

Beef + Lamb New Zealand Economic Service | March 2017 | P17004 | ISSN 2230-5777





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## Executive Summary—Outlook 2016-17

#### **Economic Conditions**

In 2017, global economic growth is expected to improve on a sluggish 2016 but is clouded by uncertainty due to events such as the UK leaving the EU and new US presidential administration. The US is forecast to pick-up in 2016 along with emerging market and developing economies (EMDEs). China's gradual reduction in economic growth and rebalancing of the Chinese economy is expected to continue.

In New Zealand, economic growth is expected to remain strong in 2017, reflecting strengthening of the dairy sector, strong tourism and household spending.

For the year to September 2017, the New Zealand dollar (NZD) is estimated to be stronger than the previous year against all key currencies in which New Zealand red meat products are traded. The NZD is expected to average USD0.70, GBP0.57 and EUR0.67 in the year to September 2017.

### **Livestock Numbers**

Sheep numbers at 30 June 2016 provisionally totalled 27.6 million head, down 5.3 per cent on the previous June. This was driven by a decrease in breeding ewes (-5.3%) compared with 30 June 2015.

Beef cattle numbers at 30 June 2016 provisionally totalled 3.47 million head, down 2.1 per cent on the previous June. This was due to a decrease across all beef cattle classes. Total dairy cattle numbers were provisionally steady at 6.50 million head at 30 June 2016. The farmgate milk price improved to stabilise the dairy herd after two years of retraction.

### Lamb

In 2016-17, total receipts from lamb exports are forecast to be \$2.53 billion Free on Board (FOB), down 2.1 per cent on the previous season, at the USD0.70 exchange rate scenario.

The decrease in total receipts is driven by a 3.2 per cent decline in export volumes, moderated by a 1.3 per cent increase in the average per tonne FOB value. The main drivers of this are a smaller lamb crop, and a stronger NZD.

The value of lamb co-products is expected to decline to \$179 million (-4.2%) in 2016-17, reflecting lower receipts for both offals and skins following a sharp drop in 2015-16.

The number of lambs for export, processed in 2016-17 is forecast to decrease 3.6 per cent from the previous season to 19.2 million head. This largely reflects a smaller lamb crop and an increase in the number of hoggets retained.

The farm-gate prices for lambs are expected to average \$91 per head or 495 cents per kilogram, which is down 2.9 per cent from the previous season. The annual farm-gate mutton price is estimated at \$68 per head or 270 cents per kilogram for the 2016-17 season.

#### Beef

Total beef and veal receipts are expected to decrease 3.2 per cent to \$3.41 billion FOB in 2016-17, with the main drivers being lower production and lower average per tonne values of beef. The value of co-product exports remains steady.

Lower demand for beef imports are expected from the US, which will contribute to lower average beef value per tonne in 2016-17. Increased global production and a strong NZD are also expected to drive lower beef prices, but demand remains firm in Asia.

In the year ending in September 2017, export cattle processed is estimated at 2.42 million head, down 3.7 per cent compared with 2015-16. This reflects a further drop from record high numbers processed in 2014-15, particularly for cull cows as the dairy sector retracted. For 2016-17, export beef production is estimated at 607,000 tonnes carcase weight, a 1.8 per cent decrease on 2015-16 as the dairy retraction ends due to improved milk prices but beef supplies remain tight.

At the mid-exchange rate estimate of USD0.70, the average cattle price estimated at 454 cents per kilogram is 5.6 per cent down on the 481 cents per kilogram for 2015-16.

#### Wool

Total wool production is estimated to decrease 5.1 per cent to 139,100 tonnes greasy in 2016-17. This reflects fewer sheep, which leads to a decrease in shorn and slipe wool production, however, the clip per head remains similar to previous years.

The outlook for 2016-17 is for the volume of wool exports to decline in line with decreased production (-5.1%). The decrease in export shipments is compounded by an estimated 22 per cent decrease in the overall auction wool price, and the average value of wool export receipts. New Zealand wool export volumes to China decrease over one-third for the season to date predominantly due to lower demand. China is New Zealand's largest wool market by volume.

#### Sheep and Beef Farms

Gross farm revenue for the All Classes Sheep and Beef Farm is estimated to average \$437,800 per farm for 2016 17, down 4.3 per cent on 2015-16. The largest driver of this is low revenue from wool due to low prices and volumes sold relative to 2015-16.

Total expenditure for the All Classes Sheep and Beef Farm is estimated to decrease by 2.2 per cent for 2016 17. The largest expected decreases in expenditure are in repairs and maintenance, fertiliser and interest.

In 2016-17, the nominal Farm Profit before Tax per farm for the All Classes Sheep and Beef Farm, estimated at \$75,200 in the USD0.70 scenario is 11 per cent down from the previous year. In 2004-05 inflation-adjusted terms, real Farm Profit before Tax falls 14 per cent to \$58,900.



TABLE 1

#### Global Growth Prospects

In 2017, growth in emerging markets and developing economies (EMDEs) is expected to be over 4 per cent, at least double that across advanced economies (below 2 per cent). China's growth is forecast to be 6.6 per cent in the year ending March 2017, a large contributor to the forecast growth in EMDEs. The gradual slowdown and rebalancing of the Chinese economy remains a key driver in the global economic outlook.

Global economic growth in developed economies is expected to pick up after a sluggish 2016. A projected increase in activity to 2.3 per cent growth in the US economy for the year ending March 2018 is predicted to disperse into other advanced economies.

Uncertainty in the global growth outlook has been heightened by populist politics and a shift towards anti-establishment and protectionist sentiments in developed economies. This was epitomised by the election of President Trump in the US and rejection of the Trans-Pacific Partnership agreement (TPP), the UK referendum to leave the EU and following drop in pound sterling (GBP), and the rise in popularity of European politicians such as Marine Le Pen in France. The World Trade Organization (WTO) concluded the multilateral Trade Facilitation Agreement (TFA), which came into

Economic Growth							
	Annua	I Average % 0	Change, Marc	h Year			
	2013	2014	2015	2016	2017f	2018f	
	%	%	%	%	%	%	
US	+1.9	+1.8	+2.8	+2.3	+1.5	+2.3	
UK	+1.4	+2.2	+3.1	+2.1	+1.9	+1.4	
Euro zone	-1.1	+0.4	+1.3	+1.8	+1.6	+1.4	
Japan	+0.9	+2.6	-0.4	+1.1	+0.6	+1.1	
China	+7.8	+7.6	+7.2	+6.8	+6.6	+6.5	
South Korea	+2.2	+3.3	+3.0	+2.6	+2.7	+2.5	
Australia	+3.0	+2.4	+2.7	+2.5	+2.9	+2.5	
Trading Partners	+3.5	+4.0	+3.6	+3.4	+3.2	+3.2	
New Zealand	+2.3	+2.7	+3.6	+2.5	+3.4	+2.9	

Note: The Euro zone consists of 15 Member States: Belgium, Germany, Ireland, Greece, Spain, Cyprus,

Malta, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland and Slovenia.

Trading Partners covers those countries that account for about 85% of New Zealand's total merchandise trade.

f forecast | Source: Statistics New Zealand, NZIER Quarterly Predictions

in force in February 2017 and is forecast to reduce the cost of trade by 14.3 per cent on average for members.

Oil prices firmed to around USD54 per barrel in January 2017 and are expected to remain steady for the rest of 2017, assuming an agreement between the Organization of the Petroleum Exporting Countries (OPEC) and other oil producers to limit production remains. This follows a significant drop from USD102 in January 2014 to USD29 in January 2016.

US economic growth is expected to improve in the year ending March 2018 after an underwhelming year to March 2017, driven by expected policies aimed at fiscal stimulus. An appreciation of the US dollar (USD) and a 0.6 percentage point increase in US treasury bonds from the November election to January are signs of stronger US economic growth in anticipation of the new administration's policies. The US Federal Reserve (Fed) raised interest rates by 0.25 percentage points in March 2017, this follows a 0.25 percentage point increase in December 2016. Increases are

expected to continue over the next two years, but at a subdued rate. However, the campaign policies of President Trump have been estimated to significantly increase the US budget deficit within the current climate. The new administration's arbitrary delivery of policies and protectionist stance creates uncertainty and hesitance in predictions of growth. The impacts of the new US administration's policies are likely to be more apparent in August 2017, once the delayed President's budget proposal is passed.

The continued uncertainty around the economic growth outlook for China has had a lower profile to those created by the new US administration and UK exit from the EU. The Chinese economy was estimated to have grown at 6.6 per cent in the year ending March 2017, the slowest rate in 26 years. The Chinese government's target rate for calendar 2017 has been lowered to 6.5 per cent. An apparent agricultural policy shift away from self-sufficiency recently and repeated statements to target over-production of commodities, such as coal and steel, indicate an emphasis on demand as China continues to transition from an investment-led economy to one driven by consumption. However, consumption still only accounts for around 40 per cent of the Chinese economy, compared with 50 to 70 per cent for developed economies. The rate of growth for the euro zone economies is expected to remain subdued, decreasing 0.2 percentage points to around 1.4 per cent for the year ending March 2018. Divergent growth and unemployment between EU nations, and weak investment continue to persist despite an expansionary monetary policy.

The British parliament invoked Article 50 on 29 March 2017 to initiate the negotiation process to leave the EU over the subsequent two years. The British exit of the EU has created uncertainty for the EU economy. UK growth is projected to fall around 0.5 percentage points to 1.4 per cent for the year ending March 2018 after falling an estimated 0.2 percentage points in the previous twelve months. The economic growth outlook for Japan is forecast to be modest around 1 per cent for the year ending March 2018. Stimulus measures undertaken by both the central bank and government are expected to continue until inflation stabilises around 2 per cent. Consumer demand is expected to continue rising due to labour shortages and strong corporate profits.

Despite weaker than expected growth in calendar 2016, Brazil is expected to come out of a significant recession in 2017 as political stability improves, consumer confidence rises and investment strengthens.



forecast | Source: Beef + Lamb New Zealand Economic Service, NZIER Quarterly Predictions

#### New Zealand

New Zealand's population continued to grow in 2016 by 2.1 per cent as net migration reached another record high at 71,000 in 2016, compared with the previous record of 64,900 reached in 2015.

Employment demand rose as the annual unemployment rate decreased to 5.2 per cent in 2016. Higher employment demand has been tempered by the continual increase of migrants, particularly in the Auckland region. The unemployment rate is expected to decrease moderately in the near future before stabilising.

Economic growth in New Zealand improved to 3.4 per cent in the year ending March 2017, from 2.5 per cent for the previous 12 months. Key drivers in the economic growth rate have been a recovery in the dairy sector, strong international tourism, improved consumer spending and demand for household services. The outlook for New Zealand is for economic growth to remain around 3 per cent in the short-term.

Uncertainty in the global economy created by the rise of anti-establishment attitudes and protectionism in trading partners creates potential for downside risks for the New Zealand economy, or at least lost opportunity as seen with the Trump administration's permanent withdrawal of the US from TPP.

#### **Consumer Prices**

In general terms, total inflation (including food and energy) is expected to increase in the year ending March 2017 across the major economies and New Zealand's trading partners and is forecast to increase further in the year ending March 2018. Oil prices have firmed recently, and base metal and commodity prices have strengthened.

