Brexit and the Disruption of Agricultural Trade: A View from Ireland

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Agricultural markets across the 28 Member States in the European Union (EU) customs union are closely integrated under the Common Agricultural Policy. The United Kingdom (U.K.) has chosen to leave the EU, and the separation has become known as Brexit. While Brexit itself is complicated, with less than two months to the exit date, no decision on how to leave the EU has been made, which further aggravates already prevailing uncertainty surrounding its implications. Brexit will disrupt agricultural supply chains and trade within Europe and will also affect European agricultural trade with other countries, including the United States.

A hard Brexit might be tough on the dairy industry, but it would be 'catastrophic' on the beef industry in Ireland.

—Mike Brady, Agricultural Consultant, Brady Group, Ireland

The United Kingdom (U.K.) will exit the European Union (EU) on March 29, 2019. With less than two months to go, no decision on how to leave the EU has been made. The default is a "no-deal" Brexit, also known as a "hard Brexit." The consequences of an exit without a trade agreement would be severe for the U.K. and its trading partners. The main purpose of this article is to discuss the impacts of Brexit on Ireland's agricultural sector. We focus on Ireland because Irish farmers will be the hardest hit of all EU countries, due to the fact Irish farmers rely heavily on exports to the U.K. We also draw out implications for world food trade, as the impact of Brexit will be felt all the way from Australia to California to Italy.

On June 23, 2016, citizens of the U.K. voted, in a referendum, to leave the EU—the Brexit vote. The vote was won by a slim margin, but it passed by more than two to one among U.K. farmers. U.K. farmers will be adversely hit, which illustrates that the decision was not made by economic interests, but for other reasons such as issues relating to sovereignty and immigration.

However, Scotland and Northern Ireland, both part of the U.K., voted not to leave. The stakes are particularly high in Northern Ireland because of its strong geographic and economic linkages with the Republic of Ireland (RoI). The border between the Republic and Northern Ireland is now invisible but that could soon change to a hard border with serious negative impacts on commerce, not to mention the political consequences of possible renewed violence in the North.

It is particularly problematic that the U.K. parliament cannot decide on how to leave the EU. The withdrawal agreement, resulting from 18 months of negotiations between the U.K. and EU, was rejected by the British House of Commons in early January 2019. The main reason for rejecting the withdrawal agreement was the "backstop" provision, which was drafted to honor the 1998 Good Friday peace agreement and includes a commitment made by the U.K. not to re-introduce a hard border between RoI and Northern Ireland. This exit plan would have kept the U.K. in the EU customs union, if a free trade deal that eliminates the need for a hard border between the EU and the U.K. could not be reached by the end of 2020.

Inventing a new technology to allow for an electronic border (without the normal border infrastructure) is regarded as an alternative arrangement. An e-border would permit commerce between the EU and the U.K. to proceed with very minimal border transactions costs, through scanning truck contents without stopping them, etc. The problem, however, is that such a technology has not been developed.

As a result of the uncertainty surrounding the UK's access to food imports, U.K. consumers are understandably worried about food supply disruptions and higher prices after Brexit. This is why a retailer in the U.K. is briskly selling "Brexit Boxes," retailing at about $400, with food rations to last a household 30 days. Additionally, U.K. merchants and consumers are stockpiling frozen foods and general hoarding of food has apparently begun in the United Kingdom.

Brexit will have significant implications for global agricultural trade as the U.K. is a large importer of food including meat, dairy products, and fruits and vegetables. Post Brexit, assuming no deal, the EU will have an external border on the island of Ireland interrupting an efficient supply chain that seamlessly moves goods back and forth on the Irish island (between the RoI and Northern Ireland) and across the Irish Sea into Great Britain and continental Europe.

