

The potential implications of a Brexit for the German agro-food sector

An analysis based on the UK tariffs announced on March 13, 2019

Martin Banse, Florian Freund

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Dr. Martin Banse
Tel.: +49 531 596-5302

Dr. Florian Freund
Tel.: +49 531 596-5338

Thünen Institute of Market Analysis
Bundesallee 63
38116 Braunschweig

On March 13th, 2019 the UK government released a list of protection measures that would apply in a so called hard-Brexit scenario where the UK leaves the European Union without an agreement. This list consists of precise tariffs and quotas on the basis of the detailed tariff-line level (Government UK (2019)). It is important to note that the announced protection measures are non-discriminatory Most Favoured Nations (MFN) tariffs and quotas that apply not only to the EU but to all signatories of the WTO. According to the list, about 87% of UK import value would be free of any tariffs. Tariffs would basically accrue to automobiles, aluminium, certain ceramics, bioethanol and agro-food products.

There have been a lot of studies employing quantitative modelling to estimate the consequences a Brexit might have on the global economies, see Banse and Freund (2018) for a literature review. Therefore, before March 13th, 2019 modellers had to assume which tariffs the UK might apply in case of a hard Brexit. Given this lack of information, studies simply assumed that the UK would apply the same MFN tariffs that the EU actually has in place. The study at hand builds on the previous work by Banse and Freund (2017) and Banse and Freund (2018) which followed the same assumption about UKs MFN tariffs. To put the consequences of the recent UK announcement into perspective, it is instructive to compare it with the results of the previous studies in which EU-MFN tariffs were assumed. Consequently, in what follows we will focus on two hard Brexit scenarios:

- **MFN_UK:** The UK leaves the EU without a treaty and applies tariffs as announced on March 13th. The EU treats the UK as a regular third country as well and applies its MFN tariffs on imports from the UK. In addition to tariffs, a cost increase due to non-tariff measures of 10 % on all products is assumed. Only a few existing trade agreements that the EU have can be rolled-over by the UK¹.
- **MFN_EU:** The UK leaves the EU without a treaty and applies MFN tariffs that the EU actually has in place. The EU treats the UK as a regular third country as well and applies its MFN tariffs on UKs imports. In addition to tariffs, a cost increase due to non-tariff measures of 10 % on all products is assumed. All existing trade agreements that the EU have can be rolled-over by the UK. This is the same scenario as described in Banse and Freund (2018).

The different tariffs on agro-food products that form the basis of the two scenarios can be depicted in Figure 1. It becomes clear that in all cases the tariffs in the MFN_UK scenario are lower than in the EU_MFN scenario. For cereals, fruits and vegetables, sugar and beverages and tobacco the UK would allow for tariff free imports on a non-discriminatory basis. For meat and

¹ Those are the agreements with Switzerland, Chile, Eastern and Southern African countries, Faroe Islands, Israel, Palestine and the agreements with the GSP recipient countries.

rice there would still exist considerably high quotas and tariffs but to a lower extent than in the EU_MFN scenario.