For the year ending March 2017, inflation in New Zealand's main trading partners is estimated to be 1.1 per cent, up moderately from 0.9 per cent in the year ending March 2016. The inflation rate is forecast to rise further in the year ending March 2018, by 1.8 per cent. Though inflation will continue to rise moderately, many major economies will remain below target rates and monetary policies will remain accommodating.

The New Zealand consumer price index (CPI) was estimated to have increased 1.0 per cent for the year to March 2017, within the Reserve Bank of New Zealand (RBNZ) 1 to 3 per cent target range. Retail and construction costs are expected to keep moderate upward pressure on inflation.

The RBNZ is expected to keep the official cash rate (OCR) on hold for the remainder of 2017. A lack of deposit growth to match mortgage lending has led to banks increasing mortgage rates as their costs for funding have risen. Inflation is expected to reach 1.7 per cent in the year ending in March 2018.

TABLE 2	Consumer Prices					
	2013	2014	2015	2016	2017f	2018f
	%	%	%	%	%	%
US	+1.8	+1.4	+1.2	+0.4	+1.5	+2.2
UK	+2.7	+2.3	+1.1	+0.1	+0.9	+2.2
Euro zone	+2.3	+1.0	+0.2	+0.1	+0.4	+1.4
Japan	-0.3	+0.9	+3.0	+0.2	-0.1	+0.5
China	+2.3	+2.6	+1.7	+1.7	+1.9	+2.2
South Korea	+1.8	+1.2	+1.2	+0.7	+1.1	+1.7
Australia	+2.0	+2.6	+2.1	+1.5	+1.3	+1.4
Trading Partners	+2.2	+2.0	+1.5	+0.9	+1.1	+1.8
New Zealand	+0.9	+1.3	+0.9	+0.3	+1.0	+1.7

Note: The Euro zone consists of 15 Member States: Belgium, Germany, Ireland, Greece, Spain, Cyprus, Malta, France,Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland and Slovenia. Tradina Partners covers those countries that account for about 85% of New Zealand's total merchandise trade.

f forecast | Source: Statistics New Zealand, NZIER Quarterly Predictions

#### **Interest Rates**

Overall, financial conditions within major economies are expected to remain very accommodative in 2017. Except for the US Fed, most central banks of major economies are facing weak growth and low inflation, and are expected to continue with accommodating monetary policy.

Confidence in the US economy has improved despite the current uncertainties surrounding future policies. The US Fed raised interest rates by 0.25 percentage points in March 2017 following a 0.25 percentage point increase in December 2016, and now ranges from 0.75-1.00 per cent. Inflation remains under the US Fed target of 2 per cent. Up to two further rate rises are predicted in 2017, however, any future movement by the US Fed will be conditional on the data they have on

hand at the time and under-delivered on rate increases in over the last two years.

China's central bank, the People's Bank of China (PBOC), raised shortterm interest rates modestly by 0.10 percentage points at the beginning of February 2017. This has been seen as a measure to minimise risks from debtdriven stimulus and encourage firms and investors to decrease debt levels.

Other major central banks, particularly the European Central Bank (ECB) and Bank of Japan (BoJ), are expected to keep monetary policy accommodative in 2017, as weak growth and low inflation persist in many major economies. The ECB has continued to encourage lending flows through negative interest rates and quantitative easing.

TABLE 3	SI					
		% p.a., M	arch Year			
	2013	2014	2015	2016	2017f	2018f
	%	%	%	%	%	%
US	0.1	0.1	0.0	0.1	0.3	0.8
UK	0.3	0.3	0.4	0.5	0.3	0.1
Euro zone	0.4	0.2	0.2	0.0	-0.3	-0.3
Japan	0.1	0.1	0.1	0.1	0.1	0.1
Australia	3.6	2.8	2.7	2.2	1.9	1.7
New Zealand	2.7	3.0	3.6	2.6	2.0	1.9

Note: The Euro zone consists of 15 Member States: Belgium, Germany, Ireland, Greece, Spain, Cyprus, Malta, France, Italy, Luxembourg, the Netherlands, Austria, Portugal, Finland and Slovenia. End of March year, except New Zealand, average for March quarter.

f forecast | Source: Reserve Bank of New Zealand, NZIER Quarterly Predictions

The RBNZ cut the official cash rate (OCR) by 0.25 percentage points three times in calendar 2016 (March, August and November) and has indicated that the OCR will remain steady at 1.75 per cent

FIGURE 2

in the short-term. However, mortgage rates offered by banks have risen as access to offshore funding has become more expensive due to bank lending outpacing deposits.

#### **Exchange Rates**

Table 4 shows the annual average exchange rates for the three major currencies in which New Zealand meat and wool products are traded.

For the year to September 2017, the New Zealand dollar (NZD) is estimated to strengthen against all major currencies relative to the USD, but show larger gains on the euro (EUR) and significant gains against GBP. This mainly reflects the positive outlook for the New Zealand economy, while interest rates remain low in New Zealand and rate hikes are predicted in the US.

Figure 2 indicates a significant portion of the gains in the 2016-17

#### TABLE 4 NZ Dollar Exchange Rates

	Annual Ave	rage	
Sep Year	USD	GBP	EUR
2014-15	0.73	0.47	0.64
2015-16	0.69	0.48	0.62
2016-17f	0.70	0.57	0.67
2016-17f % change	+1.4%	+18.8%	+8.1%

f forecast | Source: Beef + Lamb New Zealand Economic Service, Reserve Bank of New Zealand

> September year annual average exchange rate occurred during the year ending September 2016, which had come off a lower base in the first half of the season. The GBP and USD are expected to ease within 2016-17.

The forecast shows the NZD strengthening from the New Season Outlook 2016-17 publication in which the previous forecast was based on the NZD averaging USD0.67, GBP0.54 and EUR0.61.





Source: Beef + Lamb New Zealand Economic Service, Reserve Bank of New Zealand

> FIGURE 3 NZ meat export volumes by currency of trade 2015-16 Sep Year 0% 20% 40% 60% 80% 100% European Union North America North Asia Other Total USD EUR ■ GBP Other

Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs

Exchange rates have a significant impact on meat export receipts because most New Zealand meat exports are denominated in foreign currencies.

Figure 3 shows the New Zealand meat (beef, veal, lamb and mutton) export volumes by currency in which the trade is denominated. In the year ending September 2016, 68 per cent of meat export volumes were reported as being traded in USD-denominated contracts, 10 per cent in EUR and 9 per cent in GBP. Understandably, the currency of trade usually depends on the region of the trade.

As a reference, in 2015-16, 46 per cent of lamb exports were to the European Union and 32 per cent was to North Asia. Whereas for beef, 53 per cent was exported to North America and 33 per cent to North Asia.

In 2015-16, 49 per cent of the meat exports to the EU were traded in EUR and 46 per cent in GBP, and 82 per cent of the meat exports to North America were traded in USD. Nearly 90 per cent of trade with North Asia was denominated in USD. Nevertheless, importers effectively purchase USD using their own currency so as the value of Asian currencies adjusts so does the value of the product to the importer. This is particularly the case as the Chinese currency (the yuan) depreciates against the USD.

## Exchange Rate Sensitivity—2016-17

Table 5 shows farm-gate prices under five different exchange rate scenarios. This approach provides an indication of the impact of exchange rate volatility on the prices paid to farmers. The shaded column represents the forecast exchange rates for the major currencies for 2016-17 and the related farm-gate prices used to derive the base estimates of FOB export receipts and farm revenue in this report. The four other scenarios show the impact on farm-gate prices of variations of  $\pm 5$ and  $\pm 10$  per cent in the exchange rates for the USD, GBP and EUR. In 2016-17, the NZD is expected to be stronger against New Zealand's major trading currencies, the USD, GBP and EUR.

Meat and wool production is seasonal with the majority of production sold from late November through to June. This means that the value of the NZD during this period is crucial to farmers and export companies.

Exchange rate movements have a significant leveraged effect on farm-gate prices. A 10 per cent increase in the NZD against the USD - from 0.70 to 0.77 - and the associated cross rates against the GBP and the EUR decreases the average lamb price received by farmers by 13.7 per cent. Alternatively, when the NZD depreciates by 10 per cent - from 0.70 to 0.63 against the USD - the farm-gate lamb price increases by 16.7 per cent.

The greater leverage of the exchange rate on the farm-gate price assumes that value added to the product remains constant from the farm-gate to shipping of product for export. Therefore, a greater proportion of the change in the total export price feeds back to the farm gate price.

TABLE 5

NZD Exchange Rates										
		Exchange Rate Change	from USD 0.70							
						to USD 0.63	to USD 0.77			
USD	0.63	0.66	0.70	0.73	0.77	-10%	+10%			
GBP	0.52	0.54	0.57	0.60	0.63	-10%	+10%			
EUR	0.60	0.64	0.67	0.71	0.74	-10%	+10%			

			Farm-Gat	e Prices Rec	eived		
	100			\$ / head			
Lamb	106	98	91	85	79	+16.7%	-13.7%
Mutton	83	75	68	62	56	+22.2%	-18.1%
Steer/Heifer	1,600	1,492	1,395	1,307	1,226	+14.7%	-12.1%
Cow	852	795	743	696	653	+14.7%	-12.1%
Bull	1,711	1,595	1,491	1,397	1,311	+14.7%	-12.1%
All Beef	1,304	1,215	1,136	1,064	999	+14.7%	-12.1%
				¢/kg			
Lamb <sup>1</sup>	577	534	495	459	427	+16.7%	-13.7%
Mutton <sup>1</sup>	330	298	270	244	221	+22.2%	-18.1%
Steer/Heifer	577	538	503	471	442	+14.7%	-12.1%
Cow	426	397	372	348	327	+14.7%	-12.1%
Bull	564	526	492	461	432	+14.7%	-12.1%
All Beef	521	485	454	425	399	+14.7%	-12.1%
Fine <sup>2</sup>	1,217	1,135	1,062	995	935	+14.6%	-12.0%
Medium <sup>2</sup>	689	643	601	563	529	+14.6%	-12.0%
Crossbred <sup>2</sup>	347	323	303	284	266	+14.6%	-12.0%
All Wool <sup>2</sup>	441	411	385	360	339	+14.6%	-12.0%

1 includes wool and skin 2 wool ¢/kg greasy | Source: Beef + Lamb New Zealand Economic Service

### **Livestock Numbers**

Total sheep numbers at open 1 July for 2016-17 are provisionally 27.6 million head, decreasing 5.3 per cent on the previous season. This was driven by a decrease in breeding ewes (-5.3%) and fewer hoggets (-6.9%) compared with the previous season.

North Island sheep numbers decreased 6.4 per cent (934,000 head) to 13.6 million. Within this, breeding ewe numbers at 8.8 million were down 5.1 per cent and at 4.4 million total hoggets were down 11.0 per cent. Breeding ewe number changes were due to the impact of facial eczema and relatively strong returns to beef. Hogget numbers decreased on the previous year due to a smaller breeding ewe flock, which led to fewer lambs born for spring 2015.

South Island sheep numbers provisionally decreased 4.2 per cent to 14.0 million. The largest decline occurred in Marlborough-Canterbury (-5.4%) due to drought conditions in Marlborough and North Canterbury, which resulted in tight feed supplies leading into winter.