The EU operates as a single trading bloc, with common external tariffs and other trade barriers. It also has numerous free-trade agreements with

Table 1. Irish Beef Exports (2015–2017 annual average)

Partner	Exports $Millions	Percent of Exports
U.K.	1,069.7	46.3
France	216.7	9.4
Netherlands	207.0	9.0
Italy	182.5	7.9
Germany	141.2	6.1
Sweden	77.4	3.3
Belgium	57.6	2.5
Spain	56.4	2.4
Denmark	39.9	1.7
World	**2,311.9**	

Source: UN Comtrade. HS codes: 0201,0202, 021020, 160210, 1620250

countries outside the customs union. The U.K. would be giving this all up, and after Brexit, the U.K. will establish its own trade agreements with the United States and all other trading partners.

If the U.K. opts for a no-deal break and cuts itself off from the EU customs union preferences on trade, then the U.K..'s existing World Trade Organization (WTO) commitments on agriculture will have to be renegotiated with all WTO members. This will create challenges and opportunities for agricultural exporters who would like greater access to the U.K. market, but at the same time not wanting to forego future market access to the remaining 27 countries in the EU. After Brexit, the U.K. may source some of its food imports from outside the EU, pivoting towards low-cost exporters like Australia, Brazil, or the United States.

When the U.K. abandons free trade within the EU, some U.K. trading partners will be affected more than others; but as the above quote suggests, the Irish agricultural sector will be severely hit, at least in the short run. RoI is a small country and its agriculture is very dependent on international trade, much like New Zealand.

A View from Ireland

Agriculture is one of RoI's most important indigenous sectors, generating about 7% of gross value added and accounting for over 10% of national exports. There are about 137,500 farms in RoI, and beef and dairy are the dominant sectors with 72,400 and 16,637 farms, respectively, accounting for almost 70% of annual gross agricultural output. RoI is the sixth largest exporter of beef in the world, and the largest in Europe, and provides about 2% of world dairy exports.

From an environmental perspective, the Irish dairy and beef sectors perform relatively well, as RoI has the joint lowest carbon footprint per kg of milk and the fifth lowest carbon footprint per kg of beef produced within the EU. Approximately 90% of beef and dairy products are exported, but dependence on export markets differs, as shown in Tables 1 and 2.

RoI exports over 46% of its beef to the U.K. in a typical year (Table 1), which means Brexit will have an outsize influence on Irish beef farmers because significant U.K. trade barriers will come into play after Brexit. According to Bord Bia (the Irish Food Board), a hard Brexit would mean U.K. beef tariffs on Irish imports would be an average of 65%. This would no doubt disrupt the supply chain because Ireland is the only foreign beef supplier to the three largest U.K. supermarkets: Tesco, ASDA, and Sainsbury's, as well as to McDonald's and Burger King. In a January 28, 2019, letter from the top ten U.K. supermarkets to Members of Parliament, the CEOs wrote in relation to a hard Brexit:

> *We anticipate significant risks to maintaining the choice, quality, and durability of food that our customers have come to expect in our stores, and there will be inevitable pressure on food prices from higher transport costs, currency devaluation, and tariffs.*

Irish dairy, in general, is not so dependent on the U.K., shipping about 24% of its exports to the U.K. in a typical year (Table 2). However, we see from Table 3 that the Irish exports of certain dairy products are heavily concentrated on the U.K. market. This is especially true for cheese, as about 53% of Irish cheese exports are sold to the U.K. in a given year, which suggests that some Irish dairy farmers will be more exposed to the impact of Brexit than others. Butter, and milk powder and infant formula are more diversified across import markets. It is notable that RoI exports approximately 30% of its milk powder and infant formula to China. With Brexit, RoI may try to increase this market share to replace lost sales to the United Kingdom.

Brexit brings into question the likely transition of Irish agriculture to more market discipline if it loses preferential access to the U.K. market. It is important to recognize that Irish agriculture is highly subsidized, especially in the case of beef. There is an astonishing difference in farm incomes and subsidy dependence between Irish dairy and beef farms. Figure 1 shows a three-year average of farm incomes and subsidies received by dairy and beef farms, as well as corresponding average farm sizes, which are relatively small.