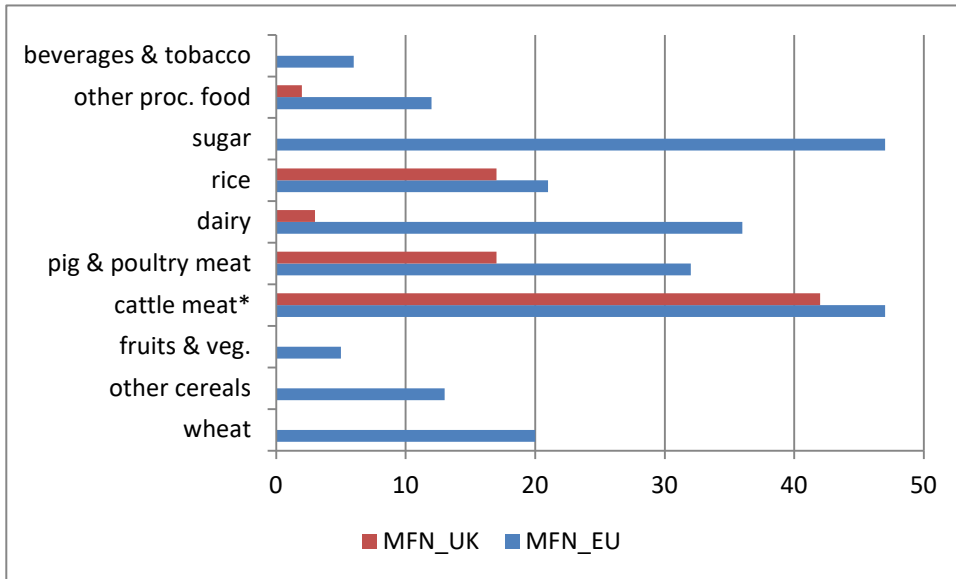
We next turn to the model based analysis. As in the previous analysis, the MAGNET model is used to calculate the consequences a Brexit might have on the agricultural sector in Germany. For further information on the model consult Banse and Freund (2018) and Woltjer and Kuiper (2014). The consequences for German agro-food exports and imports with all countries are depicted in Figures 2 and 3. Most significant is the smaller reduction of German exports in the MFN_UK scenario compared to the MFN_EU scenario. This basically mirrors the smaller import tariffs of the UK in the former scenario. In contrast, the German imports do not change significantly since by assumption the EU imposes the same MFN tariffs in both scenarios. The changes in exports and imports differentiated by countries can be identified in Figures 4 and 5. The reduced exports with the UK are partially offset by an increase of exports to other countries – a consequence which is known as trade diversion. Considering imports, there is also a reduction of imports originating from third countries. This is basically due to the fact that Germany usually exports more sophisticated processed products rather than raw materials. The raw materials that are processed in a higher level value-chain, however, are often imported from third countries. This implies that a reduction of German exports to the UK of processed food like coffee may lead to a reduction of raw material imports of e.g. coffee beans from third countries.

The changes in trade value on a more disaggregated level can be inspected in Figures 6 and 7. Comparing both scenarios again, the decreases in the reduction of imports are smaller in the MFN_UK scenario for all products. The differences are the most pronounced for pig and poultry meat, other processed food and dairy products.

Finally, the consequences for production are depicted in Figure 8. As in the previous MFN_EU scenario, the production effects of a hard Brexit are not that severe. For most sectors the change in production is less than 1 %. The sector that is likely to have the largest reductions in production is the pig and poultry sector. But even in this sector the negative consequences are much more moderate in the MFN_UK scenario since the MFN tariffs are much smaller than in the MFN_EU scenario. The output reduction decreases from -2.7 % (MFN_EU) to -1.3 % (MFN_UK) for pig and poultry meat production and from -2.3 % to -1.2 % for pig and poultry husbandry.