Total beef cattle numbers at open 1 July for 2016-17 are provisionally 3.47 million head, down 2.1 per cent on the previous season. This decrease was underpinned by strong prices, which encouraged a lift in numbers processed.

North Island beef cattle numbers decreased 3.2 per cent to 2.44 million head. In-calf beef breeding cows and heifers decreased 4.2 per cent, which reflected a lift in beef cows processed in the prior season in





Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand

TABLE 6	Live	stock numbe million head	rs		
	Breeding		Total	Beef	Dairy
	Ewes	Hoggets	Sheep	Cattle	Cattle
30 June 2015	19.07	9.20	29.12	3.55	6.49
30 June 2016p	18.06	8.56	27.58	3.47	6.50
15-16 to 16-17 % change	-5.3%	-6.9%	-5.3%	-2.1%	0.1%

p provisional | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand

response to forecast dry conditions and strong beef prices. In addition, some farmers sold down breeding cows in a shift towards focussing on finishing cattle. The North Island carries 70 per cent of the beef cattle herd and 59 per cent of the dairy herd.

South Island beef cattle numbers remained almost static (+0.7%) at 1.03 million head. Beef breeding cow numbers decreased 7.4 per cent, or 26,000 head, to 327,000 head. This was due to decreased numbers across all regions except for Otago. The largest decrease (-11.3%) was in Marlborough-Canterbury which had the added impact of drought.

Adult beef cattle processed for 2016-17 were estimated to be about 25 per cent of total cattle (beef and dairy) at open which reflects some easing in the beef price and fewer cull cows from the dairy herd in response to an increase in the farm-gate milk price. As a reference, the number of total adult beef processed for 2014-15 was equivalent to 27 per cent of total cattle (beef and dairy) on hand at open. This was three percentage points up on the prior 10-year average (2004-05 to 2013-14) and was the highest level since 2003-04 (28%), which was also due to strong beef prices.

Total dairy cattle numbers at open 1 July 2016-17 were 6.49 million head, almost static (+0.1%). This was due to an increase in the farm-gate milk price and two prior years of high cow numbers processed from the dairy herd and follows the previous year which was the first decline in dairy cattle numbers in 10 years (since 2005 06). The South Island contains 41 per cent of the New Zealand dairy herd, up from 31 per cent 10 years earlier.



### Lamb and Mutton Exports

#### Lamb

#### 2016-17

Total lamb receipts under the USD0.70 exchange rate scenario are expected to be down 2.1 per cent to \$2.53 billion FOB in 2016-17.

In 2016-17, the volume of New Zealand lamb exports is expected to decline a further 3.2 per cent due to a smaller lamb crop from fewer ewes. However, the effect of the reduced lamb crop on export production is forecast to be moderated by an increase in carcase weights as feed availability has improved and a comparatively later slaughter period.

The average value of lamb meat exports is projected to rise 1.3 per cent as the NZD eases within 2016 17 and in-market prices hold. Receipts from co-products are expected to drop 4.2 per cent to \$179 million FOB, reflecting a continuing lower export demand for offal and lamb skins.

The volume of lamb exported over the first five months of the 2016-17 meat export season decreased by 10 per cent. The drop of volume for the beginning of the season was exacerbated by comparison with the early slaughter in the 2015-16 season which was due to forecast drv conditions, and a relatively late slaughter in the 2016-17 season. The average FOB value of exports for the same period decreased by 1.9 per cent. Combined with the decreased volume. this resulted in the FOB lamb meat exports decreasing by 11 per cent for the season to February 2017.

#### 2015-16

Total New Zealand lamb exports were steady – up 0.3 per cent – at 303,100 tonnes shipped weight in the year ending September 2016. However, the average value was down 6.6 per cent to \$7,907 FOB per tonne for 2015-16.

Receipts from co-products dropped 27 per cent to \$187 million FOB. This was driven by total receipts for offals, which were down 33 per cent to \$90 million. Lamb skins accounted for more than half of total co-product receipts at \$97 million. The proportion of lamb export value as meat, not from co-products, rose 1.9 percentage points to account for 93 per cent of total lamb value.

In the year ended September 2016, total lamb receipts (meat and coproducts) decreased 8.2 per cent to \$2.58 billion FOB.

The EU accounted for 52 per cent of lamb receipts from 41 per cent of the total volume of lamb exported. North Asia was the second largest market destination for New Zealand lamb accounting for 21 per cent of total receipts but from 35 per cent of export volume. After increasing vear-on-vear since 2009-10. lamb export receipts from North Asia fell 6 per cent in 2015-16, despite volumes increasing by 10 per cent. The Middle East had the largest comparative change with lamb receipts down by 42 per cent. In actual terms, the reduction of 9.500 tonnes of lamb shipped to the Middle East was accommodated by an increase of 9.700 tonnes to North Asia.



Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs, New Zealand Meat Board

TABLE 7	Ν	ew Zealand	d Lamb Ex	ports		
		Lamb meat		Co-	Total	Lamb
Sep Year	000 tonne	\$ / tonne	\$m FOB	Products \$m FOB	Lamb \$m FOB	Meat %
2012-13	313	7,285	2,279	332	2,612	87%
2013-14	307	8,163	2,504	275	2,779	90%
2014-15	302	8,470	2,559	256	2,815	91%
2015-16	303	7,907	2,397	187	2,583	93%
2016-17e	293	8,010	2,351	179	2,530	93%
2016-17e % change	-3.2%	+1.3%	-1.9%	-4.2%	-2.1%	

e estimate | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand

### Mutton

#### 2016-17

For 2016-17, total mutton exports are expected to drop 7.3 per cent following the decrease in production due to a 5.3 per cent drop in ewe numbers.

The average value of mutton is expected to increase 13 per cent to \$5,172 FOB per tonne. Limited mutton supply from New Zealand and Australia are expected to improve prices in North Asia, the largest market for New Zealand mutton. FOB prices are expected to remain firm in other markets.

Returns from co-products are expected to be down 5.4 per cent to \$125 million FOB as returns from skins and offals are both expected to decrease.

Overall, mutton export receipts are expected to total \$523 million FOB, up 2.0 per cent on the previous season. The increase in average value per tonne will be partially offset by the lower volume of mutton available and reduced returns from co-products.

#### 2015-16

In 2015-16, New Zealand's total mutton exports were down 3.3 per cent on the previous season at 82,900 tonnes shipped weight but still up 9.5 per cent on the five-year average.

The average value of mutton exports decreased 12 per cent to \$4,581 FOB per tonne in 2015-16. The value of mutton meat exports reached \$380 million FOB, down 15 per cent, reflecting the effect of lower shipments and value per tonne. Export receipts from mutton co-products decreased 16 per cent to \$132 million FOB, led by skins dropping by 19 per cent and offals by 14 per cent.

Overall total mutton receipts were \$512 million FOB for 2015-16, down 15 per cent on 2014-15.

Exports to China are significant for mutton, as approximately half of mutton exports were destined for China in the 2015-16 season. The proportion of mutton exports to China appears to have been steady for the last two seasons after peaking around 70 per cent in 2013 14, after a steep rise from 7.5 per cent in 2010 11.



Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs, New Zealand Meat Board

	Ne	w Zealand	Mutton Ex	kports		
	Mutton meat			Co-	Total	Mutton
Son Voar	000 tonno	¢ / tonno	tm EOB	Products	Mutton	Meat
2012-13	85	4 742	401	1/2	544	7/%
2012-13	94	5.017	472	128	600	79%
2014-15	86	5,214	447	157	604	74%
2015-16	83	4,581	380	132	512	74%
2016-17e	77	5,172	397	125	523	76%
2016-17e % change	-7.3%	+13%	+4.6%	-5.4%	+2.0%	

e estimate | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand



## Lamb and Mutton–International Situation

#### **Overview**

### Australia

Global demand for sheepmeat remains firm due to tighter supply from the two largest exporters of sheepmeat - Australia and New Zealand, led by improved mutton prices. Growth in Chinese consumer demand has begun to ease and China's domestic production continues to increase. Access into China for EU sheepmeat still remains limited. The weak GBP after the UK referendum to leave the EU in June 2016 has benefitted UK sheepmeat exports. These are mostly destined for other EU countries. Consumer demand in the US and EU remains firm but there is strong competition from other meat types.

The Australian national flock is forecast to continue to keep growing in 2016-17 to 73.6 million head, up 7.1 per cent. The sharp increase in numbers comes after a 3.1 per cent decrease in 2015-16, in response to poor pasture conditions. Growth is expected to continue in 2017-18. Improved pasture conditions have led to farmers retaining more lambs and sheep.

Lamb production in 2016-17 is forecast to fall by 2.6 per cent to 503,000 tonnes due to a 3.2 per cent reduction in slaughter numbers to 22.4 million head. A higher average carcase weight is expected due to improved pasture conditions and this will offset some of the reduction in slaughter numbers. Retention of lambs for flock rebuilding drives the lower lamb availability. A sharp drop in mutton production is also forecast as part of flock rebuilding, down by 20 per cent to 158,000 tonnes, due to slaughter numbers decreasing by a similar percentage - to 6.5 million head. Mutton production fell in 2015-16 by 8.6 per cent.

Australian lamb exports in 2016-17 are forecast at 253,000 tonnes, down 3 per cent, due to limited production. Australia has a proportionally larger domestic lamb market than New Zealand, with about 44 per cent of lamb production sold domestically. Therefore, a reduction in production has a comparatively larger effect on change in exports. Mutton exports are expected to be down by 20 per cent, which is in line with production as over 90 per cent of mutton is exported.

The total Australian sheepmeat export value is forecast to be down 2.3 per cent in 2016-17 to AUD2.4 billion (NZD2.6 billion approximately). Lamb receipts are expected to be AUD1.8 billion (NZD1.9 billion approximately), an improvement of 1.6 per cent despite the lower export volume as higher export value per tonne is expected. The mutton export value is forecast to be AUD662 million, down 12 per cent, as the drop in volume of mutton exports will be partially offset by improved value per tonne.

Australian lamb export volumes are expected to decrease in their two largest export regions, North America and the Middle East, due to lower product availability.



#### China

After a rapid rise in consumer demand for sheepmeat in China, there are signs of cooling beginning to show. The recent increase in Chinese demand led to imports of lamb and mutton from New Zealand rising by 220 per cent from 2010-11 to 2015-16. While the novelty of sheepmeat is beginning to lessen and retail prices have decreased relative to other red meats, it is still relatively new to the mainstream market and consumed at a lower rate per person than other red meats.

Domestic sheepmeat production in China has grown around 2.8 per cent per annum over the last decade and growth is expected to continue into 2017. However, in the medium-term, this rate of increase is expected to be reduced. The growth in domestic production has come from small to medium sized producers in an informal. less structured manner. However, the swell in production combined with the cooling of demand increase may make investment into the sheepmeat industry less attractive.

Imports of sheepmeat into China are dominated by New Zealand which accounts for approximately 66 per cent, followed by over 30 per cent of imports coming from Australia. New Zealand exports to China are expected to remain relatively steady in 2017. However, reduced availability of sheepmeat, particularly mutton, from Australia and New Zealand will increase price to some degree with competition from regions such as the Middle East. This is reflected in the overall forecast 13 per cent increase in mutton FOB receipts per tonne for 2016-17.

