 2. Malta with 13 % and Ireland with more than 7 % of their GDP are the two countries which are most dependent on UK demand.

These are followed by a number of countries – including many Eastern European Member States

– whose dependence on UK demand in terms of GDP ranges from more than 3 % to about 2 %. About two-thirds of the remaining EU economies depend to less than 2 % on value added exports to the UK; amongst these countries is Austria with about 1.2 % of GDP. The UK ranks seventh among Austria's export partners in value added terms. The share of the UK in Austria's value added exports (in total value added exports) is slightly below 4 %.

Figure 2
Value added exports to the UK in % of GDP, 2014



Note: Luxembourg is missing due to data issues.
Source: WIOD, release 2016 (preliminary version); own calculations.

How strong is the impact of Brexit on the EU-27 Member States' GDP?

Against this backdrop, it can be investigated how a decline in the demand for final goods in the UK affects income of the other countries of the European Union. We assume that – in the wake of Brexit and the resulting (predominantly negative) economic prospects as indicated in Table 1 – overall demand in the UK will decline. In this simple exercise it is assumed that this decline in demand is proportional across industries and source countries.¹¹

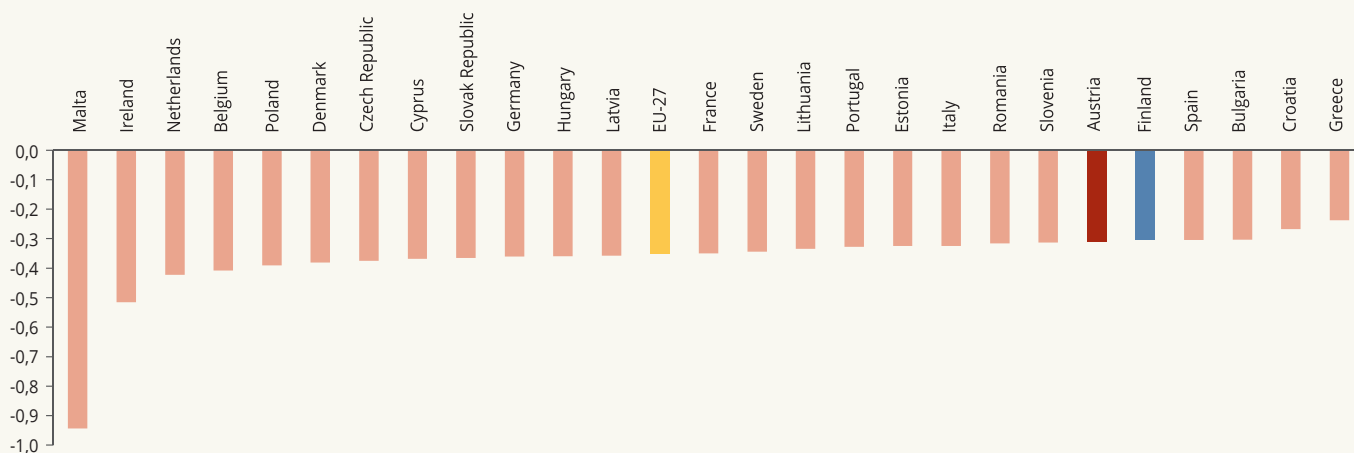
In this model, a 1 % decline in UK GDP (modelled via a corresponding decline in UK final demand) would imply a drop of GDP by a negligible 0.025 % in the EU-27. When further including the negative effect of GDP on final demand in the other countries (i.e. induced effects) the impact would increase to about 0.06 %. Thus, when assuming a drop in UK GDP by about 2 % and 4 %, respectively (corresponding

to the mean effect of the results reported in Table 1) the effect on the EU-27 would be around 0.05 % or 0.1 %, respectively. Consequently, a pure – one-time – final demand shock impacts only slightly on the GDP of the EU-27.

When including a dynamic component, i.e. GDP growth in the UK is 1 percentage point lower than without Brexit over a three-year period, the overall impact on the GDP of the EU-27 is around 0.5 % against baseline, which is roughly in line with results reported in IMF (2016). OECD (2016) reports a loss of GDP in the EU-27 by about 1 % in 2020. It should, however, be noted that these – and other – studies also include further channels of economic impact partly mentioned above which likely increase this effect.

¹¹ In this model therefore no specific changes in trade patterns are assumed which would become important if the UK leaves the Single Market.

