



# Economic and social contribution of the New Zealand red meat industry

## Overview

June 2020







## Key Points Summary

- The red meat industry, comprising livestock (beef cattle and sheep) production and red meat (beef and dairy cattle and sheep) processing and exporting, accounts for over 92,000 New Zealand (full-time equivalent) jobs, nearly \$12 billion in industry value<sup>1</sup> added and \$4.6 billion in household income, including direct and flow-on effects.<sup>2</sup>
- The red meat industry accounts for 4.7 percent of total national employment and around 4 percent of national industry value added and household income when flow-on effects are taken into account.
- The \$12 billion industry value added is a significant contribution to the national economy in absolute terms.
- In most developed countries, the tertiary (i.e. services and government) sector contributes about 80 percent of national industry value added, and New Zealand is no exception. These sectors contribute around 81 percent, and the primary and manufacturing sectors together contribute around 19 percent of gross industry value added in New Zealand. In order to prevent double counting, it is best to compare direct contributions to national value added without flow-on effects. On that basis, the red meat industry contributes 7.7 percent of all national non-tertiary value added.
- The magnitude of the contribution is even more pronounced at the regional level. In Otago and Southland combined, for example, the red meat industry contributes around 12 percent of employment, industry value added and household income, which is very substantial indeed.
- The economic contribution of the red meat industry includes the value of its exports, and the flow on benefits across New Zealand from the jobs and families it supports, and provision of nutritious food to New Zealanders. For the 12 months ending September 2019, these amounted to \$9.3 billion including sheepmeat, beef, venison, co-products, and some processed goods, but excluding raw wool, which was worth \$533 million.
- The industry is heavily export-oriented, with 88 percent of beef and veal production and almost 95 percent of lamb and mutton being exported.
- The red meat industry's exports account for 16.2 percent of New Zealand's total exports.
- The red meat industry's exports are crucially important to the broader New Zealand economy, helping the nation grow because they increase revenue, boost jobs, raise the standards of living and lift foreign currency reserves, and in doing so, allow New Zealand to pay for imports the population needs. This is especially important given the need to generate future reserves to make up for government expenditure resulting from COVID-19.



**92,000**  
New Zealand jobs



Nearly  
**\$12b**  
in industry  
value added



**\$4.6b**  
in household  
income



**4.7%**  
of total national  
employment

<sup>1</sup> Industry value added is the total value of goods and services produced by an industry, after deducting the cost of goods and services used in the process of production. It is the main component of GDP. At the national level, measuring economic contributions by a particular industry or sector as a proportion of GDP is valid, as GDP includes exports and imports and these are readily measured. However, it becomes more difficult at a sub-national level where imports and exports include those made within the different regions across the country as well as externally. For the sake of consistency, industry value added (which uses an estimate for exports and imports) has been used as the base rather than GDP. <sup>2</sup> Direct contributions are the employment, value added and household income generated directly by the production of red meat. Flow-on impacts are the ripple effects upstream in the economy from purchases made by the sector, by suppliers to the sector and expenditure by employees of the sector (and the subsequent upstream employees of suppliers).

- The red meat industry makes a major social contribution to New Zealand. There would be substantial adverse consequences for social wellbeing should the industry not exist.
- At the national level, cessation of the red meat industry in aggregate could potentially result in a cut of almost \$12 billion in industry added value, a doubling of the unemployment rate, and a substantial fall in net central Government revenue (loss of personal and corporate taxation revenue plus increased expenditure on social welfare and health) of up to \$1.6 billion.
- At the community level, six Territorial Authorities (TAs) were examined where the red meat industry has a significant presence. While the impacts of industry cessation varied widely, in only one TA was the social impact anticipated to be low for both livestock production and red meat processing. At the other extreme, two TAs were estimated to experience unemployment rates of 50 percent of the labour force or more, and a fall in individual personal income, derived from all sources, by almost 30 percent.
- However, it should be noted that the community-wide impacts are averages across the overall region. At the more localised level, the increases in unemployment and decreases in personal income could be substantially higher, resulting in population decline for smaller communities as they become economically and socially unsustainable.
- In terms of individual impact, loss of employment and income has marked adverse consequences on physical and psychological health. Farmers are also especially exposed to mental health issues and any negative impacts on the livestock production sector are likely to exacerbate the poorer mental health outcomes amongst farm owners.
- Some of the geographical areas examined also have a significantly above-average proportion of persons identifying as Māori. Some red meat processing facilities have a high representation of Māori workers, so the detrimental impact of sectoral cessation on Māori communities would be considerable.
- Some livestock production and red meat processing employees could be expected to obtain employment in alternative enterprises. However, the assumption that this will happen automatically and seamlessly is not realistic. These national social impacts could continue for an extended period.
- At the community level, the social impacts can vary markedly, with some communities being more resilient to change than others. In some cases, it is expected that the local impact could be such that significant levels of out-migration could take place, which potentially results in the community becoming unsustainable.
- Individual social impacts are primarily associated with job loss, the associated loss of income and the potential impacts on physical and psychological wellbeing. Whilst this can be associated with the closure of any business, the high concentration of people with similar skills as is found in livestock production, and more significantly in red meat processing, can exacerbate these issues through greater difficulty in finding alternative employment. For those regions with a high proportion of people identifying as Māori, this issue could be even more intensified, given the existing poorer socio-economic and health indicators for the Māori population.
- In conclusion, any government policy measures that would significantly affect the red meat industry should very carefully consider the potential ramifications more broadly, given the very substantial contribution that the industry has on the economic and social wellbeing of the country, not only nationally but at the community and individual levels.