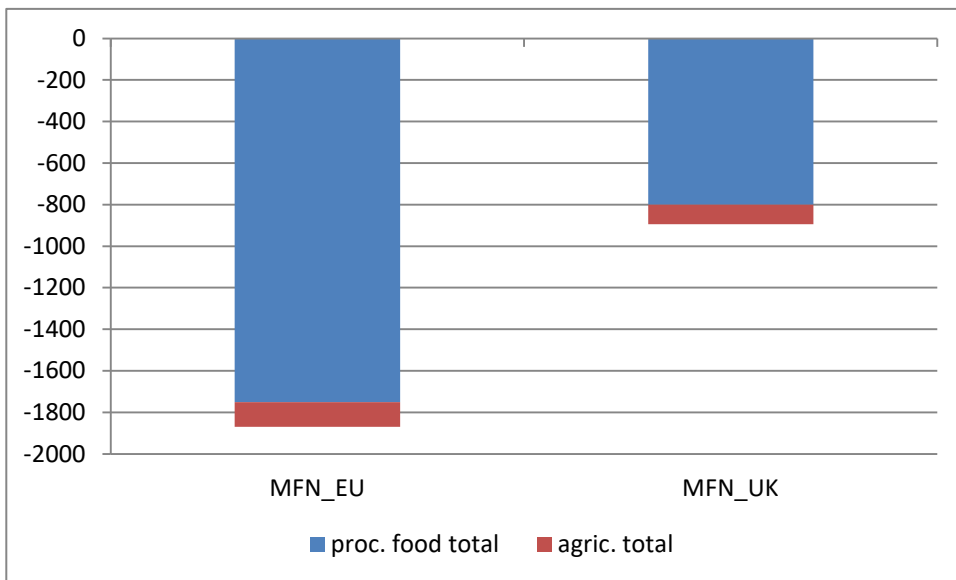
Appendix

Figure 1: MFN tariffs on agro-food products, UK, trade weighted, in %



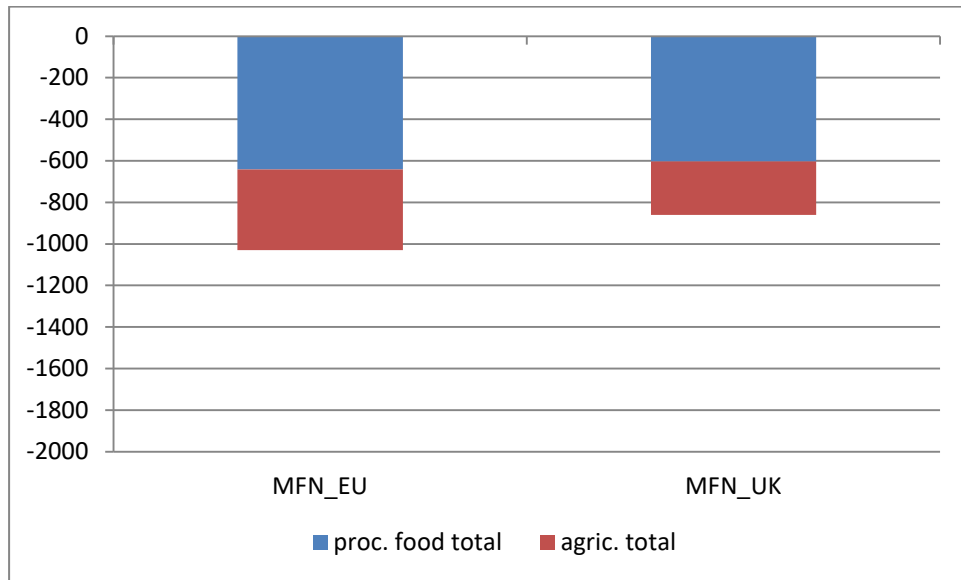
*including sheep and goat meat
Source: own calculations

Figure 2: Change in German exports with all countries, rel. to baseline, in million € (2027)



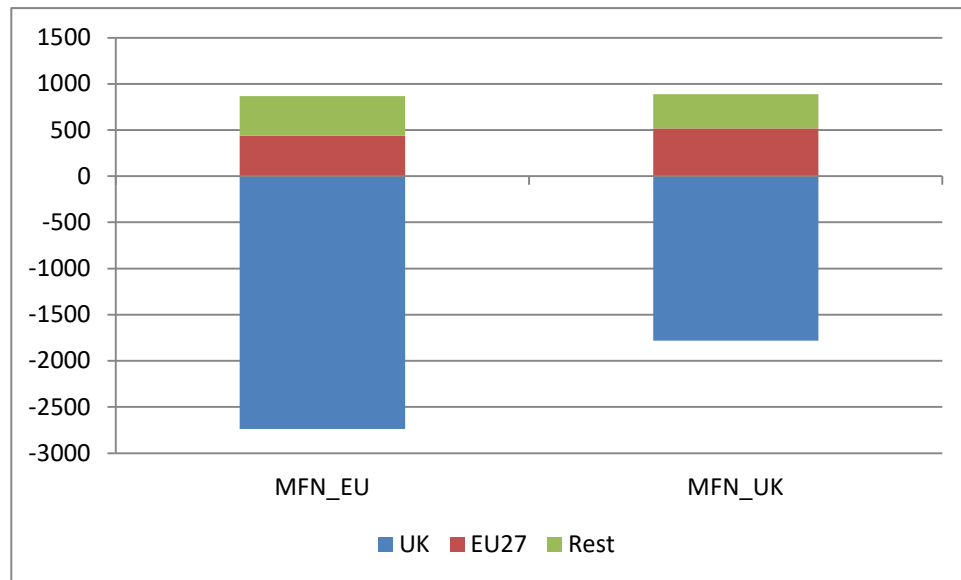
Source: own calculations

Figure 3: Change in German imports with all countries, rel. to baseline, in million € (2027)