Figure 3
Scenario results by country



Note 1: In the scenario a 2 percentage point decline of UK GDP growth over a period of three years is assumed. Results also include induced effects on other countries.

Note 2: Luxembourg is missing due to data issues.

Source: WIOD, release 2016 (preliminary version); own calculations.

The effects of such a scenario (assuming a 2 % decline in UK GDP over a three-year period) by country are presented in Figure 3. Malta, Ireland, the Netherlands and Belgium (with declines of around 0.9 %, 0.5 %, 0.4 % and 0.4 %, respectively) are the

group of the most affected countries. Austria would experience declines in GDP of about 0.3 %, similar in magnitude to many other countries in the EU-27.

Effects of Brexit by industry

These results can be broken down by industry. Figure A.1 displays the results for each sector in the EU-27, whereas Figure A.2 reports the results for Austria.¹² The largest impact is mostly found in manufacturing industries, such as manufacture of transport equipment and motor vehicles, of pharmaceuticals, etc. The impact on service activities – maybe with the exception of business-related services like advertising, repair accounting,

etc. which feed into goods exports – is generally less affected. One needs to note here that however trade in services is often via other modes like commercial presence which is not taken into account there. This pattern is even more pronounced in the Austrian case as the sectors with the strongest impact are all in the manufacturing industry (see Figure A.2).

¹² The results present the impact of a 1 % decline of UK GDP.

Figure A.1
Effect of a decline in UK GDP by 1%* by industry (total EU-27)



Note: Results show the impact of a 1 % decline in UK GDP
Source: WIOD, release 2016 (preliminary version); own calculations.

Figure A.2
Effect of a decline in UK GDP by 1%* by industry (Austria)



Note: Results show the impact of a 1% decline in UK GDP
Source: WIOD, release 2016 (preliminary version); own calculations.

Summary and conclusions

- First, it has been shown that the European Union is an important partner for the UK in trade in goods and services as well as FDI flows, with roughly 50 % of trade and FDI stocks being exchanged with the EU-27.
- Second, there is an asymmetry in the sense that the EU-27 is more important for the UK than vice versa (for instance, 7 % of UK GDP depends on value added exports to the EU-27, whereas about 2 % of EU-27 GDP depends on value added exports to the UK).
- Third, the results of the studies on the likely impact of Brexit on the UK economy and the scenario results on the effects on the EU-27 show a stronger negative impact the less integrated the UK and the EU-27 become after Brexit. This is the case for both the UK and the EU-27.
- Fourth, there is some diversity across the remaining EU-27 Member States, with some countries being significantly more affected (particularly Ireland, Malta, the Netherlands, Belgium) as are those with a stronger manufacturing industry (due to the importance of inter-country linkages for these industries).
- Finally, the industries most affected are the manufacturing industries - and among those the high-tech industries - and business related services suffer the most.

From this analysis it follows that the first-best option for the UK and for the EU-27 would not trigger Article 50 and to reduce the uncertainties about UK's role in Europe which however does not seem to be a politically feasible solution. The second best solution for both parties would be that the UK becomes member of the EEA which conflicts with the right of the mobility of persons.

A more realistic scenario will be a new model combining elements of existing arrangements. In negotiating such a deal the EU-27 enjoys a relatively strong position. This position would allow for a strategy that keeps essential principles of the EU intact – the four freedoms are a case in point – but also ensures that the position of the EU in the global economy is not weakened.

Thus, from an EU perspective a comprehensive trade deal with the UK would be warranted for goods (where the EU-27 has a trade surplus) whereas it should be limited for services (where there exists a trade deficit). The free trade in goods would limit

the impact on the manufacturing industries and business-related services in the EU-27. In such a deal, the UK would further have to accept EU rules without being able to influence them; one should note that many EU regulations might likely to be maintained. Such a deal would also maintain important trade linkages between the EU and the UK.

Though the UK might be very much interested in also having access to the Single Market in services trade, this should be restricted (as it is in the 'Swiss model'). This would, of course, be a tricky feature to achieve in the negotiation process, considering the likely influence of the London "City". Should the EU-27 prevail, one could expect an increase in foreign direct investments. The same would hold for passporting rights when withdrawn.

Another important demand from the EU-27 side should be a contribution to the EU budget which would allow for further cooperation between the UK and the EU in various fields (e.g. in research and development).

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Imprint

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