## Economic Contribution

The Meat Industry Association (MIA) in conjunction with Beef + Lamb New Zealand Ltd (B+LNZ) commissioned an economic contribution assessment of the red meat industry, including livestock (beef cattle and sheep) production and red meat (beef and dairy cattle and sheep) processing and exporting, examined individually and collectively. The analysis uniquely drew upon aggregated private data covering both sectors to augment public data.

The economic contribution of the red meat industry (i.e. livestock production and red meat processing in aggregate) on New Zealand as a whole is summarised in the table below.

### *Economic contribution of the red meat industry, New Zealand, 2017-18*

	Employment	Industry value added	Household income
	FTE	NZ\$ million	NZ\$ million
Direct contribution	35,702	3,775	1,477
Flow-on contribution	56,719	8,197	3,124
Total contribution	92,421	11,973	4,601
As % of New Zealand	4.7%	4.2%	4.0%

Source: SGH estimates using B+LNZ data, aggregated private data from processors and SNZ data

The red meat industry accounts for over 92,000 (full-time equivalent) jobs, nearly \$12 billion in industry value added and \$4.6 billion in household income, predominantly reflecting total wages and salaries, including direct and flow-on effects. Direct contributions add to totals for combined livestock production and red meat processing as they reflect the recorded (or estimated) numbers in each sector. For example, total direct employment in livestock (i.e. beef cattle and sheep) production is based on B+LNZ figures from its Sheep and Beef Farm Survey, and total direct employment in red meat processing and exporting is from private data provided by processors, scaled up by the number of each animal type processed, to reflect total harvest in NZ and therefore estimates of total FTE employment. These numbers therefore can be aggregated.

In contrast, flow-on impacts reflect the impacts associated with purchases made by the sector, purchases made by suppliers to the sector and expenditure by employees of the sector (and the subsequent upstream employees of suppliers). If these results were simply aggregated, significant double counting would occur resulting in an overestimation of the economic impact.

For example, the flow-on impacts associated with livestock purchases by the red meat processing sector support or underpin a large proportion of the employment in the upstream livestock production sector. However, that employment is already included in the direct impacts of the livestock production sector, so including it again would not only be double counting but would also suggest that employment in the livestock production sector is significantly higher than is the actual case. Similarly, the expenditure on livestock by the processing and exporting sector has flow-on effects in terms of purchases in the livestock production sector, which have already been included, either directly or indirectly, in that sector.

The red meat industry accounts for 4.7 percent of total national employment and around 4 percent of national industry value added and household income when flow-on effects are taken into account. Whilst the contribution to the national economy in absolute terms is very substantial, it might be thought that the percentage contribution is small. However, this would not be correct.

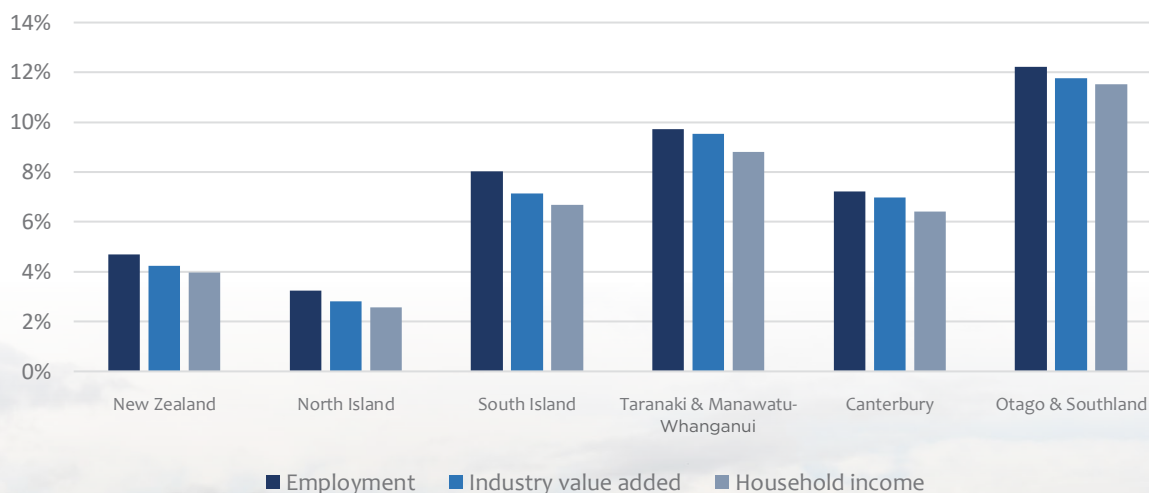
In order to provide context for this analysis, the tertiary or service sector contributes around 80 percent of national value added. New Zealand is no exception. In the year ending March 2018, the tertiary sector contributed around 81 percent and primary and secondary sectors contributed around 19 percent of industry value added in New Zealand.