#### **European Union**

For the second year in a row, sheepmeat production in the EU-28 for 2016 increased, albeit marginally (+0.3%), after a decade decreasing production. EU sheepmeat production is forecast to increase again in 2017 by 1.5 per cent to 943,000 tonnes (cwe). The UK accounts for approximately 25 per cent of the EU sheep flock and is forecast to increase lamb slaughter in 2017 by 3.5 per cent to 13.1 million.

Following the UK referendum to leave the EU in June 2016, the GBP depreciated, contributing to a five per cent increase in UK sheepmeat exports. This improved export situation is expected to continue in 2017. Direct access to China remained limited for EU countries, which combined with severe restrictions on the grey route to China in 2015, led to lower exports to the Chinese market.





Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs

Sheepmeat imports into the EU-28 increased marginally in 2016 by (+0.3%) and are expected to grow by 2.1 per cent in 2017. New Zealand dominates EU imports, accounting for 79 per cent of sheepmeat quota allocation but utilisation of this quota dropped to 70 per cent in 2016. Approximately 50 per cent of New Zealand lamb exports to the EU are into the UK and the relative weakness of the GBP since June 2016 diminishes export receipts in NZD terms. Sheepmeat consumption in the EU is expected to recover by 1.5 per cent after a decade of decline (26%).



### Lamb Price—Farm-gate

#### FIGURE 8



#### Quarterly





Source: Beef + Lamb New Zealand Economic Service

#### TABLE 9

#### All Grades Weighted Schedule Year ending September - Annual average

	Lam	b	Mutte	on
	\$ per head	c per kg	\$ per head	c per kg
2008-09	90	508	50	204
2009-10	81	461	56	228
2010-11	118	645	92	380
2011-12	114	609	95	369
2012-13	85	474	61	242
2013-14	100	548	76	302
2014-15	94	519	67	267
2015-16	93	509	57	226
2016-17e	91	495	68	270

f forecast | Source: Beef + Lamb New Zealand Economic Service

#### TABLE 10

	_	2016-1	7e (Sep Year	)
Exchange Rate		\$ per head	c per kg	
Low NZD				
USD	0.63			
GBP	0.52	\$106	577	High
EUR	0.60			
Mid NZD				
USD	0.70			
GBP	0.57	\$91	495	Mid
EUR	0.67			
High NZD				
USD	0.77			
GBP	0.63	\$79	427	Low
EUR	0.74			

Source: Beef + Lamb New Zealand Economic Service

Table 10 shows monthly, quarterly and annual average prices for the all grades lamb to the end of September 2017.

Three exchange rate scenarios are provided in the outlook for 2016-17 because of the volatility in exchange rates. The three scenarios use annual average exchange rates of USD0.63, USD0.70 and USD0.77 and the associated cross rates against the GBP and the EUR.

At the mid-exchange rate of USD0.70, the forecast lamb price of 495 cents per kilogram for 2016-17 is a drop of 2.9 per cent from the 2015-16 price of 509 cents per kilogram. Despite the forecast appreciation of the NZD against all the major trading currencies, particularly 18 per cent against the GBP, the schedule price is partially offset by firm in-market prices. If the NZD depreciated in 2016-17 to average USD0.63 instead of USD0.70 then the lamb price, with all other things being equal, would rise to 577 cents per kilogram, i.e. a 13 per cent increase compared with 2015-16. The different exchange rate scenarios in Table 10 highlight the leveraged effect of the exchange rate on the lamb price to farmers.

Monthly and quarterly prices are used to better express the variation in prices within season. Historical data shows that prices tend to be high during the December quarter and then gradually decrease as the season progresses and as slaughter numbers increase. By the end of the season, when slaughter numbers start to reduce again, prices tend to go up. In addition to historical quarterly prices, Figure 8 provides a forecast of the seasonal pattern of lamb prices in 2016-17.

In October and November 2016, the all grades lamb average price per kilogram was down 2.8 and 1.9 per cent respectively on the same months in the previous year. However, in December 2016, the average price was 542 cents per kilogram, up 3.3 per cent on December 2015, and up 0.3 per cent for the first quarter of the season. Lamb prices tend to start easing in December, after the Christmas trade, but this season prices have held relatively firm into the second quarter.

The expected smaller lamb crop and limited mutton supply combined with the improved pasture supply in 2016-17 has created a "grass-market", where production-side pressure to sell livestock is lessened. Lower competition in the export market due to lower production in New Zealand and Australia contribute to livestock prices remaining firm.

At the mid-exchange rate of USD0.70, the annual average mutton price is estimated at 270 cents per kilogram in 2016-17, an increase of 20 per cent on 2015-16.

## Lamb and Mutton Production

#### Lamb

The total number of lambs tailed in the spring of 2016 was provisionally down 5.4 per cent (1.3 million head) on the previous spring to 23.2 million head. The 2016 lamb crop was influenced by a decrease in the number of breeding ewes.

The ewe lambing percentage for spring 2016 is estimated at 123.0 per cent, marginally down - 0.6 percentage points - compared with the previous season. The decrease in breeding ewe numbers was driven by a deeper cull in 2015-16 in anticipation of forecast dry El Niño summer conditions and a facial eczema outbreak in northern regions. Ewe condition at mating for 2016 was negatively affected in some areas of the North Island by facial eczema. Within the total lamb crop, the number of lambs from hoggets totalled 998,000 head, up 3.8 per cent on 2015. This represented an increase in hogget lambing percentage partly offset by 60,000 fewer hoggets mated.

The 2016-17 export lamb slaughter is forecast to decrease 3.6 per cent from the previous season to 19.2 million head. This largely reflects the smaller lamb crop and a decrease in the number of replacement ewe hoggets on-hand at open 2016 17.

North Island export lamb slaughter is projected to decrease 7.4 per cent to 9.3 million head in 2016-17, reflecting the smaller lamb crop and dropping below the South Island lamb slaughter numbers by 573,000 head. South Island lamb slaughter is expected to remain steady compared to the previous season, and exceed the North Island for the first time in three seasons.

Export lamb production is expected to decline 3.2 per cent to 353,400 tonnes carcase weight in the year ending September 2017, essentially due to lower slaughter numbers. The average carcase weight is expected to remain relatively unchanged at 18.4 kilogram.

#### **Mutton**

The export mutton slaughter for the year ending September 2017 is estimated to decrease 7.9 per cent to 3.5 million head. This represents the third consecutive significant decline from elevated production levels during the expansion of the dairy herd, which was followed by dry summer conditions and a 2015-16 facial eczema outbreak in North Island regions.

For the year to 30 September 2017, carcase weights are expected to average 25.1 kilogram, a marginal increase as pasture availability improves.

Export mutton production for 2016-17 is expected to drop 7.3 per cent to 89,300 tonnes carcase weight in line with slaughter numbers.

#### \_\_\_\_

TABLE 11	Export Lamb Production							
	Lamb Crop	Slaughter	Carcase	Production				
Sep Year	head	head	kg	bone-in				
2012-13	26.0	20.9	18.0	376.2				
2013-14	25.0	20.3	18.3	371.5				
2014-15	25.8	21.2	18.1	384.2				
2015-16	24.5	19.9	18.3	364.9				
2016-17e	23.2	19.2	18.4	353.4				
2016-17e % change	-5.4%	-3.6%	+0.5%	-3.2%				

TABLE 12	Export Mutton Production						
	Slaughter	Carcase	Production				
Sep Year	head	weight ka	bone-in				
2012-13	4.1	25.1	103.9				
2013-14	4.2	25.3	107.0				
2014-15	4.1	25.0	102.1				
2015-16	3.8	25.1	96.4				
2016-17e	3.5	25.3	89.3				
2016-17e % change	-7.9%	+0.6%	-7.3%				

e estimate | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand, New Zealand Meat Board

e estimate | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand, New Zealand Meat Board



## **Beef and Veal Exports**

### 2016-17

In the year ending in September 2017, New Zealand beef and veal meat exports are expected to decrease 1.8 per cent to 416,000 tonnes shipped weight. This represents the ongoing decline from record high export volumes in 2014-15 and is driven by limited beef cattle availability and stabilisation of the dairy herd.

The average value of beef and veal meat exports is expected to decrease 1.8 per cent to \$6,867 FOB per tonne in 2016-17. The main drivers in the forecast drop are the strength of the NZD and the expected increase in international beef production, particularly in the US as it is New Zealand's largest beef export destination. However, the rate of growth in US beef production is expected to ease. Despite improved access into North Asia for large beef producers such as Brazil and potentially the US, the decrease in beef prices is forecast to be partially offset by firm markets in this region. This will be led by continuing demand from China.

The value of co-product exports from beef and veal is expected to remain steady in 2016-17 at \$557 million FOB.

Overall, total beef and veal export receipts are expected to decrease 3.2 per cent to \$3.41 billion FOB in 2016-17. However, beef and veal exports remain relatively strong after coming off recent record highs. For the third season in a row, beef and veal export receipts are projected to be higher than lamb and mutton export receipts.

#### 2015-16

New Zealand total beef and veal export returns (incl. co-products) were \$3.52 billion in 2015-16, down 6.9 percent off a record high of \$3.79 billion FOB in 2014-15, which exceeded lamb and mutton returns for the first time in 20 years. The high returns in 2014-15 were driven by higher prices from the US and increased volume, particularly from the dairy sector retraction but also due to the high prices.

The average value in 2015-16 fell to \$6,996 per tonne, down by 5.4 per cent. The 2014-15 season was the first to break \$6,000 per tonne in the 35 years since records have been kept, reaching \$7,395 per tonne for beef and veal exports. The firm prices were driven by continued demand in the US and rising demand in China, which combined to account for nearly twothirds of beef exports.

The volume of beef and veal exports in 2015-16 was down 1.9 per cent to 423,000 tonnes shipped weight. While beef and veal export volumes declined in 2015-16, it was coming off the highest volumes in 35 years in 2014 15. The 2015-16 season was also second highest season for production during the 35-year period, driven by strong prices and the continued retraction in the dairy sector.

The value of co-product (including hides and offal) exports fell in line with the average value of beef and veal exports down by 5.4 per cent to \$562 million FOB. The receipts achieved from co-products accounted for 16 per cent of the total value received from beef and veal exports.

Beef and veal exports to North America eased to 224,000 tonnes in 2015-16, down 10 per cent. The value also decreased by 8.8 per cent to \$6,540 per tonne. The US beef sector has gone through a period of herd expansion, as a result cattle are beginning to become available for slaughter and increasing beef production. However, beef and veal export receipts remain historically high at \$1.46 billion FOB, up 33 per cent on the 2013-14 season prior to the large increase in export value and volumes in 2014-15.

Beef and veal exports to North Asia remained firm in 2015-16 as the value across the region remained steady at \$7.195 per tonne and volume was up 16 per cent to 142.000 tonnes. so that total beef and veal export returns were \$1.02 billion FOB. up 15 per cent. China accounted for 17 per cent of all New Zealand's beef exports, up from 13 per cent in 2014-15. The share of beef and veal exports to China has continued to increase from 0.8 per cent in 2010-11. to be the second largest beef and yeal destination behind the US. Chinese demand remained firm as domestic. production growth was exceeded by higher consumer demand. Other North Asia markets were strong as beef price per tonne to Taiwan. South Korea and Japan improved (+1.0%. +5.7% and +5.4% respectively), however volumes to Japan were lower and total beef export returns were down 8.8 per cent.

