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### **EU–New Zealand FTA: What Are the Implications for Ruminant Meat Industries?**

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#### **Abstract**

This article reports on the results of the modelling assessment of the effects of a potential free trade agreement between New Zealand and the EU on the red meat sectors. The primary tool for the analysis was a partial equilibrium trade model, as it enables detailed analysis of the agricultural sector with a high disaggregation of meat commodities. The results suggest that the effect of the FTA would be minor for red meat industries in New Zealand and the EU. Beef and sheepmeat producer returns are expected to remain almost unaltered, and the bilateral trade of those commodities is estimated to stay almost unchanged.

Keywords: European Union, free trade agreement, meat industry, New Zealand, partial equilibrium model

#### **Introduction**

**I**n June 2018, the European Union and New Zealand commenced negotiations for a comprehensive free trade agreement (FTA). There is a long history of trade between the EU and New Zealand. As a part of this trading history New Zealand has access

through preferential quotas to the EU market for its high-quality beef and sheepmeat. Apart from the preferential quota, as New Zealand and the EU currently do not have an FTA, their current trade relations are governed by the most-favoured-nation principle mostly established through a series of negotiations in the General Agreement on Tariffs and Trade (GATT).

This article highlights potential gains from the EU–New Zealand FTA in the red meat industries in both countries. As New Zealand’s top destination for sheepmeat, the EU is an important market for New Zealand sheepmeat products. New Zealand exports of high-quality beef are minor to the EU, and those products are subject to tariff rate quotas and relatively high tariffs. As New Zealand largely exports agricultural products to the EU and meat products are a substantial portion of these, it is important for New Zealand to gain free access and liberalise trade in agricultural products. Certainly, the presence of high tariffs and quotas in the EU suggests that New Zealand could reasonably demand that trade discussions begin there. As a competitive producer of high-quality beef, sheepmeat and other agricultural products, New Zealand would be very keen for the inclusion of these products in the FTA, while EU producers of the same may be expected to object, in particular producers of beef, which is a politically sensitive issue within the EU.

One of the required steps in the EU’s trade negotiations is an assessment of the impact of FTAs before the start of negotiations. There is no such compulsory policy in New Zealand. In 2017, the EU Commission conducted the impact assessment of the FTAs with Australia and New Zealand, respectively. The EU study employed a CGE (Computable General Equilibrium) model, in particular the GTAP (Global Trade Analysis Project), to measure the economic effects of the FTAs. The CGE model mostly measures effects on the whole economy, with less attention given to the economic effects of FTAs on trade in agricultural products; usually the agricultural sector is not highly disaggregated. The EU Commission’s study measures the effect of the FTA on the ruminant meat sector as a whole (beef and sheepmeat together). The limitation of the model used in this study is that the database cannot disaggregate the ruminant meat sector into beef and sheepmeat.

The importance of red meat to New Zealand and the EU has been made apparent throughout this research; therefore, it would be important to measure the effect of the FTA on the beef and sheepmeat sectors separately (European Commission, 2017). The aim of this article is to examine the possible economic effects of the potential free trade agreement between New Zealand and the EU on the sheepmeat and beef sectors. The primary tool for the analysis is a partial equilibrium trade model, as it enables detailed analysis of the agricultural sector with a high disaggregation of meat commodities. In

particular, for this research, the Lincoln Trade and Environment Model (LTEM) was selected.

## **New Zealand and European Union Trade: A Historical Perspective**

Until 1880, New Zealand as a British colony mostly exported wool to Britain (Hawke and Lattimore, 1999). As sheep flocks were rapidly growing, wool exports reached more than 55 percent of all exports by 1874. As a result, an increase in sheepmeat supply occurred, which exceeded the domestic demand in New Zealand at that time (Hawke, 1985).