Remarkably, 101% of beef farm income is due to subsidies, indicating that, on average, beef farmers do not make a profit. However, the vast majority of farm families have off-farm incomes or are receiving pensions, as 30% of all Irish farmers are 65 or older. The high subsidy dependence of beef farming introduces another important way that Brexit will affect Irish farmers. The U.K. has been a net contributor to the EU budget, and unless the U.K.'s contributions are met by the remaining Member States, which is unlikely to happen, the EU budget will be reduced. It is expected that this will imply almost a 10% reduction in direct payments, which would present a major challenge to the Irish beef sector.

In contrast, dairy farming is a profitable industry in RoI, and subsidy dependence is much lower, at 29%. (For comparison purposes, according to the Organisation for Economic Co-operation and Development [OECD], U.S. farms receive about 10% of their income from subsidies, while the EU average is about 20%.) RoI has one of the lowest costs of producing milk worldwide due to favorable agronomic and weather conditions that sustain a grass-based, spring calving milk production system.

Moreover, the Irish dairy sector is currently undergoing a major phase of expansion, facilitated through the abolition of EU milk quotas on April 1, 2015. Milk production has increased by over 50% over the last 10 years. Access to land is one of the main constraints to further expansion, and the implications of Brexit on the beef industry may benefit the dairy industry as it will likely free up land.

Table 2. Irish Dairy Exports (2015–2017 annual average)

Partner	Exports $Millions	Percent of Exports
U.K.	948.3	24.4
China	550.4	14.2
Netherlands	346.6	8.9
Germany	262.6	6.8
USA	203.4	5.2
France	162.1	4.2
Saudi Arabia	153.7	4.0
Belgium	120.8	3.1
Hong Kong	105.0	2.7
World	**3,883.0**	

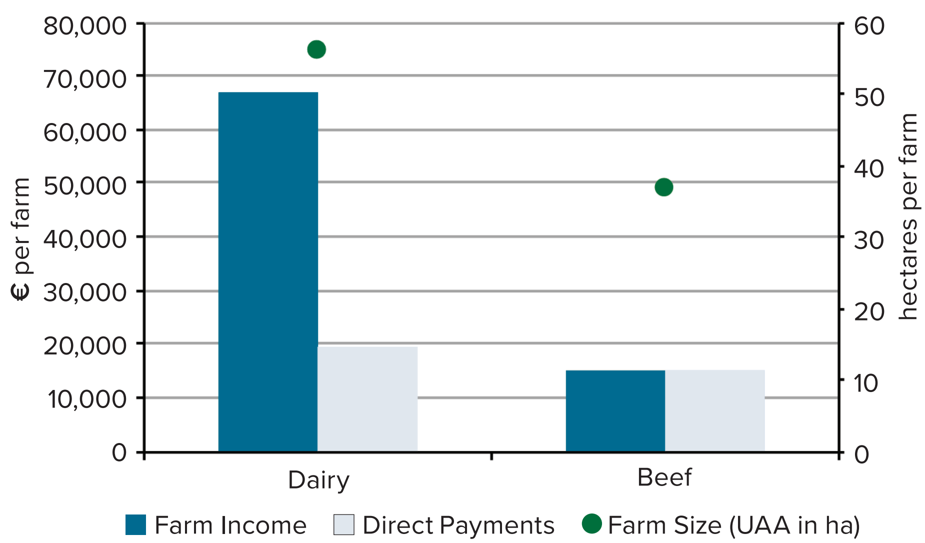
Source: UN Comtrade. HS codes: 0401 through 0406, 2105, 3501, 190110

Brexit also threatens Irish-EU trade that moves via a "land bridge" through the English Channel tunnel. The Freight Transportation Association of Ireland estimates that 80% of the Irish truck freight that reaches mainland Europe passes through the U.K. The land bridge is by far the quickest route for trucks between Ireland and the rest of the EU. For instance, Irish beef exports to Italy are shipped via truck through the U.K.,, with fruits and vegetables back-hauled. Brexit will threaten the shelf-life of that backhaul. A hard border will disrupt that truck traffic due to customs inspections, relating to phytosanitary standards and other issues.