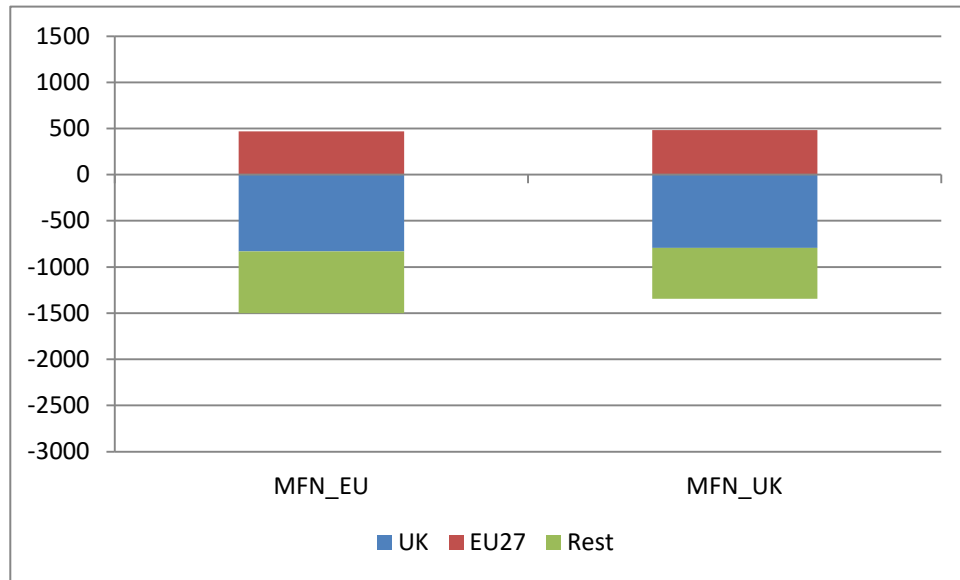
Source: own calculations

Figure 4: Change in German exports by trade partner, rel. to baseline, in million € (2027)



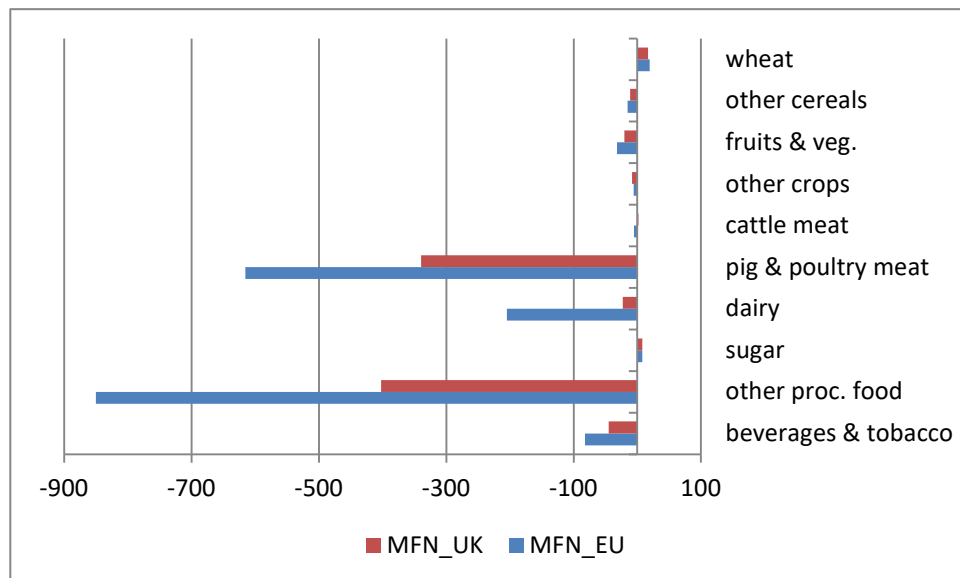
Source: own calculations

Figure 5: Change in German imports by trade partner, rel. to baseline, in million € (2027)