#### FIGURE 9

New Zealand Beef and Veal Exports Sep year, \$m FOB



Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs, New Zealand Meat Board

TABLE 13	New					
_	Beef	and Veal Mea	it	Co-	Total	Beef
_				Products	Beef	Meat
Sep Year	000 tonne	\$ / tonne	\$m FOB	\$m FOB	\$m FOB	%
2012-13	365	5,743	2,096	500	2,596	81%
2013-14	390	5,827	2,274	530	2,804	81%
2014-15	432	7,395	3,193	594	3,787	84%
2015-16	423	6,996	2,962	562	3,524	84%
2016-17e	416	6,867	2,854	557	3,411	84%
2016-17e % change	-1.8%	-1.8%	-3.7%	-0.9%	-3.2%	

e estimate | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand





Source: Beef + Lamb New Zealand Economic Service, New Zealand Customs



## **Beef Price—International Situation**

Figure 11 shows indicative import prices for frozen 95CL bull beef in the US in USD and converted to NZD. The USD is significant for New Zealand beef exports as North America and North Asia receive over 85 per cent of beef export volumes and trade being mostly in USD for these markets.

In 2014-15, the annual average inmarket US beef price increased 13 per cent compared with the previous season while the same price in NZD increased 36 per cent. The difference between the prices in each currency reduced over 2015-16, from an exchange rate of USD0.65 in January 2016 strengthening to USD0.73 in September 2016.

In Figure 11, the difference between the US and New Zealand prices for frozen beef into the US reflects the relative exchange rate, a relatively weaker NZD widens the price difference. The NZD bought an average of USD0.69 in 2015-16 compared with an average of USD0.72 in 2014-15 but this does not fully reflect the exchange rate effect within these seasons - see Figure 11. A 10 per cent NZD appreciation against the USD during 2015-16 season exaggerated the drop in frozen beef prices in US cents per kilogram, whereas, a 20 per cent depreciation during 2014-15 amplified the frozen beef price in NZD terms.

#### Overview

After reaching record highs in 2015, beef prices are expected to continue easing in 2017 as supplies increase, particularly in the US as the beef herd expansion begins to increase production. Demand for beef is expected to remain firm, particularly in Asia.

#### **United States**

In 2016, herd rebuilding continued in the US with livestock supply up and production began to increase. The total US cattle herd was up 1.8 per cent to 93.6 million head as at 1 January 2017. Total commercial cattle slaughter and beef production both up 6 per cent to produce 11.4 million tonnes from 30.6 million head of cattle over the same period. The increase in total US production for 2016 was 686,000 tonnes compared to New Zealand's total 2015-16 beef production of 619,000 tonnes. Lower carcase weights and a rise in the share of heifers in the slaughter mix indicate that the US beef herd expansion is maturing, but is expected to continue for the next two seasons.

US beef producer prices are forecast to decrease by 11 per cent due to competition with other animal proteins and increased domestic supply of beef. The lower prices due to increased supply are partially offset by improved export conditions with volume forecast to be up 7.0 per cent and imports to be down 11 per cent, driven by tighter supply as the Australian herd is rebuilt.









US exports to Japan and South Korea are expected to increase in 2017 by 40 and 38 per cent respectively, despite the strength of the USD, with a focus on increasing chilled beef volumes. The Japanese market has become more favourable due to tariffs on US beef imports gradually being removed although, ratification of the TPP trade agreement would have removed trade barriers sooner. Exports within North America are expected to increase as well.

US retail prices in 2017 are expected to continue easing from the high prices in 2015 in response to increased domestic cattle supply and competition with other animal protein. US beef consumption per capita is forecast to be up 2.1 per cent, which is in line with higher total red meat consumption per capita. Pork is the main red meat competitor and is expected to outcompete beef consumption marginally, increasing by 2.2 per cent.

In the first six months of the 2016-17 season, New Zealand beef and veal exports to the US were down 18 per cent by volume and 8.4 per cent in average value per tonne compared with the same period in 2015-16. The average value per tonne in the first six months of 2016-17 was up 1.5 per cent higher on the five-year average at \$6,127, which included the two record high seasons of 2014-15 and 2015-16.

#### Brazil

In 2016, Brazilian beef production is estimated to have increased by 3.1 per cent and is forecast to grow again by 2.8 per cent in 2017 to 9.79 million tonnes, second by volume to the US. The increase in Brazil's beef production is driven by herd expansion maturing to increase slaughter numbers, despite forecast lower store cattle prices and lower grain prices for feedlots. There is an ongoing focus on genetic improvement of the Brazilian herd to increase productivity of what is the second largest herd in the world.

Domestic beef consumption declined during the recent Brazilian economic recession that coincided with higher beef prices. Beef consumption is forecast to account for some of the production increase as gross domestic product (GDP) is expected to begin growing.

Brazilian beef exports benefitted from a weaker exchange rate and lower domestic demand in 2016, however this position diminished as the Brazilian real appreciated driven by an improved economic and political climate. Brazil was expected to continue increasing export volumes for the second year in a row and developing new export markets in 2017, but this may be curtailed by a corruption and food safety scandal. A beef free trade agreement was ratified in 2016 between Brazil and the US and a temporary disease related import ban was lifted by the US. However, exports to the US were expected to be modest in 2017 as they will compete for 64,000 tonnes of quota with other nations.

#### North Asia

The growth in the Chinese demand for beef is expected to ease in 2017. As the Chinese economy slows, beef prices are expected to soften. However, current Chinese red meat retail prices reflect that consumer demand is still relatively strong as beef prices remain above sheepmeat, pork and poultry. Pork is the most widely consumed animal protein.

Figure 12 shows the recent increases in beef imports due to the growth of consumption out-pacing local Chinese production. The share of direct South American beef exports into China has grown rapidly over the last two years as the total import volume grew by 94 per cent. South America accounted for 36 per cent of imports in 2014 and grew to 66 per cent in 2016.

Imports of Brazilian beef have grown rapidly since gaining direct access in 2015, rising from 56,000 tonnes to 171,000 tonnes in 2016. There is uncertainty created by the current corruption and meat hygiene scandal. Chinese imports of Uruguayan beef have also increased rapidly to overtake Australia in 2016. Australia remains the only exporter of chilled beef into China, however New Zealand was granted access for chilled beef in 2016. This has not translated into chilled exports yet as negotiations are on-going and good progress is being made to resolve the outstanding issues in the meat protocols.

In the first six months of the 2016-17 season, New Zealand beef and veal exports to China were down 3.0 per cent. The average value per tonne was down 4.7 per cent compared with the same period in 2015-16.

Taiwan received 6.5 per cent of New Zealand's beef exports in 2016, overtaking South Korea and Japan to become the third largest export market. Taiwanese consumption growth is heavily reliant on imports as domestic production accounts for only about five per cent of consumption. New Zealand supplies just under a quarter of beef imports, behind the US and Australia.



In 2017, Japanese beef imports are forecast to be steady as declines in production are expected to exceed declines in consumption. The decline in Japanese beef production continues due to a decreasing cattle herd as retiring farmers are not replaced. The decline in consumption is due to competition from alternative animal proteins, high beef prices from tight import supplies, and an aging and declining Japanese population. Australia maintains a trade advantage over New Zealand and other competitors through Japan Australia Economic Partnership Agreement (JAEPA).

In South Korea, beef production dropped in 2016, which boosted imports, primarily from the US which increased by 47 per cent. Total imports rose 24 per cent, which Australia and the US make 92 per cent of exports. The rate of decline in production is forecast to ease in 2017 as prices improve, following successive years of reduced beef production. Beef imports are expected be flat in 2017 due to the steadying of production and tight supplies from Australia, the largest exporter of beef to South Korea. Two rounds of tariff cuts in late 2015 and early 2016 as part of the New Zealand - Korea Free Trade Agreement reduced the relative competitive advantage of the US and Australia.

#### Australia

In 2015-16, the Australian cattle herd declined by 4.9 per cent as the contraction continued, which flowed through to a drop in slaughter and production, down by 13 and 12 per cent respectively. Excluding a climatic disruption, the Australian herd is forecast to begin rebuilding and grow by 2.1 per cent. An expected increase of heifer and cow retentions as part of the rebuild will further reduce 2016-17 slaughter numbers. As a result of limited availability, the nominal average saleyard price is forecast to build on the 39 per cent increase in 2015-16, rising a further 6.9 per cent in 2016-17.

The total Australian beef and veal export volume in 2016-17 is forecast to be down 18 per cent to 985,000 tonnes due to the lower slaughter numbers. Australia was the third largest exporter of beef in 2015-16, accounting for 14 per cent of exports globally so tighter supply will have an influence on markets.

The US, Japan, South Korea and China accounted for 76 per cent of Australian beef exports in 2015-16. Export volumes in 2016-17 to all these markets, except South Korea, is forecast to decrease. South Korea is forecast to increase by 4.5 per cent in 2016-17 due to strong demand for beef and Korean income growth. Australian beef exports to the US are forecast to drop by 42 per cent due to tight supply combined with lower US demand for manufacturing beef.

Competition with the US, for beef exports into Japan is expected to increase as tariffs on US beef are reduced. Australia maintains a trade advantage in Japan over New Zealand due to the US withdrawing from the TPP.

#### **European Union**

The EU beef cow herd was 12.4 million head in 2016, an increase of 0.7 per cent on 2015. The rate of herd expansion eased across EU nations with notable decreases in the Netherlands and Italy, down by 17.6 and 7.4 per cent respectively. France still maintains the largest beef cow herd at 4.23 million head and combined with Spain, Ireland and the UK, accounts for 71 per cent of the EU breeding herd. EU beef and veal production increased 2.3 per cent to 7.86 million tonnes in the 2016 calendar year, driven by a retraction in the dairy sector. Beef and veal production in the EU is forecast to grow at a slower rate in 2017 (+1.2%) with modest increases in the beef herd and continuing dairy sector culling.

Total consumption of beef and veal in the EU is forecast to grow in 2017 by 1.2 per cent from higher beef production. Total EU beef and veal imports grew 2.0 per cent in 2016 to 306.000 tonnes. This was driven by a 42 per cent increase of imports from Brazil and, higher Uruguavan and Argentine imports. more than offsetting the reductions of Australian and US imports. Beef and veal imports for the EU in 2017 are forecast to grow by 3 per cent as global supply improves and prices soften. In 2014, prior to EU trade sanctions. Russia was the single largest export market for EU beef at 27.700 tonnes but sanctions remained in 2016 and EU exports to Russia were negligible.

## Cattle Prices—Farm-gate

Figure 13 shows the monthly and annual average cattle prices paid to farmers for all grades to September 2017.

After a large gain in farm-gate price in 2014-15 driven by strong US demand, the price increased by 2.2 per cent in 2015-16. The moderate 2015-16 increase came from tighter supplies and a reduction of the proportion of cull cows in the total slaughter as the retraction in the dairy sector wound down. Demand from the US remained relatively high but did ease.

Three exchange rate scenarios are used in the 2016-17 outlook to cover possible exchange rate variability. The three scenarios use annual average exchange rates of USD0.63. USD0.70 and USD0.77 and the associated cross rates against the GBP and EUR. At USD0.70, the estimated average cattle price is 454 cents per kilogram, down 5.6 per cent on the average price of 481 cents per kilogram in 2015-16. The 2016-17 farm-gate price is forecast to drop on the strength of the NZD and as US demand for imports decreases due to the rise of US production.