In the 1880s, the introduction of ship refrigeration technology changed and shaped New Zealand's exports (Hawke and Lattimore, 1999). New Zealand used this opportunity, and pastoral products like frozen meat and dairy products started to be exported, mostly to Britain. Before this development, it was not possible to export unrefrigerated meat or dairy products as far as Europe. There was continuous growth of meat and dairy products in total exports over this period. Moreover, the introduction of refrigeration narrowed the market and product structure and developed a comparative advantage in agriculture (Hawke and Lattimore, 1999).

At that point, New Zealand was exporting agricultural products to, and importing the majority of its manufactured goods and services from, Britain. Furthermore, the period of industrialisation increased the demand for food, fostering the existing bonds between Britain and the other Commonwealth countries. In 1932, the Ottawa Agreement gave New Zealand and other Commonwealth countries preferential access for their agricultural products to the British market (Gibbons, 2008; Nixon and Yeabsley, 2002; Saunders, 2000).

After World War II, Europeans suffered from starvation. Because most of the region's infrastructure was damaged and destroyed, food production was limited and could not meet the demand. Consequently, European countries were dependent on imports of food from outside countries. At that time, most European governments looked for policies that would stimulate farmers to produce and would ensure stable prices of food in the post-war period. In 1957, Belgium, France, West Germany, Italy, The Netherlands and Luxembourg established the European Economic Community (EEC). During the 1960s, these countries abolished customs duties on trade between them and developed common policies on trade and agriculture. These objectives were later implemented through the Common Agricultural Policy (CAP) and the Treaty of Rome. Primarily, Europe wanted to achieve self-sufficiency in food production (Kogler, 2006). However, it was evident that if Britain wished to become a member of the EEC

“it would have to reconcile continuation of the Commonwealth preference system and the Community membership obligations” (Holmes and Pearson, 1991, 14).

European countries were growing faster than Commonwealth economies and as a result the UK saw joining the EEC as more economically beneficial than the existing relationship with Commonwealth. In 1973, the UK joined the EEC. This event left the New Zealand economy vulnerable, leaving it to fight for diversification of its markets (Gibbons, 2008; Hawke and Lattimore, 1999; Holmes and Pearson, 1991; Kogler, 2006; Robson, 1972).

When the UK joined the EEC and complied with the common external tariff system, New Zealand exports of sheepmeat faced a tariff of 20 percent on entering the EEC and the UK (Gibbons, 2008; Hawke and Lattimore, 1999; Kogler, 2006). In 1980, New Zealand introduced a voluntary export quota of 245,000 tonnes for its sheepmeat exports to the UK in return for a lowering of the tariff to 10 percent (McMahon, 1990). In 1989, New Zealand reduced the voluntary export quota to 205,000 tonnes in exchange for a zero in-quota tariff (McMahon, 1990). Later, during the Uruguay Round, New Zealand succeeded in obtaining a country-specific tariff quota of 225,000 tonnes of sheepmeat and goatmeat on an annual basis at zero duty for the EU market (Commission Implementing Regulation (EU), 2011). New Zealand received the privilege of the largest country-specific quota among all the other nations taking part in negotiations with the EU at that time. This country-specific quota was a consequence of New Zealand’s voluntary export restraint agreement. Following the EU’s enlargement in 2004 and 2007, the tariff rate quota was increased to 228,254 tonnes (New Zealand Meat Board, 2016).

## **Current Trade of Ruminant Meats between New Zealand and the EU**

The EU and New Zealand are both relatively large producers and exporters of meat products, and the meat sector is an important sector in both economies. Thus, the following section focuses on bilateral trade of ruminant meat products between the EU and New Zealand, as well as total production and exports of the same goods.

As indicated in Table 1, the EU is a significant producer of beef and sheepmeat, exporting 21 percent and 29 percent of its total beef production in 2000 and 2013, respectively, of which almost none was shipped to New Zealand. The entire EU exports of sheepmeat amounted to 16 percent and 28 percent of the EU’s total sheepmeat production in 2000 and 2013, respectively, of which eight tonnes were exported to New Zealand.