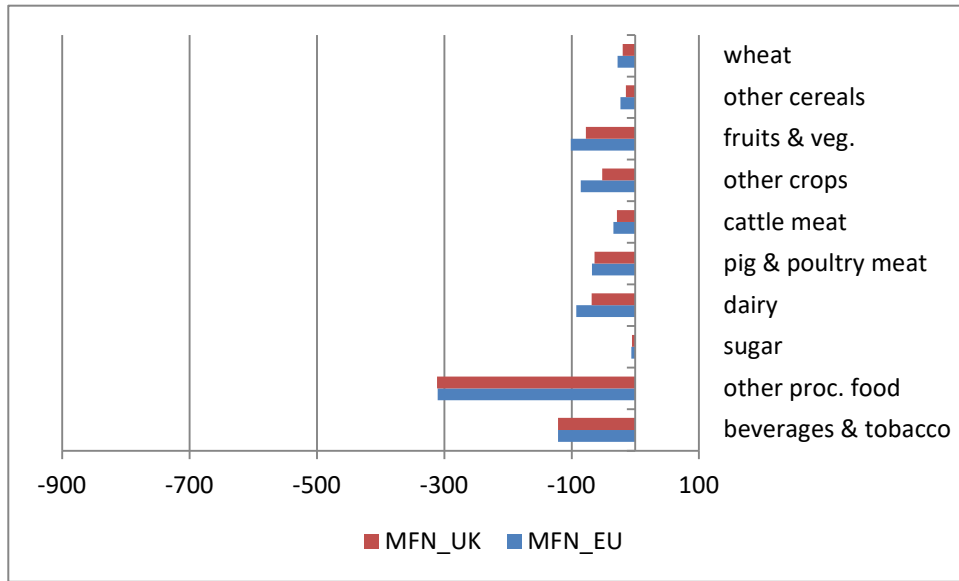
Source: own calculations

Figure 6: Change in German agro-food exports with all countries, rel. to baseline, in million € (2027)



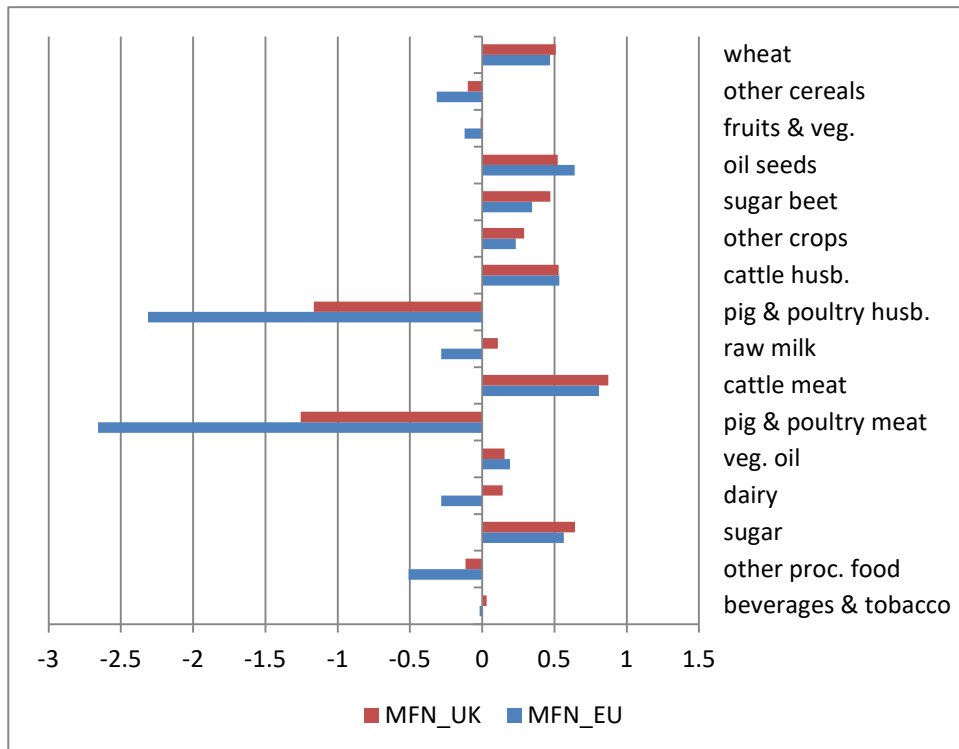
Source: own calculations

Figure 7: Change in German agro-food imports with all countries, rel. to baseline, in million € (2027)



Source: own calculations

Figure 8: Change in German production, rel. to baseline in % (2027)



Source: own calculations

Literature

Banse, M, F Freund (2017): Mögliche Auswirkungen eines Brexit auf den deutschen Agrarhandel. Thünen Working Paper 70. Thünen-Institut.

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