AgriFood economics centre

Policy Brief
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Brexit: impacts on agricultural markets in the UK and the EU

The UK has voted to withdraw its EU membership (Brexit). Agricultural markets in the UK and the EU27 are closely connected but Brexit may change this. We analyse potential impacts of Brexit in both the UK and the EU and conclude that:

- **In the UK, food prices will increase, making consumers in the UK the biggest losers.**
- **The losses to consumers could be offset by reduced payments to the EU27 and gains for producers as prices increase in the UK.**
- **In the EU27, declining food prices would benefit consumers but reduce producer income.**

Agri-food trade with the EU is important to the UK

UK agriculture is highly integrated with the EU single market. The EU27 accounts for 65% of the UK's total imports and 60% of its total exports of agri-food products. The final result of the negotiations will therefore have economic impacts on both parties.

Three possible future trade relations between the UK and the EU

The UK pursues a freest possible economic relationship with the EU as well as regulatory alignment to maintain frictionless trade as far as possible after Brexit. However, given UK's four red lines: no free movement of labor, independent trade policy, no EU budget contribution, and independence from the European Court of Justice, frictionless trade is not possible and makes the exit from EU a complex negotiation exercise.

One of the options for a soft Brexit would be for the UK to remain in the European Economic Area (EEA), as Norway, and in addition preserve tariff free trade in agriculture (so-called EEA+, where the + indicates that, unlike in the EEA, there will be no tariffs on agricultural products). This would minimize trade frictions after Brexit. An alternative soft Brexit option is a free trade agreement (FTA) between the UK and the EU but without regulatory alignment. If neither of those agreements is achieved, the UK and the EU would, as any WTO member without a preferential agreement, face the Most-Favored-Nation (MFN) tariff rates of the other party (Hard Brexit).

Table 1 UK-EU post Brexit relationship

	EEA+	*FTA*	*WTO*
Accommodation of UK's red lines	Independent trade policy	Yes, All four	Yes, All four
Access to the single market in goods and services	Yes	Yes/No depending on the deal	No
Non-Tariff Barriers (NTBs)	Low	Medium	High

*NTB: Non-Tariff Barrier, such as delays and administrative burdens due to differences in regulations and border control measures

Detailed scenario assumptions of trade policy

In our analysis, we consider three Brexit scenarios (Table 2). In the scenarios *EEA+* and *FTA*, the UK have access to the EU single market in agriculture without tariffs. However, tariffs apply in the scenario *WTO*. In all scenarios, we assume that the UK and the EU agree to share existing Tariff rate quotas (TRQs) of the EU. TRQs are divided between the UK and the EU based on domestic consumption levels of products. The UK retains EU's FTAs with third countries.

Table 2 Brexit scenarios.

	EEA+	*FTA*	*WTO*
Tariff (UK- EU27)	No tariffs	No tariffs	MFN tariffs
NTB costs (%)	5.0	7.9–12.7	12.6–24.2
UK's EU CAP contribution	Yes	No	No
Tariff Rate Quota (TRQ)	UK's share of the EU TRQs remain in the UK		
UK's tariffs with the ROW	MFN tariffs but preserves current EU FTA with non-EU countries		

*Note: ROW (the rest of the world), Tariffs and NTB costs are assumed to be similar for trade between the EU and the UK irrespective of the direction of trade.

EEA+: The UK remains in the EEA as Norway, but with an agreement on free trade in agricultural products as well (*EEA+*). Only border-related non-tariff barrier (NTB) costs increase compared to being in the EU due to paperwork related to, for example, rules of origin (RoO) and additional costs from border controls.

FTA: An FTA between the UK and the EU. NTB costs increase more than in the EEA+ scenario because food standards such as sanitary and phytosanitary measures could differ in an FTA.

***WTO*:** No agreement is reached. NTBs increase the most in this scenario. We assume that half of the savings on trade cost when UK is part of the EU single market now would materialize as costs. Most favored nations (MFN) tariffs are applied on agricultural products according to WTO rules between the UK and the EU.

Analysis by simulations in the CAPRI model

The agricultural sector economic model CAPRI is used to assess the effects of changes in trade barriers between the UK and the EU27 after Brexit. The CAPRI model covers most primary agricultural products, but beverage and most processed products are not included.

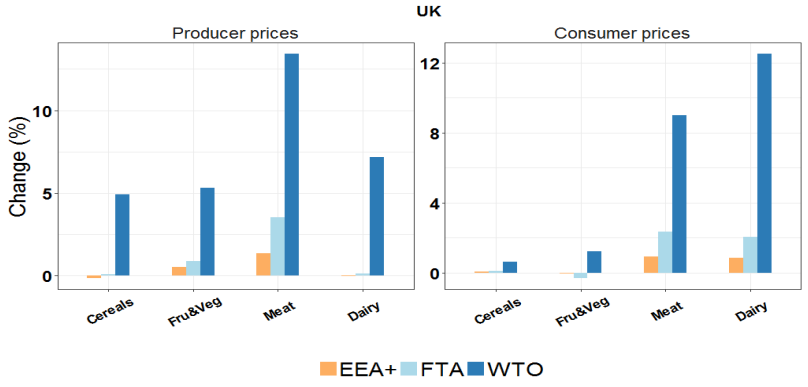
Trade between the UK and the EU27 is strongly reduced