New Zealand is a relatively large producer and exporter of red meat. In 2015, New Zealand’s second largest export commodity was meat, and the total export of meat and

edible offal was worth NZ\$6.373 billion (Statistics New Zealand, 2017). In 2013, New Zealand exported 85 percent of its total beef production, exporting 11,280 tonnes of beef (2.34 percent of its total exported tonnes) to the EU. There has been a slight increase in the total New Zealand exports of beef and exports to the EU. However, New Zealand does not export significant quantities of beef to the EU due to the existing tariff rate quota and the high tariff within the quota. The EU is the primary export destination for New Zealand's sheepmeat. New Zealand exported 71 percent and 88 percent of the total volume of sheepmeat produced in 2000 and 2013, respectively. Sheepmeat exports to the EU accounted for 54 percent and 35 percent of the total exported sheepmeat in 2000 and 2013, respectively. A decrease in the export of sheepmeat to the EU market in the last 15 years can be explained by the weaker demand in the EU and by the increased demand in Asia. Furthermore, in 2009 New Zealand signed an FTA with China that currently allows duty-free access for its sheepmeat.

**Table 1** New Zealand and European Union Production and Exports of Red Meat

	<b>Carcasses</b>			
	<b>Beef</b>		<b>Sheep</b>	
	<b>2000</b>	<b>2013</b>	<b>2000</b>	<b>2013</b>
<b>New Zealand</b>				
Total tonnes produced	571,783	563,749	533,000	450,075
Total tonnes exported	457,153	482,450	379,086	397,507
Export as a % of total tonnes produced	79.95	85.57	71.12	88.32
Exported tonnes to the EU	3,718	11,280	204,956	138,904
Exported tonnes to the EU as a % of total exported tonnes	0.81	2.34	54.06	34.94
<b>European Union</b>				
Total tonnes produced	8,416,341	7,388,613	1,202,214	853,515
Total tonnes exported	1,809,444	2,186,443	202,536	241,388
Export as a % of total tonnes produced	21.49	29.59	16.84	28.28
Exported tonnes to New Zealand	8	1	11	-----
Exported tonnes to New Zealand as a % of total exported tonnes	0.0004	0.00004	0.005	-----

Source: OECD-FAO Agricultural Outlook 2015-2024, by commodity, various years.

## Existing Barriers to Trade in Red Meats between the EU and New Zealand

In New Zealand, the most common applied duties are *ad valorem* tariffs, with only 0.1 percent of all tariff lines being non-*ad valorem* tariffs. New Zealand tariffs are very low on EU meat imports and they range from zero to 5 per cent (WTO, 2015a).

In the EU, the meat sector is heavily protected and subsidised through the CAP, and the EU has relatively high tariffs and other trade restrictions, especially for beef commodities. The number of tariff lines for animals and products thereof is 351. All animals and products thereof entering the EU are subject to the MFN average tariff of 20.2 percent, and approximately 15 percent of animal products enter the EU duty free (WTO, 2015b). The share of non-*ad valorem* tariff rates is high in the EU, providing a greater degree of protection. Averages are calculated based on the national tariff line level of eight digits. Tariffs for meat products range from zero to 289 percent. Rates above 100 percent are *ad valorem* equivalents, applying to particular agricultural commodities; for example, in the meat sector the *ad valorem* equivalent for prepared and preserved poultry is 143 percent. Tariff quota is one of the border protection methods used in the EU. In 2013, EU tariff quotas covered 35.3 percent of all tariff lines for animals and products thereof (WTO, 2015b).

Annually, the country-specific quota for New Zealand's sheep- and goatmeat accounts for 228,254 tonnes (carcass weight equivalent)<sup>1</sup> at zero duty (Commission Implementing Regulation (EU), 2011; New Zealand Meat Board, 2016). Once a country-specific tariff quota is fulfilled, every additional imported product faces tariff rates of 12.8 percent plus the fixed amount in the range of €90.2 to €311.8 per 100 kilograms net (Commission Implementing Regulation (EU), 2011). The fixed amount can be different for products in the same category. As depicted in Table 2, New Zealand did not utilise its quota between 2008 and 2012. The fall in New Zealand exports of sheep- and goatmeat to the EU market can be explained by weaker demand in the EU and increased demand in Asia. A significant increase in New Zealand exports is not expected in coming years.