In order to prevent double counting, it is best to compare direct contributions to national value added without flow-on effects. On that basis, the red meat sector contributes directly around 1.4 percent to national industry value added, and 7.7 percent of all national non-tertiary value added.

As noted above, at the national level, the red meat processing and exporting sector contributes approximately 4.7 percent of employment and 4.2 percent of industry value added when flow-on effects are taken into account. The top sector benefitting from flow-on employment impacts is Agriculture (a component of *Agriculture, forestry & fishing*), and these impacts predominantly flow to the dairy cattle farming sector.

However, the magnitude of the contribution is more pronounced at the regional level as illustrated in the graph below. In Otago and Southland combined for example, the industry's contribution is around 12 percent of employment, industry value added and household income, which is very substantial indeed, particularly when it is noted that direct employment in the red meat industry only comprises approximately five percent of the region's total workforce.

**Contribution of the red meat industry in total (including flow-on effects) to the relevant economy, 2017-18**







## ***Broader Economic Contribution***

The economic contributions that have been identified in the research include the value of the red meat industry's exports. These amounted to \$9.3 billion in the September 2019 year, including sheepmeat, beef, venison, co-products, and some processed goods, but excluding raw wool which was worth \$533 million. The industry is heavily export-oriented, with 88 percent of beef and veal production and almost 95 percent of lamb and mutton production being exported.

These exports are crucially important to the broader New Zealand economy.

Businesses export goods and services when they have a competitive advantage. That means they are better at meeting a customer's needs than any other companies. They also export things that reflect the country's comparative advantage. Countries have comparative advantages in the commodities they have a natural ability to produce. Exports from the New Zealand red meat industry reflect the country's and sector's international advantages.

New Zealand's red meat exports therefore help the nation grow because they:

- Increase revenues;
- Increase jobs and raise the standard of living;
- Increase foreign currency reserves; and
- Increase liquidity and enable governments to manage inflation efficiently

The importing and exporting activity of a country can influence a country's GDP, its exchange rate, and its level of inflation and interest rates.

Gross Domestic Product (GDP) is a broad measurement of a nation's overall economic activity. Imports and exports are important components of the expenditure method of calculating GDP. When exports exceed imports, the net exports figure is positive. This indicates that a country has a trade surplus. When exports are less than imports, the net exports figure is negative. This indicates that the nation has a trade deficit.

A trade surplus contributes to economic growth in a country. When there are more exports, it means that there is a high level of output from a country's enterprises, as well as a greater number of people that are being employed in order to keep these enterprises in operation. When a company is exporting a high level of goods or services, this also equates to a flow of funds into the country, which stimulates consumer spending and contributes to economic growth.

Exports also increase the foreign exchange reserves held in the nation's central bank. New Zealand's beef and lamb exports are sold overwhelmingly (over 90 percent) in foreign currency, adding to New Zealand's reserves. A country with large reserves can use it to influence their own currency's value to lower the cost of their exports in other countries.

Countries also use currency reserves to manage liquidity. That means they can better control inflation, which is caused by too much money chasing too few goods. To control inflation, countries use the foreign currency to purchase their own currency. That decreases the money supply, making the local currency worth more.

The red meat industry's exports generate currency that can be used to purchase imports. New Zealand's Foreign Exchange Reserves equalled 5.4 months of imports in January 2020. This reached an all-time high of 8.1 in February 2009 and a record low of 3.1 in September 2005. New Zealand needs to continue having a red meat industry that is competitive and generates the ability to purchase imports with foreign currency, which helps maintain living standards by keeping the country economically and socially strong. This is especially important given the need to generate future reserves to make up for the government expenditure associated with COVID-19.



## Social Contribution

The red meat industry makes a major social contribution on New Zealand. The social wellbeing it generates is reflected in the substantial adverse consequences that would occur should the industry not exist.