The three exchange rate scenarios highlight the leveraged effect the exchange rate has on the New Zealand cattle price paid to farmers. When the exchange rate moves from USD0.70 to USD0.77

(+10%), cattle prices decrease by 12 per cent. Alternatively, when the NZD depreciates from USD0.70 to USD0.63 (-10%), the cattle prices increase by 15 per cent.



f forecast | Source: Beef + Lamb New Zealand Economic Service



## **Beef Production**

### **Cattle Slaughter**

In the year ending in September 2017, export cattle slaughter is estimated at 2.42 million head, down 3.7 per cent compared with 2015-16. This reflects a drop from record high slaughter in 2014-15. The elevated slaughter sexpected to ease and slaughter numbers are expected to return to a relatively normal level in 2016-17. High international beef prices and low dairy prices led farmers to reduce their herds across the 2014-15 and 2015-16 seasons.

In the year to September 2017, cow slaughter numbers are estimated at 1.0 million head, falling 8.9 per cent after dropping 7.3 per cent in 2015-16. The dairy sector went through a sustained period of expansion from 2006-07 with greater cow and heifer retention until the retraction began in 2014-15. The five-year average cow slaughter prior to 2006 07 was 763,000 head. The cow slaughter is expected to stabilise around 1 million head.

Heifer slaughter is expected to decrease 3.9 per cent to 419,000 head in 2016-17, following a 3.8 per cent decrease in 2015-16. The expected drop in heifer slaughter reflects higher retention in the beef and dairy herds after deeper cow cull in anticipation of dry El Niño 2015-16 summer conditions and improved dairy prices.

Steer slaughter is projected to increase 1.7 per cent to 523,000 head in 2016-17 but this moderate increase does not reverse the longer-term downward trend as the beef herd has decreased. The 2016-17 bull slaughter is estimated to increase 3.1 per cent to 479,000 head, following a 3.8 per cent decrease in 2015-16. This reflects an improved beef market over the previous two seasons as the bull calf retentions occurred over this period.

### **Cattle Weights**

For 2016-17, the overall cattle weight is projected to average 250 kilograms per head carcase weight. This increase of 1.9 per cent or 4 kilograms per head is driven by the lower proportion of dairy cull cows, a combination of higher average cow weights due to fewer dairy cows in the total cow mix and the lower share of cows in the total slaughter. All other classes are expected to remain relatively stable.

### **Beef Production**

For 2016-17, export beef production is estimated at 607,000 tonnes carcase weight, a 1.8 per cent decrease on 2015-16. This is driven by the decrease of heifer and cow production, down by 3.4 and 6.7 per cent respectively, due to decreased slaughter numbers. The lower cow and heifer production is partially offset by moderately higher steer and bull slaughter numbers.

TABLE 14	Export Cattle Slaughter Composition							
	000 head							
Sep Year	Steer	Heifer	Cow	Bull	Total			
2012-13	562	382	921	425	2,290			
2013-14	559	407	931	438	2,335			
2014-15	558	453	1,187	483	2,682			
2015-16	515	436	1,101	464	2,516			
2016-17e	523	419	1,003	479	2,424			
2016-17e % cha	nge +1.7%	-3.9%	-8.9%	+3.1%	-3.7%			

e estimate | Source: Beef + Lamb New Zealand Economic Service, New Zealand Meat Board

TABLE 15 EX	Export Cattle Carcase Weights									
	kg / head									
Sep Year	Steer	Heifer	Cow	Bull	Total					
2012-13	311	240	199	305	253					
2013-14	305	236	199	301	250					
2014-15	302	234	197	298	243					
2015-16	308	238	195	304	246					
2016-17e	308	239	200	303	250					
2016-17e % change	+0.1%	+0.5%	+2.4%	-0.3%	+1.9%					

e estimate | Source: Beef + Lamb New Zealand Economic Service, New Zealand Meat Board

#### TABLE 16 Export Beef Production Composition

	000 tonne bone-in								
Sep Year	Steer	Heifer	Cow	Bull	Total				
2012-13	175	92	184	129	580				
2013-14	170	96	186	132	584				
2014-15	169	106	234	144	652				
2015-16	158	104	215	141	619				
2016-17e	161	100	201	145	607				
2016-17e % change	+1.7%	-3.4%	-6.7%	+2.8%	-1.8%				

e estimate | Source: Beef + Lamb New Zealand Economic Service, New Zealand Meat Board

### Wool

#### Exports

Wool exports for 2016-17 are estimated to decline 5.1 per cent to 97,800 tonnes clean. This decrease is driven by lower sheep numbers (-5.3%) coupled with similar production per head (+0.8%) to 2015-16.

Compared with last year, the estimated all-wool auction price is down significantly (22%). Within this the merino fine wool price is shown to improve on last year while medium and strong crossbred wool prices fall significantly - see Table 18. Crossbred wool prices at auction in February 2016 were high at \$5.72 per kilogram clean but by February 2017 the auction price had fallen significantly by 38 per cent to \$3.55 per kilogram. There was a bounce off the bottom in March 2017 with crossbred wool prices up 10 per cent from the low point of the season.

Wool export receipts estimated at \$564 million (-26%) for 2016-17 will be at their lowest since 2009-10 when the Global Financial Crisis caused low demand for wool products. The 26 per cent decrease in wool FOB receipts reflects the 5.1 per cent decrease in shipments and the 22 per cent drop in FOB receipts per tonne.

The latest data available indicates that over the first seven months of the 2016-17 season - from July 2016 to January 2017 - wool export receipts were down 25 per cent while the tonnage shipped was down 17 per cent. FOB receipts per tonne were down 10 per cent. This decrease reflected fine merino receipts per tonne increasing 2.1 per cent, offset by 21 per cent and 12 per cent decreases in FOB receipts per tonne for finecrossbred and strong crossbred wool respectively. Note that the majority of fine wool (80%) is exported each season by the end of January.

#### Prices

The weighted average all-wool auction price for 2016-17 is estimated to decrease 22 per cent on the previous season.

This largely reflects low wool purchases from China during the first seven months of the season. Exports to China were down 37 per cent on the same period last year and China's share of New Zealand's overall wool exports for this period was down from 50 per cent to 38 per cent. Shipments to other main wool markets were down but with single digit decreases.

This is a sharp contrast to last year which was the highest wool auction wool price (494 cents per kilogram greasy) since 2011-12 when prices peaked at 498 cents per kilogram greasy.

Overall, these low wool prices undermine sheep profitability and confidence required to maintain

TABLE 17	Raw Wool Exports and Auction Prices							
	Auction Price	N 1	Vool Exports					
	\$ / kg	FOB \$ / kg	000 tonnes	\$m FOB				
June Year	clean	clean	clean					
2012-13	5.16	5.55	122.1	677.6				
2013-14	5.79	6.29	116.5	732.8				
2014-15	5.95	6.82	118.0	805.0				
2015-16	6.64	7.38	103.0	760.1				
2016-17e	5.15	5.77	97.8	564.0				
2016-17e % change	-22%	-22%	-5.1%	-26%				

e estimate | Source: Beef + Lamb New Zealand Economic Service, New Zealand Wool Services International Ltd, Statistics New Zealand

TABLE 18 Season Average Auction Wool Prices											
cents / kg greasy											
June Year	Fine	Medium	Strong	All Wool							
2012-13	1,048	646	317	385							
2013-14	1,000	549	384	431							
2014-15	915	606	407	443							
2015-16	997	725	445	494							
2016-17e	1,062	601	301	383							
2016-17e % change	+6.5%	-17%	-32%	-22%							

e estimate | Source: Beef + Lamb New Zealand Economic Service, New Zealand Wool Services International Ltd

sheep numbers. With crossbred and lamb wool prices at a low in January and February 2017, industry feedback indicated some wool cheque receipts were not covering the shearing expense outlay. Lamb wool at auction in this period received around \$2.75 per kilogram greasy. The average clip was about 1.2 kilogram per head, meaning the value of lamb's wool was around \$3.30 per head. However, the cost of lamb shearing ranged from around \$3.10 - \$4.00 per head. And, this does not account for wool transport from farm to sale, commissions and other selling charges.

With low wool prices there will be less second shearing and three times shearing in two years unless the shearing is justified for animal welfare or flock management reasons.

\*Although there is no levy on wool, the Economic Service conducts basic analysis of wool because it contributes to sheep and beef farm revenue.



For 2016-17, total wool production is estimated to decrease 5.1 per cent to 139,100 tonnes greasy reflecting a decline in shorn wool (-4.5%) and slipe wool production (-10%). Lower sheep numbers (5.3%) contribute to lower wool production as per head production is almost unchanged on the previous year.

Slipe wool production for 2016-17 falls 10 per cent on the June year basis as last season was an early slaughter due to a forecast severe El Niño drought. This early slaughter led to a reduced carry-over of trade lambs into the July September 2016 quarter. The expectation for 2016-17 is that there will be relatively more trade lambs carried over into the July September 2017 quarter, which reduces the June year lamb slaughter numbers and slipe wool production. The sheep slaughter for the year ending June 2017 is estimated to be down seven per cent on the previous year. Note that around 70 to 80 per cent of the sheep slaughter is processed by March each year.

TABLE 19	v				
June Year	Sheep million head	Shorn 000 tonnes greasy	Slipe 000 tonnes greasy	Total 000 tonnes greasy	Shorn Wool* kg / head greasy
2012-13	31.3	152.0	17.9	169.9	4.86
2013-14	30.8	140.8	17.1	158.0	4.57
2014-15	29.8	139.6	15.9	155.5	4.68
2015-16	29.1	130.7	15.8	146.5	4.49
2016-17e	27.6	124.8	14.2	139.1	4.53
2016-17e % change	-5.3%	-4.5%	-10%	-5.1%	+0.8%

\*excludes wool on sheepskins

e estimate | Source: Beef + Lamb New Zealand Economic Service, Statistics New Zealand

## **Climatic Conditions**

#### FIGURE 14

Soil moisture deficit (mm) at 9am on 29/03/2017



### Spring 2016

Wetter and warmer than normal for many.

#### Temperature

Spring temperatures were above average (+0.51°C to +1.20°C) for many parts of the country. The exception was parts of Northland, Wellington, Nelson, Tasman, inland Canterbury and eastern Otago where temperatures were near average.

#### Rainfall

Rainfall was well above normal (>149%) in the Wellington region and eastern parts of Otago. Rainfall was above normal (120-149%) in parts of Northland, Auckland, Bay of Plenty, Nelson, Tasman and South Canterbury. In contrast, rainfall was below normal (50-79%) in eastern parts of the Wairarapa.

#### Sunshine

Spring sunshine was well below normal (<75%) in parts of Manawatu, Wairarapa and Kapiti Coast, and below normal (75-89%) in Wellington and many inland parts of the North Island. Above normal sunshine (110-125%) was observed in Northland and the west coast of the South Island.

#### Soil moisture

At the end of November 2016, soil moisture levels were above normal for the time of year in Wellington, Tasman, Nelson, Marlborough, Bay of Plenty, southern Canterbury, eastern Otago and Southland. Soil moisture levels were below normal for the time of year for northern Waikato, the East Cape, southern Hawke's Bay and northern Canterbury.