New Zealand holds a specific tariff rate quota for high-quality beef granted during the Uruguay Round of 1,300 tonnes by product weight, valid for the annual period from 1 July to 30 June. An *ad valorem* tariff of 20 percent applies within the quota (Beef and Lamb New Zealand, 2013; Commission Implementing Regulation (EU), 2013b). Apart from this, New Zealand exports of beef are treated under the EU's MFN quotas presented in Table 3. Many countries in the world compete to utilise these quotas.

**Table 2** New Zealand Usage of the European Union Sheep- and Goatmeat Quota between 2008 and 2012

	2008	2009	2010	2011	2012	Quota volume in tonnes
<b>New Zealand exported tonnes to the EU</b>	189,118	184,641	163,758	148,457	130,512	228,254
<b>Quota usage in percentage</b>	82.85	80.89	71.74	65.04	57.18	100

Source: Food and Agriculture Organization of the United Nations "FAOSTAT" Detailed Trade Matrix, various years and factors.

**Table 3** The European Union Most-favoured-nation Tariff Rate Quotas for Beef

Specification	Most-favoured-nation Quotas (tonnes)	In-quota Tariff
Frozen beef	53,000	20%
Processing beef (bone-in equivalent of frozen beef intended for processing in the EU)	63,703	A products: 20% B products: 20% + (€994.5 – €2,138.4 per tonne)
Grain-finished, high-quality beef	48,200 (quota is allocated to eligible product as it arrives at the port of entry, i.e., a first come/first served basis)	0%

Source: Commission Implementing Regulation (EU) No 593/2013 of 21 June 2013 opening and providing for the administration of tariff quotas for high-quality fresh, chilled and frozen beef and for frozen buffalo meat [2013] OJ L 170.

To accommodate the tariff quotas imposed by the EU, New Zealand administers export licences. Export permits are mandatory in order to export certain dairy products, high-quality beef and sheep- and goatmeat. In the case of meat, the New Zealand Meat Board allocates export quotas.

### The Lincoln Trade and Environment Model (LTEM)

The LTEM was selected because it includes both New Zealand and the EU; the EU is represented as a single entity in the model; the model is specially designed to focus on New Zealand and its main trading partners; there is a high level of disaggregation of agricultural commodities; and the model allows adding new variables, equations, policies and data into its structure.

The LTEM is a multi-commodity, multi-country, partial equilibrium model with primary focus on the agricultural sector (Cagatay and Saunders, 2003). Therefore, in the structure of the model, the relationships of the agricultural sector with other industries are not considered. The LTEM was developed by the Agribusiness and

Economics Research Unit, and it is based on the VORISM model created in the United States for the Uruguay Round (Saunders and Roninggen, 2001; Roninggen, 1997). Currently, the LTEM includes 24 countries and 24 commodities. The meat industry is divided into pork, beef, sheepmeat and poultry. Products are represented as homogeneous in the model, and they are perfect substitutes in consumption. Physical characteristics of commodities, country of origin and export destination are not considered.

The LTEM calculates the quantity and price impacts of consumption, production and trade, and allows the revenue effects to be calculated. It is a synthetic model because parameters are derived from the literature. The model can calculate the price, quantity, supply, demand, producer returns and net trade effects of different policy scenarios. It can derive the medium- to long-term equilibrium policy impact in a comparative static way from a base year. For a detailed description of how the model works refer to Cagatay and Saunders (2003).

The LTEM is mostly used for calculating the net trade of commodities in each country rather than bilateral trade flows. In order to simulate the economic effects of the potential FTA between New Zealand and the European Union, the LTEM structure was modified and the database was updated.