The impacts of Brexit are compared to staying in the EU (business as usual). First, the results show that UK exports decline more in relative terms (percentage change in quantity exported) than its imports. Second, meat exports are affected the most. Third, even in the *EEA+* scenario which is the most integrated option, UK's exports decrease by 10-25% in all product groups. Fourth, without a trade agreement (the *WTO* scenario), cereals, meat and dairy product exports decline by more than 60%. Fifth, in the EU27, the impact on exports and imports are moderate compared to in the UK. Exports of fruits and vegetables, meat and dairy products are affected the most

Prices rise in the UK and fall in the EU

In the UK, producer and consumer prices increase for most products in all scenarios. This is due to a decline in net imports as a result of higher trade costs. The largest price effects occur in the WTO scenario where trade costs are the highest. The exception is producer prices for cereals in the scenario (*EEA+*), which fall as a result of a larger decrease in exports than in imports. In addition, consumer prices for fruit and vegetables decrease in the scenarios *EEA+* and *FTA.* This is due to a shift in consumption within the product group towards lower priced products (citrus, grape) from high price ones (tomato, wine). In the EU27, producer and consumer prices decrease for most products, because exports to the UK decline. As expected a higher degree of integration of the UK in the EU (*EEA+*) will have less impact on prices compared to the most restrictive trade policy (the *WTO* scenario).

Figure 1 Brexit impacts on prices (producer and consumer, in %) in the UK.



UK consumers are the main losers

For the welfare calculation in this study, we consider consumer surplus, producer income, TRQ rents and government revenues. TRQ rents accrue to traders due to price differences between the UK and world markets for products with TRQs. Government revenues consist of tariff revenues that the UK keep after Brexit and UK's former contribution to the CAP budget. After Brexit, UK's contribution to the EU CAP budget will be withdrawn which is considered a gain in UK government revenues.

- In all scenarios, consumers in the UK and producers in the EU27 lose due to, respectively, higher food prices in the UK and lower producer prices in the EU.
- In the *FTA* and *WTO* scenarios, the UK gains €2.3 and 2.7bn in government revenues respectively by leaving the EU, whereas government revenue losses (€1.9bn) occur for the EU27.
- In the *FTA* scenario, the net result is that the UK makes a welfare gain (€668bn) because the country's gain from phasing out CAP contributions, higher producer incomes, and larger TRQ rents exceed the loss of consumer surplus.

Table 3 Welfare impacts in the agri-food sector in 2030 (current prices) of Brexit

Changes in welfare (million EUR)	UK			EU27		
	EEA+	*FTA*	*WTO*	*EEA+*	*FTA*	*WTO*
Consumer surplus	-856	-1,974	-8,802	+315	+776	+3,266
Producer income	+115	+363	+2,923	-372	-884	-3,874
TRQ rent	+1	+1	+25	+1	+3	+54
Government revenue	+645	+2,280	+2,727	-345	-1,968	-1,971
Total	**-97**	**+668**	**-3,125**	**-399**	**-2,071**	**-2,550**

Limitations of the study

The results are largely driven by our assumptions on NTB costs, which are in the middle of the spectrum in previous studies. The actual extent of NTB costs will depend on how much the UK harmonizes food standards and regulations with the EU27 in the long term.

UK's membership fee for an EEA+ agreement could be lower than its current net EU membership contribution, depending on the negotiations. In this study, however, the fee is assumed to equal UK's current contribution to the EU budget.

Other macro-economic factors may worsen impacts. The expected negative impacts of Brexit on the exchange rate might directly affect the prices of imported agri-food products and the prices of primary

inputs for agriculture (e.g. mineral fertilizers and fuels). In addition, labor market disturbances (e.g. restricted mobility of seasonal workers) could affect labor-intensive agricultural sub-sectors, such as horticulture in the UK. On the other hand the absolute levels of consumer losses could be larger than calculated as CAPRI lacks information on some food products.

Conclusions

According to our results, increased market inefficiency arising from trade barriers due to Brexit could lead to welfare losses for the UK and the EU27. In particular, the loss for UK consumers could be substantial (-125 euro/capita) with a hard Brexit (scenario *WTO*). However, with a free trade agreement, the increase in producer incomes and not having to contribute to the CAP budget, could lead to a welfare gain for the UK. It remains to be seen how UK's post-Brexit agricultural and trade policy can mitigate the increase in food prices. For the EU27, impacts are small, but the loss of UK's CAP contribution can generate a welfare loss. For the EU27, producers would likely face income losses due to lower food prices and a shrinking EU CAP budget.

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The AgriFood Economics Centre

The AgriFood Economics Centre provides economic expertise in the fields of food, agriculture, fishing and rural development. The Centre, which consists of the Swedish University of Agricultural Sciences (SLU) and Lund University, is a platform for applied research. The aim is to supply government bodies with a solid foundation supporting strategic and long-term policy choices

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