In terms of national impact, cessation of the red meat industry in aggregate could potentially result in a cut of almost \$12 billion in contribution to GDP, a doubling of the unemployment rate, and a fall in net Central Government revenue (loss of personal and corporate taxation revenue plus increased expenditure on social welfare and health) of up to \$1.6 billion.

In terms of community impact, the analysis examined six Territorial Authorities (TAs). While the impacts varied widely, in only one TA was the social impact anticipated to be low for both cessation of livestock production and red meat processing and exporting. At the other extreme, two TAs were estimated to experience unemployment levels to be in the order of 50 percent of the labour force or above, and personal income to fall by almost 30 percent. However, it should be noted that the community-wide impacts on unemployment rates are averages across the overall region. At the more localised level, these increases could be substantially higher, resulting in out-migration from smaller communities as they become unsustainable economically.

The analysis of potential social impacts from cessation of either the livestock production sector or the red meat processing sector in each of the six TAs examined indicates wide variations in terms of detrimental effect. There are different impacts between livestock production and red meat processing sectors in some TAs, but only one has low impacts from both, with all the others having at least medium impacts from either production or processing. These differential impacts are influenced by a number of factors including:

- Significance of the sectors in terms of overall employment;
- Current unemployment rate;
- Current income levels; and
- Population demographics.

A summary of the potential negative social impacts for each TA by industry sector is provided below. It should be noted that this is a subjective ranking and does not make quantitative comparisons between individual TAs.

### **Social impacts of red meat industry cessation in selected Territorial Authority areas**

Territorial Authority	Livestock production	Red meat processing	Comments
A	High	Low	With a higher than average unemployment rate, the number of jobs lost in livestock production could result in younger workers moving away.
B	High	High	This TA has an unemployment rate that is almost twice the national average – job losses in either sector as a result of cessation of operations could result in unemployment levels that make the community unsustainable.
C	Low	Medium	This TA could be expected to have the capacity to absorb job losses in the livestock production sector, given the anticipated magnitude. Losses in the red meat processing and exporting sector are estimated to include residents from outside the TA, reducing the net local effect.
D	Low	High	Whilst the impact of cessation of the livestock production sector would have a relatively small impact on local unemployment levels, the impact resulting from cessation of red meat processing and exporting would be significant, potentially resulting in population loss through out-migration.
E	High	High	Half of the workforce is currently employed in either Agriculture, Forestry & Fishing or Manufacturing and therefore significant impacts on the unemployment level and personal income would be expected to result in net population loss.
F	Low	Low	In this TA, the unemployment rate is about half the national average, suggesting that the additional unemployed may find alternative employment more readily.

In terms of individual impact, loss of employment and income has marked adverse consequences on physical and psychological health. Farmers are also especially exposed to mental health issues and any negative impacts on the livestock production sector are likely to exacerbate the poorer mental health outcomes amongst farm owners. It should also be noted that some of the geographical areas examined have a significantly above-average proportion of persons identifying as Māori, and some red meat processing and exporting facilities have a high representation of Māori workers, so the detrimental impact of sectoral cessation on the Māori population will be concomitantly high.

The social impact of cessation of the livestock production or red meat processing and exporting sectors or the red meat industry in aggregate across New Zealand would have a significant negative impact on central Government revenue through loss of income from personal and corporate tax and increased expenditure on welfare and health care costs.

Overall, the closure of the red meat industry in aggregate is estimated to have a negative impact on net revenue of approximately \$1.6 billion.

Some people employed in livestock production and red meat processing could be expected to obtain employment in alternative enterprises. However, the assumption that this will happen automatically and seamlessly is not realistic.

For example, employment in the livestock production sector in particular might be expected to be replaced by other economic activities that would be primarily expected to incorporate other sub-sectors of the *Agriculture, forestry & fishing* industry. However, depending upon the type of replacement activities and the associated timeframe for establishment, and relative labour intensity, these national unemployment impacts could continue for an extended period.

At the community level, the social impacts can vary markedly, with some communities being more capable of withstanding the change than others. In some cases, it is expected that the local impact could be such that significant levels of out-migration could take place, which potentially results in the community becoming unsustainable.

Individual social impacts are primarily associated with job loss, the associated loss of income and the potential impacts on physical and psychological wellbeing. Whilst this can be associated with the closure of any business, the high concentration of people with similar skills as is found in livestock production, and more significantly in red meat processing, can exacerbate these issues through greater difficulty in finding alternative employment. For those regions with a high proportion of people identifying as Māori, this issue could be even more intensified.

In conclusion, any government policy measures that would significantly affect the red meat industry should consider very carefully the potential ramifications more broadly, given the very substantial impacts that the industry has on the broader wellbeing of the country, not only nationally but at the community and individual levels.



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