## **The EU and New Zealand FTA – Full Liberalisation Scenario**

This section presents the full liberalisation scenario that was developed to simulate complete liberalisation of the bilateral trade in red meat commodities between New Zealand and the EU.

### *Baseline Scenario*

The baseline or ‘business as usual’ scenario is the projection of the equilibrium before the policy change, based on the current exogenous variables in the model. This scenario assumes that current production systems and policies are in place. Table 4 below shows the baseline tariffs for bilateral trade in ruminant meat between the EU and New Zealand.

New Zealand’s country-specific quotas for its high-quality beef and sheepmeat were integrated into the model. The baseline year is 2012, and the model calculates up to 2024. The scenario results from the modelling are presented relative to the base scenario.

**Table 4** Tariffs and Duties to New Zealand and European Union Ruminant Meat Commodities

Countries/commodities	EU		New Zealand	
	<i>Ad valorem</i> tariff	Duties US\$/t	<i>Ad valorem</i> tariff	Duties US\$/t
<b>Beef and veal</b>	20.0%	-	0.0%	-
<b>Sheepmeat</b>	0.0%	-	0.0%	-

Source: own compilation based on New Zealand Customs Service, 2017; Statistics New Zealand, 2017; TARIC, 2017; WTO, 2015a.

### *Full Liberalisation Scenario*

This scenario assumes full trade liberalisation of the red meat sector between the EU and New Zealand. This is an extreme case and is unlikely to be the final outcome of the FTA negotiations. However, this scenario can indicate the greatest possible economic impacts of the FTA on meat industries. This assumes that all tariffs and quotas applied to trade in meat between the two partners would be immediately removed in 2017, continuing out to 2024, while the same policies towards the rest of the world in the model would stay unchanged.

### **Model Results**

The results are presented as the comparison between the new equilibrium and the base equilibrium after all changes to trade barriers have been made and world markets have cleared (Roningen, 1997). The results are discussed in comparison with the base scenario.

In the EU, producer prices are predicted to stay almost unchanged for meat products, as shown in Table 5. Producer prices stay almost unchanged due to the fact that EU exports to New Zealand are low and because the EU already has duty-free access to the New Zealand market for analysed commodities. The impact of the full liberalisation scenario on producer prices in New Zealand is minor. Beef prices are expected to increase by 0.18 percent. The sheepmeat price is unchanged, which is anticipated because the New Zealand country-specific quota is not fulfilled with a zero tariff.

Table 6 below shows that in the case of full bilateral liberalisation, production of beef and sheepmeat in the EU would stay almost unchanged. New Zealand is predicted to experience no changes in the production of sheepmeat. A slight increase in New Zealand beef production of 0.3 per cent can be explained by the fact that producer prices for this product stay almost unchanged; therefore, New Zealand producers would not be stimulated to produce more.

**Table 5** Change in Producer Prices in US\$ per Tonne between Baseline and Full Liberalisation Scenario in 2024

Commodity	EU				New Zealand			
	Base	Scenario 1	Change	% Change	Base	Scenario 1	Change	% Change
<b>Beef</b>	5,265.8	5,265.8	0.0	0.00	3,161.7	3,167.4	5.7	0.18
<b>Sheepmeat</b>	6,691.6	6,691.4	-0.2	0.00	4,359.9	4,359.8	-0.1	0.00

**Table 6** Change in Production in Thousands of Tonnes between Baseline and Full Liberalisation Scenario in 2024

Commodity	EU				New Zealand			
	Base	Scenario 1	Change	% Change	Base	Scenario 1	Change	% Change
<b>Beef</b>	8,940	8,939	-1	0.00	734	737	3	0.30
<b>Sheepmeat</b>	1,091	1,091	0	0.00	569	569	0	0.00

Impacts on producer returns for the EU and New Zealand are shown in Table 7. In the EU, producer returns for beef and sheepmeat are expected to stay almost unchanged. In New Zealand, producers are expected to have only a minor increase (0.48 percent) in producer returns for beef as a result of a slight increase in producer price and quantity produced caused by the removal of the quota and the tariff of 20 per cent. New Zealand producer prices for sheepmeat are estimated to stay almost unchanged.