### Outlook - March to May 2017

International guidance favours El Niño Southern Oscillation (ENSO)neutral conditions with high probability (85% chance) over the next three-month period (March – May 2017). Later during the year, models indicate significant chances for a return to El Niño conditions (over 50% in August – October 2017).

#### Temperature

March - May 2017 temperatures are about equally likely to be average (40-45% chance) or above average (35-40% chance) in the north and east of both the North and South Island. In the west of both Islands, March - May 2017 temperatures are most likely to be near average (45-50% chance). As autumn progresses, frosts may occur from time to time in cooler locations.

#### Rainfall

March – May 2017 rainfall totals are about equally likely to be near normal (35-40% chance) or below normal (35-40% chance) in all regions of the country except the west of the South Island where near normal rainfall is most likely (45% chance).

#### Soil moisture

March – May 2017 soil moisture levels and river flows are about equally likely to be normal (35% chance) or below normal (35-40% chance) in the North Island. In the South Island, below normal soil moisture levels and river flows are most likely (50% chance) for the east and about equally likely (35% chance) to be normal or below normal in the north and west.

Source: National Institute of Water and Atmospheric Research (NIWA)



## Farm Revenue, Expenditure and Profit—New Zealand

#### Revenue

Gross farm revenue for 2016-17 with an exchange rate scenario of USD0.70 is estimated to decrease 4.3 per cent on the previous year to \$437,800 for the All Classes Sheep and Beef Farm. The largest driver of this is reduced wool revenue from poorer prices compared with the previous season.

Sheep revenue, the largest contributor to gross farm revenue, is almost unchanged (+0.4%) at \$183,600 for 2016 17 due to similar numbers sold with higher sheep prices largely compensating for softer lamb prices, compared with the previous year. The expected season average prime lamb price is 495 cents per kilogram (including skin and wool), down 3.0 per cent reflecting the softer GBP post Brexit referendum. Sheep revenue contributes 42 per cent to gross farm revenue for 2016-17.

Wool revenue decreases 26 per cent to \$39,200 for 2016-17 due to prices being at their lowest level since 2012 13. This was combined with a decrease in wool sold per farm. Wool revenue contributes 9.0 per cent to gross farm revenue for 2016-17.

Cattle revenue, the second largest contributor to gross farm revenue, remains almost unchanged (-0.7%) at \$120,800 for 2016 17. This is due to beef prices easing and similar numbers sold per farm. The cattle account contributes 28 per cent to total gross farm revenue for 2016-17.

Dairy grazing revenue decreases 11 per cent to \$26,600 for 2016-17. This

TA	Т	Ά	BI	E	20

	(\$ per All Classes Average Farm) <sup>1</sup>									
				Provisional		Forecast		Fore	cast % Cha	nge
	2012-13	2013-14	2014-15	2015-16	2016-17	2016-17	2016-17	201	5-16 to 2016	-17
					USD 0.63	USD 0.70	USD 0.77	USD 0.63	USD 0.70	USD 0.77
Revenue										
Wool	43,647	49,029	51,395	52,800	45,000	39,200	34,500	-14.8%	-25.8%	-34.7%
Sheep	189,315	215,359	209,679	182,900	217,100	183,600	156,100	+18.7%	+0.4%	-14.7%
Cattle	93,330	104,267	125,098	121,600	137,200	120,800	107,300	+12.8%	-0.7%	-11.8%
Dairy Grazing	16,546	29,316	31,995	30,000	26,600	26,600	26,600	-11.3%	-11.3%	-11.3%
Deer + Velvet	4,728	4,113	3,401	3,800	4,300	3,700	3,200	+13.2%	-2.6%	-15.8%
Goat + Fibre	22	38	47	0	0	0	0			
Cash Crop	57,177	62,521	50,108	50,000	46,800	46,800	46,800	-6.4%	-6.4%	-6.4%
Other	23,983	18,212	17,085	16,400	17,100	17,100	17,100	+4.3%	+4.3%	+4.3%
Total Gross Revenue	428,748	482,855	488,808	457,500	494,100	437,800	391,600	+8.0%	-4.3%	-14.4%
Expenditure										
Fert, Lime & Seeds	58,363	61,522	66,421	61,100	58,100	57,300	56,700	-4.9%	-6.2%	-7.2%
Repairs & Maintenance	27,670	30,175	32,395	31,400	31,300	30,900	30,600	-0.3%	-1.6%	-2.5%
Interest & Rent	60,146	64,611	65,823	62,900	59,200	59,400	59,600	-5.9%	-5.6%	-5.2%
Other Expenses	202,725	211,822	214,214	215,500	219,100	215,000	211,600	+1.7%	-0.2%	-1.8%
Total Expenditure	348,904	368,130	378,853	370,900	367,700	362,600	358,500	-0.9%	-2.2%	-3.3%
Farm Profit Before Tax <sup>2</sup>	79,844	114,725	109,955	86,600	126,400	75,200	33,100	+46.0%	-13.2%	-61.8%
Real (2004-05\$) Farm Profit <sup>3</sup>	64,800	91,800	87,400	68,600	99,000	58,900	25,900	+44.3%	-14.1%	-62.2%
Index of Real Farm Profit	885	1,253	1,193	937	1,352	804	354	+44.3%	-14.2%	-62.2%
Fertiliser Use kg per SU	19.5	21.3	24.6	22.7	21.9	21.6	21.4	-3.5%	-4.8%	-5.8%
Prices										
Wool auction cents per kg clean	516	579	595	664	592	516	454	-10.8%	-22.2%	-31.6%
All wool cents per kg greasy <sup>4</sup>	318	373	401	436	375	327	287	-13.9%	-25.0%	-34.1%
Lamb \$ per head <sup>5</sup>	85	100	94	93	106	91	79	+13.8%	-2.4%	-16.0%
Mutton \$ per head <sup>5</sup>	61	76	67	57	83	68	55	+46 7%	+20.5%	-2.6%
Steer/Heifer cents per kg	403	409	513	531	576	503	441	+8.4%	-5.3%	-17.0%
Lamb cents per kg <sup>5</sup>	474	548	519	509	577	495	426	+13.2%	-2.9%	-16.4%

Sheep and Beef Farm Revenue and Expenditure

The Weighted Average All Classes Sheep and Beef Farm for 1 July 2015 carried stock numbers of 2,680 sheep, 340 beef cattle and 30 deer, totalling 4,100 stock units.
 Farm Profit before Tax is required to meet personal drawings, taxation payments, debt repayments and the purchase of capital items.
 Deflated by June year Consumer Price Index.
 All shorn wool sales (auction 58% and private 42%) net of charges and freight. Source: Beef + Lamb New Zealand Economic Service, Sheep and Beef Farm Survey

is due to fewer dairy grazing cattle at open, and a decrease in per head dairy grazing fees. Revenue from dairy grazing contributes around 6.1 per cent of total gross farm revenue for 2016-17. The cash cropping account decreases 6.4 per cent for 2016-17. The cash crop account contributes around 11 per cent of total gross revenue for 2016-17. Aggregate Sheep and Beef Farm Revenue at the farm gate is \$4.9 billion in 2016 17, down 4.3 per cent on 2015-16. Gross farm revenue is spent buying farm goods and services, paying tax, reducing debt and then on personal living expenses.

#### Expenditure

Total expenditure for the All Classes Sheep and Beef Farm is estimated to decrease 2.2 per cent to \$362,600 for 2016-17. The largest categories of decreased expenditure are interest, and repairs and maintenance.

Interest expenditure decreases 7.3 per cent for 2016-17. This is due to a decrease in the interest rate on term liabilities compared with the previous year. Interest rates on term liabilities for 2016-17 are at their lowest level on record (beginning 1983-84). Interest expenditure makes up 13 per cent of total farm expenditure for 2016-17.

Repairs and maintenance expenditure decreases 1.6 per cent to \$30,900 for 2016-17. All regions decrease due to lower revenue from wool and dairy grazing compared with the previous year. This represents 8.6 per cent of total farm expenditure.

Fertiliser expenditure decreases 6.2 per cent for 2016-17. This is due to a reduction in fertiliser price and volume compared with the previous year. Fertiliser expenditure represents 13 per cent of total farm expenditure.

Fuel expenditure increases 1.6 per cent to \$11,100 for 2016-17. This contributes 3.0 per cent of total farm expenditure.

Feed and grazing expenditure decreases 4.3 per cent, while expenditure on cash crops and weed and pest control lifts 6.0 per cent. Expenditure for standing charges are estimated to decrease 7.3 per cent, driven by lower interest rates.



#### Source: Beef + Lamb New Zealand Economic Service, Sheep and Beef Farm Survey

### Farm Profit before Tax

Three forecast scenarios are shown in Figure 15:

- 1. At the lower exchange rate (USD0.63), inflation-adjusted Farm Profit before Tax is \$100,100, a 46 per cent increase on \$68,600 for 2015-16. In nominal terms, i.e. without adjusting for inflation, Farm Profit before Tax is \$127,700, a 48 per cent increase on \$86,600 for 2015-16.
- 2. At the mid exchange rate (USD0.70), inflation-adjusted Farm Profit before Tax is \$60,100, a 12 per cent decrease on \$68,600 for 2015-16. In nominal terms, Farm Profit before Tax is \$76,700, down 11 per cent on \$86,600 for 2015-16.
- 3. At the higher exchange rate (USD0.77), inflation-adjusted Farm Profit before Tax is \$27,300, a 60 per cent decrease on \$68,600 for 2015-16. In nominal terms, Farm Profit before Tax is \$34,800, a 60 per cent decrease on \$86,600 for 2015-16.

Figure 15 shows the trend in Farm Profit before Tax in inflation-adjusted, 2004-05 dollar terms. This shows the steep fall in profitability from 2001-02 to a 50-year low in 2007-08, which was followed by a recovery that was underwritten by improved international prices that exceeded the effect of the strengthening NZD. The inflation-adjusted profit of \$131,100 per farm for 2011-12 was the highest since the early 1970s and similar to 2001-02 when real Farm Profit before Tax was \$126,900 per farm. Farm Profit before Tax in 2016-17 will be negatively affected by weaker wool prices. The wool account contributes around 9.0 per cent of total gross farm revenue for the New Zealand all classes weighted average sheep and beef farm.

## Farm Revenue, Expenditure and Profit—Regional

#### TABLE 21

#### **Regional Summary**

All Classes Sheep and Beef Farm - \$ Per Farm

Region	2014-15	2015-16p Profit	2016-17f <sup>1</sup>			2016-17f
	Profit		Revenue	Expenditure	Profit	Stock Units
Northland-Waikato-BoP	99,915	99,100	351,400	268,100	83,300	3,300
East Coast	158,599	76,100	418,400	347,700	70,700	4,700
Taranaki-Manawatu	118,852	111,500	402,500	310,000	92,500	4,300
North Island	126,107	94,600	387,200	305,100	82,100	4,000
Marlborough-Canterbury	86,670	79,800	582,600	519,700	62,900	4,100
Otago/Southland	98,362	73,600	387,200	316,300	70,900	3,800
South Island	91,776	77,700	494,500	427,300	67,200	3,900
New Zealand	109,955	86,600	437,800	362,600	75,200	4,000

<sup>1</sup> At USD0.70 Exchange Rate

e estimate, f forecast, p provisional | Source: Beef + Lamb New Zealand Economic Service, Sheep and Beef Farm Survey

### North Island Summary

Sheep and Beef Farm Profit before Tax at \$82,100 per farm for 2016-17, decreases 13 per cent compared with 2015 16. The largest driver of this is a decrease in wool revenue due to lower wool prices.