Implications for Other Agricultural Exporters

Like other WTO members, the EU uses import barriers such as tariff rate quotas (TRQs), which allow imports of fixed quantities of a good (e.g., beef and dairy products) at a relatively low tariff. For import volumes above the quota amount, typically a much higher tariff is applied. The TRQs protect

Figure 1. Annual Farm Income, Subsidy Dependence, and Size of Dairy and Beef Farms in Ireland (2015–2017)



Note: Farm incomes are derived by subtracting production expenses from total sales and direct payments.

Source: Teagasc National Farm Survey data farmers at home but they are part and parcel of the EU TRQs and so would have to be renegotiated by the U.K. after Brexit. Such negotiations will involve most global agricultural exporters serving Europe as the EU has over 80 different TRQs in place for agricultural products.

After the U.K. leaves the EU it will have to establish its own set of tariffs on imports, in compliance with WTO rules. This will be complicated with agricultural products subject to TRQs because the TRQ import quantity is based on EU-wide demand. Therefore, the TRQs will have to be modified to account for U.K. demand versus demand in those countries remaining in the EU.

In 2017 the U.K. and the EU proposed to the WTO a way of splitting the TRQs based on historical imports, but some exporters (e.g., Argentina, Brazil, Canada, the U.S., and others) have complained this proposal would reduce their overall market access. One of the WTO principles is that no member can be made worse off (in terms of market access) by any splitting of the TRQs.

The U.K. accounts for about 10% of the overall EU population. Suppose that the UK's historical share of the EU imports of a good under existing TRQs is 20%. Post Brexit, if the U.K. takes 20% of the TRQ share for that product and then demand in the U.K. wanes, the exporters would not be able to shift supplies towards the EU because their quota would be fixed at the historical level. This is a market access issue.

Table 3. Top Foreign Markets for Irish Dairy Products (2015–2017 annual average)

Top Irish Export Markets (Percent of Irish Exports)		
Cheese ($824 million)	**Butter ($800 million)**	**Milk Powder / Infant Formula ($1,696 million)**
UK (53%)	UK (28%)	China (30%)
Germany (6%)	Netherlands (18%)	UK (11%)
Netherlands (5%)	Germany (14%)	Netherlands (7%)
France (5%)	Belgium (12%)	Saudi Arabia (7%)
USA (4%)	France (8%)	Hong Kong (6%)
Algeria (4%)	USA (8%)	Germany (4%)

Source: UN Comtrade. Product code aggregation follows USDA product description for exports.

Conclusion

All major players in global agricultural trade will be impacted by Brexit. For instance, U.S. President Trump recently stated the likelihood of any future U.S.-U.K. trade agreement could depend on the details of how the U.K. will leave the EU. We have outlined the impact of Brexit on Irish agriculture, which is highly concentrated on beef and dairy and dependent on exports to the U.K. While Brexit will no doubt have negative consequences for Irish beef farmers due to trade destruction with U.K.'s departure from the customs union and reduced direct payments, the impact on Irish dairy farmers will be more diverse. New trade flows will also be created with other agricultural exporters seeking access to the U.K. market.

From an environmental and social point of view, there could also be wider implications—say, for instance, U.K. imports more beef from Brazil, and less from the Irish industry. Reductions in Irish beef production that is made up by less carbon-efficient beef production, would have negative environmental consequences, but will free up land that may be utilized by an expanding dairy sector in RoI. Expanded Irish dairy exports to China and elsewhere could crowd out exporters like the United States in that market, which again will shift the environmental balance of production. Given that California agriculture is also reliant on dairy product exports, with China being an important market, expanded Irish dairy sales to China will impact the California industry.

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