**Table 7** Change in Producer Returns in Millions of US\$ between Baseline and Full Liberalisation Scenario in 2024

Commodity	EU				New Zealand			
	Base	Scenario 1	Change	% Change	Base	Scenario 1	Change	% Change
<b>Beef</b>	47,077	47,076	-1	0.00	2,322	2,333	11	0.48
<b>Sheepmeat</b>	7,302	7,301	-1	-0.01	2,481	2,480	-1	-0.01

Regarding bilateral net trade, in this scenario New Zealand's exports of ruminant meat are expected to have a minor increase. A small increase of three thousand tonnes in the export of beef from New Zealand is estimated in 2024. New Zealand exports to the EU of sheepmeat are estimated to stay unchanged. Table 8 shows changes in net trade of beef and sheepmeat between the EU and New Zealand: negative numbers stand for

net imports and positive figures indicate net exports. A complete bilateral liberalisation of red meat commodities in the LTEM therefore does not have significant implications for patterns of bilateral trade in red meat products.

**Table 8** Change in Bilateral Net Trade in Thousands of Tonnes between Baseline and Full Liberalisation Scenario in 2024

Commodity	EU				New Zealand			
	Base	Scenario 1	Change	% Change	Base	Scenario 1	Change	% Change
Beef	-11	-14	-3	23.73	11	14	3	23.73
Sheepmeat	-138	-138	0	0.00	138	138	0	0.00

## Conclusion and Implications

In 1973, the UK's accession to the EEC adversely affected New Zealand's exporters of sheepmeat and beef products. New Zealand diversified its markets and the EU market has since declined in importance for New Zealand's agricultural exporters. The CAP has changed over the last few decades, but the EU's meat sector is still significantly protected, especially beef. It is important to note that agricultural lobbyists oppose the EU's FTAs and strongly push for the meat sector to be protected within those agreements. As a significant exporter of meat products, New Zealand can expect that lobby groups will be very active during FTA negotiations. EU farmers fear that once agriculture is liberalised, New Zealand dairy and meat products will flood the EU market, though this is unlikely to happen as there has been a continuous decrease in New Zealand exports to the EU. In contrast, the main aim of New Zealand trade policy is to provide access for its exports to the main trading partners, eliminating trade barriers and facilitating free trade. Therefore, New Zealand will strongly advocate for liberalisation of the meat sector with the EU.

The results from this research draw attention to the fact that the effect of the FTA would be minor for red meat industries in New Zealand and the EU. Beef and sheepmeat producer returns were expected to remain almost unaltered. The New Zealand meat industry was estimated to experience no increase in exports of sheepmeat and a minor increase in exports of beef to the EU.

New Zealand exports its beef to the EU under its country-specific tariff rate quota and the EU's most-favoured-nation quota. In 2013, New Zealand exported 11,280 tonnes of beef to the EU market, 2.34 percent of its total exported tonnes of beef. As the tariff is the same for the country-specific quota and the EU most-favoured-nation

quota, New Zealand could export more beef to the EU market, as there is space under the EU's most-favoured-nation quota. According to the modelling results, the maximum increase under the full liberalisation scenario in beef exports is estimated to be three thousand tonnes. If beef trade were completely liberalised, New Zealand beef prices would be expected to increase by 0.18 percent, a factor too small to have a significant impact on production in and exports from New Zealand.

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## Endnotes

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<sup>1</sup>Carcass weight equivalent means that one kilogram of quota is used for one kilogram of bone-in product, while for one kilogram of boneless product 1.67 kilogram of quota is used for lamb, and 1.81 kilogram of quota for goatmeat and mutton.