Gross farm revenue decreases 5.8 per cent to \$387,200 for 2016-17. This reflects lower revenue from all income sources, with the exception of increased deer revenue. The largest change was in wool revenue, which decreased 37 per cent due to lower prices, while deer revenue increased 18 per cent but represents less than 1.0 per cent of gross farm revenue. The two largest income sources are sheep and cattle, which represent 84 per cent of gross farm revenue for North Island Sheep and Beef Farms.

Total farm expenditure decreases 3.6 per cent to \$305,100 for 2016-17. This is largely due to reduced expenditure on repairs and maintenance, fertiliser, and interest, which combine to represent about 37 per cent of total farm expenditure. Repairs and maintenance expenditure is down due to the influence of Taranaki-Manawatu which has come down from a high level of expenditure in 2015 16 in response to flooding in June 2015. Fertiliser expenditure is down due to the decrease in Gross Farm Revenue, while interest expenditure is down due to low interest rates on term liabilities.

The North Island has 49 per cent of the sheep flock, 70 per cent of the beef cattle herd and 59 per cent of the dairy cattle herd.

#### South Island Summary

Sheep and Beef Farm Profit before Tax at \$67,200 per farm for 2016-17, decreases 14 per cent compared with 2015-16. The largest drivers of this are decreased revenue from wool, cropping, and dairy grazing, which collectively contribute 38 per cent of gross farm revenue.

Gross farm revenue decreases 3.0 per cent to \$494,500 for 2016-17. Within this, wool revenue decreases 17 per cent due to lower prices. Dairy grazing revenue is also down in response to low farm-gate milk price for dairy farmers, though there has been some price recovery this season.

Total farm expenditure decreases 1.9 per cent to \$427,300 for 2016-17. Decreased expenditure occurred for the most significant expenditure items of repairs and maintenance (-0.6%), fertiliser (-3.5%), and interest (-6.1%). Repairs and maintenance, and fertiliser expenditure is down in response to a decrease in gross farm revenue, while a decrease in interest expenditure is due to lower interest rates on term liabilities.

The South Island has 51 per cent of the sheep flock, 30 per cent of the beef herd, and 41 per cent of the dairy herd.



## Region Comment—North Island

#### Northland—Waikato— Bay of Plenty

Gross farm revenue decreases to \$351,400 for 2016-17, down 5.7 per cent on 2015-16. This due to lower revenue from cattle, wool and dairy grazing activities.

The sheep account increases 1.2 per cent to \$106,100 for 2016-17. This is due to improved prices partly offset by a small decrease in lambs sold. There were fewer ewes at open, in response to farmers increasing cattle numbers compared with the previous season. The sheep account contributes 30 per cent to gross farm revenue.

The cattle account decreases 2.3 per cent to \$188,200 for 2016 17. This is due to cattle numbers increasing in response to strong beef prices. While prices have come of their peak, they remain at high levels historically which is recognised at the farm-gate. The cattle account is at its second highest level on record, some of which can be attributed to an increase in value of stock on hand. The cattle account contributes 54 per cent to gross farm revenue.

Total farm expenditure decreases 2.0 per cent to \$268,100 for 2016 17. This is driven by decreased expenditure on fertiliser and interest, which combined make up around 26 per cent of total farm expenditure. Fertiliser expenditure decreases 11 per cent to \$38,900 for 2016-17. This was due to a decrease in tonnage on hill country and intensive finishing. This follows three years of catch-up after widespread drought in 2013. Fertiliser contributes 15 per cent of total farm expenditure.

Interest expenditure decreases 14 per cent to \$32,000 for 2016-17. This is due to reduced debt levels and lower interest rates on term liabilities. This contributes around 12 per cent of total farm expenditure.

Farm Profit before Tax decreases 16 per cent to \$83,300 for 2016-17. Sheep and beef farms in the region average 3,300 stock units on 350 effective hectares for 2016-17.

### East Coast

Gross farm revenue decreases 4.1 per cent to \$418,400 per farm for 2016-17. Increased deer and cattle revenue is offset by decreases in all other accounts.

The sheep account remains almost static (-0.4%) at \$202,600 for 2016-17. This is due to a lift in the number of prime lambs sold, buffering fewer store sales at lower prices compared with the previous year. The number of ewe hoggets available as replacements for 2017-18 decrease due to many of these being processed during spring 2016 in response to uncertainty over future returns. The sheep account contributes 48 per cent of gross farm revenue.

Wool income decreases 32 per cent to \$36,100 for 2016-17. This is driven by farm-gate wool prices being at their lowest level since 2009-10, and a decrease in shorn wool sold. Wool income makes up 8.6 of gross farm revenue, which is down from 12 per cent in the previous year.

The cattle account increases 2.1 per cent to \$152,800 for 2016-17. This is driven by an increase in the value of stock on hand, which offsets lower revenue from sales and purchases compared with the previous year. Sales revenue from bull beef decreased for the second year in a row from record levels set in 2014-15. While beef prices remain strong, the cost of entering the market has some farmers wary. The cattle account contributes 37 per cent of gross farm revenue.

Revenue from honey and tourism have also contributed as other sources of income, with northern and eastern areas providing settled fine weather for bees and honey production.

Total farm expenditure decreases 3.5 per cent to \$347,700. This is due to lower expenditure on interest and fertiliser. Interest expenditure decreased 5.7 per cent for 2016-17 due to lower interest rates on term debt, and makes up about 14 per cent of total farm expenditure.

Fertiliser expenditure decreases 20 per cent on the previous year. Spring fertiliser use was limited by wet conditions, while poorer cashflow overall negatively impacted on autumn applications despite fertiliser prices being down on the previous year. Fertiliser expenditure contributes about 11 per cent of total farm expenditure.

Farm Profit before Tax decreases 7.1 per cent to \$70,700 for 2016-17. Sheep and beef farms in the region average 4,700 stock units on 580 effective hectares for 2016-17.

#### Taranaki-Manawatu

Gross farm revenue decreases 9.3 per cent to \$402,500 per farm for 2016-17. This is due to decreased income from all sources, except deer which increases 20 per cent.

The sheep account decreases 4.3 per cent to \$208,500 for 2016-17. This is due to fewer lambs being sold prime, and at lower prices compared to the previous season. Intensive finishing farms were the hardest hit by facial eczema, which led to fewer lambs being available from the region this season. Sheep account contributes about 52 per cent of total farm revenue.

The cattle account decreases 3.3 per cent to \$115,300 for 2016-17. Lower beef prices compared to the previous season led to a decrease in income from sales and purchases, but this is offset by an increase in the value of stock on hand. Hill country farms focus on selling cattle store while intensive finishing farms focus more on buying in cattle to finish. Cattle revenue contributes 29 per cent to gross farm revenue. Dairy grazing revenue decreases 32 per cent to \$13,700, for 2016-17 due to a downturn in the dairy industry. This also resulted in a shift to grazing other livestock, and led to fewer dairy grazing cattle at open and a decrease in revenue per head. Dairy grazing revenue is down 18 per cent on the 10-year average (2006-07 to 2015-16) and contributes 3.4 per cent of gross farm revenue.

Total farm expenditure decreases 6.7 per cent to \$310,000 for 2016-17. The primary drivers of this decrease are repairs and maintenance (-22%), interest (-6.9%), and fertiliser (-12%). Repairs and maintenance levels are returning to normal levels since peaking in 2015-16 due to floods which occurred in June 2015. Interest expenditure decreases due to lower interest rates on term liabilities, while fertiliser expenditure falls due to a decrease in price and total tonnes applied. Farm Profit before Tax decreases 17 per cent to \$92,500 for 2016-17. Sheep and beef farms in the region averaged 4,300 stock units on 480 effective hectares at the start of 2016-17. The number of stock units wintered per farm at 1 July 2016 was down 2.4 per cent on the previous July.

## Region Comment—South Island

#### Marlborough—Canterbury

Gross farm revenue decreases 3.7 per cent to \$582,600 per farm for 2016-17. Revenue for wool, deer, crop and dairy grazing decreased.

The sheep and cattle accounts remain almost static. Dry conditions for parts of Marlborough-Canterbury had a negative impact on sheep revenue in the previous year, with sheep revenue set to continue at a similar level again this season. However, strong prices continue to hold the cattle account at \$98,000 per farm, up 17 per cent on the 10 year average (2006-07 to 2015-16). Together sheep and cattle contribute about 47 per cent of gross farm revenue.

The wool account decreases 9.3 per cent to \$45,900 for 2016-17. This is the lowest level since 2009-10 and is driven by a price decrease on the previous year. Meanwhile, the deer account decreases 12 per cent due to fewer head sold as farmers increase retentions in response to a lift in prices.

The crop account decreases 6.0 per cent to \$166,600 for 2016-17. Cash cropping revenue is the second most significant source of income for sheep and beef farms in this region contributing 29 per cent of gross farm revenue. Total farm expenditure decreases 1 per cent to \$519,700 for 2016-17. Decreases in interest and fertiliser expenditure are the biggest drivers of this. Interest expenditure decreases 6.5 per cent to \$59,300 due to lower term interest rates compared to the previous year. Interest contributes around 12 per cent to total farm expenditure.

Farm Profit before Tax decreases 14 per cent to \$68,800 for 2016-17. Sheep and beef farms in this region average 4,100 stock units on 860 effective hectares at the start of 2016-17. The number of stock units wintered per farm at 1 July 2016 remained almost static (-0.7%) on the previous July.

Extensive High Country and foothill farms inflate the average area of farms in the region. Finishing-Breeding farms average 380 hectares while High Country farms average 8,000 hectares.

#### Otago-Southland

Gross farm revenue decreases 1.9 per cent to \$387,200 per farm for 2016-17. The biggest driver of this is lower revenue from wool, which decreases 23 per cent to \$53,800. This was due to a decrease in the price and volume of wool sold.

The sheep account increases 4.4 per cent to \$246,000 due to an increase in the number of prime lambs sold, which offsets lower prices. The cattle account decreases 4.9 per cent to \$50,000 for 2016-17. This follows a record year for revenue from cattle for this region and is driven by strong beef prices. The sheep and cattle accounts contribute 64 per cent and 13 per cent respectively of gross farm revenue.

Total farm expenditure decreases 1.5 per cent to \$316,300 for 2016-17. This is driven by reduced expenditure across multiple categories which include shearing, repairs and maintenance, interest, and fertiliser. Repairs and maintenance expenditure decreases 1.6 per cent to \$24,300 for 2016-17 while fertiliser expenditure decreases 1.8 per cent. Fertiliser expenditure represents 14 per cent of total farm expenditure.

Farm Profit before Tax decreases 3.7 per cent to \$70,900 for 2016-17. Sheep and beef farms in the region average 3,800 stock units on 750 effective hectares. The number of stock units wintered per farm at 1 July 2016 was almost unchanged (-0.8%) on the previous July.

In this region, the average farm size is inflated by High Country farms, which average 6,700 hectares, whereas Finishing-Breeding farms average 530 hectares and Intensive Finishing Farms average 220 hectares.



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